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ENGLISH PROCEEDINGS

SPLICED CORRELATION: THEORY DEVELOPMENT
Jeffry Haber, Iona College

ABSTRACT

Correlation involves two data streams. Often a significant correlation relationship (uncorrelated, positively correlated or negatively correlated) in the long-term is not present in the short-term. Worse, often the short-term correlation is contradictory to the long-term. Utilizing three sets of data, where two are combined into one at varying points of time could allow the long-term correlation to be also replicated in the short-term. There remain various obstacles to overcome, such as scaling, determination of inflection points and the selection of the data streams, but this paper puts forth the theoretical justification for the concept.

INTRODUCTION

Consider this thought experiment – you are a secret agent and you wonder whether someone is following you. You constantly look back to see if there is a discernable pattern of the people who are behind you. You cannot detect one. Now think of it from the pursuer's perspective – assuming your paranoia was well-founded. Knowing that you would be able to detect a consistent presence behind you, they alternate who is following you. Every other time you look back you see a different person. A trained spy might be able to adjust and detect the tail, but probably not an ordinary citizen. Correlation is not that much different from the thought experiment. Consider the following streams of figures (noted "A," "B" and "C"):

A	B	C
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	5	1
7	4	2
8	3	3
9	2	4
10	1	5

 The correlation between A and B is 0.0; perfectly uncorrelated. But break the ten item string into two strings of five items each, and a different story emerges – the correlation of the first five items is +1.0, perfectly correlated, and the correlation of the last five items is -1.0, perfectly negatively correlated. The two strings of perfect correlation combine to produce perfect non-correlation. Now take the correlation between A and C – it is 0.5. If you take the correlation of the first five items you get 1.0, and if you take the correlation of the second five items you get 1.0. Each of the shorter periods is perfectly correlated, taken as a whole the correlation is halfway between 0.0 and 1.0. Now take the correlation between B and C – it is 0.0, and the two strings (of five items each) replicate the five items strings of A and B (+1.0 for the first five and -1.0 for the second five). Essentially what is being demonstrated is that the long-term correlation (ten observations) is valid as long as you hold both streams for the full duration. If you enter or leave an investment anywhere within the ten periods your correlation experience might be quite different. Traditionally, in calculating correlation we take items two at a time over some period of time. Correlation is useful when it works, and not useful when it doesn't. A significant correlation figure over longer periods may not be present when taken in shorter intervals, and vice versa. Correlation is not causality, but an indication of what we expect to happen to something by virtue of observation of something else. One of the limitations of correlation has been the need to find two streams of data (in an investment context, generally monthly returns or monthly closing prices) that are correlated in both the short-term and the long-term.

Long-term correlation is desirable because of the reliance that can be placed on it over a long duration. But this is only true if the correlation exists when taken in shorter periods as well. It would be unusual for two streams of data that are highly correlated when calculated over a 15 year period (for example) to have non-correlation or negative correlation over meaningful, but shorter periods (see Haber 2012, Haber and Braunstein 2009, Haber and Braunstein 2008). Likewise for non-correlated streams of data over the long-term – it would not be unusual for these streams to be highly correlated in shorter, but significant periods. So, what is necessary then, is for there to be significant correlation (positive, negative or non-correlation) over the long-term AND the short-term. This has typically been hard to find – compromises in correlation have been accepted, meaning that shorter periods of aberrant behavior have to be tolerated for what is considered the greater good – delivering the long-term correlation. This paper develops whether there are any alternative means to find both long- and short-term correlation with no compromise.

Theory

Finding correlated streams usually involves selecting a group of variables and testing them two at a time. Spliced correlation starts out the same way, but considers whether various streams can be combined to produce a long-term correlation as well as a short-term correlation. Consider a data stream, denoted as "X". This stream will be held constant – the second stream will be spliced to produce the hybrid stream of data. Visually, it resembles Figure 1.

Figure 1: Depiction of When Splicing Would be Valuable

Stream "Y" correlated with "X" for a period of time, then starts into a period of not correlating. When "Y" is no longer correlating with "X" stream "Z" starts to correlate with "X." Then when "Z" no longer correlates with "X" "Y" starts resumes its correlation. This alternates on a predictable pattern. Splicing the two streams together ("Y" and "Z") produces a combined stream of data that can be used in correlation calculations with "X," as depicted in Figure 2.

Figure 2 :Depiction of What the Spliced Sequence Would Look Like

Correlation calculations are based on streams of numbers, no matter whether they are untouched, adjusted or an artifact of creation. The math will work just as well. What is not trivial is identifying the streams that will be spliced, and the inflection points where the splicing takes place.

IMPLEMENTATION

To test the theory a narrative needs to be developed about how two data streams relate to each other, and when the circumstances under which they won't. Then an additional stream needs to be identified that will work when the first doesn't, and then the development of a system for understanding when the substitutions should take place. Because the calculation of correlation is highly sensitive to sign changes, implementing

a substituted set of data might introduce sign changes, simply because the figures are based on a different scale (think of using stock quotes for stream "Y" and US Treasury bond yields for stream "Z" – because they are denominated differently, any change from Y to Z will introduce a sizable decrease in data (and likewise there will be a corresponding large increase in going to Z to Y). The relative scaling of the two streams is a consideration. How to determine the inflection point is another complication. Whether substitutions will be based on an ad-hoc model, where based on some algorithm the system will determine when to substitute or whether the substitution will take place on a scheduled basis (like every 5th day, for instance) will need to be worked out through testing.

CONCLUSION

Correlation is most valuable when it works in the short-term as well as the long-term. Historically, long-term, significant correlations go through extended short-term periods where the correlation is different from the long-term, in a non-trivial manner. Non-correlation can become extreme correlation; highly negative correlation can become highly positive correlation. Since correlation is based on two streams of data, there is an opportunity to combine two streams into one, for the purposes of calculating correlation. The combination of two streams into one should the long-term correlation to be replicated in any short-term period, given that the additional stream is correlated similarly during short periods when the first stream is not, and the model knows when the appropriate points occur when substituting back and forth.

REFERENCES

Haber, Jeffry "Fooled by Correlation: How Blind Acceptance of Correlation Dogma Destroys Diversification," Journal of Business Diversity, Volume 12(3), 2012, pp 22-25

Haber, Jeffry and Andrew Braunstein, "Examining the Role of Short-Term Correlation in Portfolio Diversification," Graziado Business Report, 2009, Volume 12, Issue 3

Haber, Jeffry and Andrew Braunstein, "Correlation of Uncorrelated Asset Classes," The Journal of International Business and Economy, Volume 9, Issue 2, December 2008, pp 1-12

CHINESE ENTREPRENEURS IN SMALL AND MEDIUM ENTERPRISES (SMEs) – AN EMIC VIEW

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ABSTRACT

In-depth personal interviews are conducted with nine Chinese entrepreneurs. They are located in three different geographical regions from coastal to interior. Their businesses span eight sectors from clothing to industrial automation. This article focuses on their motivations to start new businesses, and introduces their educational and working background as well. The interview results show that eight out of nine entrepreneurs resigned from their stable or even enviable positions to pursue their personal dreams - from creating own brand in men's suits to commercializing research findings from own PhD dissertation in industrial automation. The research findings have some important implications on engineering education, female entrepreneurship, and forms of business ownership for SMEs.

JEL: M190

KEYWORDS: Chinese Small and Medium Enterprises (Smes), Chinese Entrepreneur

INTRODUCTION

The increasing importance of Small and Medium Enterprises (SMEs) is a global phenomenon brought about by market forces, technological advances, personal career aspirations and underlying demographic changes in the population. In the Organization for Economic Cooperation and Development countries, SMEs account for 95 percent of the enterprises and 60 to 70 percent of the employment. The transformation of the economy in China is also relying on the role of entrepreneurship and the development of a strong SMEs sector. SMEs are drivers of employment, innovation, exports and gross domestic product. Despite the importance of SMEs to the economies worldwide and their resilience to economic downturns, there has been a shortage of data concerning SMEs which is partly attributable to the fact that it is a very challenging area for researchers (Curran & Blackburn, 2001). Country differences including those in relation to the role of government and other independent bodies such as banks impact the establishment and growth of SMEs (Uhlaner, Wright & Huse, 2007). It is also extremely challenging for researchers to undertake research in China due to language and cultural barriers. This research project intends to contribute to the body of knowledge on SMEs with this exploratory research on SMEs in China.

SMEs provide investment opportunites and attract the attention of policy makers to foster growth and increase resilience in national economies. This is also the case in China where SMEs are significant contributors to economic growth, employment creation, exports and techonology innovations (Chen, 2006). While an increasing amount of research is being undertaken on SMEs in China (Cunningham & Rowley, 2010) focusing on finance, marketing and ownership, there is a gap in relation to entrepreneurial motivation and background. The goal of this research is to contribute to the body of knowledge on SMEs by undertaking in-depth interviews with entrepreneurs in the changing economy of China. The specific scope of the study includes the motivation of the Chinese entrepreneur to start a business and the ownership forms of the Chinese SMEs, In accordance with best practice guidelines for this type of research, the investigators conduct interviews in China as an exploratory and descriptive research project. The principal investigator is originally from China and connects with two potential subjects (his high school classmate and university classmate). These two potential subjects are successful entrepreneurs in SMEs. Other seven subjects are

recommended by his friends. It is a convenience sample but due to the high degree of trust between the researcher and the subjects it yields valuable insights. The shortcomings of this type of non-probability design and the limitations are disclosed.

Research Objective

The following research questions (RQ) are formulated to gain a greater understanding of Chinese entrepreneurs and their role in SMEs and in the whole economy.

RQ1   What motivates entrepreneurs in China to take on the challenge of SMEs in a changing economy?
RQ2   What are their backgrounds in age, gender, education and work history?
RQ3   What forms of ownership do Chinese entrepreneurs prefer?
RQ4   What is the future outlook for these SMEs?

Findings and Analysis

In-depth personal interviews are conducted with nine Chinese entrepreneurs in three different geographical regions from coastal to interior. The nine entrepreneurs operate across a range of industries. Table 1 presents an overview of the industries, their years in the current business and the number of employees in each operation. The businesses span eight different sectors: clothing, construction, textile, education, industrial automation, manufacturing, information technology, and consulting services. These entrepreneurs have been in their current businesses for time periods ranging from two years to nine years with one exception of 22 years as indicated in Table 1. There are more than 687 employees working in these nine SMEs demonstrating the capacity of entrepreneurship as a generator of employment and the fulfilling of the expectation on the SME sector to create jobs.

Table 1: Business Profile – Industry, Years in Current Business and Number of Employees

Entrepreneur	Industry	Years in Current Business	Number of Employees
A	Clothing Manufacturing	22	100+
B	Brick Manufacturing	4	100+
C	Textile Manufacturing	9	90
D	Education Services	7	110
E	Industrial Automation	4	18
F	Emergency Mining Equipment	2	59
G	Surgical Instruments and Safety Equipment	4	50
H	Information Technology (Cloud Broadcasting)	8	130
I	Business Consulting for SMEs	3	30

Responses to the four research questions are provided by summarizing and presenting the data from the interviews.

RQ1   What motivates entrepreneurs in China to take on the challenge of SMEs in a changing economy?

The prime motivations for undertaking these business ventures are summarized in Table 2.

Table 2: Entrepreneurial Motivation for Formation oF SMEs

Entrepreneur	Motivation
A	Desire to create own brand of men's western style suits
B	Insufficient income to support family, first business failure, violation of one child policy, and opportunity identification
C	Desire to apply knowledge gained in university
D	Reached retirement age as an academic and wanted to continue work in training managers in small and medium banks
E	Motivated to commercialize research findings from PhD thesis
F	Opportunity identified as a result of Chilean mining disaster and group of friends dissatisfied with employment conditions
G	Government employment not meaningful combined with desire to return home
H	Desire to develop applied technologies and have funds for creative research and development
I	Did not want to relocate with existing employment and identified market opportunity for services to SMEs

Five of the nine entrepreneurs (B D F G and I) have personal motivators coincidental with opportunity identification; and four entrepreneurs (A C E and H) were inspired to pursue a dream. Three of these four (C E and H) possessed unique knowledge that they believed was the foundation for a successful business. In terms of motivations for these entrepreneurs to start their own businesses, the interview results show that eight out of nine entrepreneurs resigned from their stable or even enviable jobs to pursue their personal dreams.

RQ2   What are their backgrounds in age, gender, education and work history?

The backgrounds for these nine entrepreneurs in relation to age at which they started their businesses, gender, educational background and work history are presented in Table 3.

Table 3: Demographic Profile of the Nine Entrepreneurs

Entrepreneur	Age At Start Up	Gender	Education	Work History Prior To Current Business
A	26	Male	High School Drop out	Tailor to Chief Tailor
B	29	Male	Bachelor of Mechanical Engineering	Factory, partnership with brother making machinery parts, then managerial contractor
C	30	Male	Bachelor of Textile Engineering	Assistant Engineer in state owned company, public servant, then managerial contractor
D	62	Male	Master of Management and Bachelor of Accounting	Blue collar work during the cultural revolution then professor at university
E	32	Male	PhD and Bachelor of Electrical Engineering and Master of Computer Science	Engineer in a Fortune 500 company for four years
F	Late 20s	Female	Bachelor of Management	Engineer and executive for family owned company
G	35	Male	Bachelor of Electrical Engineering	Assistant engineer to manager in state owned enterprise, then partnership with friends
H	24	Male	Bachelor of Computer Science	Lecturer at a top university for two years
I	Late 20s	Male	Law Degree	Assistant to President of medium size company

Five of the entrepreneurs embarked on their business venture when they were in their late twenties and three were in their 30's. The one noticeable outlier is the one who was 62 after retiring from an academic career. There are eight male entrepreneurs and only one female entrepreneur. While the sample is not statistically validated there is no direct intent to reduce female participation in the interviews. This raises an area for further research and for policy makers which is discussed further in the implications and conclusions. Eight of the nine have post-secondary education and only one did not complete high school. One has a PhD and one has a Master's degree. This indicates that these entrepreneurs are well educated and in reviewing their work experience they had good employment situations. This is a strong profile in

relation to education and experience. The dominance of engineering educational backgrounds raises another interesting question as to whether engineering education fosters entrepreneurship.

RQ3   What forms of ownership do Chinese entrepreneurs prefer?

The current organizational structure of these SMEs is shown in Table 4. They are all engaging in business with forms of organizational structure which means they are bearing the full risk of gains and losses. Five are in partnerships and four are operating as sole proprietors. Whether this is by deliberate choice or by lack of options is an area that warrants further investigation. Availability of limited-liability alternatives has not been reviewed for this research however based on the results shown in the Table it is an area that warrants additional research and may also be an area for policy development.

Table 4: Business Structure of Nine Smes

Entrepreneur	Initial Entry Into Business	Changes In Form
A	Sole Proprietorship	
B	Partnership	Sole Proprietorship, Partnership
C	Partnership	Sole Proprietorship
D	Sole Proprietorship	
E	Sole Proprietorship	
F	Partnership	
G	Partnership	Sole Proprietorship
H	Sole Proprietorship	
I	Partnership	

RQ4   What is the future outlook for these SMEs?

The entrepreneurs are asked about their outlook for the future viability, growth and success and asked to describe it in terms ranging from Very Negative to Very Positive. Five of the nine indicated they are "Very Positive", three are 'Positive' and only one described the future as 'Uncertain'. These results are shown in Table 5.

Table 5: Business Outlook for Nine Smes

Entrepreneur	Business Outlook
A	Positive
B	Positive
C	Uncertain
D	Very Positive
E	Very Positive
F	Very Positive
G	Positive
H	Very Positive
I	Very Positive

This positive outlook combined with the success and viability of these businesses over the years they have been in business augers well for SMEs in China. They are owned and operated largely by well-educated entrepreneurs who have gained experience over their years in other employment and business. In summary the data collected and analyzed shows a strong SMEs operating across a range of industries with entrepreneurs who are well-educated with strong employment backgrounds. They employ a total of 687 workers across the five enterprises and hold a very positive outlook on the future of their endeavors. While this is not a statistically defensible view, it provides insight to the development and growth of SMEs in the emerging and changing economy of China.

CONCLUSION

The research findings have some important implications. Firstly, during the interviews the seven engineer entrepreneurs recalled their successes in product development and the tremendous difficulties in business aspects they faced at the start-up such as financing, marketing, recruitment, etc. This has important implication for engineering education. Perhaps it is a good idea to enhance the existing engineering education by adding business components so that engineering graduates will be better equipped with business skills in pursuing their entrepreneurial dreams. Secondly, the representation of female entrepreneurs is very small in this sample even though the authors did not intend to choose more male research subjects. How to realize the economic benefits of the untapped potential of female entrepreneurship is a question not only for policy makers but also for the whole society. Finally, by operating either as sole proprietorships or partnerships, all nine entrepreneurs have each assumed the full risk of success or failure. During interviews, all of them expressed their desires to have firm controls over their businesses. However, it is not clear whether they have fully looked into advantages and disadvantages of all forms of business ownership. It is very beneficial for an entrepreneur to choose the most suitable form of business ownership based on the growth stage, the strategic plan, and other relevant factors in an SME.

BIOGRAPHY

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PUBLIC FINANCE, MICRO FINANCE AND ACCELERATED ECONOMIC DEVELOPMENT FOR THE ERADICATION OF EXTREME POVERTY IN SUB SAHARA AFRICA

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ABSTRACT

According to the World Bank, in 2011, 415 million, that is 41.5 percent of the world's extremely poor, living on less than $1.25 a day, live in Saharan Africa. This situation persists in spite of local and international efforts to combat extreme poverty in this region. A situation where more than 415 million people in a sub region of the world still live in abject poverty should be of global concern not only because of the moral imperative but also because of the lost economic contributions. It should therefore be relevant for micro and public finance, and economic development discussion. This paper examines the decline or increase in extreme poverty situation in 34 countries in Sub Sahara Africa during the period 1992 and 2012 or for the years in the period where data is available. It also attempts to identify and evaluate the factors that lead to decrease or increase in extreme poverty in selected countries. We find that three of the countries achieved fifty percent or more reduction in extreme poverty and that six experienced increase in extreme poverty during the period. The factors that led to extreme poverty reduction and increases for these countries were identified. Recommendations were made for effective poverty reduction in Sub-Sahara Africa.

JEL: (O1, O2), (O4), H23, H24, I380

KEY WORDS: Extreme Poverty, Welfare, Poverty Reduction, Public Assistance, Social Welfare Programs, Micro Finance, Economic Development

INTRODUCTION

According to the U.S. Library of Congress, Sub Sahara Africa consists of fifty countries that are fully or partially located south of the Sahara excluding Sudan. Most of these countries have past colonial history either with the British, French, Spanish or Portuguese empires. Many of these countries are acclaimed to be rich in natural resources such rich arable land, minerals, oil etc. Yet, Elsa V. Artadi, Xavier Sala-i-Martin, (2003) observed that "While the rest of the world's economy grew at an annual rate of close to 2 percent from 1960 to 2002, growth performance in Africa has been dismal. From 1974 through the mid-1990s, growth was negative, reaching -1.5 percent in 1990. As a consequence, hundreds of millions of African citizens have become poor. One half of the African continent lives below the poverty line. In sub-Saharan Africa, per capita GDP is now less than it was in 1974, having declined over 11 percent. In 1970, one in ten poor citizens in the world lived in Africa; by 2000, the number was closer to one in two. That trend translates into 360 million poor Africans in 2000, compared to 140 million in 1975"(Elsa Artadi and Xavier Sala-i-Martin (2003), The Economic Tragedy of the XXth Century: Growth in Africa, NBER Working Paper No. 9865, http://www.nber.org/papers/w9865.pdf).

Ndu, Chiaku Chukwuogor (2003) found that although Africa was the second largest recipient of Foreign Direct Investment (FDI) flows in the 1970s, Africa's share of FDI has eroded ever since. For example from 1993 to 1997 Africa's regional share of FDI was 4.7 percent of the total FDI to developing regions, in comparison to 33 percent and 53 percent that went to Latin America and Asia/Pacific regions respectively.

In 1997, Africa received an abysmal $5 billion in FDI.   So many reasons have been deduced for these declines. They include: the negative impact of globalization, expensive investment goods, low levels of education, poor health, adverse geography, closed economies, too much public expenditure, and too many military conflicts. According to the World Bank, in 1993, the head count ratio of people in Sub Sahara Africa living on less than $1.25 a day was 60. 9 percent, representing 338 million people. The head count ratio of people in Sub Sahara Africa living on less than $1.25 a day reduced to 46.8 in 2011, representing 415.8 million people. This increase of 77 million in the number of people in Sub Sahara Africa living in extreme poverty is a devastating observation. This poverty situation in Sub Sahara Africa is observed after fifteen years of the United Nations' Millennium Development Goal, number 1, "Reduction of Global Extreme Poverty by half by 2015". This goal was achieved in other regions that had high rates of extreme poverty. For example, according to the World Bank's 2015 Overview on Poverty, "East Asia saw the most dramatic reduction in extreme poverty, from 78 percent in 1981 to 8 percent in 2011. In South Asia, the share of the population living in extreme poverty is now the lowest since 1981, dropping from 61 percent in 1981 to 25 percent in 2011" (World Bank Overview on Poverty, http://www.worldbank.org/en/topic/poverty/overview
Apr 06, 2015) It is therefore necessary to investigate and discover why Sub Sahara Africa is not responding to the United Nations global initiative of extreme poverty reduction by examining the extreme poverty statistics for the region over a period of time.

LITERATURE REVIEW

In 1995, the U.N. defined extreme poverty as "a condition characterized by severe deprivation of basic human needs, including food, safe drinking water, sanitation facilities, health, shelter, education and information. It depends not only on income but also on access to services"
(United Nations, (1995) World Summit for Social Development http://www.un.org/ documents/ga/conf166/aconf166-9.htm (Sighted June 25, 2015). The monetary income set by the World Bank to reflect this level of poverty, which now represents the international poverty line, in 2005 prices is living below $1.25/day. This was revised from $1 per day in 1996. Although there are many definitions of extreme poverty, for purpose of this paper, we will adopt this U.N.'s definition of extreme poverty and the World Bank's international poverty line. The United Nation's first Millennium Development Goal target was to cut the 1990 global extreme poverty rate in half by 2015. The effort in achieving this target was through a coalition of the United Nations, other international organizations such as the World Bank, International Fund for Agricultural Development (IFAD), United Nations International Children's Emergency Fund (UNICEF), national governments and many Non-Government Organizations (NGOs). Therefore the understanding was that extreme poverty can be reduced by helping national governments channel funds through public finance budgetary decision, through micro finance provided by development banks, other government agencies, NGOs and through general economic development. It is necessary to examine the efficacy of microfinance, public finance; and economic development as tools for extreme poverty reduction.

Microfinance as an Extreme Poverty Reduction Tool

The Grameen Bank Bangladesh emerged in 1976 when Professor Muhammad Yunus designed a credit delivery system to provide banking services targeted at the rural poor. The objectives were to extend banking facilities to poor men and women, eliminate the exploitation of the poor by money lenders, and create opportunities for self-employment for the vast multitude of unemployed people in rural Bangladesh, bring the disadvantaged, mostly women from the poorest households within the fold of an organizational format which they can understand and manage by themselves. The aim was to reverse the age-old vicious circle of "low income, low saving and low investment", into a virtuous circle of "low income, injection of credit, investment, more income, more savings, more investment, more income". 90 percent of the shares of Grameen Bank is now owned by the rural poor borrowers, while government owns 10 percent. By the

end of 2008 the Grameen Bank has lent 7.6 billion to the poor and has over 2,100 branches in Bangladesh and the credit extension style is replicated all over THE world. This is a laudable experiment and it was not a surprise that Professor Mohammad Yunus won a Nobel Peace Prize for this. Despite his claim that that 5 percent of Grameen Bank's clients exit poverty each year(Economist's article, "A Partial Marvel", July 16, 2009), there is no evidence from the Bank that the poor borrowers belong to "extreme poor" category, that is those living under $1.25 a day.

From the objectives when the experiment was conducted, it seemed like the rural poor targeted had sufficient economic means to attract commercial lending from bank, hence the object of eliminating the exploitation of the poor by money lenders. According to the findings of David Hulme and Paul Mosley (1996), poor households do not benefit from microfinance; it is only non-poor borrowers (with incomes above poverty lines) who can do well with microfinance and enjoy sizable positive impacts. In addition, they found that a vast majority of those with starting incomes below the poverty line actually ended up with less incremental income after getting micro-loans, as compared to a control group which did not get such loans. In another study, Khandker, (2005), a World Bank sponsored study, involving 1,800 households in Bangladesh, found only very marginal improvements for borrowers of microcredit. On the other hand, a number of research studies have found evidence to support the success of microfinance as a tool for poverty reduction. Among them are Khandker (2005), Microfinance supports mainly informal activities that often have a low return and low market demand. It may therefore be hypothesized that the aggregate poverty impact of microfinance is modest or even nonexistent. If true, the poverty impact of microfinance observed at the participant level represents either income redistribution or short-run income generation from the microfinance intervention. Almost all the authors reiterate that microfinance cannot succeed in isolation. There must be a functioning government, infrastructural facility such good roads and transportation, water and power supply, security, and economic growth.

There are also studies that have shown mixed or perhaps inconclusive results. These studies include Brownstein, Fleck, Shetty, Sorensen, and Vagama, (2007) and Siddiqi (2008) However, since this study is on the strategies for the eradication of extreme poverty in Sub Sahara Africa, these statements by David Hulme and Paul Mosley (1996) are very relevant. They state that most poor people do not have the basic education or experience to understand and manage even low level business activities. They are mostly risk-averse, often fearful of losing whatever little they have, and struggling to survive. Aneel Karnani (2007: 37), also states that most people do not have the skills, vision, creativity, and persistence to be entrepreneurial. Even in developed countries with high levels of education and access to financial services, about 90 percent of the labor force are employees, not entrepreneurs. Vijay Mahajan (2005), point out other complementary necessary factors: identification of livelihood opportunities, selection and motivation of the micro-entrepreneurs, business and technical training, establishment of market linkages for inputs and outputs, common infrastructure and sometimes regulatory approvals. He argues that in the absence of these factors micro-credit works only for a limited familiar set of activities such as small scale farming, livestock rearing and petty trading, and even those will only thrive where market linkages are in place.
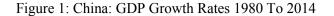
Anis Chowdhury (2009) concluded that the impact analysis of microfinance suggests that the majority of borrowers who already have some assets or business skills and education are more likely to succeed. The extreme poor in Sub Sahara Africa, living on less than $1.25 a day do not belong to this category of the poor.
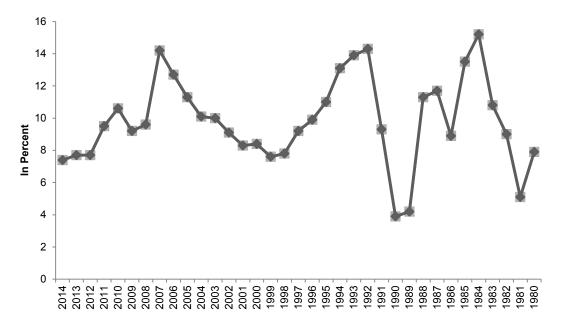
Public Finance and Economic Development as Extreme Poverty Reduction Tools

Economic development can be defined as sustainable action by a community or government to improve the standard of living of its citizens. This can be achieved through job creation and entrepreneurship support, providing educational and health facilities, infrastructural facilities such as good roads, and constant power supply, etc. Increase in economic growth is usually used to measure economic development According to

the Economist, global poverty rates started to decline towards the end of the 20th century largely because of the developing-country growth acceleration, from an average annual rate of 4.3 percent from 1960 to 2000 to 6 percent from 2000 to 2010. It is estimated that that about two-thirds of poverty reduction within a country comes from economic growth. China is responsible for three-quarters of the achievement. As a result of the huge GDP growth rates between 1981 to 2010, China reduced its extreme-poverty rate from 84 percent 1980 to 10 percent in 2013. See the astronomical GDP growth rates achieved by China during the period 1980 to 2010 in Figure 1.

Public finance focusses on government's revenue and government expenditure patterns with the aim to equitably collect revenue with the aim of allocating such revenue to achieve the desirable effects and avoid or eliminate unwanted outcomes. This is particularly important in developing economies where there is abundance of underdevelopment such poor infrastructure in terms of health facilities, educational facilities, power and water supply, road networks and transportation systems. Improvements in these will lead to increased GDP growths and encourage foreign investments as was the situation with China in the last three decades. Public finance through budgetary allocations, is also used to address the presence of unintended outcomes in the economy such as high level of poverty and little or no social services. Budgetary reallocations can help provide unavailable social services that relate to providing food, shelter, education, healthcare for the poor. Possible initiatives include free or subsidized health care, education subsidies at least up to a certain level, food stamps, unemployment pay, free or subsidized shelter for the poor. These social services hardly exist in Sub-Sahara Africa despite the high poverty head count.

Figure 1: China: GDP Growth Rates 1980 To 2014

RESEARCH METHODOLOGY

This paper examines the decline or increase in extreme poverty situation in 34 countries in Sub Sahara Africa during the period 1992 and 2012 or for the years in the period where data is available. We identify and evaluate the factors leading to significant decrease or increase in extreme poverty in selected countries.

Findings

Increased Extreme Poverty in Six Sub-Sahara African Countries: An examination of the extreme poverty trend in 34 Sub-Sahara African countries between 1992 and 2012 (or for the period data is available within the period) reveals that six of these countries, namely, Côte d'Ivoire, Sao Tome and Principe, Madagascar, Zambia, Kenya and Benin experienced increases in extreme poverty during the period. For example, during the period, Côte d'Ivoire suffered and in increase of extreme poverty of about 32 percent.

50 Percent or more Reduction in Extreme Poverty in three Sub-Sahara African Countries: Only three of the Sub-Sahara African countries reduced extreme poverty ratio by 50 percent or more. South Africa led the way by reducing the extreme poverty ratio between 1993 and 2010 by 61percent; Botswana between 1994 and 2009 by 58 percent and Namibia between 1993 and 2009 by 50 two percent.

Factors responsible for increase in Extreme Poverty: The easiest verifiable factor that contributed to increase the level of extreme poverty in the countries named above relates to in general paucity in economic growth. For example the GDP growth rates. In Côte d'Ivoire declined by -3.7 percent in 2000; -1.4 percent in 2002; -1.6 percent in 2003; -4.7 percent in 2011. The other countries either experienced negative, low or modest GDP growth rates. The population of Côte d'Ivoire in 1992 was 11.776 million and it was 22.717 in 2014 representing an increase of about 93 percent. Even with increases in the GDP growth, such a huge increase in population will bring pressure on

Factors responsible for reduction of Extreme Poverty: In the countries where significant progress was made regarding the reduction of extreme poverty, there is evidence of economic growth but most importantly, increase in social assistance. For example, according to the 2010 UNDP report , in South Africa, social assistance grants increased from R10 billion (R is Rand, South African's currency. 13.82 South African Rand equals US$1, November 1, 2015.) (U.S.$ 820 billion) in 1994 to R37.1 billion (U.S.$3billion) in 2004 with beneficiaries growing from 2.6 million to 7.9 million during the same period. The reduction in extreme poverty is also partially attributable to a period of economic growth combined with a series of redistributive measures carried out by the government of the day. The number of people benefiting from social grants increased five times. During the period, there was a variety of pro-poor investments in services such as sanitation, housing and others (2010 UNDP Report, Eradicate Extreme Hunger and Poverty, http://www.za.undp.org/content/south_africa/en/home/mdgoverview/overview/mdg1.html.)

It is important to note that economic growth alone cannot eradicate extreme poverty. Nigeria, the largest economy in Africa, between 1992 and 2010 reduced its extreme poverty ratio by .2 percent. Yet Nigeria is among the African countries that achieved high GDP growth rates during the period, for the most part higher than South Africa and Botswana between 2000 and 2012. The degree to which from such economic growth is channeled to efforts to reduce extreme poverty is important. Also important is the magnitude of the per capita income. For example the Gross National Income (GNI) per capita, Atlas method (current $U.S.) for South Africa is $7,640in 2012 and $7,410 in 2013. Compare this with the GNI per capita $1,310 in 2012 $1,470 in 2013 for Sao Tome and Principe.

Other Factors Impeding the Reduction of Extreme Poverty in Sub-Sahara Africa

Fluctuating Economic Growth: Generally in Sub-Sahara African countries good GDP growth rates prevailed in the last decade or more. For example between 2000 and 2001, Mozambique's GDP growth rates exceeded 6 percent and was 11.9 percent in 2001; Angola's GDP growth rate in 2007 was 23.2 percent, Sudan's GDP growth rate 10.4 in 2008 and Sierra Leone GDP growth rate was 32.8 percent in 2003. Unfortunately many countries in Sub-Sahara Africa did not stability in GDP growth rates as the GDP growth rates of many countries were low in some years and negative in many.

Political Conflicts: Some of the countries that recorded high GDP growth rates in some were later involved in military conflict. War disrupts economic activities and growth as it destroys lives, assets and displacements of citizens who become refugees. This compounds the extreme poverty situation

Poor Capital Base: Even where the Sub-Sahara African countries achieve high economic growth, this growth does not have a great positive impact on the reduction of extreme poverty because of the paucity of the financial effect on the poor. This is because of the poor economic base as most of the countries' economies are agrarian in nature.

Non Existence of Poor Social Welfare System: In 2011, 415.8 people in Sub-Sahara Africa were extremely poor and living on less than $1.25 a day. This represents 46.8 percent of the population. We have earlier observed that the countries that achieved more than 50 percent extreme poverty reduction such as China and South Africa. In the case of China great economic growth enable the creation of job opportunities, entrepreneurship support, increase the provision of educational and health facilities, infrastructural facilities such as good roads and constant power supply. South Africa achieved similar things through economic growth but also increase social assistance such unemployment support, engaged in a series of redistributive measures such as, subsidized education, housing and health services. This situation is absent or marginally exists in most of the Sub-Sahara African countries.

Increasing population: Another important issue is the population. Even though Nigeria with a GDP of U.S. $ 521.8 Billion in 2013, is the largest economy in Africa, it has a huge population of 168.8million in 2012 and 173.6 million in 2013. Between 1992 and 2010, Nigeria achieved a meager reduction in extreme poverty of about .2 percent.

CONCLUSION

The evidence indicate that reduction in extreme poverty occurred generally in countries robust GDP base especially where accelerated economic development occurred. Evidence also indicate increase in social assistance through budgetary means resulted in reduction of extreme poverty. There was not much evidence that micro finance was instrumental in the reduction of extreme poverty. The main drawback to extreme poverty reduction in Sub-Sahara Africa was paucity of capital in the countries national budget. Even though some Sub-Sahara Africa countries experienced impressive GDP growth rates, this did not significantly impact their extreme poverty situation. Other factors that impede the reduction of extreme poverty include military and political conflicts, and non-existence or minimal presence of a social welfare system. There is need for the global network of institutions engaged in the effort to reduce global extreme poverty to rethink their strategies. Relying on NGOs will effectively reduce extreme poverty in this region of Africa. Funding activities that will accelerate economic development will contribute to poverty reduction. Some international organizations are doing that. For example in 2015, World Bank approved two International Development Association (IDA) credit and grant amounting US$115 million for Côte d'Ivoire to strengthen the economy and eliminate long-standing disparities aggravated by a decade of multifaceted crisis and another US$100 million strengthening public confidence in government by improving budgetary transparency and the accountability of public officials; building investor confidence through rapid, highly visible improvements in the business climate; and boosting economic opportunity by focusing on potential sources of growth and employment, particularly labor-intensive exports. In addition, significant amounts of grants should be provided by many international organizations to fund a social welfare system in Sub-Sahara African countries. The Sub-Sahara African countries cannot do this on their because of the paucity of capital.

REFERENCES

Anis Chowdhury (2009) Microfinance as a Poverty Reduction Tool – A Critical Assessment, DESA Working Paper No. 89, http://www.un.org/esa/desa/papers/2009/wp89_2009.pdf (Sighted June 27, 2015).

Anup Shah, (2010) Conflicts in Africa, Introduction, http://www.globalissues.org/article/84/conflicts-in-africa-introduction#ManyConflictsThroughoutAfrica,

Appah Ebimbowei, John, M. Sophia, and Soreh Wisdom (2012) An Analysis of Microfinance and Poverty Reduction in Bayelsa State of Nigeria, Kuwait Chapter of Arabin *Journal of Business*, http://omicsonline.com/open-access/2224-8358/2224-8358-1-159.pdf

Brownstein, L., Fleck, P. Shetty, R., Sorensen, J., & Vadgama, V. (2007), Pathways out of Poverty, Microfinance to Empower Sub- Saharan Africa, *International Business & Economics Research Journal* Chukwuogor Chiaku (2003), Recent Trends in Global FDI Flows: Implications for the 21st Century*, International Journal of Banking and Finance,* http://epublications.bond.edu.au/cgi/viewcontent.cgi?article=1028&context=ijbf

Elsa V. Artadi, Xavier Sala-i-Martin, (2003) The Economic Tragedy of the XXth Century: Growth in Africa, NBER Working Paper No. 9865, http://www.nber.org/papers/w9865.pdf
(Sighted June 26, 2015).

Grameen Bank, http://www.grameen-info.org/history
Index mundi, http://www.indexmundi.com/cote_d_ivoire/population.html
Jonathan Morduch and Barbara Haley (2002), Analysis of Effects of Microfinance on Poverty Reduction, NYU Wagner Working Paper, http://pdf.wri.org/ref/morduch_02_analysis_effects.pdf

Khandker (2005), Microfinance and poverty: Evidence using panel data from Bangladesh, The World Bank Economic Review, Vol. 19, No. pp263-286.
http://scholar.google.com/citations?view_op=view_citation&hl=en&user=4vRelREAAAAJ&citation_for_view=4vRelREAAAAJ:d1gkVwhDpl0C

Littlefield Elizabeth, Murduch Jonathan, and Hashemi Syed (2003), Is Microfinance an Effective Strategy to Reach the Millinium Goals? ,
http://www.mikrofinanzwiki.de/file/570/is_mf_an_effective_strategy_to_reach_the_mdg_2003.pdf

Siddiqi (2008), Role of Pakistan Poverty Alleviation Fund's and Micro Credit in Poverty Alleviation (A case study of Pakistan's micro finance, Pakistan Economic and Social Review, pages 215 – 228.
The Economist, (2013), The world's next great Leap forward, towards the end of poverty,

http://www.economist.com/news/leaders/21578665-nearly-1-billion-people-have-been-taken-out-extreme-poverty-20-years-world-should-aim

National Bureau of Statistics, China, Statistical Communiqué of the People's Republic of China on the 2013 National Economic and Social Development (China NBS, February 22, 2013),
http://www.stats.gov.cn/english/PressRelease/201401/t20140120_502079.html

National Bureau of Statistics, China; China NBS: Bulletin on the Final Verification Data of GDP in 2012, http://www.stats.gov.cn/english/pressrelease/201401/t20140109_497453.html

National Bureau of Statistics, China, China NBS: Bulletin on the Final Verification Data of GDP in 2011; http://www.stats.gov.cn/english/pressrelease/201301/t20130111_72246.html

.National Bureau of Statistics, China, China Statistical Yearbook 2012 (ISBN 978-7-5037-6693-0/C•2752, http://www.stats.gov.cn/tjsj/ndsj/2012/indexeh.htm

United Nations, (1995) World Summit for Social Development
http://www.un.org/documents/ga/conf166/aconf166-9.htm (Sighted June 25, 2015)
World Bank, (2015), Overview on Poverty, http://www.worldbank.org/en/topic/poverty/overview (Sighted June 20, 2015).

World Bank (2015) World Bank Group Approves Funds to Support Côte d'Ivoire's Poverty Reduction Strategy and Centers of Excellence Project, http://www.worldbank.org/en/news/press-release/2015/09/29/world-bank-group-approves-funds-to-support-cote-divoires-poverty-reduction-strategy-and-centers-of-excellence-project, September 29, 2015.

World Bank, Poverty and Equity, Sub-Saharan Africa,
 http://povertydata.worldbank.org/poverty/region/SSA, (Sighted June 20, 2015).

World Bank, World Bank Group Approves Funds to Support Côte d'Ivoire's Poverty Reduction Strategy and Centers of Excellence Project, http://www.worldbank.org/en/news/press-release/2015/09/29/world-bank-group-approves-funds-to-support-cote-divoires-poverty-reduction-strategy-and-centers-of-excellence-project

NOTES

This is an abridged version of the paper on "Public Finance, Micro finance and Accelerated Economic Development for the Eradication of Extreme Poverty in Sub Sahara Africa".

FORMATION OF BRAND PERSONALITY ASSOCIATIONS: THE ROLE OF PRODUCT CATEGORY INTEREST AND CONSUMERS' PROACTIVE PERSONALITY

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ABSTRACT

Symbolic brand associations are an important topic in the brand management literature. One class of such associations is brand personality associations, or the set of human characteristics associated with a brand. Empirical studies on brand personality have largely focused on its effects. A review of the literature, however, shows that scant research has tried to find and empirically test antecedents of brand personality. The few existing contributions are mostly centered on sources related to the marketing mix. Thus, individual-based sources of brand personality are rather limited. Such sources of brand personality are important, however, because it is the person him- or herself who will actually learn those associations. Therefore, the purpose of this study is to find new generalizable individual-based sources of brand personality. Specifically, this study contributes by identifying two such sources of brand personality: consumer interest in product category and consumer proactivity. The study shows that both sources positively affect brand personality. Furthermore, interest in product category negatively moderates the effect of proactive personality on brand personality, whereas age positively moderates the effect of proactive personality on brand personality.

JEL: M3

KEYWORDS: Brand management, Brand personality, Product category interest, Proactive personality

INTRODUCTION

Brand personality, or the set of human characteristics associated with a brand, is a central concept in the marketing literature (Aaker 1997; Keller 2013), and empirical studies on brand personality have largely focused on its effects. Although several studies (e.g., Aaker 1997; Batra, Lehmann, and Singh 1993; Freling and Forbes 2005) have expressed concern about the lack of research on this topic, few contributions have focused on the antecedents of brand personality, except for a few exceptions. For example, Mæhle and Supphellen (2010) develop a general framework for building specific brand personality dimensions, and Bian and Moutinho (2009) perform an empirical study on the antecedents of counterfeit brands. A review of the literature, however, shows that scant research has tried to find and empirically test antecedents of brand personality. Most contributions focus on sources related to the marketing mix (Batra, Lehmann, and Singh 1992; Mæhle and Supphellen 2010; Supphellen, Eisman, and Hem 2004), leaving literature on individual-based sources of brand personality rather limited. Individual sources of brand personality are important, however, because it is the person him- or herself who will actually learn those associations. Therefore, the purpose of this study is to find new generalizable individual-based sources of brand personality.

LITERATURE REVIEW

From a literature review and two expert interviews, Mæhle and Supphellen (2010) identify 16 possible factors that can affect the formation of brand personality. They select two well-known brands for each of

the five dimensions in Aaker's (1997) scale as stimuli. In a survey, respondents were asked to evaluate on a seven-point scale the extent to which the suggested sources of brand personality were relevant for each brand personality dimension. The survey was combined with qualitative responses to further explore the relationship between sources and brand personality. However, none of the sources were formally tested as variables using causal statistical techniques. Mæhle and Supphellen (2010) suggest several sources of brand personality that relate directly to the extended marketing mix: company employees, company moral values, advertising styles, brand names, brand logo, typical users, price, endorser, company director, product attributes, product category, retail store, and country of origin. In another study, Supphellen, Eisman, and Hem (2004) document that brand extensions have a positive effect on the flagship brand's personality. Wentzel (2009) provides indications on the individual-based sources that are important in the formation of brand personality associations. He examines how consumers update their brand personality impressions after interacting with one of the brand's employees.

According to theories related to ongoing search, consumers might search for information about products even if they are not in the market for such products (Bloch, Sherrell, and Ridgway 1986). For example, ongoing search for automobiles may include subscriptions to automotive magazines. In contrast, prepurchase search may involve reading the same magazines, but only when a new car purchase is at hand. In such situations, product information is obtained even when a plan to purchase in the product class is nonexistent. In the case of ongoing search, interest in the product category is enduring in character, reflecting a continuing interest in or enthusiasm for the product category. Consumers are motivated to learn more about the category and the brands in the category, just for pleasure or recreation. When a new brand is introduced into an existing product category, consumers must learn how to distinguish it from existing brands. One way to do this, especially among brands in a category, is to separate the brands into different brand personality associations. Therefore, I hypothesize that interest in the product category has a direct positive effect on brand personality.

How people process information has been explored through several theoretical approaches in the literature; one is the dual process model of persuasion (Chaiken 1980; Petty and Cacioppo 1986). This model suggests that consumers use either elaborate issue-relevant thinking or simple decision rules in information processing. Another model is the heuristic–systematic model, which proposes two fundamental information-processing modes (Chaiken 1980). The systematic processing mode is an analytical orientation in which people access, scrutinize, and integrate all useful information. Conversely, the heuristic processing mode involves the use of learned knowledge structures in the form of simple decision rules, or cognitive heuristics. The heuristic–systematic model is useful to understand how different people learn brand personality associations. It is generally agreed that two people in the same role will normally behave differently, or at least not identically. For example, one person will take a lead role to control a situation to make things happen, rather than waiting for things to happen, while the other person will behave in the opposite way. Research defines the former group of people as proactive (Crant 1996). According to the heuristic–systematic model, proactive people use the systematic information-processing route to a larger extent than non-proactive people, because they are more interested in their surrounding environment. Therefore, I expect people with a high degree of proactivity to learn brand personality associations easier than people with a low degree of proactivity.

DATA AND METHODOLOGY

As part of their course requirement, 77 methodology students at Sogn and Fjordane University College in Norway interviewed 462 respondents (average age 33.8 years, range16–79 years; 230 men and 228 women). Each student interviewed six respondents, three women and three men of different ages. The Aaker (1997) brand personality scale consists of five different dimensions and 42 items. Including the whole scale into one questionnaire means that few other concepts can be measured in the same survey; if so, missing responses could be a problem. Therefore, four brands expected to load on the same dimension

in the scale were selected as stimuli. The selected brands (Harley-Davidson, Jeep, Levi's, and Guinness) are all well-known international brands, and research has shown that they all load on the "rugged" dimension of the Aaker scale (Keller 2013; Oklevik 2011). The first section of the questionnaire contained the rugged brand personality measure (Aaker 1997), which contained five items measured with a five-point Likert scale (1 = "strongly disagree," and 5 = "strongly agree"). Participants were asked to rate the extent to which the chosen personality traits described a specific brand (Aaker 1997). The items were outdoorsy, masculine, western, tough, and rugged. Proactive personality was measured using Kickul and Gundray's (2002) five-item measure. Responses are indicated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree") with the following items: "I enjoy facing and overcoming obstacles to my ideas," "Nothing is more exciting than seeing my ideas turn into reality," "I excel at identifying opportunities," "I love to challenge the status quo," and "I can spot a good opportunity long before others can." I estimated a proactive personality score by averaging these items. For interest, two items were included (Kapferer and Laurent 1993), measured using a seven-point Likert scale (1 = "strongly disagree," and 7 = "strongly agree"). The items measuring interest involved the product category, not the brand. The items were as follows: "Buying such a product is very important to me" and "I am very interested in such a product." Finally, questions on background information such as age and gender were also included.

RESULTS AND DISCUSSION

I present the results and discuss them in this section. The descriptive statistics for the measurement items in the study appear in Table 1.

Brand personality is modeled as the dependent variable. Proactive personality and interest in the product category are modeled as independent variables, and an interaction variable between proactive personality and interest in the product category is also included. Furthermore, gender and age are included as variables. However, gender did not contribute significantly to the model so the variable was removed from the final analysis. Finally, I tested for possible moderation effects between age and interest in the product category and age and proactive personality. In the first hypothesis, I expected that interest in the product category would have a positive effect on brand personality. The results from the multiple regression analysis provide support for this hypothesis.

Table 1: Descriptive statistics for the measurement items

List of measurement items	M	SD
Brand personality (α = 0.69)		
Outdoorsy	2.83	1.33
Masculine	3.82	1.16
Western	3.69	1.15
Tough	3.63	1.18
Rugged	3.54	1.57
Proactive personality (α = 0.84)		
I enjoy facing and overcoming obstacles to my ideas.	5.56	1.37
Nothing is more exciting than seeing my ideas turn into reality.	5.12	1.43
I excel at identifying opportunities.	4.99	1.39
I love to challenge the status quo.	4.81	1.42
I can spot a good opportunity long before others can.	4.86	1.51
Interest in product category (α = 0.91)		
Buying such a product is very important to me.	3.73	2.07
I am very interested in such a product.	3.66	1.99
Age	33.80	15.31

The table presents the descriptive statistics for the measurement items in the study. The brand personality and product category interest items are all measured with a five-point Likert scale. The proactive personality items are measured with a seven-point Likert scale.

Because the independent variables were correlated and because the regression equation also included interaction terms, multi-collinearity was a potential problem. To minimize such a problem, all independent and moderating variables were centered. This means that each observation on a variable was subtracted by

the mean of that variable. The variance inflation factors (VIFs) were calculated. The VIFs signal how much variance in an independent variable is explained by the other independent variables and range from zero to infinity. In the analysis, the VIFs varied from 1.038 to 1.067, which is below the cutoff of 10 recommended by Hair et al. (1998).

Table 2 reports the results from the regression analysis. As expected, a positive effect of interest in product category on brand personality was found. The effect is significant at the 1% level. Consumers who are interested in a product category are motivated to learn about a brand's personality. Thus, the results confirm and extend the findings of Mæhle and Supphellen (2010). People interested in a particular product category are better able to learn personality associations of the brands in the category than people not interested in the product category. The other individual-based source in this study, proactive personality, also has a positive impact on brand personality, which is significant at the 1% level. Furthermore, a small age effect exists. Consumers learn brand personality associations more efficiently with increasing age. Interest in product category negatively moderates the effect of proactive personality on brand personality. This means that proactive personality becomes less important as a source of brand personality with increasing interest in product category. Age positively moderates the effect of proactive personality on brand personality. Thus, proactive personality becomes more important as a source of brand personality with increasing age.

Table 2: Regression analysis

Independent variable	Beta effect	t-value
Intercept	3.51***	185.02
Interest in product category	0.15***	13.21
Proactive personality	0.10***	5.77
Age	0.01***	3.82
Proactive personality × Interest in product category	-0.03***	-3.23
Proactive personality × Age	0.01**	2.10
R-square	0.12	
N	1831	

*This table presents the impact of the independent variables on brand personality. *p < 0.10, **p < 0.05, ***p < 0.01.*

CONCLUDING COMMENTS

Empirical studies on brand personality have mainly focused on its effects, with few contributions examining the antecedents of brand personality. This study contributes to the literature by identifying two new individual-based sources of brand personality—consumer interest in product category and consumer proactivity. The study shows that both sources affect brand personality positively. Individual sources of brand personality are important because it is the person him- or herself who will actually learn those brand associations. Thus, I contribute to the literature by finding two new generalizable individual-based sources of brand personality.

REFERENCES

Aaker, J. L. (1997). "Dimensions of Brand Personality." Journal of Marketing Research vol 34(3), p. 347-356.

Batra, R., D. R. Lehmann, and D. Singh (1993). "The Brand Personality Component of Brand Goodwill: Some Antecedents and Consequences." In Brand Equity and Advertising. D. Aaker and A. Biel, eds. Hillsdale, NJ, Lawrence Earlbaum Associates, p.83-96.

Bian, X. M. and L. Moutinho (2009). "An Investigation of Determinants of Counterfeit Purchase Consideration." Journal of Business Research vol. 62(3), p. 368-378.

Bloch, P. H., D. L. Sherrell, and N. M. Ridgway (1986). "Consumer Search: An Extended Framework." Journal of Consumer Research vol. 13(1), p. 119-126.

Chaiken, S. (1980). "Heuristic Versus Systematic Information-Processing and the Use of Source Versus Message Cues in Persuasion." Journal of Personality and Social Psychology vol. 39(5), p. 752-766.

Crant J. M. (1996). "The Proactive Personality Scale as a Predictor of Entrepreneurial Intentions," Journal of Small Business Management vol. 34(3), p.42-49.

Freling, T. H. and L. P. Forbes (2005). "An Examination of Brand Personality through Methodological Triangulation." Brand Management vol. 13(2), p. 148-162.

Hair, J., W. C. Black, B. J. Babin, R. E. Anderson, and R. L. Tatham (1998). Multivariate Data Analysis. 5ed. Upper Saddle River, NJ, Prentice Hall.

Kapferer, J.-N. and G. Laurent (1993). "Further Evidence on the Consumer Involvement Profile: Five Antecedents of Involvement." Psychology & Marketing vol. 10(4), p. 347-356

Keller, K. L. (2013). Strategic Brand Management: Building, Measuring, and Managing Brand Equity. 4th ed. Upper Saddle River, NJ, Prentice Hall.

Kickul J. and Gundry L. (2002). "Prospecting for Strategic Advantage: The Proactive Entrepreneurial Personality and Small Firm Innovation." Journal of Small Business Management vol. 40(2), p. 85-97.

Mæhle, N. and Supphellen, M. (2010). "In Search of the Sources of Brand Personality." International Journal of Market Research vol 53(1), p. 95-114.

Oklevik, O. (2011). "Effects of Brand Personality: A Structural Equation Modeling Approach." Doctoral thesis, Norwegian School of Economics.

Petty, R. E. and J. T. Cacioppo (1986). Communication and Persuasion: Central and Peripheral Routes to Attitude Change. New York, Springer-Verlag.

Supphellen, M., Ø. Eisman, and L. E. Hem (2004). "Can Advertisements for Brand Extensions Revitalise Flagship Products? An Experiment." International Journal of Advertising vol. 23, p. 173-196.

Wentzel, D. (2009). "The Effect of Employee Behavior on Brand Personality Impressions and Brand Attitudes." Journal of the Academy of Marketing Science 37, p. 359-374.

BIOGRAPHY

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INTENTIONS TO USE AN ONLINE RESTAURANT REVIEW WEBSITE

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ABSTRACT

There are online review websites that evaluate and rate restaurants. This study aims to understand the variables associated with intentions to use the online restaurant review website of UrbanSpoon. The participants were 613 college students who completed questions about demographics, trust, knowledge, and Internet experience. We found that Hispanic and Asian race/ethnicity, increased trust, and Internet experience variables of typically read online review-based websites before visiting a new vendor or merchant and previously wrote an UrbanSpoon review were significantly associated with increased intentions to use UrbanSpoon. The Internet experience variable of never read a review on UrbanSpoon was significantly associated with decreased intentions to use UrbanSpoon. Restaurant managers should consider expanding their online presence by responding professionally to negative reviews reported on UrbanSpoon. This may allow the consumer who reads reviews to be reassured and have increased trust about the restaurant and consider regularly using the UrbanSpoon online review website as it will be balanced with both consumer and manager postings.

INTRODUCTION

The Internet allows for consumers to share opinions and assessments of products and services (Zhang, Ye, Law, & Li, 2010). Online reviews are useful for consumer decision-making for product purchases with one survey finding that 90% indicate that positive reviews impacted their purchase decisions and 80% indicated that negative reviews impacted their purchase decisions (Dimensional Research, 2013). The most commonly searched topic in online reviews are about restaurants (BrightLocal, 2013). UrbanSpoon is a popular restaurant review site and had 255 million visits in 2011 (Perez, 2012). Besides general searches, UrbanSpoon allows for searches by neighborhood, type of cuisine, and special restaurant services (UrbanSpoon.com, 2015).

LITERATURE REVIEW

There are many variables that can potentially influence intentions to use a restaurant online review website. This includes demographics such as age (Mangold and Smith, 2012), gender (Bae and Lee, 2011), and race/ethnicity (Park and Lee, 2009). Increased trust in company product recommendations is associated with increased intentions to purchase (Benlian, Titah and Hess, 2012). Negative review content has a greater impact than positive review content for being deemed helpful (Kuan, Hui, Prasarnphanich and Lai, 2015). Consumers disregard reviews perceived as manipulated when deciding upon product purchases (Hu, Bose, Koh and Liu, 2012). Prior online review experience is associated with increased purchase intentions (Jalilvand and Samiei, 2012). Also, the theory of planned behavior suggests that subjective social norms, attitudes, and perceived behavioral control lead to intentions which then leads to behavior (Askew, Buckner, Taing, Ilie, Bauer and Coovert, 2014). These above variables were studied by other topics and may be useful for understanding intentions to use a restaurant online review website. We have eight hypotheses:

Hypothesis 1: Demographic factors of age, sex, race/ethnicity, and born in the United States are associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 2: Brand trust is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 3: Search engine optimization trust is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 4: Positive wording in a review is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 5: Negative wording in a review is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 6: Knowledge of online review website fraud patterns is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 7: Prior online restaurant review website experience is associated with intention to use the online restaurant review website of UrbanSpoon.

Hypothesis 8: The theory of planned behavior is useful for understanding intention to use the online restaurant review website of UrbanSpoon.

DATA AND METHODOLOGY

Participants

Data were analyzed from 613 surveys from a survey conducted at a public college located in New York City. It was conducted in accordance with ethical principles of the Declaration of Helsinki. Participants provided informed consent.

Theory of Planned Behavior

The theory of planned behavior variables were questions on intentions, attitudes, social norms, and behavioral control. The manual for creating a survey using the theory of planned behavior was used to create these questions (Francis, Eccles, Johnston, et al., 2004). A Likert-style scale was used to measure the items with a range from 1=strongly disagree to 7=strongly agree. The intentions scale had 3 items. The attitudes scale had 4 items. The social norms scale had 3 items. Items were added together for total scores. The behavior control topic had 4 items. Two items were reverse coded. Due to poor Cronbach alpha for all 4 items, a total score could not be used and each item was analyzed separately.

Demographics

Demographic variables were age (years), sex (man, woman), race/ethnicity (White, African American, Hispanic American, Asian American, South Asian, or other), and born in the United States (no/yes).

Trust

The brand trust scale had 4 items. The items were based upon topics used in a previous scale (Valta, 2013). The search engine optimization (SEO) trust scale had 4 items. The items were based upon topics studied in

previous research (Anderson and Magruder, 2012, and Short, 2013). Items were added together for total scores. Word use and trust had two separate items on use of positive and negative words. The items were based upon topics studied in previous research (Ludwig, de Ruyter, Friedman, et al., 2013). All trust items used a Likert-style scale to measure the items with a range from 1=strongly disagree to 5=strongly agree.

Knowledge

Five separate questions measured knowledge and were based upon topics studied in previous research with Yelp (Luca and Zervas, 2013). Responses were "yes" or "no." These questions were: 1) A vendor or merchant that has a large number of low star or negative ratings on an online review-based website has increased risk for fraud with positive reviews, 2) A vendor or merchant with very few reviews on an online review-based website has increased risk for fraud with positive reviews, 3) A vendor or merchant with many reviews on an online review-based website has decreased risk for fraud with positive reviews, 4) A vendor or merchant that is part of a branded chain (and is not an independent establishment) has decreased risk for fraud with positive reviews on an online review-based website, and 5) A vendor or merchant with a claimed page on an online review-based website where the vendor or merchant can respond to consumer comments, add photos, and post information about the service establishment has increased risk for fraud with positive reviews.

Internet Experience

There were 5 different topics on previous online review-based website experience. The item, "I typically read online review-based websites such as Yelp, TripAdvisor, or UrbanSpoon, before visiting a new vendor or merchant" was measured on a Likert-style ranging from 1=strongly disagree to 5=strongly agree. Two questions were based upon topics studied in a previous article (Short, 2013). These were: "How many online reviews do you read from review-based websites such as Yelp, Trip Advisor, or Urban Spoon, before visiting a new vendor or merchant?," and "What percentage of online reviews from review-based websites such as Yelp, TripAdvisor, or Urban Spoon do you believe are those that were really composed by consumers?" Two other items were "no" or "yes" questions. These were: "I previously wrote a review on UrbanSpoon" and "I never read a review on UrbanSpoon." An additional sixth question on general Internet use asked, "Approximately how many hours do you use the Internet each week?"

Model

Linear regression analysis studied the outcome of intentions to use UrbanSpoon.

$$Y = b_0 + b_1 X_1 + b_2 X_2 + {}_{...} + b_n X_n \qquad\qquad (1)$$

Predictors included the theory of planned behavior, demographics, trust, knowledge, and Internet experience. Univariate analysis were initially conducted. Only those variables statistically significant in the univariate analysis were then simultaneously included in the multivariate analysis. The variable of percentage of reviews really composed by consumers had a skewed distribution. As there were responses of zero precluding a logarithmic transformation, the value of 1 was added to all participants and then the variable was logarithmic transformed. All analyses used IBM SPSS version 22. All p-values were two-tailed.

RESULTS AND DISCUSSIONS

The sample characteristics consisted of age (M=22.7, SD=3.36) (years), 58.6% women, race/ethnicity (35.4% white, 11.4% African American, 13.5% Hispanic American, 22.8% Asian/Asian American, 6.9% Southeast Asian, and 8.5% Other, and 56.1% were born in the United States.

Univariate analyses were conducted for all the variables (data not shown). All those variables statistically significant were included in the multivariate analysis. In the multivariate analysis for intentions to use UrbanSpoon (see Table 1), the demographic variables of Hispanic American, Asian/Asian American and Other were statistically significantly associated with increased intentions. The theory of planned behavior behavioral control variables of increased confidence in decision making was statistically significantly associated with increased intentions while increased control of decision making was statistically significantly associated with decreased intentions. The trust variables of increased SEO trust and increased positive word trust were each statistically significantly associated with increased intentions. The Internet experience variables of increased typically read review-based websites before visiting a new vendor or merchant and wrote an UrbanSpoon review were each statistically significantly associated with increased intentions. Never wrote an UrbanSpoon review was statistically significantly associated with decreased intentions. None of the knowledge variables were significantly associated with intentions.

Table 1: Multivariate Linear Regression Analysis For Intention to Use Urbanspoon

Variable	Multivariate	
	B	SE
Demographics		
Age (years)	---	---
Sex (women)	---	---
Race/Ethnicity		
White	Reference	
African American	0.78	0.63
Hispanic American	1.13	0.58**
Asian/Asian American	1.76	0.49***
Southeast Asian	0.59	0.74
Other	2.71	0.68***
Born in United States	---	---
Theory of Planned Behavior		
Attitudes	0.08	0.05*
Social Norms	0.06	0.06
Confidence in decision making based on reviews and review websites	0.42	0.16**
Easiness of decision making after reading reviews	---	---
Control over decision-making after reading reviews	-0.42	0.13***
Decision-making after reading reviews entirely up to me	0.05	0.13
Trust		
Brand Trust	0.07	0.10
SEO Trust	0.28	0.09***
Use of positive words makes an online review more trustworthy	0.50	0.22**
Use of negative words makes an online review more trustworthy	-0.25	0.20
Knowledge		
Knowledge of review fraud based on number of negative reviews (yes)	---	---
Knowledge of review fraud based on few reviews (yes)	---	---
Knowledge of review fraud based on many reviews (yes)	---	---
Knowledge of review fraud for vendor part of branded chain (yes)	0.21	0.38
Knowledge of review fraud by vendors who can respond to consumer comments (yes)	0.30	0.39
Internet Experience		
Typically read online review-based websites before visiting a new vendor or merchant.	0.64	0.20***
Previously wrote UrbanSpoon reviews	1.91	0.72*
Never read review on UrbanSpoon	-1.58	0.37***
Number of reviews read before trying a new vendor	-0.10	0.50
Percentage of reviews believed to be real	0.004	0.01
Internet hours (weekly)	---	---
Intercept	0.94	1.57

*Multivariate linear regression analyses for intention to use the UrbanSpoon restaurant review website considering predictors from demographics, theory of planned behavior, trust, knowledge, and Internet experience. . Note: B=beta, SE=standard error, SEO=search engine optimization. *p<0.10, **p<0.05, ***p<0.01*

Hypothesis 1 had partial support as the race/ethnicity groups of Hispanic America, Asian/Asian American, and Other had a statistically significant association with increased intentions while the other demographic variables of age and sex did not have any significant association with intentions. Hypotheses 3 and 4 were

supported as both search engine optimization trust and positive word trust had a statistically significant association with increased intention to read reviews on UrbanSpoon. Hypotheses 2 and 5 were not supported as there was no association of brand trust and negative word trust with intentions. Hypothesis 6 was not supported as none of the knowledge variables had a statistically significant association with intentions. Hypothesis 7 was supported as typically reading online review based websites and previously writing a review on UrbanSpoon was associated with greater intention to use UrbanSpoon. Hypothesis 8 was minimally supported as we found almost no evidence that the theory of planned behavior was useful for understanding intentions to use UrbanSpoon. Both attitudes and social norms were not statistically significantly associated with intentions. Although two variables of behavior control did have a statistically significant association with intentions, they were in contradiction with each other with one associated with increased intentions and the other with decreased intentions.

CONCLUDING COMMENTS

We found that increased trust was associated with increased intentions to use the UrbanSpoon restaurant review website. The typical reviews on UrbanSpoon do not have restaurant manager responses and can often include many posting negative reviews. Managers of restaurants should consider posting professional responses to explain why any possible negative experience occurred to the customer who wrote a negative review. This may allow the consumer who reads reviews to be reassured and have increased trust about the restaurant and consider regularly using the UrbanSpoon online review website as it will be balanced with both consumer and manager postings.

REFERENCES

Anderson, M. and J. Magruder (2012) "Learning from the Crowd: Regression Discontinuity Estimates of the Effects of an Online Review Database," *Economic Journal,* vol. 122(563), p. 957-989.

Askew, K., J. E. Buckner, M. U. Taing, A. Ilie, J. A. Bauer and M. D. Coovert (2014). "Explaining Cyberloafing: The Role of the Theory of Planned Behavior," *Computers in Human Behavior,* vol. 36, p. 510-519.

Bae, S. and T. Lee (2011) "Gender Differences in Consumers' Perception of Online Consumer Reviews," *Electronic Commerce Research*, vol. 11(2)*,* p. 201-214.

Benlian, A., R. Titah and T. Hess (2012) "Differential Effects of Provider Recommendations and Consumer Reviews in E-commerce Transactions: An Experimental Study," *Journal of Management Information Systems*, vol. 29(1), p. 237-272.

BrightLocal (2013) "Local Customer Review Survey 2013," Retrieved February 19, 2015 from https://www.brightlocal.com/2013/06/25/local-consumer-review-survey-2013.

Dimensional Research (2013) "Customer Service and Business Results: A Survey of Customer Service from Mid-size Companies," Retrieved February 19, 2015 from https://d16cvnquvjw7pr.cloudfront.net/resources/whitepapers/Zendesk_WP_Customer_Service_and_Business_Results.pdf.

Francis, J. J., M. P. Eccles, M. Johnston, A. Walker, J. Grimshaw, R. Foy, et al. (2004) "Constructing Questionnaires Based on the Theory of Planned Behavior," Retrieved April 24, 2015 from http://openaccess.city.ac.uk/1735/.

Hu, N., I. Bose, N. S. Koh and L. Liu (2012) "Manipulation of Online Reviews: An Analysis of Ratings, Readability, and Sentiments," *Decision Support Systems,* vol. 52(3), p. 674-684.

Jalilvand, M. R. and N. Samiei (2012) "The Effect of Electronic Word of Mouth on Brand Image and Purchase Intention: An Empirical Study in the Automobile Industry in Iran," *Marketing Intelligence & Planning,* vol. 30(4), p. 460-476.

Kuan, K. K. Y., P. Prasarnphanich, K.-L. Hui and H.-Y. Lai (2015) "What Makes a Review Voted? An Empirical Investigation of Review Voting in Online Review Systems," *Journal of the Association for Information Systems,* vol. 16(1), p. 48-71.

Luca, M. and G. Zervas (2013) "Fake It Till You Make It: Reputation, Competition and Yelp Review Fraud," Harvard Business School NOM Unit Working Paper No. 14-006. Retrieved July 10, 2015 from http://people.hbs.edu/mluca/fakeittillyoumakeit.pdf.

Ludwig, S., K. de Ruyter, M. Friedman, E. C. Bruggen, M. Wetzels and G. Pfann (2013) "More than Words: The Influence of Affective Content and Linguistic Style Matches in Online Reviews on Conversion Rates," *Journal of Marketing,* vol. 77(1), p. 87-103.

Mangold, W. G. and K. T. Smith (2012) "Selling to Millenials with Online Reviews," *Business Horizons,* vol. 55(2), p. 141-153.

Park, C. and T. M. Lee (2009) "Antecedents of Online Reviews' Usage and Purchase Influence: An Empirical Comparison of U.S. and Korean Consumers," *Journal of Interactive Marketing*, vol. 23(4), p. 332-340.

Perez, S. (2012) "UrbanSpoon: Traffic Up 80% in 2011, Mobile Growth Faster than Web," Retrieved February 5, 2015 from http://techcrunch.com/2012/02/07/urbanspoon-traffic-up-80-in-2011-mobile-growth-faster-than-web.

Short, K. L. (2013) "Buy My Vote: Online Reviews for Sale," *Vanderbilt Journal of Entertainment and Technology Law,* vol. 15(2), p. 441-471.

UrbanSpoon (2015) Retrieved February 19, 2015 from http://www.urbanspoon.com.
Valta, K. S. (2013) "Do Relational Norms Matter in Consumer-brand Relationships?" *Journal of Business Research,* vol. 66(1), p. 98-104.

Zhang, Z., Q. Ye, R. Law and Y. Li (2010) "The Impact of E-word-of-mouth on the Online Popularity of Restaurants: A Comparison of Consumer Reviews and Editor Reviews," *International Journal of Hospitality Management,* vol. 29(4), p. 694-700.

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CAREER STRATEGIES OF HOTEL MANAGERS IN CANADA

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ABSTRACT

The purpose of this paper is to explore career strategies used by hotel managers in Canada. An online survey was conducted of 60 hotel general managers across Canada, including 30 male and 30 female respondents. The results indicated that gaining experience and mentoring are the main strategies used for career advancement for men and women. Gaining experience was obtained by asking for challenging projects and moving properties. Some personality factors were identified as "willingness to learn" and "determination". This study allows a better understanding of how men and women develop their careers in the Canadian hotel industry, an important one consisting of over 8,000 properties and generating revenues of $16.7 billion in 2013 (PKF, 2014). The Canadian hotel industry has little scholarly research. Further research into how work experience can be leveraged more efficiently into career building strategies and how personality factors impact career development is required.

JEL: M12, M50, M51

KEYWORDS: Hotel Managers, Career Strategies, Management Development, Canadian Hotel Industry

INTRODUCTION

The hotel industry in Canada is an important part of the economy. It consists of over 8,000 properties and 440,123 rooms, generated revenues of over $16.7 billion in 2013, and employed 287,000 people directly (PKF, 2014). The properties included in this inventory are over 30 rooms in size and are open on an annual basis. Only 53% of the hotel rooms in Canada are branded which indicates a large number of managers do not have the support or resources of a large hotel company. The hotel industry places great demands on its general managers due to the nature of the work. It is a 24 hour, 365 days a year enterprise, requiring a high level of personal interaction with staff and customers. Hotel managers are required to make fast decisions especially in today's competitive business atmosphere. Christine Maassen, senior vice-president of Human Resources at SilverBirch Hotels and Resorts, based out of Vancouver, British Columbia, Canada describes the industry as such: "Think about it," she says, "the hotel industry is all about human interaction and that translates into a daily parade of unpredictability" (Pratt 2012, 23).

To enhance and advocate attractive careers, hotel organizations need to create clear career sightlines to the key executive positions. There is a large gap in research on the hotel industry in Canada. In a search using a Canadian university library database, only six scholarly articles were found on the Canadian hotel industry. In a wider search using Google Scholar only nine scholarly articles were directly related to the Canadian hotel industry. This study explored how hotel general managers in Canada acquire the knowledge and skills required to manage successfully in such a complex and demanding business. Does success depend primarily on education and experience, or are other factors involved?

Career Progression in the Hotel Industry

To become a proficient manager of a complex business such as a hotel requires competency in a number of areas that Morgan (2002) refers to as Performance Building Blocks as part of the Holistic Career Pyramid Model. These blocks consist of expertise in four areas: technical, aptitude, initiative and relational. As an employee moves from entry-level position to supervisor, management and possibly executive level, these building blocks become developed and lay the foundation for the career. The stronger the blocks' base, the greater the potential to reach a higher career position – even possibly leading to the key executive level. See Appendix A for a figure of the Holistic Career Pyramid Model.

The Holistic Career Pyramid Model can aptly be used to describe the career progression of a hotel manager as shown in Table 1. The entry-level positions include back of house or non-customer contact areas (housekeeping, accounting, and kitchen) and front of house with high customer contact positions (bell, front desk, and concierge). These positions offer education and professional experience as the groundwork. As the technical knowledge is accrued and aptitude and initiative are exhibited by the incumbent, the next step is the supervisor position where aptitude and initiative can be displayed and relationships are built with customer, peers and managers.

The Career Building Opportunities stage occurs when one becomes an assistant manager of a department, and participates in special teams, such as specialized committees of the hotel. Global assignments occur when experience is gained in all other departments through job rotation, which may occur informally or in a formal management training program. The Leadership Proving Ground occurs upon the promotion to full Department Head where leadership is exhibited in functional, procedural and strategic forms. If one is successful at this stage, the next stage is the position of Assistant General Manager, which requires global knowledge and functionality of all of the departments. The next step in the career ladder is Hotel General Manager, which is the Key Executive position.

Table 1: Holistic Pyramid Model Compared to Hotel Career Pathway

Holistic Career Pyramid Model Stages	Hotel General Manager Career Stages
1. Market-entry	1. Entry level position
2. Performance Building	2. First line supervisor
3. Career-building	3. Assistant Department Head
4. Leadership Proving Grounds	4. Department Head
5. Senior-leadership Role	5. Assistant General Manager
6. Key Executive	6. Hotel General Manager

This table describes the stages in the Holistic Career Pyramid Model developed by Morgan (2002) and how the career of a hotel general manager follows the same pathway and stages.

Learning from Experience - Challenging Projects and Mobility

Li, Gray, Lockwood and Buhalis (2013) found that hotel general managers learn to manage the hotels mainly through experience. Their experience consisted of four stages: Being Challenged, Information Searching, Information Transformation, and Testing. According to Enos, Kehrhahn and Bell (2003) "…managers consistently reported learning …core managerial skills mostly from informal learning activities" (377). Informal learning as constructed by Dewey (1938) and then later Kolb (1984) included learning from experiences in their daily work. Kolb's work on experiential learning highlights a very important aspect of professional development in the hotel industry as the general manager is involved in many different working environments that demand multiple priorities. Both the amount and variety of experiences in one's career would lead to greater development of skills and contribute to management competency. Mobility as a factor for career development has been researched and found to be used frequently by managers in the tourism industry. Ladkin and Riley (1996) discovered UK hotel managers with seven jobs in their careers, moving every three to four years. Later research found senior managers in

tourism with an average of a career mover every three years (Ayres 2006). McCabe (2008) found 45% of individuals working in the convention industry in Australia relocated geographically within Australia and 34% worked in another country.

Mentoring in the Hotel Industry

The mentoring process is described as a relationship between an experienced veteran and one who is interested in progressing in their career. Murphy and Ensher (2001) found mentoring and self-management strategies used together may provide important benefits for employees and entering into a mentoring relationship may be an effective means of taking responsibility for one's own career. Murphy and Ensher (2001) also found positive benefits in that, "Mentoring and self-management strategies each contributed uniquely to satisfaction and perceived career satisfaction" (p. 229). The research on mentoring describes positive outcomes for both sides of the relationship (D'Abate and Eddy 2008; Ayres 2006; Joiner, Bartram, and Garreffa 2004; Gong, Chen and Yang 2014; Murphy and Ensher 2001). Little research can be found on mentoring in the hotel industry, but it is assumed it would have the same benefits. Garavan, O'Brien and O'Hanlon (2006) did find support in their research that hotel managers who networked and had a mentor achieved higher career advancement. Many hotel chains have mentoring programs to assist in the development of their managers. Mentoring can be a very cost-effective method of training. "There are so many cheaper, more cost-effective ways of training staff that you should think of first. For example, one that we recommend very highly is a mentoring scheme" says Jane Sunley, CEO, Learnpurple, a hospitality training firm (Vaughn 2012).

Career Theories

There are many theories that are used to explain how one progresses through their career. 'Boundaryless' careers coined by Arthur & Rousseau (1996) explain how one may opt in and out of organizations and even different industries, linear progression occurs as one climbs the organizational ladder and Social Cognitive Career Theory (SCCT) examines the environmental variables and the person's variables and their impact on their career progression. The Happenstance Learning Theory (HLT) formulated by Krumblotz (2009) attempts to explain how individuals follow their career paths through life. "HLT posits that human behaviour is the product of countless numbers of learning experiences made available by both planned and unplanned situations in which individuals find themselves" (Krumboltz 2009, 135) . This theory takes into account the myriad of unplanned events that occur in one's career path and that it is important to be able to effectively manage these unplanned events as well as have planned ones. Learning to effectively handle a variety of experiences, including quickly emerging challenging situations, is important for hotel GMs. Hotel managers will face many unplanned events due to the very nature of the industry and those who are best prepared to take these events in stride and to see the opportunities created would be the most successful. Taking advantage of planned and unplanned learning experiences and how to capitalize on the opportunity offered is a key part of this theory. This may explain why much of the research on hotel careers in management indicate that challenging projects and experience are keys to career progression.

 METHODOLOGY

This study employed both qualitative and quantitative methodologies. The goals of this part of the research were to determine how male and female hotel general managers ranked career development strategies, as well as addressing two key research questions that had been developed from the literature review. These research questions were:

What do hotel general managers in Canada identify as the most important factors that contributed to their capability development? Do women and men agree on these factors? A link to an online survey was sent to general managers via email. Provincial and territorial hotel association web pages from across Canada

were used to develop an email list for hotel managers in Canada. A total of 60 usable surveys were obtained from the general managers resulting in a balanced gender sample of 30 surveys from men and 30 surveys from women. This was a response rate of 12%, resulting in a sufficient sample for an exploratory analysis of the data and an overall margin of error not exceeding plus/minus 13%, 19 out of 20 times. The survey contained ranking questions that included career development strategies presented in the literature. Respondents were also asked what they believed was the most important factor that helped them to develop the skills and knowledge that they have today. The open-ended question format allowed respondents to list anything they felt was relevant. Also, demographic data was collected to obtain a general description of the sample.

RESULTS

The demographic profile of the respondents appears in Table 2. There were an equal number of men and women and the average age was 45.7 years (SD = 8.09).

Table 2: Demographics of Respondents

Variable		%	Mean (Std Dev)
Gender (n=60)	Male	50	
	Female	50	
Education (n=59)	High school	19	
	College (2 year)	37	
	University degree	27	
	Post graduate study	10	
	Other	7	
Salary (n=60) (CD$)	$30,000-$50,000	5	
	$51,000-$70,000	18	
	$71,000-$90,000	25	
	$91,000-$110,000	23	
	$111,000-$130,000	7	
	$131,000-$150,000	4	
	$151,000-$170,000	4	
	Over $170,000	16	
Regions (n=56)	Alberta	36	
	Nova Scotia	29	
	British Columbia	16	
	Ontario	13	
	Newfoundland	5	
	Saskatchewan	2	
Size of property (n=58)	30-125 rooms	43	
	126-250 rooms	40	
	251-475 rooms	12	
	Over 475 rooms	5	
Age (n=58)			45.74 (8.09)
Number of years in current position of general manager (n=57)			8.53 (6.43)
Years in management (n=57)			19.28 (8.91)
Number of positions prior to this one (n=54)			6.43 (3.89)
Number of moves to obtain a higher position or promotion (n=57)			3.7 (2.99)

The table contains the demographic information on the respondents, gender, education, salary, geographic location, size of property, mean age, years in management, position and number of moves.

The educational level of the overall sample was 37.3% with a college education, 25.4% with a university undergraduate degree and 20.3 % with high school. This indicates that respondents had invested in education. Salary levels ranged from $30,000 to $50,000 to over $170,000 with the majority (24.6%) earning in the $71,000 to $90,000 range. The mean number of years in the position of general manager was 8.53 years (SD = 6.42) and the mean for years in management was 19.28 (SD = 8.91), indicating a fairly

high tenure rate. Mobility had a mean of 3.7 (SD = 2.99) moves. The size of the hotel properties mainly fell into the under 250 room category with only 17.3% having over 250 rooms. The results of the career strategy rankings are shown in Table 3. The most important factor that helped to develop current skills and knowledge that was stated most frequently was "experience", followed by "mentoring" and "training". There were no significant differences between the median rankings of men and women on these factors. Table 4 contains the themes from the open-ended question indicating the most important factor that contributed to their skills and knowledge. Comparing the ranking list in Table 3 to the open-ended statement list in Table 4 indicates a fairly high level of agreement. "Asking for challenging projects" and "moved properties/locations" are the two highest ranked items, agreeing with "gaining experience," the number one theme identified as a means of developing their skills and knowledge. "Asking for challenging projects" and "moved properties/location" are recognized by managers as the main methods used to gain the required experience.

Table 3: Ranking of Strategies to Acquire Capabilities

Capability	Median Rank	Sum Of Scaled Ratings		
Asked for challenging projects	2.00	127		
Moved properties/locations	2.00	130		
Used mentor	2.00	147		
Management training or organizations	3.00	189		
Classes in educational institute	4.00	200		
Membership in professional associations	5.00	212		

This table shows how the general managers ranked the list of strategies provided in the survey. There are three strategies that are equally ranked the highest. They are "Asked for challenging projects", "Moved properties/locations", and "Used mentor".

Table 4: Important Themes Identified to Develop Skills and Knowledge

Factor Identified	Total Number	Women	Men
Gaining experience	24	13	11
Mentoring	11	5	6
Training	7	3	4
Education	6	3	3
Mobility	6	2	4

This table identified the major themes from the open-ended question, "What do you believe is the most important factor that helped you to develop the skills and knowledge that you have today?" The major theme was "gaining experience" which both men and women agreed upon followed by "Mentoring".

To further explore the theme of "gaining experience", samples of the anecdotal responses within this code are provided below. The statements relate to different locations and exposure to different departments as part of the required experience as well as the need to work hard to and to embrace learning experiences.

"*Working in different locations for various size of hotel and brand*" "*Years of experience in the business, working closely with some influential mentors*" "*Experience in as many departments as possible. Willingness and enthusiasm to learn new tasks and skills. Must show initiative and at times making personal sacrifice*" "*The multitude of jobs and the variety of skills gained in many different divisions and environment.*" "*Working my way through the ranks learning multiple positions gaining knowledge and skill in each area*" "*Worked hard, watched and learned from those who performed well, developed an excellent work ethic, always applied for advancements*"

The following are examples of statements under "mentoring". Most of the respondents did not reference formal company mentoring programs, instead relating to the mentoring process as more of an informal experience.

"Working with great General Managers that were before me" "Years of experience in the business, working closely with some influential mentors" "Gaining different experiences from different operations and different mentors/bosses" "Be exposed to great leaders that inspired me at being the best"   "On the job training, completing workshops with IHG, learning from mentor" "Chose properties with excellent leaders" "I was fortunate to work with great people in a brand that believed in developing and nurturing its colleagues"

A number of the anecdotal responses also contained indicators of "willingness to learn" and "determination". These are commonly heard traits required in such a dynamic industry as the hotel industry and it agrees with previous research by Brownell (1994). Below are examples of the statements related to these strategies.
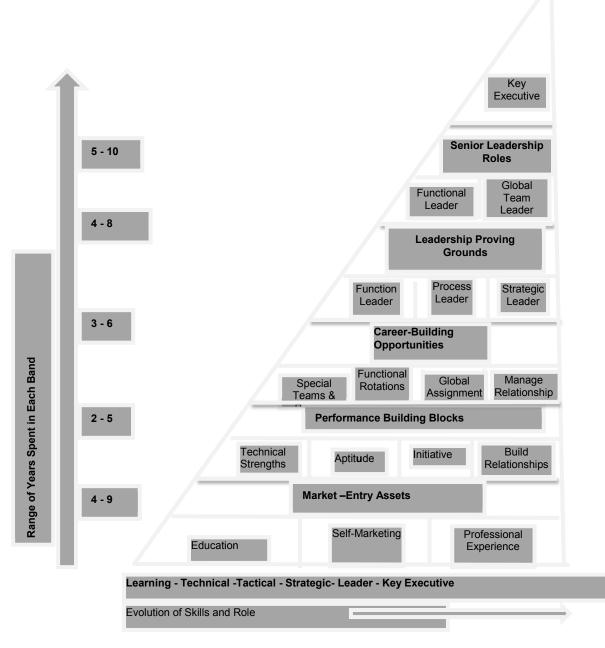
"Willing to work and learn on own time. Chose properties with excellent leaders" "Consistently put myself in position to grow personally. Do not allow fear to stop from moving out of comfort zone. Experience and learn at every opportunity" "Search for new ideas, concepts. Be curious, visit high end hotels when traveling. Network, be known. Adaptability and flexibility. Willing to move to key properties around the world" "Having a goal and not accepting that this goal couldn't be reached. I moved internationally also and gained further global knowledge and training which has definitely assisted me. I trained in 4 & 5 star hotels in Europe and focused my career in this hotel sector. Learning each position thoroughly and understanding all roles has given me a better understanding from now GM and I am very hands on" "Type of personality I am. You can learn all you like but if you are not a natural leader, have an engaging personality and enjoy an ever changing environment, you'll find it really hard. Let us not forget luck, being in the right place at the right time!!!" "Not being afraid to ask questions. Not being afraid to take risks and to put myself out there" "Experience in as many departments as possible. Willingness and enthusiasm to learn new tasks and skills. Must show initiative and at times making personal sacrifice."

DISCUSSION

The findings indicate that the main strategies used by hotel managers for career advancement are gaining experience and mentoring. In order to gain the highly valued experience in which to learn, working in various departments and in various hotels is key. This explains why mobility is so important in the hotel industry in Canada. Mobility is perceived as a way of obtaining the required competencies to be a successful hotel manager. Greater experience and in varied situations usually creates greater capabilities. These findings agree with Li, Gray, Lockwood and Buhalis (2013) and Enos, Kehrhahn and Bell (2003) indicating that hotel managers learn from experience rather than from formal education or training. This is interesting considering that this group of respondents has invested in education. Eighty percent of respondents had a college education, a university degree, or postgraduate study. There were no apparent differences regarding the perceived importance of career advancement strategies between men and women. Lyness and Thompson (2000) in their research on multinational financial companies found that female executives had fewer developmental assignments and less mobility than their male counterparts. Later research on the careers of professionals in the United States who made $100,000 or more in annual personal income found a high degree of similarity between men and women in their career path characteristics (Burke and Attridge 2011). Mentoring was rated third on both the ranking list and in the frequency in the statements from the open ended question in this study. In the hotel industry mentoring programs may not be as prevalent as they could be. One reason for the lack of mentoring programs could be time constraints, as time commitment is required to build the relationship. Another reason may be personality-related, as managers lean towards self-learning actions and do not want to be viewed as needing assistance. Also, there are those who believe the mentoring relationship should be a natural one, and not forced by company policy. The personality characteristics found in this study were interesting and expected. If experience is the method of choice to learn the skills required to progress, then it would be logical that a person would need to self-direct this activity. This would include applying for various positions both in and out of the current property, often

including international postings. This requires a personality characteristic that was described by Brownell (1994) as determination.

Appendix A: Holistic Career Pyramid Model, Source: (Morgan, 2002, P. 40)

Range of Years Spent in Each Band

5 - 10

4 - 8

3 - 6

2 - 5

4 - 9

Key Executive

Senior Leadership Roles

Functional Leader

Global Team Leader

Leadership Proving Grounds

Function Leader

Process Leader

Strategic Leader

Career-Building Opportunities

Special Teams &

Functional Rotations

Global Assignment

Manage Relationship

Performance Building Blocks

Technical Strengths

Aptitude

Initiative

Build Relationships

Market –Entry Assets

Education

Self-Marketing

Professional Experience

Learning - Technical -Tactical - Strategic- Leader - Key Executive

Evolution of Skills and Role

This figure describes the Holistic Career Pyramid Model developed to highlight the six steps of the vertical career climb to the position of key executive. The most significant challenge is the transition from technical and functional roles to strategic and leadership skills.

The statements in this research from the open-ended anecdotal question contained many referrals to this characteristic such as: "Do not allow fear to stop from moving out of comfort zone'; "having a goal and not accepting this goal could not be reached"; "not being afraid to take risks and put myself out there"; taking on extra challenges whenever there was an opportunity"; "willingness to take on bigger projects". This

agrees with the scant research on personality characteristics of hotel managers (Brownell, 1994; Garavan, O'Brien and O'Hanlon 2006; Seibert & Kramer 2001). Happenstance theory was not adequately addressed in the research, or in the literature concerning human resource management in the hotel industry. However, the factors expressed as important by hotel managers could fit well within the happenstance theory. Both planned and unplanned experiences helped to shape the capabilities of general managers in the sample. Further research is required to explore how learning from experience can be leveraged more efficiently in the Canadian hotel industry. Also, personality factors and their impact on career success in the hotel industry require more research.

REFERENCES

Arthur, M. B. & Rousseau, D.M. (1996) The boundaryless career: A new employment principle for a new organizational era, New York: Oxford University Press.

Ayres, H. (2006) "Career development in tourism and leisure: An exploratory study of the influence of mobility and mentoring," *Journal of Hospitality and Tourism Management*, vol. 13(2), p. 113-123.

Brownell, J. (1994) "Personality and career development: A study of gender differences," *The Cornell Hotel and Restaurant Administration Quarterly,* vol. 35(2), p. 36-43.

Burke, J. and M. Attridge (2011) "Pathways to career and leadership success: part 2 – striking gender similarities among $100k professionals," *Journal of Workplace Behavioural Health,* vol. 26(3), p. 207-239.

D'Abate, C. and E. Eddy (2008) "Mentoring as a learning tool: Enhancing the effectiveness of an undergraduate business mentoring program," *Mentoring & Tutoring: Partnership in Learning,* vol. 16(4), p. 363-378.

Dewey, J. (1938) *Experience and Education,* Old Tappan, NJ: Macmillan.

Enos, M., M. Kerhrhahn and A. Bell (2003) "Informal learning and the transfer of learning: How managers develop proficiency," *Human Resource Development Quarterly,* vol. 14(4), p. 369-387.

Garavan, T., F. O'Brien and D. O'Hanlon (2006) "Career advancement of hotel managers since graduation: A comparative study," *Personnel Review,* vol. 35(3), p. 252-280.

Gong, R., S. Chen and M. Yang (2014) "Career outcome of employees: The mediating effect of mentoring," *Social Behaviour and Personality,* vol. 42(3), p. 487-502.

Joiner, T., T. Bartram, and T. Garreffa (2004) "The effects of mentoring on perceived career success, commitment and turnover intentions," *The Journal of American Academy of Business, Cambridge,* vol. 5(1/2), p. 164-170.

Kolb, D. (1984) *Experiential learning: Experience as the Source of Learning and Development*, Upper Saddle River, NJ: Prentice-Hall.

Krumboltz, J. (2009). "The Happenstance Learning Theory," *Journal of Career Assessment,* vol. 17(2), p. 135-154.

Ladkin, A. and M. Riley (1996) "Mobility and structure in the career paths of UK hotel managers: a labour market hybrid of the bureaucratic model?" *Tourism Management,* vol. 17(6), p. 443-452.

Li, L., D. Gray, A. Lockwood and D. Buhalis (2013) "Learning about managing the business in the hospitality industry," *Human Resource Development Quarterly*, vol. 24(4), p. 525-559.

Lyness, K. and D. Thompson (2000) "Climbing the corporate ladder: Do female and male executives follow the same route?" *Journal of Applied Psychology,* vol. 85(1), p. 86-101.

McCabe, V. (2008) "Strategies for career planning and development in the convention and exhibition industry in Australia," *International Journal of Hospitality Management,* vol. 27(2), p. 222-231.

Morgan, M. (2002) "Career-Building," *Strategic Finance* 38-43. Found at
http://www.imanet.org/docs/default-source/career/career-building-2002.pdf?sfvrsn=2
Murphy, S. and E. Ensher (2001) "The role of mentoring support and self-management strategies on reported career outcomes," *Journal of Career Development,* vol. 27(4), p. 229-246.

PKF (2014) *Canada's Lodging Sector* found June 2015 at
http://www.pkfcanada.com/docs/2014/HAC_Brochure_2014_v3.pdf

Pratt, L. (2012) "Rising up hospitality's corporate ladder," *Hotelier Magazine.com.* Retrieved January 2014 from http://www.hoteliermagazine.com/hotelier-magazine/featured-articles/69-featured-articles/762-rising-up-hospitalitys-corporate-ladder.html.

Seibert, S. and M. Kraimer (2001) "The five-factor model of personality and career success," *Journal of Vocational Behaviour,* vol. 58(1), p. 1-21.

Vaughn, T. (2012) "Don't skimp on staff training," *Caterer & Hotelkeeper,* vol. 202(4712), p. 28-31.

U.S. CORPORATE PENSION EXPENSE AND THE 2007-2009 FINANCIAL CRISIS: AN INTERRUPTED TIME SERIES ANALYSIS

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ABSTRACT

This research presents a model for predicting corporate pension expenses. By considering changes in financial statement variables that included operating profit margin, working capital levels, and cash levels the model explored directional impact on the dependent variable, pension expenses. Change was measured between 2004 and 2013 using the Kellough interrupted time series analysis to capture the effect of the 2007-2009 financial crisis. The analysis found that operating profit margin has a positive impact on pension expense levels, while higher levels of net working capital and cash have an inverse association. In finding the change variable of the interrupted time series event to have a positive sign, the analysis expands prior research in offering evidence that firms might not use pension expenses as a tool for earnings manipulation. Rather, firms appear to increase pension expense funding as a financial shock occurs but reduce during improving financial and economic conditions.

JEL: C22, G23

KEYWORDS: Pension Expense, Financial Crisis, Time Series

INTRODUCTION

Pension benefits are continuing a transformation in corporate America as firms increasingly adopt defined contribution plans rather than defined benefit or pension plans (Huberman, Iyengar, & Jiang, 2007). In general, pension plan sponsors are concerned with two primary financial issues: Pension Funding and Pension Accounting. Pension funding is the cash contributions that are made to the pension plan. Pension funding is governed by laws described in the Internal Revenue Code (IRC), which determines the annual minimum required contribution and annual maximum tax-deductible contribution. Pension Accounting is the annual pension expense calculation and disclosure of a pension plan's assets and liabilities in a company's financial statement. The Financial Accounting Standards Board (FASB) governs pension accounting under generally accepted accounting principles (GAAP) in the U.S. Amounts calculated under pension funding rules are completely different than those calculated for pension accounting, and care must be taken not to mix the two topics (American Academy of Actuaries, 2004).

The Securities and Exchange Commission (SEC) requires publicly traded corporations to disclose financial results in accordance with FASB standards. Corporate sponsors of employee retirement benefit plans are required to provide financial disclosure information in their corporate financial statements. The retirement plans must also provide specified disclosure in their own financial statements. The corporate sponsor must comply with several financial accounting standards (FAS) when reporting employee retirement benefits in their financial statements. FAS 87 requires a standardized method for measuring net periodic pension cost (NPPC) and expands disclosures. FAS 88 sets forth disclosure requirements upon the event of any significant reduction in future benefit expectations. FAS 106 governs the calculation and disclosure of post-retirement benefits other than pensions. FAS 132r made significant modifications in the required disclosure information. (Dorsa, 2005).

The most recent standard, FAS 158 requires that the net periodic pension asset/liability for a defined benefit pension plan (DB) be recognized in a company's balance sheet; therefore the impact on a firm's net asset or net liability position is emphasized. It also requires that changes in net pension asset/liability be recognized either currently as pension expense or as other comprehensive income/loss. Amounts recognized as other comprehensive income/loss in the current period may be recognized as pension expense in subsequent periods. (Hassell, 2007). The financial crisis of 2007-2009 was perhaps the most important economic event since the Great Depression, but the gap between crises of this magnitude means we must look towards long historical time series to gain perspective on patterns of global crises. The financial crisis began in early August of 2007 with runs in several short-term markets formerly considered "safe". The run on money market mutual funds and the resulting turmoil played an important role in transmitting the crisis to the other sectors and internationally. (Gorton, 2012). Defined benefit pension plans transmit shocks to the rest of the economy through the balance sheet of the sponsor. Accounting standards based on market valuation principles generate volatility in sponsor's balance sheet and income statements. (Impavido, 2009). Evidence suggests a negative impact of pension plans on corporate financial health has become a reality for many companies, as evidenced by the pension's impact on profitability, cash flows and even credit ratings. From a financial perspective, pension plans have become a material liability for many sponsors. From a business standpoint, defined benefit plans are affecting key strategic decisions, such as mergers and acquisitions, competitive positioning and capital expenditures, with the strain on finances limiting many companies' ability to invest in new initiatives and to manage outstanding financial arrangements. Operationally, many financial executives spend a considerable amount of time on pension plans – distracting them from other business initiatives. Four major factors have led to the pension management issues plan sponsors are facing today: pension financing remains volatile; pension costs continue to increase; accountability is unclear; and corporate strategies are not being met. (Morris, 2005).

Existing literature explores corporate investment decisions surrounding funding of defined benefit plans (Webb, 2007), the relationship between pension expenses and capital structure (Shivdasani & Stefanescu, 2010), and optimal corporate pension strategies that consider the effects of insurance and taxes in the presence of capital market imperfections (Bicksler & Chen, 1985). This analysis contends, however, that such corporate decisions ebb and flow over time. Financial shock, such as the Great Recession, upsets the basis and outcome of the decisions that are evident through financial statement ratios. Financial accounting standards that identify cash flows and financial statement ratios offer insight into liquidity and cash management, especially in light of dire financial and economic conditions. Impact on pension expenses – before, during, and after the financial crisis – are considered in measuring the use of current assets and liquidity and the directional impact of such relationship. Research analysis extends from these assumptions. We contend that prior studies have inadequately addressed the use of cash relative to pension funding, especially in an environment with financial and economic shock present. The research questions are as follows: 1) To what extent do financial statement ratios of current account management explain pension funding? 2) Do financial and economic conditions affect pension funding over time?

LITERATURE REVIEW

Over the past decade, a large number of employers have made changes to their retirement plans. The motivations for change are varied, but cost reduction is a primary reason. The recent economic crisis has strained DB plans and made cost a pressing issue for both active and closed DB sponsors. Increased levels of health care costs are also spurring budget cuts. Some companies have frozen or closed their DB plans to all or newly hired employees or switched to a hybrid DB plan; a more portable account-based plan. The shift from DB to defined contribution (DC) only plans has been a trend that started to escalate in 2004. At the end of 2004, 73 Fortune 100 companies offered either a traditional or hybrid DB plan. In 2013, only 30 Fortune 100 companies offered a DB plan to new salaried hires. Almost 10% of companies have made no changes to their plans since 1998. (McFarland, 2013). Capital market performance, economic conditions and workforce demographics have contributed to plan design trends. The largest shifts from DB to DC

plans were in the auto and transportation equipment, communications and high-tech sectors. The transportation and communication sectors – two industries hit extremely hard by the recent recession – have the highest rates of pension freezes among all sectors. Seventy-seven percent of pension freezes for organizations in these sectors occurred after the start of the 2008-2009 recession. Another sector of interest, especially during the recent crisis, is the finance industry. Today, 58% of insurance companies still offer DB plans, while only 37% of banks offer such plans. (Towers Watson, 2012).

Over the past few years, new legislation and accounting guidelines increased the visibility of pensions within the broader picture of overall corporate finance. Until now, most plan sponsors could relatively easily manage their plans as these plans were fairly well funded and the immediate consequence of the pension's impact on the company's financial statements was limited. However, the need to effectively align pension finance and corporate finance became critical with the overall economic downturn and the enhanced transparency requirements. The under-funding of pension plans is now highly visible as a significant deficit on the balance sheet and a significant cash drain. This could potentially create additional obstacles with borrowing, credit ratings, and business operations and growth plans. (SEI, 2009). The cost of the financial crisis is immense. One number is sufficient to indicate the scale of the costs in the United States: The crisis is responsible for reducing employment by eight million jobs and perhaps more depending on exactly when the recovery begins. Large banks that get into financial trouble not only affect shareholders and employees, but also firms and employment across the country and around the world. (Poole, 2010). The chaos in the global financial markets within the financial crisis badly affected pension plan funding, but most of the damage was done in the last quarter of 2008. The crisis reduced U.S. firms' balance sheet strength, leading to consequences for several areas of the business, including capital expenditure decisions, loan covenants and credit rating decisions (Global Investor, 2014).

The decrease in funding ratios will cause pension expenses to increase in future years when sponsors face borrowing constraints. Estimates as of October 2008 for pension expenses among the constituents for the S&P 500 averaged US$35 billion for 2009; this after a fall in the index of 20 percent from the peak. But the S&P500 index has since fallen another 35 percent implying a significantly higher amount of expensing will be necessary to catch up. (Impavido, 2009). The need to properly administer and account for pension funds becomes apparent when the size of these funds is understood. For example, in 2004 the pension expense as a percentage of pre-tax income is 52.27 percent for General Motors Corporation, 14.16 percent for Hewlett-Packard, 1.96 percent for Coca-Cola. Financial and operating performance is also measured for these firms. First, average stock returns (AR) are measured to observe if the stocks of the firms in each portfolio have positive or negative returns. Then, cash flows to total assets (CF/TA), net income to total assets (NI/TA), sales to total assets (Sales/TA) and sales to net income (Sales/NI) ratios are calculated at the end of a fiscal year (Castro, 2012). There has long been an important disconnect between the financial impact of the pension plan implied by accounting accruals, and the information disclosed in the footnotes. Despite much attention from the accounting profession and Wall Street, results suggest that investors still do not correctly perceive how DB pension plans influence corporate valuation in the U.S. marketplace. As a result, over the past decade, pension accruals embedded in the financial statements have been particularly poor stand-ins for pension value. Indeed, pension accruals are potentially worse than noise, as there are times when they are been negatively correlated with the value of pension assets (Coronado, 2008). Earnings before interest and taxes reflect the pension cost (or income) that is recorded on the income statement, but this expense differs from the pension contribution which is the tax-deductible amount. In general, EBIT as reported in the income statement overstates (understates) taxable-income when the pension expense is below (above) the pension contribution (Shivdasani, 2010).

DATA AND METHODOLOGY

The methodology for this analysis considers selected variables that represent changes in income statement, balance sheet, and statement of cash flow effects and pension expenses. For the model, three scenarios are

considered: Earnings Before Interest and Taxes (EBIT) as a percent of net income; Net Working Capital as a percent of total assets as a balance sheet variable; and net cash flow as a measure of positive or negative cash flows. EBIT as a percent of net income is also known as operating margin, a measure of pricing strategy that describes a company's operating efficiency. The higher the operating margin, the more profitable is a company's core business. It is a measure of managerial flexibility and competency, particularly during harsh economic times. A healthy operating margin is required to be able to pay for its fixed costs, such as interest on debt. Working capital to total assets ratio is a liquidity ratio used to analyze the extent of assets tied up in working capital or the amount of assets required to run the day to day operations on a company. Net change in cash is a gauge of the firm's cash flows that may be used to develop new products, buy back stock, pay dividends, reduce debt, or conduct day-to-day business. Revenues and expenses are drivers of net cash flow.

Data were collected from OneSource Business Global Browser and compiled for years 2004 to 2013, inclusive. 400 firms listed on the S&P 500 stock exchange were chosen randomly. This represents 40 firms per year over the time period of 10 years. Pension expenses represent total pension expenses that include all expenses related to funding and maintaining a defined benefit plan. This analysis utilizes a methodology that is similar to the interrupted time-series analysis model used by Kellough (1990); Netter, Wasserman, and Kutner (1990, pp. 370-375); Miller and Pierce (1997); and Landry, Boozer, and Lowe (2012). As Kellough noted, the limited number of pre and post data points suggests that time-series is preferred to another modeling technique known as autoregressive integrated moving average (ARIMA) that could have otherwise been used as a statistical technique. The interruption in the model for this study is the change in economic conditions at the middle of the 2007-2009 Great Recession. We use 2008 as that fulcrum point. The model examines if economic conditions affect the relationship between pension funding and current asset management, especially to the extent that directional impact changes. An essential component of this measure is the extent that such change occurs concurrently or before or after a change in economic conditions. Backwards regression was employed for this analysis. This is a variation of stepwise regression that involves adding or deleting variables from a model based on statistical significance of that variable. All variables are initially included in the model and removed as necessary between iterations.

Data are entered as cases in a year-by-year format for a total of 10 years for each of the 40 firms analyzed: four years before the change in economic conditions; the contemporaneous year of the change in economic conditions; and five years after the change in economic conditions. Each firm is considered independently. Three independent variables are employed. A counter variable is employed that is coded one for the first year of the analysis, two for the second year, and three for the third year, four for the fourth year, etc. This counter variable is called BEFORE. The second independent variable is dichotomous in nature and is coded zero for the five of analysis before and including the year of the change in economic conditions, and one for observations for the five years immediately after the change year. This variable is called CHANGE. The remaining independent variable is a post-intervention counter that is also coded in the following manner: coded as zero for observations five years prior to and including the contemporaneous year of change of economic conditions, one for first year after change in economic conditions, two for the next year, three for the next year, and so forth. This variable is called AFTER.

The intercept for the multiple regression equation describes the value of the dependent variable at the beginning of the time period. The coefficient, or slope, for the BEFORE variable describes the annual increase or decrease in the dependent variable that was happening before the change in economic conditions. The estimated increase or decrease in those years is unaffected by the counter AFTER variable, as that variable is coded zero for all years prior to the change in economic conditions. The coefficient for CHANGE estimates the one-time increase or decrease in the value of the independent variable that came about in the first year following the change in economic conditions. The coefficient, or slope, of the AFTER variable estimates the increase or decrease in slope that occurred after the change in economic conditions. The coefficient for the counter AFTER variable must be added to the coefficient for BEFORE to get the

estimated slope after the change. For the analysis three interrupted time-series regression analyses were run for pension expenses as the dependent variable. For each analysis three independent variables – BEFORE, CHANGE, and AFTER – were included. Each of the three iterations also included a fourth independent variable: OPER_INC as a measure of operating income derived from dividing Earnings Before Interest and Taxes (EBIT) by Net Income (NI); WORK_CAP to denote net working as a percentage of total assets (TA); and CASH as a measure of the net change in cash from operations, investment, and financing from prior year to current year. Independent variables are categorized according to counter variables or financial statement variables. Table 1 summarizes each independent variable in the model.

Table 1: Variables Analyzed within the Model

Counter Variables	
BEFORE CHANGE AFTER	Measure of change in financial statement variable before, concurrently, and after change year of financial crisis, respectively.
Financial Statement Variables	
OPER_INC	Operating profit margin
WORK_CAP	Net working capital as a percentage of total assets
CASH	Net change in cash available from prior year

Autocorrelation may be present in a model when serial data is utilized (Miller & Pierce, 1997). The existence of autocorrelation violates a basic assumption of Ordinary Least Squares (OLS) regression. Autocorrelation leads to an underestimation of the variance of the error terms and an overestimation of the significance of the coefficients. The Durbin-Watson statistic is a test statistic used to detect the presence of autocorrelation in the residuals from a regression analysis (Durbin & Watson, 1950) and is used in this study to indicate if autocorrelation is present. If the Durbin-Watson statistic is outside an acceptable range, transformation of the data, through the Cochrane-Orcutt (CORC) estimation procedure, is necessary to take into account the correlation of the error terms (Cochrane & Orcutt, 1949). Tables 2, 3, and 4 summarize the multivariate statistical output of the model. For each analysis all independent variables are included in the regression, with predictor variables removed in finding the best fit for the model.

Operating income (OPER_INC) is a statistically significant predictor of pension expense allocation. The relationship is positive, where Pension Expenses = 34.246 + .261(OPER_INC). With a coefficient of determination of .068, only 6.8% of the variance of the dependent variable is explained by the one independent variable included in the model. BEFORE, CHANGE, and AFTER are excluded from the model using backwards regression. Interestingly, CHANGE is almost significant at the $p < .10$ level of significance and including that variable increases R squared to .074. The variable has a coefficient of .075 and would have a very small impact on the model if included. Durbin-Watson coefficient is in an acceptable range. Table 2 presents a summary of this output.

Table 2: Time-Series Regression – Operating Income

Regression Variables	Coefficient	T-Statistic	P-Value	Durbin-Watson	R-Square
Pension Expenses			P < .01	2.050	.068
Constant	34.246	.533	.594		
OPER_INC	.261	5.398	P < .01		

Dependent Variable: Pension Expenses

Unlike operating income, net working capital (WORK_CAP) has an inverse impact on the dependent variable, pension expenses. The coefficient for WORK_CAP of -.248 shows that for every dollar increase in pension expenses net working capital declines by $0.248. CHANGE is also a statistically significant predictor in the model and has a positive relationship with pension expenses. During the full year associated with the beginning of the financial crisis, firms with higher levels of current assets versus current liabilities allocate more to pension expenses. With an R squared of 6.7 percent the two predictor variables account

for a relatively small variance in pension expenses. Durbin-Watson value is in an acceptable range. BEFORE and AFTER variables were excluded from the backwards regression output. See Table 3 for a summary of the net working capital analysis.

Table 3: Time-Series Regression – Net Working Capital

Regression Variables	Coefficient	T-Statistic	P-Value	Durbin-Watson	R-Square
Pension Expenses			P < .01	2.089	.067
Constant	492.613	5.988	P < .01		
WORK_CAP	-.248	-5.098	P < .01		
CHANGE	.100	2.051	P < .05		

Dependent Variable: Pension Expenses

Net changes in cash (CASH) from prior year investment, financing, and operations activities show that an inverse relationship exists with allocations for pension expenses. The relationship is that as a company allocates each dollar to pension expenses $0.332 less cash is available to the firm from prior year. CHANGE is also an acceptable predictor variable at $p < .10$ and has a positive relationship. Durbin-Watson coefficient is in an acceptable range. The two variables in the model account for 11.7 percent of the variance in pension expenses. BEFORE and AFTER variables were excluded from the backwards regression output. See Table 4 for a summary of this output.

Table 4: Time-Series Regression – Net Change Cash

Regression Variables	Coefficient	T-Statistic	P-Value	Durbin-Watson	R-Square
Pension Expenses			P < .01	2.125	.117
Constant		4.241	P < .01		
CHANGE	.080	1.703	P < .10		
CASH	-.332	-7.049	P < .01		

Dependent Variable: Pension Expenses

RESULTS AND DISCUSSION

Output from the analysis found statistically significant relationships between each financial statement variable and pension expenses and also between one counter variable in two separate analyses. Although the coefficient of determination was low for each of the three analyses, we did not expect the variables analyzed to be responsible for high levels of variance in the dependent variable. Rather, our goal was to measure how well relevant balance sheet and income statement accounts and ratios predict pension expense funding and if that relationship changed as a result of the Great Recession of 2007 – 2009. The model shows that higher operating margins are positively related to more pension expense funding, but that higher levels of net working capital and changes in cash available have a negative impact. It is interesting that the latter two analyses, WORK_CAP and CASH, each impact pension expenses inversely but the change coefficient is positive for each analysis. These results are consistent with Beaulier (2012) and suggest that the financial crisis affected the way firms manage cash within a larger macroeconomic environment.

Results from the analysis clearly indicate that financial shocks that Impavido (2009) identified are valid in this analysis. While the model does not address a time period beyond the nine years before, during, and after the financial crisis, volatility is present in balance sheet and income statement accounts. Pension funding and underfunding represents a need for cash and a cash drain to those firms who are underfunded. We expected operating income to be positively related to pension expenses, since higher levels of income are available for pension responsibilities. We did not expect working capital and cash to have an inverse impact, given an environment of funding difficulties that demand higher levels of current assets. Although a small coefficient, we did not expect the change variable to be positive in suggesting that firms began to allocate more resources to pension funding as the recession began. Parker (2007, 2011) raised a question

of pension expenses and corporate earnings that this analysis extends through the interrupted time series effect of measurement. Increases in pension expenses or funding during weak economic conditions in part dispels the idea of manipulation but also raises a question of managers proactively increasing funding before earnings suffer. Although the time period after the crisis started (AFTER) was not statistically significant, in two of the three analyses that variable expressed a negative coefficient that suggests funding levels were reduced after the crisis but while earnings had not recovered.

CONCLUDING COMMENTS

The analysis illustrates how selected financial statement variables offer predictive value in a multivariate model. The model extends Parker's (2007, 2011) research and offers a basis for directional impact of earnings manipulation over a time period including a financial shock. Referring to Figure 1 it is easy to see that the variance in the measure of pension expenses has increased over the last few years, the period of time concurrent with and post to the financial crisis. With low coefficients of determination our model was not developed to explain much of this variance but forms a basis that extends prior research addressing corporate design-making (Webb, 2007) in times of market turmoil (Bicksler & Chen, 1985). Finding that funding changes appear to coincide with firms proactively addressing slower earnings is consistent with managing income and expenses (Canan, 1997), but shows that funding for at least this account is made in anticipation of falling earnings to come. To take this research forward, other financial statement variables could be included beyond the three broad measures incorporated in this analysis. While the dataset used in this analysis considered exclusively pension expenses for defined benefit plans, the relationship between pension plans and proliferation of defined contribution plans would add a different perspective to the analysis. Matching percentages, trends toward corporate offering of either type of retirement plan, and even employee participation are areas that could be beneficial for future research.

REFERENCES

American Academy of Actuaries (2004). "Fundamentals of Current Pension Funding and Accounting For Private Sector Pension Plans," Accessed May 13, 2015 at: www.actuary.org.

Beaulier, S. (2012) "Principles for Pension Reform in Alabama: Rethinking the Defined Benefit in Alabama's Retirement System," *Alabama Policy Institute*, p. 1-14.

Bicksler, J. L., and Chen, A. H. (1985). "The Integration of Insurance and Taxes in Corporate Pension Strategy", *Journal of Finance*, Vol. XL(3), July, p. 943-955.

Blankley, A., Comprix, J. and Hong, K. (2013) "Earnings Management and the Allocation of Net Periodic Pension Costs to Interim Periods," *Advances in Accounting,* Vol. 20(1), June, p. 27-35.

Canaan, M.J., (1997) Qualified Retirement and Other Employee Benefit Plans, St. Paul: West Publishing Co. (1997) p. 671.

Castro-Gonzalez, K. (2012) "Portrait of a Company: Defined Benefit Pension Plan Sponsors," *Accounting and Taxation,* Vol. 4(1), p.43-52.

Chang, A., Duke, J. and Hsieh, S. (2014) "Improving the Disclosure Basis of Pension Accounting," (2014) "*The Journal of Corporate Accounting and Finance*, Vol. 25(4), May/June, p. 63-70. Accessed online at onlinelibrary.wiley.com
.
Cochrane, D. and Orcutt, G. H. "Application of least squares regression to relationships containing autocorrelated error terms," Journal of the American Statistical Association, Volume 44, 32-61, 1949.

Coronado, J., Mitchell, O., Sharpe, S., and Nesbitt, B.(2008), "Footnotes Aren't Enough: The Impact of Pension Accounting on Stock Values," *Working Papers – U.S. Federal Reserve Board's Finance & Economic Discussion Series 1-25*.

Dorsa, L. and Rosier, D. (2005) "Accounting for Employee Retirement Benefits in Corporate Financial Statement,:" *Journal of Pension Benefits*, Vol. 12(2), Winter, p. 74-76.

Durbin, J. and Watson, G. S.. "Testing for serial correlation in least squares Regression," I. Biometrika, Volume 37, 409-428, 1950.

Ehrhardt, J., Perry, A. and Wadia, Z. (2015) "Milliman 2015 Pension Funding Study," April, Accessed May 15, 2015 at www.milliman.com.

Gorton, G. and Metrick, A. (2012) "Getting Up to Speed on the Financial Crisis: A One-Weekend-Reader's Guide," *Journal of Economic Literature*, Vol. 50(1), March, p. 128-150.

Hassell, J. and Philipich, K. (2008) "Introduction to and Overview of SFAS No. 158: A Visual Presentation," *Journal of Accounting Education,* Vol. 26(1), Jan., p.30-33.

Huberman, G., Iyengar, S.S., and Jiang, W. (2007). "Defined Contribution Pension Plans: Determinants of Participation and Contributions Rates", *Journal of Financial Services Research*, Vol. 31(1), March, p.1-32.

Impavido, G. and Tower, I. (2009) "How the Financial Crisis Affects Pensions and Insurance and Why the Impacts Matter," IMF Working Paper 09/151, July (Washington: International Monetary Fund).

Jiang, X. (2011) "The Smoothing of Pension Expenses: A Panel Analysis," *Review of Quantitative Finance & Accounting*, 37(4), p. 451-476.

Kellough J. E. "Federal agencies and affirmative action for blacks and women," Social Science Quarterly, Volume 71, Number 1, 83-91, 1990.

Klamm, B.K. and Spindle, R.M. (2006) "Pension Expense and Plan Contributions: Accounting Standards and Tax Regulations, "*Journal of Pension Planning and Compliance,* Vol. 31(4), p. 75-95.

Landry, R.J. III, Boozer, B.B.Jr., & Lowe, S.K. (2012). Measurement of Homestead Exemption Utilizing Home Values. Journal of International Finance Studies, 12(3), pp. 84-93.

McFarland, B. (2013) "Retirement Plans Offered by 2013 *Fortune* 100," *Towers Watson*, November 13, Accessed May 13, 2015 at www.towerswatson.com.

Miller, D. E. and Pierce, P.A. "Lotteries for education: Windfall or hoax?" State and Local Government Review, Volume 29, Number 1, 34-42, 1997.

Morris, J. (2005) "The Changing Pension Landscape," *Compensation and Benefit Review,* Vol. 37(5), Sep/Oct., p. 30-35.

Munnell, A. (2011) "Private Sector Defined Benefit Plans Vanishing," *Market Watch*, December 30, Accessed May 13, 2015 at http://blogs.marketwatch.com/encore/2011/12/30/private-sector-pensions-are-really-disappearing/

Netter, J., Wasserman, W., & Kutner, N.H. (1990). Applied linear statistical models (3rd edition), Burr-Ridge, Illinois: Richard D. Irwin, Inc.

Parker, P. and Sale, M. (2007) "Using Pension Expense to Manage Earnings: Implications for FASB Standards," *Academy of Accounting and Financial Studies Journal,* Vol. 1(3), September, p. 109.

Parker, P., Swanson, N. and Dugan, M. (2011) "An Empirical Examination of the Impact of the Sarbanes Oxley Act in the Reduction of Pension Expense Manipulation," *Advances in Accounting,* Vol. 27(2), December, p. 233-241.

Poole, W. (2010) "Causes and Consequences of the Financial Crisis of 2007-2009," H*arvard Journal of Law and Public Policy,* Vol. 33(2), Spring, p.421-441.

Shivdasani, A. and Stefanescu, I. (2010) "How Do Pensions Affect Corporate Capital Structure Decisions?" *The Review of Financial Studies,* Vol. 23(3), March, p. 1287-1323.

Summary of Statement No. 87 (1985) "Employers' Accounting for Pensions," Accessed April 28, 2015 at www.fasb.org

Towers Watson (2012) "Pensions in Transition: Retirement Plan Changes and Employer Motivations," May, Accessed May 13, 2015 at: www.towerswatson.com p.2-12.

"U.S. Retirement Risk Rising Despite Asset Growth" (2014) *Global Investor,* Issue 278, May, p. 373. Waite, J. (2009) "Pension Tension: Seven Critical Questions for Fund Trustees, Executives," *Benefits and Compensation Digest*, Vol.46(12), December, p. 36-39.

Webb, D.C. (2007). "Sponsoring Company Finance, Investment and Pension Plan Funding", *Economic Journal*, Vol. 117, April, p. 738-760.

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A MODEL FOR GENERATING AND SHARING INFORMATION ABOUT CULTURAL ASSETS

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ABSTRACT

In this study, it is aimed to investigate the topics like how a data generating and sharing model on cultural assets will form a social awareness about protecting cultural values, in what way it will affect the individual willingness and how it will contribute to the maintenance of social capital approaches. In this context, focus group interviews were held with the populations consisting of individuals from various segments of the society and having different occupational and social formations. With this purpose, eleven different populations were determined and previously prepared 4 main questions and their related sub questions reaching a total number of eight questions were directed to these populations. The answers given are compared by grouping and it is aimed to find out the participants' willingness about such a platform and their views about formation of social and intellectual capital. The findings obtained are compared to each other and the effects of the data sharing model are discussed.

JEL: D82, D83, D85

KEYWORDS: Information Generating, Information Sharing, Cultural Assets

INTRODUCTION

The importance of adapting ten-thousands of immoveable cultural assets to the tourism development areas, promoting these masterpieces, prevailing the awareness to protect them, forming an interactive data generating and sharing system is apparent. The existing institutions are uncapable of finding out deficiencies regarding our cultural assets. For this reason, with a model towards achieving data sharing about cultural assets, it is possible to communicate a web-based and geographical knowledge system supported database to the institutions in charge of restorating the art pieces and make an evaluation about deciding whether to protect and restorate by means of providing necessary funding. In this study, main purpose is to provide sharing of deficiencies observed by individuals with touristic awareness. In cases where they directly inform the related institutions, it is aimed to measure whether they have anxiety about being taken seriously and when they give up sharing knowledge on such reasons, how a data generating and sharing model will change their willingness to reveal their existing tacit knowledge.

LITERATURE REVIEW

Knowledge Concept

Knowledge constitutes an important part of human life. The individuals who own physical power, land or a factory had competitive power in the past. In today's rapidly changing environment, the source of the competitive power shifted to knowledge. The individuals, societies and countries who strategically make use of the knowledge can be more powerful (Kroeber, 1982:8). Knowledge can be understood as penetrating thinking process that never stops to obtain certainty. Knowledge is held in peoples' minds - in their (conscious and unconscious) memory - and accumulated by experiences and associations in a course of time. In other words, knowledge reflects a personal repertoire of choice alternatives (Laurinkari,2010).

Knowledge is news which has value and it is obtained from the data processed over time. (Kroeber, 1982:9). Epistemologists define knowledge as *justified belief* and differ between a priori knowledge, consisting of analytic truth, and empirical knowledge, derived from experience.

Linkage between Knowledge Sharing and Communication

The term `knowledge sharing´ is proposed in this research. Nonaka's and Takeuchi's (1995) model of knowledge creation highlights four phases for knowledge conversion: socialisation, externalisation, combination and internalisation. In regard to knowledge sharing, the socialisation phase is of high interest. Socialisation reflects the process of sharing experiences mainly at the individual and group level. Lee (2003) argues that the socialisation phase covers up to 90% of total knowledge sharing which emphasises the importance of tacit knowledge sharing. In other words, intra-organisational knowledge sharing takes place to a large extent via the socialisation process. Therefore, knowledge sharing can be understood as a certain communication process – certain by the focus. Generally, the basic communication model, where a sender transfers a message to a receiver, is taken up to explain what communication is. Thus, the general operation of knowledge sharing can be described as a process, where the sender encodes a message, transfers the message via appropriate channel, and the receiver decodes the message (Welch,2010). This kind of superimposition highlights the act of transfer. The attention is given to the message and to the sender. However, the message can only stand as a proposal which can be selected by the receiver. Furthermore, it can lead to the impression that the transmitted message is the same for the sender and the receiver, but in fact the message can mean something different for each of them. Therefore, knowledge sharing consists not only of sending and receiving a message but of three phases: sending, receiving and processing, and each phase has its own particularities (Jianbin,2014).

Knowledge and Intellectual Capital

The distinction between knowledge management and intellectual capital like the past seems vague and undetermined. Intellectual capital is recognized as a factor of key stimulant for creating innovation and competitive advantage in economic based on today's knowledge but knowledge management is recognized as a basic activity for acquiring development and maintaining intellectual capital. This means that successful management of intellectual capital has intensive correlation and relation with appropriateness of knowledge management processes in an organization. Langeroodil (2014) shows that success full execution and correct use of knowledge management ensures acquisition and maintenance of intellectual capital. Intellectual capital' describes "features of social life-networks, norms and trust, which enable participants to act together more effectively to pursue shared objectives". Knowledge is an important source of team social capital. Knowledge level of the counterpart would be important for team members to offer their own knowledge, communicate feasibilities, and devise solutions for various problems faced in developing knowledge systems. Social ties, shared vision and trust would presuppose the appropriate level of expertise in both parties (Jungwoo and Seyoon,2015). Intellectual capital increase opportunities to access diverse knowledge. It provides the tourism an insight into the organization's specialized systems and structures in much the same way as we advise. Like geographical knowledge systems, when the tourists visit historical and cultural places, they can use the information system to state problems. Hence, the establishments can be restored or renovated. (Hsing and Tingko,2015). When intellectual capital is optimised within the virtual social networks, this motivates individuals to search for and gather information, in order to gain insights into the knowledge shared in the virtual learning communities. A profit-centred exchange of products and services is facilitated to leverage economic potentials within the virtual community. Social capital can be instrumental in the building of a virtual business model, which depicts how economic value is accumulated and distributed (Huang, Kim and Kim,2013). When the viewpoints of the survey participants are examined, it is found out that cultural assets are also important for a country's economy as well as being important for

the next generations. Huang, Kim H. and Kim J. (2013) support this finding and claims that the social capital and webs contributes to the individual sharing, learning and the whole economy.

Knowledge Sharing Attitude

In a study carried out by Wilkins and others proposes four dimensions for knowledge sharing; trust, collaboration, support expectation and opportunistic behaviour (Wilkins, oth.2004/272). Trust expectation is based on the assumption that two persons who do not trust each other should not share knowledge. Collaboration expectation is based on the assumption that in a compatible working environment with mutual trust, attitudes toss hare knowledge is affected positively. Support expectation is built on the social change theory which claims that people response positively in return for acquired benefits and response negatively in return for the harms they face. According to the social change theory, interpersonal social interaction leads to formation of some liabilities and feelings such as trust and gratitude. Opportunistic behaviour expresses the situation that a person utilizes other people in return for personal interests. In this context, the individual's cooperative approach is thought to affect the willingness to share knowledge. Hence; *Prediction 1: There is a positive relation between collaborative approaches of individuals and their willingness to share knowledge.*

Knowledge Sharing and Cultural Values

Culture has impact on the understanding of knowledge itself, the role of knowledge and knowledge carriers. Despite the fact that relevance of culture is noticed by large organisations and scholars, the effects of cultural aspects on knowledge sharing are still little considered. There are five main dimensions of culture: masculinity, learning environment, uncertainty avoidance, in-group collectivism and power distance. From these main dimensions, specific cultural criteria referring to knowledge and communication are formulated (De Long and Fahey, 2010). The efficiency of knowledge transfer , which determined by timeliness and accuracy of knowledge flow , is a key factor to advancing system degree of order.

Similarly, KC is the order parameter of knowledge system in which contains very-large scale mini-transfer activities, then the timeliness and accuracy of knowledge cooperation determine the macro statue of knowledge system. In a stable enterprise knowledge system, timeliness and accuracy of knowledge cooperation the two cannot have both. In a separate knowledge transfer process, one variable increase always at another variable decrease cost. Increase path and layer of knowledge transfer can effectively improve accuracy, but increase difficulty of searching path and delayed knowledge flow, as well as improving timeliness of knowledge transfer means accuracy cut down. Accordingly, in order to evaluation the order degree of enterprise knowledge system scientifically, this two-factor should be taken into account simultaneously (Jianbin, Yanli and Kaibo,2014). İn this context, the individual's social and cultural formation is thought to affect the attitude of sharing knowledge. Hence; *Prediction 2: There is a positive relation between individuals' social formations and their attitudes for knowledge sharing.*

The understanding of knowledge itself shows that knowledge which is neither directly affecting the profit nor connected to a task-related issue is less considered. The results for the role of knowledge reveal that specialised knowledge means personal power. Accordingly, people accumulate knowledge; however, the problem of willingness to share their knowledge arises. For knowledge sharing, the conclusion is that developing incentive systems and knowledge sharing culture increases the willingness to share knowledge voluntarily. Testing the impact of cultural values of different societies according to these proposed cultural criteria and knowledge dimensions offers the potential to understand specific individual cultural background better. It can also function as an influencing factor in developing knowledge sharing culture in the organisation. it was pointed out that knowledge sharing involves communication and therefore language as the central medium in knowledge processing. There arises a question about how an individual cultural

background influences knowledge structuring (Forst,2009). İn this context, individual cultural sensitivities are thought to affect the attitude of sharing knowledge. Hence; *Prediction 3: There is a positive relation between sensitivities of individuals about cultural assets and their attitudes for sharing knowledge.*

<u>Information Sharing Management of Cultural Assets</u>

In this study, it is found out that individuals and the institutions use collaboration and support expectations when they are related to the willingness to share information and the effect of information sharing on the creation of social capital has been put forward. In this parallel, the main research question is: "What is your viewpoint about a social responsibility platform in order to protect cultural assets?" The four questions and related sub-questions are selected by conducting a preliminary research. Eleven groups are created based on the expertise; academicians, architects, engineers, art historians, archaeologists, travel agents, municipalities (culture branches), tourism students, architecture students, domestic and foreign tourists. Their ideas about such a platform, willingness to participate, viewpoints related to the social capital and extraction of intellectual capital. The findings reached are compared to each other and a comprehensive table has been formed attempting to explain the effects of a Knowledge sharing platform which raises public awareness on the preservation of cultural heritage and also it is aimed to determine the approaches and willingness from different levels in the society.

<u>Research Samples</u>

The theoretical population is consisting of different segments related to cultural assets of the society. As a pilot study, a focus group interview was conducted with 6 tourism students and questions are improved accordingly. The research sample is consisting of the groups with different occupational formations. In this framework, occupational formations were determined and in-depth interviews were held with minimum 2 and maximum 20 members of each group. In total, 77 Individuals involving 6 academicians, 5 archaeologists and art historians, 4 municipality workers, 5 architects, 6 engineers, 8 architecture students, 9 tourism students, 4 tourist guides, 8 touristic agent workers, 2 TURSAB personnel and 20 local and foreign tourists participated. The sample is selected randomly from 120 individuals who accepted to make interview.
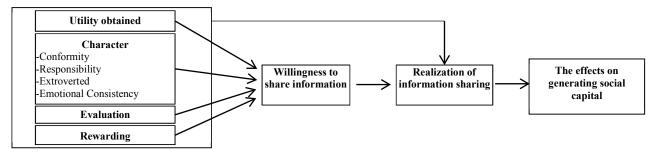
DATA AND METHODOLOGY

In this study, a qualitative research method known as Interview is used. The analysis is based on different segments of the society which are thought to be interested in cultural tourism. The knowledge sharing is analysed on levels of different occupational formations and social statutes. In this context, the capacity of knowledge on a secure social sharing web which is designed to serve a specific aim. The groups consisting of individuals form the units in this research. In the group interviews, the questions which were prepared in advance are used.

In a study by Wang, the factors affecting willingness to share knowledge are grouped under two main groups as individual and environmental; conformity, responsibility, extroverted, emotional consistency are set as character properties. In that direction, by making use of the model "the effect of character and external facts", developed by Wang in 2005,a new model is put forward which is related to formation of social capital.

Table 5: New Model Developed by Wang's Model

FINDINGS

As a first step, an Excel document is prepared based on the data compiled from the participants. Then, the data pertaining to all occupational formations are presented as one under the other; the numbers of the same expressions are noted. At the third stage, the expressions which are thought to be the same are categorized in word document which is presented in Table 6.

Table 6: Survey Findings

Main Theme	View Point About Cultural Assets	Thoughts & Feelings	Attitude	Action
Academicians (6 people)	- Voluntary workers - Gains to tourism - Generating economic income	Sorrow - Anger - Disappoint - Happiness - Loss of trust -Loss of Interest	-Expressing about the deficiencies Curiosity about institutions attitudes - Creating an action plan	- Protecting cultural assets - Announcement in the social media -Making complaints - Creating awareness - Transmitting to the related institute/following
Architects (5 people)	-Living museum -Passing it to the next generations - Enhancing awareness about protection - Increasing education about the topic - Involving public to decision processes	-Sorrow - Anxiety about future - Feeling shame - Disappoint -Relaxing conscience	Fulfilling a responsibility completely Restorating within more awareness Willingness to start action Never doing something that could be done wrongly Proposing solution if there is a possibility for taking feedback Complaining even if there is no feedback	Understanding the reasons for occurring deficiencies Informing the authorities Reaching to the related institutions Enhancing awareness by using social media -Notifying by using photos
Engineers (5 people)	Transmitting to the upcoming generations Education about the topic Effective protection Enhancing awareness about protection Restorating as much same as the original Taking into account earth quick engineering theories	Irrespectfulness to the history Sorrow Disappoint	-Questioning the reasons for deficiencies -Loss of trust -Supporting behaviour -Doing research -Demand for compensation of defects	-Reaching to the authorities/Warning -Intervening - Keeping record of the deficiencies -Sharing in the social media
Archaeologists (1 person) & Art Historians (4 people)	Protection Transmitting to the upcoming generations Announcing universally Legal regulations Restorating as much same as the original Giving priority Opening for usage Taking precautions to protect	- Sorrow - Anger - Disappoint	Communication via e-mail Warning on-site workers Questioning the experiences	- Reminding the responsibilities to the related institutions - Forming a public platform - Written applications (petition) - Giving notifications

Tourism students (9 people)	- Elaborate protection - Adequately protected (constancy) - No specific procedures	- Sorrow - Feeling uncomfortable - Anger - Staying indifferent - Anxiety - Loss of trust	- The elimination of disruptions - Not showing reaction - Complaining	- Warning the officers - Announcing in the social media - Complaining - Inaction
Architecture Students (8 people)	- Not given sufficient importance in our country - Important for the future - Touristic value of the country	-Sorrow -Feeling uncomfortable -Anger	- Showing reaction - Warning - Insulting to the history - Not being interested - Cannot be corrected - Complaining - Contacting the officers - Carefully keeping an eye on the art pieces	- Sharing in the social media - Joining the parades - Contacting with the officers firstly and then the institutions - Complaining - Inaction - Writing solution proposals under the photos and sending them to the related offices - Creating a public opinion

Table 6 continues: Survey findings

Main Theme	Complaints	Viewpoint About E-Mails & Photos	Solution Proposals	View Point About The Platform
Academicians (6 people)	- Giving importance according To the rent extraction - Not showing equal sensitivity - Not being supported -Restoration's not being as good as the original	- Providing concrete data - Precipitating the communication - Control Mechanism - Inefficiency - Time waste - Not being taken seriously	- Employing specialists - Transparent sharing on the web - Cell phone applications social media campaigns - Forming a common wisdom - Common vision/mission - Macro Planning - Living museum - Stimulating volunteering behaviour - Restoring as the same as original - Protecting with giving priority - Increasing the number of voluntary organizations - Team work	-Monetary/moral support -Starting to apply - Collaboration is a must
Architects (5 people)	- More harm to the idle buildings - Problem about detection - Destruction of unregistered artworks - Just Zone Safety Establishment register officially (timeless) - Restoration's not being done by the specialists	- Necessity for new staff to control - Membership systems - Opportunity to see different people's views -Useful - Not adequate for legal guarantee -Using e-government	Making legal regulations Education in the family Preparing curriculum about this topic More than one interdisciplinary participant (for democratic ambient) Maintenance and restoration support for living museums On time and adequate financial support Taking into consideration the technical capability İnformation accumulation (practioneer and controller) Method is also important as the material	An innovative for good intention Contribution to raising awareness Deviating the realities Effective usage of the platform Must be collaboration Should be felt as compulsory Forming a central database
Engineers (5 people)	- Not showing sensitivity despite the warnings -Not protecting as the same as the original	-Willingness to share -Practical -Not believing in indicating an action	- Restoration should be done according to the original - Decreasing the red tape - Taking support from specialists - Education being given by the specialized personnel - Obtaining awareness in attention attracting platforms - Rising written and visual awareness - Increasing the participations in the conferences and symposiums - More flexible and publicly transparent institutions - Examining successful policies	- Participation/support - Existing as a need - Positive if it is aimed at purpose -Support for the information exchange -Not believing in collaboration every institution works with its own principle
Archaeologists (1 person) & Art Historians (4 people)	- Inadequate sanctions in the legal framework - Inaction against determinations	Providing solid information Realist Participation Useful in finding new artworks	- Following literature - Participating in the congress - Restoration should be done carefully, not in a hasty manner - Control mechanism - Qualitative and quantitative Sufficiency - Interaction among disciplines - Education at the High school level - Mobile teams to intervene	- Lagged project - Objective platform - Meaningless if action is not taken - Continuous control over the database - Partial control over the workers - Determinate od cultural assets on GKS - Ensuring complete involvement - Reaching the officers in a short time
Tourism students (9 people)	-Not paying interest to protect cultural assets - Lack of specialist personnel -Not showing equal treatment to every art work	- Generating a guaranteed effect inaction - Finding solution by visiting -Quick and positive result - Enhancing practical Involvement - Inadequate individual involvement	- Starting a platform like this - Forming a unit including all related topics -Government funding, - Giving priority to the art pieces which contributes to the economy more - By means of advertisements, increasing public information	- Lagged project - Support/Involvement - Becoming aware of the artworks -Everyone should be open to collaboration
Architecture Students (8 people)	- Preserving in much the same way as the original	- Providing information about the art piece - Insufficient on its own - A satisfactory application - Sharing in the media - Inaction - Following up the results - Solid evidence - Instant electronic sharing	- Strict control - Dissemination of more projects - Informing public - Common decision making of the specialist officers - Increasing potential number of tourists - Monetary and moral support - Determinate od cultural assets on GKS - Giving place in the education programmes - Micro and macro planning - Building police system /quick intervention	- Support/Involvement - Lagged project effective operation - Not supporting (Thinking that art pieces are not so important) - Promoting the platform to more segments in the society, increasing awareness

Table 6 continues: Survey findings

Main Theme	View Point About Cultural Assets	Thoughts & Feelings	Attitude	Action
Tourist Guides (4 people)	- Gaining to tourism by preserving - Passing to next generations - Improved preservation but still keeping behind other countries	- Shame for the country - Normal -Sorrow - Anger	- Showing reaction - Being affected negatively moral support	- Unable to attract tourists to the deficient areas - Complaining - Warning - Complaining via e-government
Agents Related to Cultural Tourism (8 people)	- Transmitting to the upcoming generations - Preserving the art pieces - Appreciation feeling	- Irrespective - Feeling nothing - Anxiety - Sorrow - Keeping behind	- Complaining - Punishing - Correcting the errors sensitively	- Learning the reasons for deficiencies - Complaining - Punishment by education - Working with the people who give value to the cultural assets - Inaction - Sustainable working - Trying to correct the errors - Have no idea
TüRSAB (2 people)	- In the Ottoman period there was more respect but not very sensitive	- Sorrow - Anxiety - Disappoint	- Investigating who, why and how	- Investigating who, why and how - Complaining to the authorities
Municipalities (Cultural Units) (4 people)	- Not hastily done restoration and maintenance works - Restorating in conformity with the original - Increasing the number of jobs - Transmitting to the next generations	- Sorrow - Loss of trust	- Questioning the reasons for the errors - Complaining - Inaction - Showing reaction hand in hand with the civil organizations	- Idea exchange with the institutions - Continuous tracking - Warning
Domestic & Foreign Tourists (20 people)	- Transmitting to the next generations - As people develop more, they adhere more importance to cultural assets - Irrevocable errors - It's a social responsibility to know the qualities of the values - Art pieces which does not conform with the original lose importance - Errors getting larger because of not being handled on-time	- Sorrow - Reproach - Anxiety - Disappoint - Anger - Feeling uncomfortable	- Investigating whether to intervene or not if there is a problem - Indicating public action toward insensitivity - Creating society-wide awareness - Enforcing the people to give more value to the cultural assets - Blaming the officers - Complaining - Warning the officers	- Thinking that even if an action get started , it will not be effective - Complaining - Showing all necessary reaction - Calling civil organization to take action - Parade action

Table 6 continues: Survey findings

Main Theme	Complaints	Viewpoint About E-Mails & Photos	Solution Proposals	View Point About The Platform
Tourist Guides (4 people)	- Not employing enough archaeologists and art historians	- Thinking that they will not devote time - Crucial for increasing the awareness of the officers - Thinking that the unaware people will not take part - Falling in the spam file - Being ineffective	- Restoration done in conformity with the original - It is important to raise awareness - Rising the number of art historians and archaeologists - More strict controls - Cost deducing by effective usage of the guides - Education in the childhood - Creating a public opinion - Attracting public attention by us ng celebrities	- Sensitivity is important support if done by the right persons - Having a need - Support/involvement collaboration should be mutual positive or negative feedback informing public and persuasion
Agents Related to Cultural Tourism (8 people)	- Only giving importance to well known cultural assets and omitting others - Not enough value is given - The officers are uneducated and insensitive - Not paying attention to the complaints - Insufficient collaboration	- Problems not paid attention by many people - Not devoting time - Providing support for the usage of photos - Utilizing technology - Contribution by the close periphery	- Preserving all art pieces equally - Doing the restoration in conformity with the original - Organizing social responsibility projects - More strict controls - Providing easy reach to the related institutions - Realizing the project quickly - Collaboration with the universities - Education in the childhood period - Incentives to increase sponsorship - Procuring more financial funds to the personnel and the applications - Awareness in the promoting activities	- Absolutely there should be such a platform - Everyone takes part - Not being able to participate because of not having enough time - Unifying the institutions under one common roof - Collaboration is a must - Voluntary following system - Participation by all
TüRSAB (2 people)	- Detrition by the unaware people - Uncertainty about less protected art pieces - Not caring about the complaints	- Building a public opinion by use of the photos	- Showing sensitivity without monetary incentives - Making use of collaboration to preserve cultural assets - Art pieces should be opened to visit in order to increase protection	- A platform where all art pieces are recorded and which can be reached by the institutions - Support/Involvement - Collaboration is a must
Municipalities (Cultural Units) (4 people)	- Raising the new generation more concerned about this topic - Not performing the necessary protection - History being left unowned - The thought that nothing will happen even if the information is shared.	- Sensible in today's conditions - This is not true without knowing cultural assets sufficiently - Support only via email	- Increasing the number of mobile teams for controlling - Creating public spots - Developing a social platform - Sincerity - Specialized personnel - Preparing realizable projects - Providing enough funding and budget - Keeping everyone aware - Checking the references of the firm in charge of restorati work	- Thought that it is positive - Society-wide responsibility Sharing - Involvement/Support - Real collaboration is possible with a sincere environment - Providing monetary support
Domestic & Foreign Tourists (20 people)	- Not enough protection for the cultural assets - Less protection when compared to Europe - Unsuccessful restoration - Thinking that enough elaboration is not shown - Incapacities of the institutions	- Easy and quick - Doing the both - Must be supported by all - Thinking that it will be useful - Increasing the effect when supported by photos - Collaboration is a must - Belief that all related parties will get involved	- Educating people about the topic - Increasing financial funding - Joint regulations by the institutions and the specialists - Decreasing the price for entering into the touristic sites - Restorating without giving harm to the originality, - Teams must be built to preventing the problems about restoration in advance - Employing voluntary and specialist people - Increasing the level of awareness - Being more cautious - Giving importance to individual responsibility projects - Adapting severe punishments like in Europe - Putting aside the negative and the positive sides of civil organizations - Suitable adjustments should be done about climate, volume conditions and external factors	- Support/Involvement - Thinking that the participation will be low - Social organs are insufficient - Everyone should be supported - Collaboration is good if it is taken seriously.

Table 7: The number of people who support the survey findings according to the key words and different formations

Key Words	Academicians (6 people)	Architects (5 people)	Engineers (5 people)	Archaeologists (1 person) and Art Historians (4 people)	Tourism students (9 people)	Architecture Students (8 people)	Tourist Guides (4 people)	Agents related to Cultural tourism (8 people)	TÜRSAB (2 people)	Municipalities (Cultural Units) (4 people)	Domestic and Foreign Tourists (20 people)	Total (77)	%
Preservation of cultural assets in conformity with the Original	2	5	6	1	5	0	3	1	2	1	14	40	% 52
Not conserving culture	1	0	0	1	7	5	2	2	0	1	4	23	% 30
Do nothing if it is done erroneously	1	2	1	0	0	0	0	0	2	1	1	8	% 10
Incapability of showing the same attention the each art piece	0	0	0	1	1	0	1	1	2	0	2	8	% 10
Complaint — To the periphery	1	0	0	0	0	1	0	0	0	0	1	3	% 4
To the work site	0	1	1	2	0	0	0	1	1	1	0	7	% 9
To the authorized units	5	2	2	5	5	8	3	5	2	1	17	55	% 71
To the social media	3	2	2	0	5	2	0	0	0	2	5	21	% 27
Forming a public opinion	3	0	6	2	3	2	0	8	2	1	1	28	% 36
Not taking the complaints into account	0	0	1	1	0	2	4	1	1	1	8	19	% 25
Raising awareness by education — Family	0	1	1	0	0	0	2	1	2	0	2	9	% 12
Curriculum	0	2	0	1	0	0	0	1	2	0	0	6	% 8
School	1	0	1	1	0	0	0	2	0	0	0	5	% 6
Making aware	3	3	6	1	2	1	1	5	2	4	16	44	% 57
Restoration Works done unconsciously	3	1	0	1	0	0	0	0	0	1	5	11	% 14
Specialization	3	1	2	5	3	1	1	2	2	3	3	26	% 34
Interdisciplinary work	1	1	0	1	0	0	1	1	2	1	2	10	% 13
Increasing the number of personnel	0	1	0	1	0	0	1	0	2	1	0	6	% 8
Legal Sanctions	0	2	0	1	0	1	0	1	2	0	1	8	% 10
Generation/Future/Tomorrow	1	1	3	5	0	2	2	3	2	1	1	21	% 27
Opening to use or visit	2	2	0	1	0	0	0	0	2	0	0	7	% 9
Inaction/uninterested/no reaction	1	0	0	0	2	2	0	2	0	2	3	12	% 16
No feedback/irrevocable	0	3	1	2	0	0	0	0	0	0	4	10	% 13
Why/who/reason for bad condition	0	1	1	0	0	0	0	0	1	1	1	5	% 6
Auditing/Control/Mobile team/ Building police	0	2	0	1	0	2	1	0	2	2	2	12	% 16
Everybody/Society/Public/Whole	0	3	6	4	5	3	2	8	2	4	16	53	% 69
Economy/Rent/Revenue	2	2	0	0	1	0	0	0	2	0	1	8	% 10
Involvement/Support	4	5	6	5	8	8	4	7	2	4	15	68	% 88
Feeling when faced with deficiencies — Sorrow	4	2	4	5	4	2	3	5	2	3	12	46	% 60
Anger	3	0	0	2	2	2	1	0	0	0	2	12	% 16
Anxiety	1	1	2	2	2	1	0	1	2	0	6	18	% 23
Loss of trust	4	0	1	0	1	0	0	1	0	1	0	8	% 10
Photos and e-mails viewpoint (positive)	6	4	6	5	8	6	4	7	2	2	15	65	% 84
Photos and e-mails (negative or zero effect)	2	1	0	0	1	2	4	1	0	2	2	15	% 19
Viewpoint to the platform (positive)	7	4	6	5	8	7	4	7	2	3	15	68	% 88
Viewpoint to the platform (negative or zero value)	0	1	0	0	1	1	4	2	0	1	3	13	% 17
Monetary and moral support (individual or institutional)	1	1	1	1	2	2	1	1	2	1	2	15	% 19
Planning (Macro/Micro scale)	4	1	0	0	0	2	0	0	2	1	0	10	% 13
Announcing to the public about the platform or the Project	0	1	6	0	2	3	2	3	2	1	0	20	% 26
Stress to detect art pieces/problems	0	2	0	0	0	0	0	0	2	0	0	4	% 5
Decreasing red tape/flexible structure	0	0	2	0	0	0	0	0	2	0	0	4	% 5

The concepts of education, family and curriculum are evaluated together and it is seen that 26 % of the participants declared their ideas that efforts should be made to raise consciousness about protecting cultural assets beginning from the early periods of the childhood. On the other hand, another noteworthy point is that new legal regulations should be made; legislation, law and accords are determined as the key words. Accordingly, 10 % of the participants emphasized that new legal regulations should be passed.
%27 of the participants pointed out that it is important to transmit the cultural assets to the next generations. It is notable that this aspect is alluded by all participants from all formations except tourism students.

Again, when we take into consideration the protection of cultural assets and the concepts of living, using, effective using are used as key words, 10 % of the participants expressed their opinions that it is easier to protect the "living museums" which are already in use.

It is found out that there are four different ways in which the participants could complain about deficiencies; social environment, worksite, officers and social media. Most notably, 71 % directly make their complaints to the staff authorities or officers and 27 % shares their ideas in the social media. Hence, 34 % emphasized that specialized officers should be charged and 13% emphasized that interdisciplinary work was needed to protect cultural assets.

The individuals who participated the survey have different interpretations about protection of cultural assets. 31% have raised concern about enhancing awareness, 22 % pointed out that the restoration should be made according to the original, 9 % declared that the art pieces should be protected and opened to tourism , 3% proclaimed that the protection of cultural assets was improving moderately, 6 % told that the restoration should be made elaborately, 4 % have presented their ideas about taking necessary precautions, 13 % declared that the errors made are irrevocable and 9 % believes that the art pieces which loses their originality would lower their importance.

The participants adhere special importance to restoration but point out that restorations should be implemented sensibly. 14 % put forward that the restoration work being implemented were not consciously done, 57% raised concern about enhancing society-wide awareness as much as increasing the awareness of the practioneer.

10 % told that the cultural assets benefit us as a way of increasing monetary earnings but this reality brings a disadvantage when the restoration work is done hasty.

When the participants are asked about what they would feel when they face impediments. 60 % told that they would feel sorrow, 16% would feel anger, 23 % would feel worried about next generations, and 10 % would feel less trusted to the related institutions.

When we examine the responses given to the main questions in the survey, the participants who look positively to the construction of a platform constitutes 88% of the total participants, 17% think that they will not be paid attention. With respect to giving support to the platform by taking photos and sending mails, 84% look positively.
69 % of the participants think that the society-wide concern should be raised and 26 % thinks that even if such a project realizes, this should be announced publicly by making use of public spots and advertisements. As a result, 88 % of the participants state that they would be willing to support such a platform.
According to these results;

"*Prediction 1:* There is a positive relation between collaborative approaches of individuals and their willingness to share knowledge." the prediction is supported. According to table 7; 88% of participants' attendance and support of the platform is understood to show positive cooperation, in case of 84% of the participants, encountered these complaints, have declared their willingness to share knowledge.

"Prediction 2: There is a positive relation between individuals social formations and their attitudes for knowledge sharing." the prediction is unsupported. According to table 6 and 7; participants share the knowledge of professional or social formation is understood that the primary influence attitudes. Viewed across a complaint, 16% of participants academics, 23% of students and agencies, and domestic and foreign tourists by displaying attitudes of inertia by 15% stated that they would not have any knowledge to share behaviour. Basis of the all participants, it is understood that they exhibit the attitude of 16% of share knowledge.

"Prediction 3: There is a positive relation between sensitivities of individuals about cultural assets and their attitudes for sharing knowledge." the prediction is supported. According to table 6; according to the questions asked in order to observe the awareness on the protection of the cultural heritage of the participants, 99% of which are understood to be concerned about or show sensitivity on this issue. When analysed to table 7; 84% of these participants, across a complaints, it is seen that they said they would demonstrate the attitude of sharing knowledge.

CONCLUDING COMMENTS

In line with the literature, the survey participants state that the level of joining the voluntary projects and organizations depends on the level of loyalty and trust among the individuals and interest groups. Hence, in order to form social capital, creating a trustworthy environment is primarily important. In such a trustworthy environment, the individuals would feel that they are taken seriously when they explicitly tell their experiences. The participants state that if such a project would be realized, then social platforms, media and advertisements should be used to inform the society in depth about the project's importance. Kaplan and Norton take into account the concept of intellectual capital in four dimensions as financial, client, process, learning and growth (Bontis, 2007). In the parallel vein, knowledge sharing related to cultural assets can be dealt with in the learning and growth dimensions. It is thought that if the people share knowledge then the growth would occur and consequently this would be beneficial for increasing international competitiveness to protect cultural values.

Departing from a common point of all these inferences, we can explain intellectual capital with human, relational and structural. As the tacit knowledge depends on transmitting experiences and this process is too hard, by making use of photos, knowledge can be more clearly generated. By the usage of such a system and supporting it with photos, it is aimed to increase the social sensitivity employing specialised personnel is also an important concern.

In the model, the willingness to share knowledge is measured by the benefits acquired. The benefits are inheriting the cultural values to the upcoming generations and protecting cultural heritage. These benefits form the reward consequently. One of the most important points which attracted attention in the study, are the responses given to the questions which involves a quartet of the concepts - thinking, feeling attitude and action- which are thought to be in consistency with each other. Some participants tell that they will not take action even if they feel sorry. Some other participants tell that they will take action even if they do not feel sorry. Hence, in an ignorable part of the participants, there is the inconsistency.

In parallel with this idea, the results show that there is a positive relation between the people's sensitivities about cultural assets and their knowledge sharing. On the other hand, it is also shown that there is positive relation between the individuals' occupational and social formations and their attitudes to share knowledge. There is positive relation between individuals' willingness to share knowledge and their collaborative approaches. This hypothesis is also accepted.

The findings show that the people's willingness to share knowledge increases whenever they are given opportunity for a platform and they take positive feedbacks. Henceforward, this will also contribute to the formation of social capital. Most importantly, the institutions should use this social capital effectively. Another point is that there is more need for additional personnel for improving collaboration and control. In the light of the solution proposals received from the survey participants, a Geographical information systems (GIS) can be developed based on remote servers in distinct geographical locations. In that way, any art piece can be questioned in the local area in which it is positioned and by means of visual screening and information sharing, there will be a great contribution to the efforts made towards protecting and promoting cultural assets and hence to tourism industry finally.

REFERENCES

Barutçugil, İ., (2002), 'Bilgi Yönetimi', İstanbul: *Kariyer Yayınları,* s.72.
Bontis, N., (2007), Managing Intellectual Capital, Int. J. *Knowledge and Learning,* Vol. 3, Nos. 2/3

Hsing, L. C., Tingko, L. (2015). Academic One File, Promoting Entrepreneurial Orientation Through The Accumulation Of Social Capital, And Knowledge Management. International *Journal Of Hospitality Management.* V. 46, P138, 13

Huang R, Kim H, and Kim J, (2013). Intellectual capital in QQ China: Impacts on virtual engagement of knowledge seeking, interaction sharing, knowledge creating, and purchasing intention, *Journal of Marketing Management,* Vol. 29, Nos. 3–4, 292–316

Jianbin, C., Yanli G., and Kaibo X., (2014). Value Added from Knowledge Collaboration: Convergence of Intellectual Capital and Social Capital. International *Journal of u- and e- Service,* Science and Technology Vol.7, No.2 pp.15-26

Jungwoo L, and Seyoon B. (2015). Social Capital With Knowledge and Communication in Knowledge Systems Development Projects International *Journal of Project Management.* Vol. 33 Issue 4, P797-807.

Kim, Y.,Bock, G., (2002), Breaking the Myths of Rewards: An Exploratory Study of Attitudes about Knowledge Sharing, *Knowledge Resources Management Journal*, Vol.15, No.2, ss.1112-1125.

Kroeber, D., (1982), Management Knowledge Systems, *The Free Press,* New York, s.9.

Langeroodi I., S.,. (2014). The Effect Of The Knowledge Management And Intellectual Capıtal On Organızatıonal Performance In State Banks Of Rasht. Indian *Journal of Fundamental and Applied Life Sciences,* Vol. 4 , pp. 1393-1404

Lee, L.L. (2003). Knowledge Sharing Metrics For Large Organisations, Knowledge Management: Classic And Contemporary Works, Cambridge: *MIT Press.*

Li, H.Z. (2001). Communicating Knowledge İn Conversations: A Cross Cultural Comparison, *International Journal Of Intercultural Relations*, Vol. 23, Pp. 387-409.

Nonaka, I, Takeuchi, H., (1995), 'The Knowledge-Creating Company, New York: *Oxford University Press*

Nonaka, I. (1999) The Knowledge-Creating Company: How Japanese Companies Create The Dynamics Of Innovation, *Oxford University Press,* New York.

North, K. (2008) . Knowledge Management: Creating Value Through Knowledge, Wiesbaden.

Polanyi, M. (2007) . The Tacit Dimension, Doubleday & Company Inc. Reprinted.

Schein, E. (2006) Organisationskultur - The Ed Schein Corporate Culture Survival Guide, Bergisch-Gladbach. To The Transfer of Best PracticeWithintheFirm', *Strategic Management Journal*, Vol.17

Şahin, M. ve Diğerleri,(2002),'Yönetim Bilgi Sistemleri, *Anadolu Üniversitesi Yayınları*, Eskişehir

Wang, S., (2005), To Share or Not to Share: An Examination of the Determinants of Sharing Knowledge Via Knowledge Management Systems, The Ohio State University,s.61.

Welch, D.E., (2010), The Importance Of Language İn International Knowledge Transfer, *Management International Review,* Vol. 48, No. 3, Pp. 339-360.

Wilkins, L., Yuecheng, Y., Ma, W., (2004), Developing an Instrument for Measuring Knowledge Sharing Attitudes*, Innovations Through Knowledge Technology*, Idea Group Inc., ss.272-276

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LEADERSHIP BEST PRACTICES AND EMPLOYEE PERFORMANCE: A PHENOMENOLOGICAL TELECOMMUNICATION INDUSTRY STUDY

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ABSTRACT

This phenomenological study explored leadership best practices among senior managers at a major telecommunications organization to determine the perceived effects that such routines had on actual employee performance. The study took place in Southern Georgia in the United States from January 16 to February 18, 2014 and involved ten selected managers who held the role of customer service manager for a minimum of 2 years and were identified as a top performer based on the ranking and rating reports from the organization's data. Participants identified employee-oriented perspectives on leadership, performance, process, learning, training, and development as key factors in improving follower performance. It was determined that leaders should create a working environment where there is increased employee engagement and participation; communicate goals, gain employee understanding, and apply communication styles that fit the need of each employee at all levels; identify and plan opportunities of growth for employees through training and development; recognize the importance of personally engaging with their employees; and, understand the importance of having regular meetings to update employees about new products and services.

JEL: M10, M12, M15, M53, M54

KEYWORDS: Telecommunications; Leadership; Best Practices; Employee Engagement; Training; Employee Performance; Training

INTRODUCTION

Employees are valuable assets of an organization and the leaders of profitable companies place a high premium on increasing employee performance levels (Leigh, 2009). Leadership best practice are a powerful way to enhance individual growth and development, customer experience, employee performance, and organizational productivity (McNeese-Smith, 1996). Examining gaps between employee performance and leadership best practices assist organizations in developing a partnership for improving employee commitment, job satisfaction, and ultimately, organizational performance through best practices and consistency in leadership (Keiu, 2010). Having employees operate at their highest level of performance is of paramount importance to 21st century organizations (Drucker, 1999). Leaders provide direction, leading by example, maintaining appropriate tools for process measurement, and creating a high level of credibility as time progresses (Kouzes & Poster, 2002), influencing employee performance. Leaders motivate employees by encouraging them to contribute ideas, which results in a fulfilling and enriching work environment (Khaliq, 2001). This study focused on the best practices of leadership and its effects on employee performance at a major telecommunication company in southern Georgia in the United States. Primarily, the study sought to discover the findings of role model leaders in that organization and how exhibiting such exemplary behaviors might affect employee performance. This paper presents the development of a rational model of inquiry starting with a thorough review of current literature in the field. The authors then put forward the methodology and data collection aspects of their research, concluding with a thorough analysis of what they discovered and offering recommendations for future inquiry into the subject matter.

LITERATURE REVIEW

Leadership styles for many years were consistent with McGregor's human motivational theories of Theory X and Theory Y. The leader who advocate one of the two extremes based on their management viewpoint. The leader's role, according to Theory X, is to forcefully control their employees by portraying them in a negative light where they are seen as disliking work, being lazy, and tending to avoid work whenever possible. In contrast, the Theory Y represented the notion that employees enjoyed working, were not lazy, and were motivated and developed their potential to perform their task (McGregor, 1960). These two notions on motivation lasted for about 20 years when Blake and Moulton (1985) proposed that a leader with a high concern for production often demonstrates an autocratic leadership style. The autocratic leader retains all authority, dictates how work should be perform, and makes decisions without gathering input from others. The autocratic leader discourages employee participation. In contrast, leaders with a high concern for people often demonstrate a democratic style. The democratic leader involves employees in decisions affecting them, delegates' authority and tasks, encourages employee input, and uses feedback as an opportunity for performance improvement.

As theorists started mulling over what motivated employees, Goleman (1994) suggested the beginnings of what would become emotional intelligence. According to Goleman, there is a reciprocal relationship between the work environment, leadership style, and employee performance. In this reciprocal relationship Goleman asserts five key factors: (a) a work environment where employees can be creative and innovative, (b) performance feedback, (c) recognitions and rewards valued by employees, (d) mission and goals explained to employees, and (e) employees committed to the vision of the organization.
Best practices are behaviors adopted to fit a particular organization to produce superior results (Ashton, 1998). According to Idris and Ali (2008), organizations can adopt the best practices of top performing leaders and employees and use them as an advantage to assist low and medium performers raise their performance and operate at a higher level of their capacity by implementing many of the common factors or best practices used by the top performing employees in their organization.

Organizations must increase their reliance on employee involvement and improved relationships as their success depends on the firm's ability to build and harness employee skills and knowledge (Bass & Avolio, 1994). According to Drucker (1999), to increase knowledge–worker performance and productivity, there are six factors leaders must reinforce: (a) create a workplace requiring constant learning, teaching, and growth; (b) clarity on the exact task to be accomplished; (c) provide attention to the quality of work done by employees; (d) the autonomy to have employees handle their own performance concerns; (e) design a work environment for creativity and innovation; and (f) treat employees as intellectual assets and not simply a cost to the business. Richman, Civian, Shannon, Hill, and Brennan (2008) suggested employee engagement refers to an increase in the intellectual and emotional commitment an employee expresses towards their job, manager, or organization, resulting in the employee exerting additional work. Organizational leaders must make employee engagement an ongoing best practice and prioritize their approach in handling any problem areas to ensure improvement in employee engagement. The best practices include maximizing leaders capabilities, leadership being engaged, leaders understanding how to help their team members, a good picture of what full engagement looks like, leaders being accountable for the coaching and development of their employees, and making sure employees know how they can contribute to the success of the organization (LaBarbara, 1999)

Employee full engagement is hard to sustain; however, it is important to nurture, recognize, train, and develop employees. When employees are involved and engaged in the decision-making process they will know what they do well and keep doing their job with confidence (Strom, 2010). Conversation with the employee is the most effective way to provide feedback on performance, allowing the generation of new ideas and increasing personal satisfaction and business results. This will also prevent a misunderstanding

and build trust in the engagement process, helping employees understand the direction the organization is going and their role in the process (Wallace & Trinka, 2009). Leadership best practices in the telecommunication company are when leaders establish measurable, realistic, specific, and timely goals to improve employee performance and assist in achieving improved team results. Goals are important since they provide the areas of attentiveness and focus to which performance improvements are required (Snow & Hrebiniak, 2002). Three factors for improving employee performance are (a) committed employees who are motivated to achieve key performance measures, (b) identification of progress and resources needed to achieve goals, and (c) raising employee performance and organizational productivity by building a learning organization (McNeese-Smith, 1996).

Herzberg, Mausner, and Snyderman's (1959) motivation theory identified factors such as the task or job design as satisfiers or motivators. The motivational theory is based on tasks specific to enhancing and motivating employees (Ramlall, 2004). Having an understanding of the various aspects of employee behavior can assist leaders in building a sense of worth, improving communication and self-esteem, and increasing employee performance (Covey, 2006). The daily task (job) performed and the assignment of the task to employees can influence their performance, motivational levels, and organizational productivity (Davis, 2010). The leader is the most likely the source of positive feedback or reinforcement toward employees for performing well (doing a great job) (Schull, 2010).

Employee morale results from a positive or negative attitude held by an individual, their attitude toward their job, and the organization the perception of a leader. Improving morale is dependent on how organizational leaders communicate and establish strategies. Included in this are the manner in which they appraise their leadership styles and the employees, assist in balancing their employees' work and life, promote a team-oriented environment, and how individuals are hired and positioned in the organization (Enos, 2000). The morale of an employee is a powerful indicator for the health and productivity of an organization; hence, the challenge of leadership is to maintain and sustain the morale of employees (Brode, 2012). Understanding employee turnover is of great importance and is especially evident when a rival is attempting to hire high performing employees. According to Hom and Kinichi (2001), a high turnover rate can negatively affect the performance of an organization. Hence, identifying the reasons for employees' intention to leave provides an opportunity to predict turnover behaviors and implement measures to prevent or reduce turnover. A leaders' behavior can encourage or influence employees to exit the organization. Firmand (2009) made reference to inadequate training in leadership in the areas of personnel management and the adoption of a transformational approach as factors creating an imbalance for handling the task and the people being led.

Organizational culture is a set of norms, beliefs, and shared values dictating how organizational members interact with each other, as well as with external stakeholders (Jones, 2011). While some suggest the leader creates the culture (Schein, 1985), others argue the actors in the organization are the ones responsible for creating the culture (Lakos, 2007). Corporate culture works toward distinct ends and cross-cultural communication differences include languages, meaning, myth, and value of the culture (Hill, 2005). Leaders need to be sensitive to these barriers to effectively prepare their teams to improve communication in a cross-cultural environment (Fang, 2011). Understanding cross-cultural communication and enhancing skills can affect many facets of behavior and reduce cross-cultural obstacles. Knowing how to communicate helps reduce noise and enhances encoding and decoding of communications (Francesco & Gold, 2005). Leadership must be sensitive to cultural differences and language barriers as difficulties can arise when communicating, especially when the conversation is via technology. A collective capability is required to get the necessary performance out of a cross-cultural team when its members are operating from different levels within their respective organization's hierarchy (Kirkbride, 2006). Empowerment is characterized by decision-making and providing employees the power to carry out the job their position demands (Carson & King, 2005). Empowering employees gives them a sense of ownership and belonging, motivating them and reducing their intentions to leave the organization. Empowering employees combined

with transformational leadership practices will fuel the interest of employees as this type of leadership is less task-oriented and more people-oriented, thus creating a balance to generate positive results to the organization's bottom line (Mobley, 1977).

According to Sonnenberg, Bas, and Jaap (2011), empowering employees is significantly important for any organization seeking to develop and improve overall productivity and performance. Empowerment involves investing legal power unto another person and properly providing a perpetually positive personnel performance. Although empowerment is positive, the key to empowerment is the proper preparation and development of subordinates, including appropriate training for the employees; allowing sufficient time to complete the task; ensuring the task is fully understood and give time for questions; providing guidance when requested; monitoring the progress of the task; and evaluating and providing feedback in concert with holding the employee responsible for the results of the task completed (Sonnenberg, et al.).

DATA AND METHODOLOGY

This study utilized a qualitative, phenomenological research design using open-ended interviews as the premise for data collection, theory generation, observation, and content analysis (Lim, 2008). Leadership best practices and how they affects employee performance was explored using a sample of 10 high performing leaders at the customer service department of a telecommunication company in southern Georgia. This phenomenological study was used to better understand how leadership best practices may influence employee job performance for the organization, helping to transform and modernize the industry (Bennis, 2007).As a means of assessing the sample and allowing a detailed qualitative analysis, demographic information including age range, gender, and years' experience as a customer service manager was collected during the interview process. Discussions of the demographic and professional information are shown in Tables 1, 2, and 3. The age ranges considered in the study were 18-25, 26-35, 36-45, and 46+. Table 1 shows that no participants were in the lower 18-25 age range. Three participants (30%) were 26-35, five participants (50%) were 36-45, and two participants (20%) were 46 or over.

Table 1: Distribution of Study Participants by Age

Study Participant	Age Range	Study Participant	Age Range
P1	46+	P6	26-35
P2	36-45	P7	36-45
P3	26-35	P8	26-35
P4	36-45	P9	36-45
P5	46+	P10	36-45

Table 1 illustrates the participants' age. N=10

The role of those interviewed was typically a medium level position in large organizations. While the majority of participants were male, as Table 2 shows females were well represented.

Table 2: Distribution of Study Participants by Gender

Gender	No. (% of Total)
Female	3 (30%)
Male	7 (70%)

Table 2 illustrates the gender classification for the participants. N=10

This study involved open-ended interviews with 10 participants who were top performers and had direct experience in the telecommunication company being studied. The population was drawn from a diverse group of customer service employees in the customer service department who had at least two years of experience.

According to Creswell (2005), normal sample size for a phenomenological studies range from 5 to 25 participants. Within the population, sampling is a crucial factor (Neuman, 2006). One important sampling criterion used in this study was that the participants had been recognized for their best practice performance. All participants were required to have at least two years of experience to participant in the study. Participant experiences in a leadership role ranged from 3-16 years, with a mean of 10.2 years. In analyzing the data, experience was divided into three ranges, 3-6, 7-10, and 11-16. As shown in Table 3, most of the participants had considerable experience, with only 30% having 3-6 years, while 70% had 7-16 years of leadership experience.

Table 3: Distribution of Study Participants by Years of Experience

Work Experience (Years)	Number of Participants	Percent of Total
3 – 6	3	30%
7 – 10	3	30%
11 - 16	4	40%
Total	10	100%

Table 3 illustrates the years of experience classification for the participants. N=10

To ensure the validity of the study, a pilot study with two participants was conducted to obtain feedback regarding the effectiveness of the one-on-one interview process and the clarity of the interview questions. The data from the pilot study interviews was not included in the results, but provided an opportunity to improve the clarity and reliability of the survey questions, as well as enhance the validity of the study (Neuman, 2006). Based on the feedback from the pilot study, insignificant modifications were made to the research question, allowing it to be more specific. Minor rewording of the interview questions improved their clarity, allowing the participant to more directly answer the questions. The finalized version of the interview questions is provided in Appendix A.

In-depth interviews with open-ended questions lasted 45-60 minutes with the questions providing a semi-structured format of the 10 respondents regarding their perception of leadership best practices and employee performance. The purposes of the questions were to obtain information about their lived experience for the research. Information obtained included the perception and feeling of the respondents as indicated through their responses to the interview questions. Data was subsequently analyzed by the process of comparison, categorization, and grouping of data and results compared with data gathered from literature review. NVivo10® qualitative data analysis software tool facilitated the analysis of the data in the study. The data analysis began upon completion of the data collection process and submission of the finalized interview transcripts. To ensure anonymity, an identification code was given to each study participant (P1 to P10) to assist in determining responses in place of using the actual name of the subject, which also provided the authors the ability to distinguish the results while maintaining confidentiality. Responses were obtained from face-to-face audio digital recorded interviews, which occurred between January 16, 2014, and February 18, 2014.

RESULTS AND DISCUSSION

The narrative data were analyzed, and themes pertaining to leadership best practices emerged regarding the viewpoints of the 10 senior level workers in this Southern Georgia telecommunications organization. The themes that emerged from the interviews reflected a managerial leadership framework that aligns with the balanced scorecard perspective of organizational performance (Kaplan & Norton, 1996). Emergent themes were classified as major or sub based on the number of references from the interview process coded to the theme. The major themes centered around four major areas. Employee-oriented perspective of best leadership practices. Performance perspective of best leadership practices. Process perspective of best leadership practices. Learning and growth perspective of best leadership practices.

The major research question addressed is: What are the perceptions of leaders/managers of the telecommunication company in southern Georgia regarding leadership best practices and their experience of how these practices affect employee performance? As shown in Table 4, four sub-themes emerged from the responses of the data collected during the study interviews: support, recognition, empowerment, and relationship. These themes suggested human resources management processes managers pursue to increase employee motivation and performance.

Table 4: Themes on Employee-Oriented Perspective of Best Leadership Practices

Major Theme	Sub Themes
Employee-oriented perspective of best leadership practices	Support
	Recognition
	Empowerment
	Relationship

Table 4 illustrates the themes of employee oriented best practices.

The first major theme was the employee oriented perspective of best leadership practices. This theme was evident in the narrative through 114 counts (32.9%) and referenced the variety of human resources practices that managers pursue in support of employee productivity and organizational growth. Of the sub-themes, participants mentioned support 10 times (2.8%), recognition 15 times (4.3%), empowerment 6 times (1.75%), and relationship 10 times (2.9%). As shown in Table 5, 80% of the participants indicated support and recognition formulated the major aspect of employee-oriented perspective of best leadership practices. This was followed by 40% of participants supporting the importance of empowerment and relationships. The sub-themes provide important strategies for improving employee performance through leadership best practices.

Table 5: Theme 1: Employees-Oriented Perspective of Best Leadership Practices

Sub-Themes	Participants Indicating Sub-Theme	Percent of Participants	References by Participants
Support	P1.6; P2.6; P4.8; P5.6; P6.8; P7.6; P9.6; P10.6	80%	10
Recognition	P1.10; P3.10; P4.10; P5.10; P6.10; P7.10; P8.10; P9.10	80%	15
Empowerment	P2.11; P7.9; P8.9; P10.9	40%	6
Relationship	P1.10; P3.6; P4.6; P10.9	40%	10

Table 5 illustrates the themes of employee oriented best practices indicating the participant and the interview question, e.g., P1.6 was the response from participant P1 to interview question #6. N=10

The major research question addressed is: What are the perceptions of leaders/managers of the telecommunication company in southern Georgia regarding leadership best practices and their experience of how these practices affect employee performance? The performance perspective of best leadership practices focuses on the processes regarding how success includes the investments in its employees to improve employee performance and productivity levels through leadership best practices, which in turn will contribute to organizational growth and profitability. As shown in Table 6, two sub-themes emerged from the responses of the data collected during the study interviews: performance-oriented leadership behavior and goal-oriented leadership behavior. These sub-themes focused on the processes regarding what is required to improve employee performance and assist in achieving improved team results.

Table 6: Themes on Performance Perspective of Best Leadership Practices

Major Theme	Sub Themes
Performance perspective of best leadership practices	Performance-oriented leadership behavior
	Goal-oriented leadership behavior

Table 6 illustrates the themes of performance perspective of best leadership practices.

The second major theme was the performance perspective of best leadership practices. This theme was evident in the narrative through 85 counts (26%) and referenced the importance of ensuring that employees bought into the vision, being a change catalyst, and focusing on accountability. Of the subthemes, participants mentioned performance-oriented leadership 25 times (7.2%) and goal-oriented leadership 24 times (6.9%). As shown in Table 7, 70% of the participants mentioned focusing on the performance oriented best leadership practices with 60% for the goal-oriented best leadership practices. The sub-themes provide important strategies for improving employee performance through leadership best practices.

Table 7: Theme 2: Performance Perspective of Best Leadership Practices

Sub-Themes	*Participants Indicating Sub-Theme	Percent of Participants	References by Participants
Performance-oriented leadership	P1.7; P1.8; P1.8; P2.4; P2.6; P2.12; P3.4, P4.5; P4.12; P6.4; P6.10; P8.5; P9.9	70%	25
Goal-oriented leadership	P1.4; P2.4; P3.4; P4.4; P4.11; P6.10; P6.12; P9.9	60%	24

*Table 7 illustrates the themes of employee performance perspectives of best leadership practices, The * indicates the participant and the interview question, e.g., P1.7 was the response from participant P1 to interview question #7. N=10*

The major research question addressed is: What are the perceptions of leaders/managers of the telecommunication company in southern Georgia regarding leadership best practices and their experience of how these practices affect employee performance. The process perspective of best leadership practices aims to identify the various processes to improve employee performance and assist in achieving improved organizational results. As shown in Table 8, two sub-themes emerged from the responses of the data collected during the study interviews: participative leadership behavior and communication leadership behavior. The participative approach involved including employees in the decision making process, leveraging employee skill sets and making a collaborative effort to acknowledge and celebrate employee success. The communication leadership behaviors focused on communication and ensure understanding and the accomplishment of goals.

Table 8: Themes on Process Perspective of Best Leadership Practices

Major Theme	Sub Themes
Process perspective of best leadership practices	Participative leadership behavior
	Communication leadership behavior

Table 8 illustrates the themes of process perspectives of best leadership practices.

The third major theme was the process perspective of best leadership practices. This theme was evident in the narrative through 52 counts (18%) and references identifying the various processes to improve employee performance and assist in achieving improved organizational results. Of the sub-themes, participants mentioned participative leadership behavior 18 times (4.5 %) and communication leadership behavior 22 times (6.3%).As shown in Table 9, the concepts of participative and involvement and good communication were both indicated as key by 60% of the participants. The sub-themes provide important strategies for improving employee performance through leadership best practices.

Table 9: Theme 3: Process Perspective of Best Leadership Practices

Sub-Themes	*Participants Indicating Sub-Theme	Percent of Participants	References by Participants
Participative leadership behavior	P1.10; P2.11; P3.9; P3.12; P4.6; P4.11; P5.11; P8.4; P8.11	60%	15
Communication leadership behavior	P1.8; P1.11; P2.8; P3.9; P4.9; P6.9; P8.9	60%	22

*Table 9 illustrates the themes of process perspectives of best leadership practices, The *indicates the participant and the interview question, e.g., P1.10 was the response from participant P1 to interview question #10.*

The major research question addressed is: What are the perceptions of leaders/managers of the telecommunication company in southern Georgia regarding leadership best practices and their experience of how these practices affect employee performance? The learning, training, and growth perspective of best leadership practices involved activities to develop employees and increase the competencies they need to achieve the objectives. As shown in Table 10, three leadership behavior sub-themes emerged from the responses of the data collected during the study interviews: training and development, learning, and performance appraisal. Training and development leadership behaviors involved activities to develop employees and increase the competencies they need to achieve their objectives and improve organizational results. Learning leadership behavior involved spending time to know employees; viewing they will work harder if you show them that you care about their growth and development and building confident employees who are self-motivated and have a desire to win. The performance appraisal leadership behavior focused on coaching; developing actions; planning to leverage employee skill sets; being a good teacher in improving employee knowledge; creating high confidence levels on the customer experience; and interacting, guiding, and developing employee.

Table 10: Themes on Learning, Training, and Development Perspective of Best Leadership Practices

Major Theme	Sub Themes
Learning, training, and development perspective of best leadership practices	Training and development leadership behavior
	Learning leadership behavior
	Performance appraisal leadership behavior

Table 10 illustrates the themes of learning, training, and development perspectives of best leadership practices,

The fourth major theme was learning, training, and development perspective of best leadership practices. This theme was evident in the narrative through 42 counts (12.1%) and referenced the importance of leaders spending time getting to know employees. Of the sub-themes, participants mentioned raining and development leadership behavior 10 times (2.9%), learning leadership behavior 11 times (3.2%), and performance appraisal 11 times (3.2%). Table 11 shows that 80% of participants indicated training and developing employees in having a *customer service mindset* was critical to enabling employees to get the job done, while establishing diversity from top-down and setting employees on a career development track. An equal 80% emphasized leadership behavior of spending time to know employees. Performance appraisal was also important, with 60% of participants noting the value of coaching, leveraging employee skill sets, improving employee knowledge, and creating high confidence levels. The sub-themes provide important strategies for improving employee performance through leadership best practices.

Table 11: Theme 4: Learning, Training and Development Perspective of Best Leadership Practices

Sub-Themes	*Participants Indicating Sub-Theme	Percent of Participants	References by Participants
Training and development leadership behavior	P2.5; P2.6: P2.11; P3.9; P3.12; P4.6; P5.6; P5.7; P5.8; P6.9; P8.9; P10.6; P10.9	80%	10
Learning leadership behavior	P1.5, P1.10a; P1.11; P2.9; P3.11; P3.12; P4.8; P5.12; P7.9; P9.4; P9.8; P10.7; P10.8	80%	11
Performance appraisal	P1.9; P1.10; P2.7; P5.12; P6.9; P7.6; P8.8	60%	11

Table 11 illustrates the themes of learning, training, and development perspectives of best leadership practices. The *entry indicates the participant and the interview question, e.g., P2.5 was the response from participant P2 to interview question #5. N=10*

CONCLUDING COMMENTS

Those in leadership positions within various telecommunication organizations may discover that the findings contained in the study can be used for the advancement of their organization and their leaders. The conclusions suggest a better way for leaders to lead people and get the most out of the experience. The results of the study extend the body of knowledge on best leadership practices. Six specific recommendations for leaders developed out of this study: Leaders should create a working environment

where there is increased employee engagement and participation. This will lead to greater employee decision-making ability and result in more productive employees who have a higher level of performance. Leaders should communicate goals, gain employee understanding, and apply communication styles that fit the need of each employee at all levels. It is imperative for leaders to make a collaborative effort to create an environment that fosters open communication with employees through coaching, guiding, and developing them. It is important for leaders to identify opportunities of growth for employees and plan execution through training and development. This will build confident employees who will be self-motivated and have a desire to win. Companies face escalating human capital needs and declining budgets; hence, the choice is to provide the training to build leaders or watch employees leave for other opportunities. A key factor for leaders is to know their employees.

They should connect with employees and stay engaged by asking pertinent questions, such as, how is everything going? How is your family doing? This builds awareness and shows that you care about their personal lives, as well as their success. Leaders must develop an interest in the human side of the employee by developing a comprehensive training and development plan that addresses the employee's career path objectives and positively impacts employee advancement and growth. This will lead to creating a balanced framework of best practices leading to employee productivity. It is important for leaders to have regular meetings with employees to update them and communicate about new products and services. Meetings open the gate to hear ideas and gain understanding of new products and address challenges. Leaders must exercise the behavior of being great listeners, students, and teachers. When leaders develop an attitude of oneness where they learn from the employee, as well as being a good teacher, it creates high confidence levels with employees to deliver on the customer experience and improve their knowledge and performance levels.

With companies facing cuts in profits and people based on economic conditions and an increased competitive environment, leaders in companies will need to re-focus and concentrate on leadership best practices to improve employee performance, retain the best talents, and allow companies to stay competitive and survive (Goolsby, 2009). The focus of the phenomenological study on leadership best practices and employee performance was limited to leaders in the telecommunications industry in the southern Georgia area. Further research that includes other geographic areas may prove beneficial to leaders. In addition, based on the results of this study, three areas would seem to offer valuable avenues for future research within the phenomenon of leadership best practices: A quantitative study on how best leadership practices can positively impact employee performance and improve organizational performance and productivity. Since leadership changes with growing trends and quality of employees hired, a qualitative study re-focusing on leadership best practices and employee performance could be re-visited, focusing on developing skills to meet organizational plans. A quantitative study on the success or failure of leadership best practices programs could be conducted to help leaders in other industries focus on programs/practices that improve organizational productivity while affording employees the opportunity to improve performance by developing their skills (Goolsby, 2009).

The results of the study provide a starting point for gaining a better understanding of the relationship between modeling such behavior and increasing employee performance within the customer service area of the telecommunications industry. A conclusion of the research findings is that when leaders create a work environment where there is employee engagement and participation through leadership best practice, the result is greater employee decision-making ability and in turn a more productive employee with a higher level of performance. From this point of view, organizations have an opportunity for success by promoting partnership with employees and working together to embrace excellence in performance, while promoting continuous organizational improvement.

APPENDIX

Appendix A
Interview Questions
Begin Study Participant # _____
Demographic Information – Section 1
Age:
18 – 25 _____
26 – 35 ____
36 – 45 ____
46 and over _____

Gender:
Male ____
Female ____

Number of Years as a Customer Service Leadership role: _____

Open-Ended Interview Questions – Section 2

What is your understanding of leadership?
How do you see leadership and how it is working in your organization?
What are some of your best leadership practices in managing employees?
What are some leadership practices that have a negative impact on your performance?
What are some leadership practices that have a positive impact on your performance?
What factors would improve employee-manager working relationship and build trust?
What factors would make you feel more appreciated at work?
What leadership style would make a difference in your organization?
How would this impact your performance?

REFERENCES

Ashton, P. (1998). *Managing best practices*. London, UK. Business Intelligence.

Bass, B. M., & Avolio, B. (1994). *Improving organizational effectiveness through transformational leadership.* Thousand Oaks, CA: Sage Publications.

Bennis, W. (2007). The challenges of leadership in the modern world. *American Psychologist, 62*(1), 2-5. doi:10.1037/0003-066X.62.1.2

Blake, R., & Mouton, J. (1985). *The new managerial grid*. Mumbai, India: Jaico Publishing.

Brode, A. M. (2012). *The leadership role in organizational morale: A case study*. Available from ProQuest Dissertations and Theses database. (UMI No. 3490498)

Carson, C. M., & King, J. E., Jr. (2005). Conceptual paper. Leaving leadership: Solving leadership problems through empowerment. *Management Decision, 43*, 1049-1053. Retrieved from http://www.emeraldinsight.com/loi/md

Covey, S. (2006). Servant leadership: Use your voice to serve others. *Leadership Excellence, 23*(12), 5-6. Retrieved from http://www.hr.com/en/topleaders/top_leaders_in leadership/

Creswell, J. W. (2005). *Educational research: Planning, conducting and evaluating quantitative research*. Upper Saddle River, NJ: Pearson Education.

Davis, L. A. (2010). *Ability of leaders to effectively communicate and influence employees' commitment to organizational goals*. Available from ProQuest Dissertations and Theses database. (UMI No. 3442742)

Drucker, P. F. (1999). *Management challenges for the 21st century*. New York, NY: Harper Collins Publishers.

Enos, D. D. (2000). *Performance improvements: Making it happen*. New York, NY: St. Lucie Press.

Fang, J. (2011). A study on pragmatic failure in cross-cultural communication. *Sino-US English Teaching, 8*(1), 42-46. Retrieved from http://www.davidpublishing.org/journals_info.asp?jId=1891

Firmand, S. M. (2009). *Employee turnover and cognition: A phenomenological study*. Available from ProQuest Dissertations and Theses database. (UMI No. 3381823)

Francesco, A. M., & Gold, B. C. (2005). *International organizational behavior* (2nd ed.). Upper Saddle River, NJ: Prentice Hall.

Goleman, D. (1994). *Emotional intelligence: Why it can matter more than IQ*. New York, NY: Bantam Books.

Goolsby, K. (2009, March 1). Tough economic times ratchet up need for investing in employee and leadership development services. *Outsourcing Center*. Retrieved from http://www.outsourcing-center.com/2009-03-tough-economic-times-ratchet-up-need-for-investing-in-employee-and-leadership-development-services-article-37391.html

Herzberg, F., Mausner, B., & Snyderman, B. (1959). *The motivation of work* (2nd ed.). New York, NY: John Wiley & Sons.

Hill, J. H. (2005). *World business: Globalization, strategy, and analysis*. Mason, OH: Thomson Southwestern.

Hom, P. W., & Kinichi, A. J. (2001). Towards a greater understanding of how dissatisfaction drives employees' turnover. *Academy of Management Journal, 44*(5), 975-981. doi:10.2307/3069441

Idris, F., & Ali, K. (2008). The impact of leadership and best practices on company performances: Empirical evidence from business firms in Malaysia. *Total Quality Management, 19*(1-2), 163-171. Retrieved from http://www.emeraldgrouppublishing.com/products/journals/journals.htm?id=tqm

Jones, A. (2011). *The role of servant leadership in establishing a participative business culture focuses on profitability, employee satisfaction and empowerment*. Available from ProQuest Dissertations and Theses database. (UMI No. 3450515)

Kaplan, R., & Norton, D. (1996). Using the balance scorecard as a strategic management system. *Harvard Business Review, 74*(1), 75-85. Retrieved from https://hbr.org/

Keiu, H. Q. (2010). *Leadership styles and organizational performance: A predictive analysis*. Available from ProQuest Dissertations and Theses database. (UMI No. 3442746)

Khaliq, A. (2001). Corporate leadership and workplace motivation in Malaysia. *International Journal of Commerce and Management, 11*(1), 82-101. Retrieved from http://www.emeraldinsight.com/journal/ijcoma

Kirkbride, P. (2006). Developing transformational leaders: The full range leadership model in action. *Industrial and Commercial Training, 38*(1), 23-32. doi:10.1108/00197850610646016

Kouzes, J., & Posner, B. (2002). *The leadership challenge*. San Francisco, CA: Jossey-Bass.

LaBarbara, B. (1999, May 1). A fully functional employee, the impossible dream? *Supervision, 52*(3). Retreived from http://www.supervisionmagazine.com/

Lakos, A. (2007). Evidence-based library management: The leadership challenge. *Libraries of the Academy, 7*(4), 431-450. doi:10.1353/pla.2007.0049

Leigh, R. S. (2009). *A correlation analysis of the leadership learning analysis associated with organizational profitability*. Available from ProQuest Dissertations and Theses database. (UMI No. 3353750)

Lim, E. (2008). A review of the literature pertaining to the relationship between leadership practices and employee turnover. *Consortium Journal of Hospitality & Tourism Management, 13*(1). Retrieved from http://www.highbeam.com/publications/consortium-journal-of-hospitality--tourism-management-p438457

McGregor, D. (1960). *The human side of enterprise*. New York, NY: McGraw-Hill.

McNeese-Smith, D. (1996). Increasing employee productivity, job satisfaction and organizational commitment. *Journal of Healthcare Management, 41*(2), 160-175. Retrieved from https://ache.org/pubs/jhm/jhm_index.cfm

Mobley, W. H. (1977). Intermediate linkage in the relationship between job satisfaction and employee turnover. *Journal of Applied Psychology, 62*(2), 237-240. doi:10.1037/0021-9010.62.2.237

Neuman, W. L. (2006). *Social research methods: Qualitative and quantitative approaches* (6th ed.). Boston, MA: Pearson Education.

Ramlall, S. (2004). A review of employee motivation theories and their implications for employee retention within organizations. *The Journal of American Business Review, Cambridge, 5*(1&2), 52-64. Retrieved from http://www.jaabc.com

Richman, A., Civian, J., Shannon, L., Hill, E. J., & Brennan, R. (2008). The relationship of perceived flexibility, supportive work-life policies, and use of formal flexible arrangements and occasional flexibility to employee engagement and expected retention. *Community, Work & Family, 11*(2), 183-197. doi:10.1080/13668800802050350

Schein, E., H. (1985). Defining organizational culture. In J. Shafritz and J. S. Ott (Eds.), *Classics of Organization Theory* (pp. 490-502). Fort Worth, TX: Harcourt College Publishers.

Snow, C. C., & Hrebiniak, L. G. (2002). Strategy, distinctive competence and organizational performance. *Administrative Science Quarterly, 25*(2), 317-336. Retrieved from http://asq.sagepub.com/

Sonnenberg, M., Bas K., & Jaap, P. (2011). Balancing HRM: The psychological contact of employees: A multi-level study. *Personnel Review, 40*(6), 664-683. doi: 10.1108/00483481111169625

Wallace. L., & Trinka, J. (2009). Leadership and employee engagement. *Public Management 91*(5), 10-13. Retrieved from http://icma.org/en/press/pm_magazine/current_issue

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RAPID RESPONSE CENTER FOR DISASTERS, INVENTORY MANAGEMENT IN SOUTHEASTERN MEXICO

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ABSTRACT

When a natural disaster occurs, the first minutes, hours, or days can be critical for the survival or welfare of those affected. Having a prepared disaster plan can help reduce stress and fear. This article addresses the type, quantity, and rotation of the necessary basic elements organized into survival kits to provide immediate help to the population that suffers effects of natural disasters. These kits are to be stored as inventory at strategically prepositioned Rapid Response Centers to attend to disasters once they strike. The forecasting process used to predict the future demand of affected people of natural disasters in southeastern Mexico is the Holt-Winters method, and the inventory operation mode of the Rapid Response Centers established is a Periodic Revision with Uncertain Demand. In addition, a proposed list of items is provided in order to be included in a light rapid response kit. This kit can be distributed to the affected population in the event of a flooding disaster and aid in the relief of the effects of such disaster.

INTRODUCTION

In this research, the use of aeronautical technology for rapid response, such as Vertical/Short Take-Off and Landing (VSTOL) vehicles, is a fundamental part that is subsequently, proposed for natural disasters. With this, it is intended to prepare a rapid response before and after a disaster, knowing the necessities of the affected population before a possible isolated state. Humanitarian relief operations involve various local and international organizations, host governments, as well as military and private companies. With the experience that these organizations have, and their logistics capacity, these organizations are able to provide everyday items, such as food, clothing, and medicine. As stated by Mulyono & Yoshiteru, the inventory or supply system plays a critical role in emergencies, including storing and managing essential items and providing them to disaster victims. Logistics operations and rate of consumption affect the inventory level (Mulyono et al., 2014).

Rawls & Turnquist (2009) establish the main objective of the emergency response activities as to provide assistance and shelter for the victims in the shortest possible time. To achieve this goal, several elements are essential, such as water, food, medical supplies, and survival equipment. An element of preparedness can be to maintain those items in strategic locations so that they are readily available when needed (Rawls et al., 2009). Garzón, Cruz, & Martínez (2015) stated that it is possible to locate Rapid Response Centers (RRC) in southeastern Mexico and that these can help serve in the case of natural disasters. The Weber facility location model was used to locate these first RRC taking into account Euclidean distances and

weights for each region. A Euclidean distance of 2.55 radians was the main restriction. This distance represents flying time from 45 minutes up to an hour and a half. According to Heli4Rescue (2014), VSTOL aircrafts may be utilized in situations of emergency. These aircrafts may have a small load capacity which will require the first RRC to maintain light inventory that can be distributed to affected people in a short amount of time (Garzón et al., 2015), (Heli4Rescue, 2014).

LITERATURE REVIEW

Humanitarian inventory control models can help to provide an appropriate response when there is a disaster. Due to the fact that this inventory does not "sell", no profit is obtained, and therefore this case is not treated like a traditional warehouse. Most likely, this inventory will be acquired with public resources (from the government), or from NGO's and foundations. Therefore, it is necessary to save as much as possible in ordering costs. According to Blanco & Groentzel (2006), prepositioning inventory in case of disasters has as an advantage the possibility to negotiate more stable and economic prices with suppliers. This allows for discounts on quantity or volume, and some discounts for season of purchase (referring to seasonality seeing that this inventory will be held more during the time of year that natural disasters tend to occur more frequently). Ozbay & Ozguven (2007) realized an investigation concerning humanitarian inventory control. They proposed a stochastic model for humanitarian inventory control for disaster emergency planning, which determined the minimal level of safety stock that would prevent disruption of the supply chain at a minimum cost.

The important factor is that there should always be sufficient supplies for distribution and consumption to happen simultaneously, and that these processes should be modeled as stochastic processes (Ozbay et al., 2007). Inventory management systems are useful to keep track of valuable information about quantity and quality of the inventory on hand. Chiang & Gutiérrez (1995) investigated a periodic review inventory system with two supply nodes, a regular mode and an emergency mode. When inventory positions get dangerously low relative to the demand anticipated, in this case projected natural disasters leaving affected persons, higher replenishment costs associated with faster delivery times in order to avoid unduly large shortages come into play (Chiang et al., 1995), but in humanitarian logistics these costs become secondary.

Items Needed

According to Hevia, Martí, & Martínez (2006), Abraham Maslow classifies the human needs in hierarchical order, being the first and most important physiological needs, which are the needs of calming quenching thirst and hunger, relieving pain, fatigue, and physiological unbalance, and satisfying sleep necessities (Hevia et al., 2006). For the purpose of this investigation, and based on these principles, the following five items are essential to survival: water, food, shelter, sleep, and pain relief.
Federal Emergency Management Agency (FEMA, 2014) suggests the following basic items for a preventive natural disaster kit:

Water, one gallon of water per person per day for at least three days, for drinking and sanitation.
Food, at least a three-day supply of non-perishable food.

Battery-powered or hand crank radio and a National Oceanic and Atmospheric Administration (NOAA) Weather Radio with tone alert and extra batteries for both.

A flashlight and extra batteries.

First aid kit.

Moist towelettes, garbage bags and plastic ties for personal sanitation.

Wrench or pliers to turn off utilities.

Can opener for food (if kit contains canned food).

Local maps.

In this research, some basic items of immediate assistance for the survival of victims in the event of a natural disaster are considered. Meet those needs a natural disaster kit has been considered. It is essential to maintain survival food in an accessible place outside your home and office in case of structural damage after a disaster, but not all people are so cautious. According to the Centers for Disease Control (CDC), in emergencies the water quality and water safety can be compromised. For this reason, tablets to purify water are necessary after the unexpected disaster that can contaminate the water supply. Vestergaard, an international company dedicated to improving the health of vulnerable people, has designed a portable water filter that converts contaminated water microbiologically into safe, clean drinking water. A first aid kit will contain adhesive plastic bandages, topics such as alcohol pads, antibiotic wipes, sterile gauze pads of different sizes, and an emergency thermal blanket to be used as emergency shelter by retaining body heat of the victims of the natural disaster. In summary, the proposed kit contains:

A emergency food bar.

Tablets to purify water, or a water filter, like Vestergaard LifeStraw, in order to purify dirty water.

First aid kit (adhesive plastic bandages, antiseptic topics, sterile gauze, and emergency thermal blanket).

As a result of the above, demand presented by the affected population is proportional to the amount of required emergency kits, thus with demand defined, it can be said that every emergency kit will be used by one person.

METHODOLOGY

The proposed outline consists in the administration of inventory in n RRC in case of natural disasters. With respect to the research of Cruz, Garzón, Chayban, & Martínez (2015), it is necessary to locate immediate help elements for populations affected by floods in the state of Chiapas in southeastern Mexico (Cruz et al., 2015). Further investigations by Garzón et al. (2015) suggest installing nine distribution centers in the southeastern Mexican territory. The elements that would be maintained are the survival kits already described in this paper. Due to the mission of the RRC, transformation processes will not take place. For this reason, these centers will be associated more towards a sales or services company. However, the objective of these centers is not to obtain profit, but rather to maximize attention towards the affected population, both in coverage and speed. Profit can be established as the quantity of the population attended, and even the speed at which attention was provided to affected people can increase that profit. Given the above, it can be inferred that monetary costs will be considered secondary. The cost of lacking material becomes the primary factor, while transportation, administration of inventory in transit, administration of inventory in warehouse, ordering, stock outs, and purchasing costs (discounts) also will become secondary once an emergency has struck, and only will be considered previously. Stock outs have a high cost, because in the event of a natural disaster, if aid is not provided, there will be a high quantity of affected people.

Forecasting
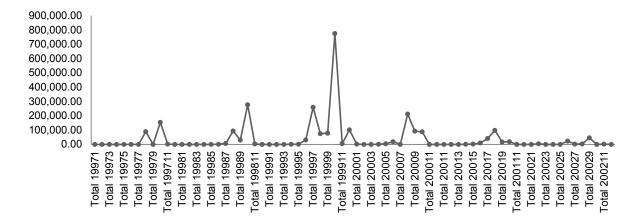
To be able to know how many kits will be need, some type of forecast must be obtained. As one person would use one kit, the amount of people affected by each event equals the amount of kits needed. Because of this, a forecasting method can be used to predict how many people would be affected in the near future.

Regarding forecasts, Jiménez, Vázquez, & Sánchez (2005), explain the predictive capacity using the methods Box-Jenkins and Holt-Winters. Holt-Winters is a classical decomposition method that can be broken down into the following components: a) tendency, b) cyclical factor, c) seasonality, and d) irregular component (Jiménez et al., 2005). This method is used when tendency and seasonality is presented, which can conveniently be applied to the preventive administration of natural disasters. Information on disasters is available through different sources. In this case, there exists a compilation from desinventar.org, a project held by the Colombian Osso Corporation, was consulted. From this database, a report on the flooding events in southeastern Mexico from 1970 to 2013 was obtained. Salas & Jiménez (2014) state that natural disasters or hydrometeorological phenomena tend to present a seasonal nature in the southeastern region of the country. As for the locations, the states calculated by Garzón et al. (2015) were also used. These were in alphabetical order: Campeche, Chiapas, Guerrero, Hidalgo, Morelos, Oaxaca, Puebla, Quintana Roo, Tabasco, Tlaxcala, Veracruz and Yucatan (Garzón et al., 2015).

RESULTS AND DISCUSSIONS

The graph in Figure 1 shows the tendency pattern of past events. Once the table had sufficient information, a clear seasonality pattern was determined.

Figure 1: Event and Affectation Pattern (Desinventar.Org, 2015)

According to Corres, García, & Zárate (2000), "forecasting, in logistics, includes the prediction of the demand with the objective of bettering the flow of information throughout the supply chain of companies, and therefore, will prepare the organization in the sense of technical, human, and financial means to support future operations of the company". It is important to make an adequate forecast of affected persons in emergencies to be able to maintain an appropriate level of inventory to distribute in these situations. One of the most known and used forecasting methods is that of Holt-Winters. An exponential smoothing method that considers seasonality and tendency and has a reliable precision. It is a qualitative time series method. However, Bermúdez, Segura, & Vercher (2007) observe that the estimation of unknown variables is a controversial question. Smoothing parameters are used to estimate these values and make a corrected smoothing adjustment.

The classic time series decomposition consists in decomposing the historical series within the various demand components, and from this, data realize the forecast (Corres et al. 2000). According to this method, Holt-Winters will be used to forecast the number of affected persons caused by natural disasters that occur in southeastern Mexico. If the RRC proposed by Garzón et al. (2015) will provide help as quick as possible, and if possible, each affected person will receive an aid kit initially, then the amount of people that can be affected by an event is the demand. The forecast obtained by the Holt-Winters method can be then an

aggregated demand. In the same document, Garzón et al. (2015) state roughly how many people would be served by each RRC. One way to benefit from a pooling method is by "aggregating the demand of all items in order to find the seasonal indices at the product family level and use these when making forecasts at the item level" (Ouwehand, 2006). Demand at an aggregate level is more predictable than at an item level and seasonality can then be separated from the randomness and helps to improve the estimates, which is known as the Group Seasonal Indices (GSI) and is a generalization of Holt-Winters. Thus, having an aggregated forecast and performing a disaggregation procedure on that forecast, results displayed in Table 1 are yielded. This forecast refers to the monthly number of affected persons of natural disasters in southeastern Mexico in the upcoming year.

Table 1: Forecast Obtained by the Holt-Winters Method

Month	Forecast - People Affected
Jan	7,850
Feb	310,529
Mar	594,388
Apr	23,643
May	7,723
Jun	280,508
Jul	500,290
Aug	17,338
Sep	52,561
Oct	193,001
Nov	354,514
Dec	17,554

The error level resulting from this Holt-Winters forecast was extremely high, 10,876%. A different method, the Holt method (Corres et al., 2000), was tested, concentrating on yearly data and discarding the seasonality; all 43 years found in the information from desinventar.org were used. Forecast results based on a yearly basis are displayed in Table 2. However, the error percentage for this model was still relatively high, 4901.52%.

Table 2: Forecast Obtained by the Holt Method, Yearly from 1970 To 2013

Year	Forecast - People Affected
2014	1,320,271
2015	1,367,115
2016	1,413,958
2017	1,460,801
2018	1,507,645
2019	1,554,488
2020	1,601,332

In order to reduce the error level, maintaining the same Holt forecast method and yearly forecast basis, a shorter time period of only 15 years was used. Results of the yearly forecast are shown in Table 3.

Table 3: Forecast Obtained by the Holt Method, Yearly from 1998 To 2013

Year	Forecast - People Affected
2014	1,320,272
2015	1,367,115
2016	1,413,958
2017	1,460,802
2018	1,507,645
2019	1,554,489
2020	1,601,332

With this model, the error level decreased to 729.92%. The data contained two peaks that can be considered atypical, in 2006 and 2012. If those two values are not taken into account, the average error level decreases further to 137.51%, which is the least of the three forecasts obtained. This consists in an average of 1,187,752 people affected annually, which is close to the actual forecast, but still lower. As the error level is below the forecast, we will recommend to maintain 100% extra inventory for preparedness. And the error level is within that limit, so this forecast was the one chosen. Historical data of affected persons by natural disasters in all of southeastern Mexico was obtained (desinventar.org), and then disaggregated into the RRC previously proposed, such that each RRC attends a certain percentage of the population. After obtaining an aggregated demand forecast of affected persons per month, then this demand will be disaggregated according to the percentage assigned to each RRC so that a demand per month is available off which inventory needs can be based.

Table 4: Risk Factor Percentages

Center	Risk Factor
C1	7.4224%
C2	0.0431%
C3	19.4377%
C4	10.3129%
C5	38.2683%
C6	8.2292%
C7	16.2700%
C8	0.0047%
C9	0.0117%

This table shows the results for the RRC according to the risk factor previously proposed by Garzón et al. (2015).

The application of disaggregation is characterized by two attributes: the population in case of a natural disaster and the percentage of service towards the population. Finally, the procedure verifies, through the means of an indicator that the sum of the corresponding loads of the aggregating unit coincide with the projected total. By simply multiplying the forecast by its factor, the disaggregated forecast was obtained.

Table 5: Disaggregated Forecast

Year	C1	C2	C3	C4	C5	C6	C7	C8	C9
2014	97996	569	256630	136158	505246	108648	214808	62	154
2015	101473	589	265736	140989	523172	112503	222430	64	160
2016	104950	609	274841	145820	541098	116357	230051	66	165
2017	108427	630	283946	150651	559024	120212	237672	69	171
2018	111903	650	293052	155482	576950	124067	245294	71	176
2019	115380	670	302157	160313	594876	127922	252915	73	182
2020	118857	690	311262	165144	612803	131777	260537	75	187

This table shows the results of the forecast of affected persons that should be attended by each of the nine proposed RRC.

Inventory Models

Usually, in the event of a disaster, aid is given to those affected freely, and as such cannot be properly sold. The inventory in question can be considered to be *sold* in two ways:

When used for an emergency. It can even only be partially used.

When expired, for example medicine and food. In the case that the inventory goes old or spoils for other reasons can also be included here.

If the inventory in question is *sold* and the inventory levels diminish, the warehouse will need to be resupplied with more inventory. However, it is unknown when this inventory is going to be utilized; as a result, the demand is uncertain. A periodic revision scheme should be implemented with uncertain demand for each RRC. According to Vélez & Castro (2002), a periodic revision model where the demand is a random variable is a periodic revision model with uncertain demand. Following the model proposed in this research, the first response center can be properly managed and will have a stable model from which to operate (Vélez et al., 2002). As these RRC not has been implemented yet, the actual cost of acquisition for each kit, as well as the cost of maintaining inventory and ordering cost cannot be obtained accurately. However, with estimated values, some information can be considered. Estimated information was setup as follows:

Kit cost of MXP $300
Ordering/shipping cost 30% of each kit's cost
Lead time 20 days for each order
1% monthly inventory maintenance cost
A desired 99% service level

An average demand of 2,921,604 kits, which is the average of the forecast obtained, adding a 100% extra amount of kits. The results for the Periodic Review with Uncertain Demand are detailed in Table 6.

Table 6: Results for the Periodic Review with Uncertain Demand Inventory Model.

T	Q	S'd	S	s	Average Inventory	Order Cost	Inventory Cost	Total Cost	Fill Rate
0.0045	13239.95	24.36	173327.84	160087.89	6619.97	$19,859.92	$19,859.92	$39,719.85	0.9993

As can be seen from the results above, a periodic review of inventory should be realized every .0045 years (*T*), or approximately every two days. The determined *q* represents that 13,239.95 kits should be held as inventory in the RRC. The adjusted standard deviation (*S'd*) is of 24.36 kits, providing a maximum inventory of 173,327.84 kits (*S*) and a minimum inventory of 160,087.89 kits (*s*). Total costs to order and maintain the determined quantity of inventory (*q*) is of $39,719.85. The Fill Rate is determined at 99.93% so that when an emergency strikes, stock is available to satisfy the demand. The Economic Order Quantity (EOQ) could not be calculated, because there is not an estimated or recorded cost for these kits, nor for theses centers. Future research can be done in this subject.

CONCLUSIONS

An estimated forecast was obtained, detailing the amount of kits needed in each center. The demand was equaled to the amount of people affected. Also, the proposed kit was defined, one that should be helpful enough in case of an emergency In order to be prepared for natural disasters that would occur in southeastern Mexico, the proposed RRC would need to administer the inventory according to the forecasted

disaggregated demand, and subsequently monitor the periodic reviews of inventory. The type of elements that the preventive natural disaster kits that will be distributed from the RRC should contain was established. The quantity of kits that should be maintained as inventory in the RRC was also determined. An inventory administration and control system was proposed to oversee the operations at the established RRC.

Future Research

Various opportunities are presented as future research that could subsequently follow the present work. Since this humanitarian logistic investigation on inventory has relatively little previous research, costs were estimated with respect to projected demands. Purchasing and ordering costs could be determined, as well as costs of holding inventory to better allocate the EOQ. Furthermore, once the actual costs are obtained, an accurate model for each RRC can be calculated. Thus, the various elements chosen for the preventive natural disaster kits should be quoted with suppliers and different ways of obtaining and financing these kits. The infrastructure of the RRC could be designed and proposed, such as: types of aircraft, warehouse size, general internal and external structural design including runways, storage, warehouse, etc. Having determined possible aircrafts, defining missions for each type of aircraft and appropriate load sizes could be proposed.

REFERENCES

Bermúdez, J. D., Segura, J. V., & Vercher, E. (2007). Holt-Winters Forecasting: An Alternative Formulation Applied to UK Air Passenger Data. Journal Of Applied Statistics, 34(9), 1075-1090.

Blanco, E. E., & Groentzel, J. (2006). Humanitarian Supply Chains: En T. F. Conference. (Ed.), IFRC Logistics Manual. Boston: The Fritz Institute presented at Seventeenth Annual POMS Conference.

Chiang, C., & Gutiérrez, G. J. (1996). A periodic review inventory system with two supply modes.

European Journal of Operational Research, 94(3), 527-547.

Corres, G., Esteban, A., García, J. C., & Zárate, C. (2014). Análisis de series temporales. Revista Ingeniería Industrial, 8(1).

Cruz, D. P., Garzón, E. A., Chayban, J. A., & Martínez, J. L. (2015). *Reduction of disaster effects through localization of first aid centers in Chiapas, Mexico.* Unpublished manuscript, UPAEP.

Desinventar.org. (2015). *Desinventar.org*. Retrieved 30 July, 2015, from http://www.desinventar.org/es/.

Environment and Sustainability. (2011). *International Disaster Response*. Retrieved 16 July, 2015, from http://www.rootcause.org/docs/Resources/Research/International-Disaster-Response/International%20Disaster%20Response-%20Social%20Issue%20Report.pdf

FEMA (2014). Fema.gov. Retrieved 16 July, 2015, from http://www.fema.gov/media-library-data/1390846764394-dc08e309debe561d866b05ac84daf1ee/checklist_2014.pdf

Ganeshan, S., & Diamond, W. (2009). Forecasting the numbers of people affected annually by natural disasters up to 2015. Global Research Methods Adviser, 1-10.

García, A. (2005) Almacenes. Planeación, Organización y Control. Trillas.

Garzón, E. A., Cruz, D. P., & Martínez, J. L. (2015). *Reduction of disaster effects through localization of first aid centers in Southeastern, Mexico.* Unpublished manuscript, UPAEP.

Hevia, E.A., Martí., V.M., & Martínez, S. F. A. (2006). Redalyc.org. Retrieved 16 July, 2015, from http://www.redalyc.org/pdf/305/30517306006.pdf

INEGI (in Spanish), 2013. Estadísticas a propósito del día internacional para la reducción de desastres. INEGI, pp. 1-9.

Jiménez, J. F., Sánchez, R., & Gázquez, J. C. (2006). La capacidad predictiva en los métodos Box-Jenkins y Holt-Winters: una aplicación al sector turístico. Revista europea de dirección y economía de la empresa, 15(3), 185-198.

Ministero del´l Interno Italy; Airbus Helicopters; Pole Pegasse; Fraunhoffer IML, 2014. Heli4Rescue-Final Conference, Brussels: H4R Europe.

Moya Navarro, M. J. (1990). Control de Inventarios y teoría de colas. San José, Costa Rica: EUNED.

Mulyono, N. B., & Yoshiteru, I. (2014). Humanitarian logistics and inventory model based on probabilistic cellular automata. *International Journal of Innovative Computing, Information and Control, 10*(1), 357-372.

Ouwehand, P. (2006). Forecasting with group seasonality. Dissertation Abstracts International, 68(01). Ozbay, K., & Ozguven, E. (2007). Stochastic humanitarian inventory control model for disaster planning.

Transportation Research Record: Journal of the Transportation Research Board, 63-75.

Pérez Mantilla, F. A., & Torres, F. (2014). Modelos de inventarios con productos que se deterioran: revisión de la literatura. Ingeniería, 19(2), 1.

Rawls, C. G., & Turnquist, M. A., 2009. Pre-positioning of emergency supplies for disaster response.

Transportation Research Part B, Agosto, Issue 44, pp. 521-534.

Saeyeon, S., Harris, I., & Beresford, A. (2015). The pre-positioning of warehouses at regional and local levels for humanitarian relief organization. International Journal of Production Economy, pp. 1-13.

Salas, M. A., & Jiménez, E.M. (2014). Cenapred.gob.mx. Retrieved 16 July, 2015, from http://www.cenapred.gob.mx/es/Publicaciones/archivos/3-FASCCULOINUNDACIONES.PDF

Vélez, M., Castro, C. (2002). Modelo de Revisión Periódica para el Control del Inventario en Artículos con Demanda Estacional una Aproximación desde la Simulación. Dyna, November, 23-34.

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EVALUATION OF FINANCIAL FAIR PLAY'S CRITERIA IN THE LIGHT OF PRINCIPLES OF INSTITUTIONALIZATION: ANALYSING OF 4 GRAND FOOTBALL TEAM QUOTED ON ISTANBUL STOCK EXCHANGE BY THE METHOD OF FINANCIAL ANALYSIS

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ABSTRACT

The purpose of working at this point is putting forward analysing football clubs by the method of financial analysis that all clubs as a result should be managed as institutionalising, dealing within the frame of the principles of institutionalization the Financial Fair Play's criteria that take particular limitation for operation of the football club, and particular "criteria" for their management, and putting forward their similarity.

JEL: A10, M10, M21

KEYWORDS: Financial Fair Play, Institutionalization, Transparency, Company

INTRODUCTION

Setting standards for the works, managing of them according to the certain principles and of them meaning becoming of the works as independent from persons are management approaches which are mandatory to be implemented by all companies. At the present time it is a fact that every company, so be its type and that does not adopts the institutionalization approach and that has not operated pursuant principles of institutionalization, decrease to the level of disadvantageous in constant competition. Principles of institutionalization can be listed briefly and generally under four main headings as transparency to the all stakeholders and public, accountability, participation and communication. In recent periods, especially failures experienced by football club, mismatch of revenues and expenditures balance, that they get caught up in a debt trap, difficulties experienced, put forward that the mode of operation of these clubs should not be different from a professional business at the present time. At this point, Financial Fair Play's criteria of UEFA that aim to take a limitation and effective "criteria" for operation of the football club, interest closely all the clubs both in our country and abroad. In fact the purpose of these criteria is constituting a limitation for "arbitrary administration" of football clubs, and these criteria are closely related to the principles of institutionalization which are not strange to professional businesses. Especially the results as lower costs, improving liquidity and financial strength, to cope with financial crisis easily, to bring business in a better position are exactly the same with the results that Financial Fair Play's criteria struggle to reach.

LITERATURE AND REVIEW

Corporate Governance is related to the agency problems that include separation of ownership and control in the modern corporation (Gompers, Ishii, Metrick, 2001). Aguilera(2005), defines corporate governance as a system, provides mechanisms for the companies to be governedeffectively. Because of the financial crisis that emerged through last 30 years, the term corporate governance came up and its importance has

increased exponentially There are various and diverse studies, it's possible to form essentialprinciples of corporate governance for both public and private sector. These are the transparency, accountability anddisclosure. Corporate transparency is defined as thewidespread availability of relevant, reliable information aboutthe periodic performance, financial position, investmentopportunities, governance, value, and risk of publicly traded firms (Bushman & Smith, 2003). According to Capital Market Board of Turkey, the aim of the principle on public disclosure and transparency is to provide shareholders and investors accurate, complete, comprehensive and easy-to-analyze information, which is also accessible at a low cost and in a timely manner. According to Mulgan accountability has come to stand as a general term for any mechanism that makes powerful institutions responsive to their particular publics.Pollitt (2003) defines accountability as the obligation to explain and justify conduct.

DATA AND METODOLOGY

We have 4 big futbol teams. And we analysed their financial situation as you see below.

<u>Besiktas</u>

Financial statements were prepared by the principle continuity of a company. But Group's short-term obligations have exceeded 293.496.377 TL of current asset since the date 31 May 2014 and net period loss of Group has occurred as 143.902.222 TL , retained loss has occurred as 461.762.738 TL in the year ended by he same date and total equity capital has turned into negative and it has been 364.056.139 TL. Allowance has been distinguished on financial statements related to the case and controversies which go on between contract al footballers and The Company. But the company ' s policy is on minimizing related allowances in next period as a result of reconstruction studies especially after the case and controversies' disintegration which go on. UEFA Financial Criteria ' s compulsion on balance of income and expenses has become actual since 2013-2024 season, The Company works in the event that such an extraordinary expenses do not occur in the future. As additional to thus, As foreign transfer budget is kept on a certain level on each season , the company's transfer policy is formed by the purpose of young players on a level that they would regularly play in Team A by Football Equity System that is especially Besiktas' football youth setup system. Today, management mentality of sportive organisation is foreseen operational and financial situations of clubs and companies which are active as affiliate companies of them become independent from sportive success on football field. In this sense, Group has resorted to increase and vary income with more activated sponsorship and advertising agreements as agreeing with professional intermediary firms since the season 2013-2014. It is aimed that such a income increasing agreements go on in the future. In consideration of all of them, it is aimed that the company gains the capability to meet short and long term obligations and it gets a financial structure structure as appropriate for company' s continuity principle.

Predicted Income	2014-2015 season
Broadcast income	70.000.000
Sales income of commercial products	45.000.000
Ticket-window and combined ticket income	25.000.000
UEFA participation income	20.000.000-45.000.000
Other operating income	20.000.000
Player transfer and lease income	6.000.000
Total	186.0000000-211.000.000

Predicted Cost	2014-2015 Season
Personnel cost	(130.000.000)
Sales/material cost	(20.000.000)
Other Operating cost	(15.000.000)
Player transfer cost	(15.000.000)
Financing cost	(10.000.000)
Total	(190.000.000)

The company aims to provide financing especially via exportation of capital market instruments in order to meet short -term obligations. First method which is required to be applied here is to transfer capital in cash. In this case, main Besiktas Jimnastik Kulubu Dernegi which is main partner of Group will attend in increasing capital. Sales for box,sky box and combined card have been started within te project of Vodafone Arena, these sales provide cash flow to Group. Cash flow in short term are not foreseen as there is continuity of checking account relation with BJK Dernegi which is controlling shareholder of Group at the point of short term company deficit of Group. At the same way, Group's debts to banks and financial organisations will be paid as income which arises from further contracts is transferred, cash outflow is not foreseen for these payments' fulfillment. Consequently, when above - presented predictions are considered, Group's management foresees that there will not be significant cash problem during meeting Group's short-term obligations.

Fenerbahce

Consolidated financial statements were prepared by the principle of continuity of the company. But Grup's short-term obligations have exceeded 381.947.872 TL current assets since 31 May 2015, and also Group's net period loss has been 181.781.450 TL at the period ending at the same date and total equity has turned into negative at the amount 422.298.704 TL. This case indicates that there is a significant uncertainty which would cause an important suspect related to durability of Group's continuity. Thus , Group may not turn its assets in ordinary work flow into cash from values that it has them and it may have difficulty to meet its obligations. Moreover, aforementioned case is evaluated as debt-choked by 376.article of TCL. According to rules which were stated at CMB's 10 April 2014 Datedly and 11/352 Numbered Decision due to above - financial data; The company prepared balance - sheet of assets which is designated by possible sales price as a result of value determination that an independent organisation having authority to valuation made in terms of determining case of being debt-choked against TCL's 376.article. It was determined that equities turned into positive on TCL's 376 balance - sheet which was prepared in consideration of effects of valuation studies for financial investment recognised within footballers' references which is in the asset of Company, Licence Lease Contract which was accreditated between FBSK and Company and business combination subject to common control which POI's 2013-2 numbered decision requires it. Group management made evaluation related to Group's continuity and it determined that they have got fund which is efficient to go on operations during 12-month period after consolidated financial statements. Group aims to develop its financial structure in the next periods with measures and saving precautions which are explained below.

A significant increase is expected for UEFA income in the event that Professional football team which is in the asset of Group gains right to attend in UEFA Champions League or UEFA European League in next seasons. It is aimed to get a significant income and cash flow for name, advertising and promotion rights of Fenerbahce Sukru Saracoglu Stadium where Professional football team's competitions are played and which its right to use is gotten, by making contract. It is expected to get a significant income and cash flow by making contract about uniform (breast, back and arm) and short ' s advertising of professional football team. It is aimed to control cash flow by use of additional new banking credit and extending new assignment

of current credits. It is foreseen to provide continuous financing to Group by a fund which will be obtained as a result of the campaign " Target is 1 Million Member" that company's main partner started it. It is expected to get a significant income and cash flow as based on increase on seasonal combined sales for Fenerbahce Sukru Saracoglu Stadium. It is expected an important increase on income for Fenerium based on increase of Professional football team ' s uniform sales. Group prepared its financial statements relying on above - explanations and plans based on company's continuity principle. Within this scope, company foreseen that it can turn it into cash from value that its assets have while making financial statements and it would meet its obligations within normal work - flow.

Galatasaray

Group's short-term financial loans, short-term part of long term loans, short-term commercial debts , debts and total of other debts within benefits provided to employees exceeded 427.800.386 TL of short-term commercial claims with cash and the like cash and total of other claims (as balance of related party is decreased) , long term financial loans, long term commercial debts and total of other debts became 297.281.448 TL by the date 31 May 2015. Group's period loss on account period ending by 31 May 2015 became 87.498.442 TL , passing years' loss became 495.393.700TL and its deficit became as 103.227.649 TL. Moreover, Group's net currency position deficit became 355.384.244 TL. In addition to this, as it is explained at Footnote 11.3, especially 424.453.229 TL assignment on Group's next period ' s income and total 440.884.232 TL amount of guarantee, assignment cash blockage and bail were established. Moreover , Total 949.868.462 TL mortgage, pledged of share , bail were established as to be 622.000.000 TL mortgage on real estates involved in Foundation ' s assets which is main partner of Company, 203.012.190 TL pledged of share on stocks of Galatasaray Sportive that Foundation has as assets, 50.182.560 TL bail bond and 64.673.712 TL bail signature, in favour of company.

As additional to them, as it is explained at Footnote 11.2, Group has obligation at the amount 127.494.000 TL which its term has not come on reporting date for 2015-2016 season , within contracts made with footballers involved in its body. This case shows entity of important uncertainty which will cause significant suspects on continuity of Group. Management Board of Foundation as company's main partner prepared an action plan related to fulfill commercial and non commercial obligations which are available by strengthing financial structure of Group. According to this plan, precautions to decrease expenses besides increasing and varying precautions for incomes were planned. Situation of Galatasaray Sportive against 386.article of Turkish Commercial Law; Company prepared a balance-sheet that assets were evaluated through possible sales price in terms of determining saç of debt-choked against 376. article of Turkish Commercial Law due to above financial information. The situation of Company's consolidated registered capital and equity are at the following by the date 31 May 2015:

	31 May 2015
Registered capital	21.645.000
Capital+ Legal Reverse	46.267.892
Equity	(103.227.649)

Group's Consolidated Financial Statements' Situation Against 376.Article Of TCL Has Been At The Following Since 31 May 2015.

	31 May 2015
Consolidated equity since 31 May 2015	(103.227.649)
Plus: Fund formed by result of evaluation report	1.528.075.898
Licence Contract	1.147.301.349
Valuation Spread of intangible fixed assets	380.774.549
Equity Which Are Gotten by Results of Valuation Report.	1.424.848.249

Valuation were made to ATIG Yatırım Menkul Degerler A.S. which as CMI Valuation Services Licence by the date 31 May 2015 for valuation of professional footballer's licence prices recognised under intangible assets of Galatasaray Sportive. Fair value of professional footballer's licence prices recognised under intangible assets on valuation report with the date 3 August 2015 was determined as 433.727.153 TL (148.914.081 Euro) and substructure value was determined as 89.736.652 TL (30.809.810 Euro).

Moreover, Galatasaray Sportive made valuation of cash flow which it will obtain from sponsorship, name right and advertising incomes directly associated with licence by 31 May 2015 determined to ATIG Yatirim Menkul Degerler A.S.. Today's value with 9.45% reduction ratio of cash flows that were predicted up to the end of 2029-2030 period within Licence Contract that Company is its party on valuation report with tte date 3 August 2015 and would obtain them from income of sponsorship, name right and advertising directly associated with licence within the contract was determined as fine scenario (1.193.577.608 TL) , as medium scenario (1.147.301.349 TL) and bad scenario (1.090.866.435 TL). Company used medium scenario 1.147.301.349 TL on study of debt-choked.

According to this, equity value is positive 1.424.848.249 TL when value increase at the amount 380.774.549 TL between fair value of intangible assets with 31 May 2015 and registered values at the same date (142.689.256 TL) and value increase at the amount 1.47.301.349 TL arising from contracts. Due to positive variation occurred as a result of reevaluation of company assets , it is seen that it does not need to take precautions which are foreseen at 376.article of TCL. Moreover, management board of Foundation which is main partner of Galatasaray Sportive prepared an action plan involving that current commercial and non commercial obligations are fulfilled by strengthing financial structure of Group, short-term financial obligations are extended in long term, current real estates are evaluated as providing income and precautions decreasing expense are. Galatasaray Spor Kulubu Dernegi which is main partner of Company committed that necessary fund and support will be provided to Company by a support letter at the date 6 August 2015 in order that financial structure of Company is strengthed, there is not any difficulty in paying current commercial and non commercial debts and payments are made in its time.

Trabzonspor

The company made a loss 104.030.351 TL in the year ending by the date 31 May 2015 and by the same date Company's short-term obligations exceeded short-term assets as 194.059.284 TL and equity became negative 56.345.978 TL. This case indicates an existence of an important uncertainty which will cause a significant suspect on Company's continuity with other terms explained on the tootnote. Thus, company may have difficulty to turn its assets into cash from values that it has and to meet its obligations, as equity's becoming negative is evaluated as debt-choked within Turkish Commercial Law7s 376. article. Management Board of Company requires to get a set of precautions. As related to current case, when short-term obligations have been considered by the date 31 May 2015, nearly 31% of this amount is occured by short-term banking credits, 43% is occured by salary for employees and debts with stopped which has not still paid as relying on payments made to employees and tax debts and also nearly 20% is occured as commercial debts and other tax debts. As a contrary situation is not informed from banks in written, even if short-term banking credits are restricted as short-term obligations, most of these banking credits are restricted as short-term obligations, most of these banking credits are assigned as guarantee to related credits of repayment terms, it exceeds naturally to periods after 12 months as relying on a live broadcast incomes belonging to this and next years, income of right to name, advertising and sponsorship incomes.

RESULT AND DİSCUSSİON

Research made commits UEFA's Financial Fair Play criteria that all world have talked about it recently and football clubs have to adapt it and companies' institutionalisation and thus the issue about having sustainable

success As it is known, institutionalisation is to set certain standard of company events for continuing all company's assets, having best position on competition and having constant life only with not first generation. The demanded one with institutionalisation is to provide power and obligations of management board ' s president or members to take unlimited decision within certain frame with procedures which will be made in favour of company. At this point, person or persons who are at the top of company will adapt these procedures on each kind of decisions related to company , so protection current structure and events made on their own will have been prevented.

When it is considered from this view, institutionalisation principles show parallelism with Financial Fair Play Criteria. That income - balance balance of football clubs are not considered, only management board president or some of members decide on it to. Make transfers, high - cost transfers are made without making profit - loss ratio on transfers exposed football clubs to difficult conditions to turn back. As a result, football clubs which have debts all the time and have become not to pay their debts put both their own members and also shareholders as they enter into stock market and also participants into difficult situation. Indeed, even if football clubs are perceived as they are not an operation , they are companies following profit - loss balance , having stock value as the same with professional companies. Thus both professional companies and football clubs have to institutionalise and act appropriate for principles of institutionalisation. This will also provide them indirectly to make Financial Fair Play Criteria. From this point of view, detailed analysis were made on our search about four big football clubs in Turkey in terms of their blaance-sheets, assets and events that they make.

As a result of this analysis, unfortunately it has been determined that four of them are under debt-choked within relevant article of Turkish Commercial Law, if they get profit, they will not able to end these debts in following years at least. Financial Fair Play criterias bring heavy practices to this and the like football clubs. For example, Trabzonspor faces not to go European Cups and faces to get transfer prohibition. Expecially , when income and expense balance and general debt total are considered, all football clubs were determined as they have too much deficit. At this point, these clubs have to be placed in correct frame in terms of financial and have to adapt these rules. Otherwise, as it is stated above, they faces not to participate in international compatitions (loss of income) and not to make transfer as they want (loss of income,-audience-sponsor-unifor advertising -booth advertising) risks. Another negative situation that football clubs make is that they go towards constant equity and there is deficit as they do not get income. Conclusionly, four big clubs in our country is under debt-choked now and they could not adapt none of Financial Fair Play Criterias. It has many reasons that we said above. At this point, football clubs have to act as they get an institutional structure, they institutionalise, indeed, they connect their events to certain standard and procedures, as they end arbitrary applications that football presidents make, and they feel responsibility that they have for their sharers of the same professional company. Moreover, there are great moral obligations for football clubs' supporters in thousands that it is watched by too many people as none of company can not have , it is followed , it is interested. It is a real that life of football clubs is not scale with club's president. It is emphasized on clubs to provide continuity and also constant success whatever percept is. At this point, that clubs are managed by a professional percept as they are institutionalised will bring adaptation FFP criteria and thus will bring constant success.

REFERENCES

Abu Bakar, N. B., & Saleh, Z. (2011). Incentives for Disclosure of Accounting Information in PublicSector: A Literature Survey,*International Research Journal of Finance and Economics*, Vol:75, P.24

Aguilera, R. V. (2005). Corporate Governance and Director Accountability: An Institutional Comparative Perspective,*British Journal of Management.*Vol 16. 39-53.

Al-Saeed, M.A. (2013), Compliance with The Principles of Corporate Governance: Different Perspectives From Jordan, *Accounting and Management Information Systems,* Vol. 12, No. 4,

ASC Council. Bavly, D. (1999), Corporate Governance and Accountability: What Role for The Regulator, Director and Auditor?, Westport, CT: Greenwood Publishing Group.

Bushman, R., Smith, A. (2003), Financial Accounting Information and Corporate Governance, *FRBNY Economic Policy Review,* P. 66

Capital Markets Board of Turkey, (2005). Corporate Governance Principles amended in February 2005, retrieved 01.09.2015 from

http://www.cmb.gov.tr/displayfile.aspx?action=displayfile&pageid=84&fn=84.pdf&submenuheader=-1
Choi, J., Sami, H., (2012), Corporate Transparency From The Global Perspective: A Conceptual Overview, *International Finance Review*, Vol.13, P.4

Durnev, A., Errunza, V., Molchanov, A. (2009), Property Rights Protection Corporate Transparency and Growth, *Journal ofInternational Business,* Vol.40, P.1533

Gönençer, E., (2008).Development of Corporate Governance in the European Union and in Turkey as a Candidate Country.

Hardman, B. (1996). Corporate Governance: A practical Guide for Directors and Secretaries. *Australian Company Secretary*. July:235-8

Jacques, J. A. (2011). Principle of Contemporary Corporate Governance. New York: Cambridge University.

Justice Owen in the HIH Royal Commission, The Failure of HIH Insurance Volume 1: A Corporate Collapse and Its Lessons, Commonwealth of Australia. April 2003 at page xxxiii

Kolk A., 2008. Sustainability, accountability and corporate governance: Exploring multinationals' reporting practices. *Faculty of Economics and Business*, Vol. 17, Issue 1, P. 1-15.

Kothari, S. P., Xu, L., Short, J. E. (2009). The Effect of Disclosures by Management,Analysts, and Business Press on Cost of Capital, Return Volatility, and Analyst Forecasts: AStudy Using Content Analysis. *Accounting Review*, 84 (5), 1639-1670

Mulgan, R., 2003, Holding Power to Account: Accountability in Modern Democracies, Basingstoke: Pelgrave.

Lazonick, W. and O'Sullivan, M. (1995).Organization, Finance, and International Competition.Industrial and Corporate Change, 4, no. 1-49.

Pollitt, C., (2003), The Essential Public Manager, London: Open University Press/McGraw-Hill.

Qian, H., (2012), Preventing Corruption in Public Administration Citizen Engagement for Improved Transparency and Accountability, United Nations Expert Group Meeting Report, 2012, New York

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A BILINGUAL'S PERSPECTIVE ON POLYSEMOUS AND SINGLE MEANING SLOGANS

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ABSTRACT

Multiculturalism, bilingualism, consumer diversity and the increased use of polysemous brand slogans has increased the complexity of consumer and advertiser interactions. Ad research considering the subjective feelings of ease-of-processing in ad evaluations is limited. This study provides evidence that the neglect of processing fluency in ad evaluations may have biased prior studies. Fluency is identified as the main driver of A_{ad} or A_{brand} despite cultural background and type of slogan differences. Monolingual consumers, distinctly to bilinguals, relied on comprehension to a greater extent during the formation of A_{ad} or A_{brand}.

KEYWORDS: Spanish/English Bilingualism, Polysemous Slogans, Single Meaning Slogans, Comprehension, Fluency, Attitude towards the Ad, Attitude towards the Brand

INTRODUCTION

Businesses and advertisers especially focus on language as an effective method to appeal to minorities, and spend millions on the development of slogans that convey positive meaning(s) (Harris and McGhee-Nelson 1992). While previous research acknowledges processing differences of ad language between bilingual and monolingual consumers (Luna and Peracchio 2001), minimal attention has been dedicated to investigating the effect of single meaning slogans and polysemous slogans (i.e., slogans with multiple meanings) on bilingual consumers. This research builds on and expands the Revised Hierarchical Model (RHM) (Luna and Peracchio 2001), and investigates (1) the disruptive impact that single and multiple meaning slogans have on the hypothesized positive effect of language on attitude toward the ad (A_{ad}) and brand (A_{brand}) in bilingual (vs. monolingual) consumers, and (2) the limited advertising research considering the role of processing fluency in the formation of A_{ad} and A_{brand}.

LITERATURE REVIEW

Processing Fluency

Processing fluency, or the meta-cognitive feeling of ease-of-processing, is an increasingly researched concept in consumer psychology (see Song and Schwarz 2004; Reber et al. 2004). Consumers often lack appropriate information or experience to evaluate and judge products or services. In situations when decision-making becomes a burden, they rely on mental shortcuts; the use of ease-of-processing feelings in making inferences about products or forming opinions is one example of such shortcut. The phenomenon is largely considered a misattribution effect, as processing fluency is often mistakenly used to judge characteristics of stimuli, by inferring familiarity, liking, clarity, and loudness (Whittlesea 1993). Exposure to hundreds of advertising stimuli per day may motivate consumers to skip ad comprehension when making quick decisions. In these cases, attitude formation may be influenced not only by "hard facts" about the product, but by inferences that consumers make automatically without thinking, as is the case of processing fluency. For highly familiar products, it may actually be the dominant route to attitude formation. Therefore, we hypothesize that:

H_{1a}: *Processing fluency will positively impact A_{ad}.*
H_{1b}: *Processing fluency will positively impact A_{brand}.*
H_2: *Processing fluency (vs. comprehension) will have a more positive impact on A_{ad} and A_{brand}.*

Bilinguals Vs. Monolingual Consumers

Monolingual consumers – that only possess knowledge of one language (i.e., primary language) – should easily interpret message meaning by quickly accessing the pooled semantic level. Unlike them, Spanish/English bilinguals should have a more difficult time elaborating on message meaning, if the message is presented in the secondary language. However, because the task in this case is more difficult, bilinguals are more likely to use mental shortcuts to assess A_{ad} and A_{brand}. In other words, monolinguals may be more likely to use a central route information processing strategy by trying to comprehend message meaning; bilinguals, on the other hand, are more likely to use mental shortcuts, such as perceptions of ease-of-processing, before forming an attitude toward an ad/brand. We hypothesize that:

H_3: *Monolinguals (vs. bilinguals) will use message comprehension (i.e., central route information processing) to a higher extent when forming A_{ad} and A_{brand}.*

H_4: *Bilinguals (vs. monolinguals) will use processing fluency (i.e., peripheral route information processing) to a higher extent when forming A_{ad} and A_{brand}.*

Polysemous Brand Slogans

Generally, results of exposure to a specific stimulus are a function of learning and satiation (Stang 1974). On the one hand, as learning increases ambiguity decreases. On the other hand, satiation may result in boredom and lead to negative effect. More learning and less satiation should result from initial exposure to stimuli with multiple meanings and lead to positive effect compared to initial exposure to single meaning stimuli (Janiszewski and Meyvis 2001). There is evidence that multiple meaning stimuli cause the activation of a greater number of neurons in individuals, while single meaning stimuli cause a higher rate of activation of neurons (Janiszewski and Meyvis 2001). These findings indicate that multiple meaning slogans might lead to higher levels of ad processing via comprehension. Thus, we hypothesize:

H_5: *Comprehension (processing fluency) will have a more positive effect on A_{ad} and A_{brand} for polysemous (single meaning) slogans.*

H_{6a}: *Comprehension will have a more positive effect on A_{ad} for polysemous (vs. single meaning) slogans in monolingual (vs. bilingual) groups.*

H_{6b}: *Comprehension will have a more positive effect on A_{brand} for polysemous (vs. single meaning) slogans in monolingual (vs. bilingual) groups.*

DATA AND METHODOLOGY

Three hundred and eighty five undergraduate students of a Southwestern university agreed to participate in the study in exchange for extra-credit in a marketing course. Participants were randomly assigned to one of two conditions (slogan: single meaning vs. polysemous) in a between subjects experimental design. Replicas of stimuli from prior research by Dimofte and Yalch (2007) were used as manipulations. Scenarios included the highly familiar Cingular brand accompanied by a single meaning slogan ("*Redefining the best.*") or a multiple meaning slogan (*"Raising the bar."*), respectively. Subjects were asked to complete an online survey. Scenarios were followed by multi-item measures of constructs of interest, such as attitudes

toward the ad, processing fluency, comprehension, attitudes toward the brand, and ethnic identification. At the end, subjects provided demographic information. The survey included manipulation checks of ad slogan recall, and measured brand familiarity on a 7-point scale: unfamiliar/familiar. A short debriefing session concluded the study.

RESULTS AND DISCUSSION

Structural equation modeling (SEM) was used to examine our hypotheses. In H_{1a} we suggest that processing fluency positively influences A_{ad}; a significant coefficient path ($\beta = .89$, p<.01) supports our hypothesis. We also find support for H_{1b}, as processing fluency has a significant direct and indirect effect on A_{brand}. A significant coefficient path between the two constructs ($\beta = .31$, p<.01) suggest a strong direct effect. Moreover, the impact of fluency on A_{ad} is significantly greater than that of ad comprehension (i.e., H_2). As hypothesized, we find that fluency and comprehension do not have equal effects on A_{ad} by comparing two nested models; results reveal a significant chi-square difference ($\Delta\chi^2_{(1)} = 186.5$, p < .01). Results show that monolinguals use the central route information processing (i.e., comprehension) significantly more than bilinguals ($\beta = .12$ vs. $\beta = -.02$), hence confirming H_3. However, there is indication that both monolinguals and bilinguals use equally extensive processing fluency when interpreting advertisements; H_4 is not supported. As hypothesized in H_5, we find that comprehension has significantly more impact on A_{brand} in polysemous (vs. single meaning) slogans. Results show a significant chi-square difference ($\Delta\chi^2_{(1)} = 6.6$, p<.01) between the full and nested models. Additionally, our analysis found that subjects respond similarly to single meaning slogans, irrespective of their Spanish language skills. However, when presented with multiple meaning slogans, respondents with low (vs. high) proficiency in Spanish are more likely to use the central route information processing (i.e., try to understand the slogan meaning) when forming attitudes toward the ads ($\Delta\chi^2_{(1)} = 8.6$, p<.01). Moreover, low (vs. high) Spanish proficiency individuals use A_{ad} to indirectly evaluate the brand, as well ($\Delta\chi^2_{(1)} = 5.2$, p<.05); nevertheless, no direct impact of comprehension on A_{brand} exists. Consequently, we find evidence for H_{6a}, but only partial support for H_{6b}.

CONCLUDING REMARKS

Our research brings some evidence that a confounding effect due to omission of processing fluency may have altered results of prior studies. We also find that individuals sometimes engage in concomitant information processing via central and peripheral routes; this simultaneous dual processing is well supported in the literature by the heuristic-systematic model of Chen and Chaiken (1999). However, dual processing does not occur all times.

REFERENCES

Dimofte, Claudiu V., and Richard F. Yalch (2007), "Consumer Response to Polysemous Brand Slogans," *Journal of Consumer Research,* 33 (4), 515-522.

Harris, Richard J. and Elizabeth M. McGhee Nelson (1992), "Bilingualism: Not the Exception Any More," *Advances in Psychology,* 83, 3-14.

Janiszewski, Chris, and Tom Meyvis (2001), "Effects of Brand Logo Complexity, Repetition, and Spacing on Processing Fluency and Judgment," *Journal of Consumer Research,* 28 (1), 18-32.

Luna, David, and Laura A. Peracchio (2001), "Moderators of Language Effects in Advertising to Bilinguals A Psycholinguistic Approach," *Journal of Consumer Research*, 28 (2), 284-295.

Reber, Rolf, Norbert Schwarz, and Piotr Winkielman (2004), "Processing Fluency and Aesthetic

Pleasure: Is Beauty in the Perceiver's Processing Experience?" *Personality and Social Psychology Review*, 8 (4), 364-382.

Song, Hyunjin, and Norbert Schwarz (2004), "If It's Difficult to Pronounce, It Must Be Risky," *Psychological Science*, 20 (2), 135-138.

Stang, David J. (1974). "Methodological Factors in Mere Exposure Research*," Psychological Bulletin*, 81 (12), 1014-1025.

Whittlesea, Bruce (1993), "Illusions of Familiarity," *Journal of Experimental Psychology: Learning, Memory, and Cognition*, 19 (6), 1235-1253.

REDESIGN OF THE LOGISTICS NETWORK OF A COMPANY IN THE FOOD INDUSTRY

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ABSTRACT

This research analyzes the problem of facility location and vehicle routing for an efficient logistics system in a practical case study application. It is intended to redesign the logistics network of a franchise company in the food industry in the city of Puebla, Puebla (Mexico). First, facility location is analyzed and two scenarios are presented, installing one new distribution center, and installing two new distribution centers, by the means of the P-median model. Subsequently, a new distribution route between the depots (distribution centers) and demand points (restaurant franchises) will be proposed by means of a Capacitated Vehicle Routing Problem, to satisfy demand and operational constraints of the customer. The objective of this study is to minimize costs through a reduction in delivery times and distances. Exact facility locations are presented along with a vehicle route scheduling, followed by a cost analysis to help in the ultimate decision of the logistics network redesign.

JEL: C6

KEYWORDS: Facility Location, P-median, Capacitated Vehicle Routing Problem, Logistics, Distribution

INTRODUCTION

Given that logistics activities have always been vital to companies and organizations, the field of logistics and supply chain management represents a synthesis of various concepts, principles, and methods, from the traditional areas of marketing, production, accounting, warehousing, and purchasing, to the disciplines of applied mathematics, organizational behavior, and economy. Logistics revolves around creating value, principally for the customers, as well as for suppliers and shareholders of the company. The value created by logistics activities is expressed fundamentally in terms of time and place; an efficient logistics administration visualizes each activity throughout the supply chain as a continuous contribution to the process of added value (Ballou, 2004). The vulnerability of the supply chain increases with the rise in uncertainty (Svensson, 2000), and the vulnerability increases even more if the companies, through outsourcing or external contracting, have become dependent upon other organizations. The greatest uncertainties in supply and demand, increased globalization of the market, product life cycles, faster technology, increased use of manufacturing, distribution and logistics partners resulting in complex international relations of supply networks have led to an increase in exposure to risks throughout the supply chain. Many problems of economic decision concern the selection and/or placement of determined facilities to serve the given demand in an efficient manner (Vygen, 2004), as well as the coordination and control of adequate routes for the optimal provision from the suppliers to the point of consumption. Seeing as transportation and distribution processes tend to represent from 10% to 20% of the final cost of goods, having an efficient logistics system can produce substantial savings for the company.

The objective of this article is the practical application of the proposal of adequate locations for new distribution centers and the redesign of the corresponding distribution routes between the restaurant

franchises and the distribution centers that complies with the capacity and schedule restrictions for a supplier of the food industry by means of mathematical models, resulting in efficiency and cost savings. The *P-median* model will be utilized to provide two new distribution center scenarios, and then the *Capacitated Vehicle Routing Problem* (CVRP) will be utilized to propose logistics vehicle routes for the selected distribution centers.

LITERATURE REVIEW

Facility location and logistics network planning are well-known, yet critical problems in the efficiency of the supply chain of a company. The CVRP has extensive variants depending on the operational constraints of each particular situation. Kim, Kim, and Sahoo (2005) present a real life waste collection Vehicle Routing Problem with Time Windows (VRPTW) considering multiple disposal trips and drivers' lunch breaks, using Solomon's insertion algorithm (Solomon, 1987). The objective function of this work is minimizing the number of vehicles and total traveling time, while improving route compactness and workload balancing. In order to optimize these processes, a capacitated clustering-based waste collection VRPTW was developed. Baldacci, Mingozzi, and Roberti (2003) studied exact algorithms proposed for the CVRP and VRPTW, and state that many formulations have been proposed, but the most successful exact methods are based on the *two-index flow formulation*, the *two-commodity flow formulation* proposed by Baldacci et al. (2004), and the *set partitioning formulation* proposed by Balinski and Quandt (1964). Branch-and-cut algorithms and exact algorithms are further discussed and reported as a computational comparison on six well-known classes of CVRP instances.

DATA AND METHODOLOGY

Case Study

The present case study considers the analysis and design of the logistics system of Antigua Taquería S.A. de C.V., a company in the food industry located in the city of Puebla, Puebla (Mexico) that initiated its operations 77 years ago with three restaurant franchises. Over time, Antigua Taquería has expanded its operations considerably, currently managing 27 restaurant franchises in the state of Puebla. However, Antigua Taquería has not made sufficient modifications to its logistics strategy, and being solely dependent on one meat supplier has created much vulnerability in its supply chain. Its greatest problem has been identified as the distribution of meat, this product being the most critical and demanded of Antigua Taquería. Presently, Antigua Taquería intends to open its 27 restaurant franchises at 12:00pm, the principal problem being that the supplier does not distribute the meat in a timely manner, delaying the opening of the stores. The meat supplier currently receives all the meat demand for the 27 restaurant franchises at its only distribution center located on Avenida Valsequillo, in the city of Puebla. Currently, the meat supplier has three distribution trucks at its disposition to distribute the meat to the 27 restaurant franchises. Each distribution truck has a maximum capacity of 500 kilograms; the average daily meat demand for the restaurant franchises is 50 kilograms. Nonetheless, the meat supplier begins daily deliveries at 8:00am, not providing sufficient time to adequately distribute the meat demand to each restaurant franchise according to the time restriction set in place.

Models

The selected mathematical model for this case study that will be utilized for the proposal of facility location for new distribution centers is the *P-median*. The objective of this model is to find the location of a fixed quantity of facilities that are found within the network of nodes that satisfy the demand of the customer, always minimizing distances travelled and associated costs (Daskin, 1995). P-median can be used to find the optimal location of only one facility or various facilities. The P-median model is considered a *discrete* method since the facility locations are being selected from a list of possible alternatives that have been

identified in accordance with specific criteria (Ballou, 2004). Discrete facility location methods are more frequently used especially when looking to install multiple facilities. The mathematical model formulated by Daskin (1995) can be defined as follows:

Minimize:

$$\sum_i \sum_j h_i d_{ij} Y_{ij} \tag{1.1}$$

Subject to:

$$\sum_j Y_{ij} = 1 \ \forall \ i \tag{1.2}$$
$$\sum_i X_j = P \tag{1.3}$$
$$Y_{ij} - X_j \le 0 \ \forall \ i,j \tag{1.4}$$
$$X_j = 0,1 \ \forall \ j \tag{1.5}$$
$$Y_{ij} = 0,1 \ \forall \ i,j \tag{1.6}$$

Where:

h_i: demand in node i.
d_{ij}:   distance between the demand in node i and the potential facility j.
P: number of facilities to locate.
X_j: $\left\{ \begin{matrix} \text{1 if facility is installed at candidate node } j \\ 0 \text{ otherwise} \end{matrix} \right\}$
Y_{ij}: $\left\{ \begin{matrix} \textbf{1 if the demand in node i is served by the facility located in node j} \\ \textbf{0 otherwise} \end{matrix} \right\}$

The objective function minimizes the distance between each demand node and the closest installed facility. The restriction (1.2) indicates that each demand node i is assigned to only one facility j. The restriction (1.3) makes sure that exactly p facilities are located. The restriction (1.4) makes reference to the fact that demand nodes are only assigned to a facility when such has been selected to be installed by the decision variable x_j. The restrictions (1.5) and (1.6) indicate the binary variables. It is important to make note that this mathematical model assumes that all of the facilities are located within a network of existing nodes (Daskin, 1995). CVRP are optimization methods that are being increasingly utilized for the effective management of the provision of goods and services in logistics systems. According to Toth and Vigo (2002), the solution to a CVRP calls for the determination of a set of routes, each performed by a single vehicle that starts and ends at its own depot, such that all the requirements of the customers are fulfilled, all the operational constraints are satisfied, and the global transportation cost is minimized. In particular for this case study, a CVRP is utilized to propose new distribution routes for the selected distribution centers. In a CVRP, demands are deterministic and may not be split, such that capacity restrictions are imposed upon the vehicles. The CVRP is known to be *NP-hard* (in the strong sense) calling for the determination of a minimum-cost simple circuit visiting all the vertices of *G* and arising when *C* ≥ *d(V)* and *K = 1* (Toth & Vigo, 2002). The following integer linear programming formulation is proposed by Toth and Vigo (2002) indicating if a vehicle traverses an arc in the optimal solution. This model is a *two-index vehicle flow formulation*.

Minimize:

$$\sum_{i \in V} \sum_{j \in V} c_{ij} x_{ij} \tag{2.1}$$

Subject to:

$$\sum_{i \in V} x_{ij} = 1 \quad \forall j \in V \{0\} \tag{2.2}$$
$$\sum_{j \in V} x_{ij} = 1 \quad \forall i \in V \{0\} \tag{2.3}$$
$$\sum_{i \in V} x_{i0} = K \tag{2.4}$$
$$\sum_{j \in V} x_{0j} = K \tag{2.5}$$
$$\sum_{i \in S} \sum_{j \in S} x_{ij} \geq r(S) \quad \forall S \in V \{0\}, S \neq 0 \tag{2.6}$$
$$x_{ij} \in \{0, 1\} \quad \forall i, j \in V \tag{2.7}$$

Where:

$$x_{ij}: \quad \left\{ \begin{matrix} 1 \ if \ arc \ (i,j) \in A \ belongs \ to \ the \ optimal \ solution \\ 0 \ otherwise \end{matrix} \right\}$$

Restrictions (2.2) and (2.3) are the impositions that one arc enters and leaves each vertex associated with a demand point. The restriction (2.4) references degree requirements for the depot vertex. The restriction (2.6) is the capacity constraint which imposes connectivity of the solution and vehicle capacity requirements.

RESULTS AND DISCUSSION

The P-median model was utilized to propose and compare two location scenarios for new distribution centers for the supplier: (1) the proposal of one new distribution center, and (2) the proposal of two new distribution centers. A cost analysis was realized to compare and discuss the efficiency and gains of installing new distribution centers based on existing assets and inversion. Using the previous mathematical model proposed by Daskin (1995) for P-median as a basis, the provided data and latitude and longitude coordinates for each restaurant franchise (demand point) were programmed in the software Lingo 10. In Table 1, the coordinate results produced by the P-median model for the proposals of locations to install new distribution centers are presented. The present distribution center on Avenida Valsequillo is first referenced with its respective latitude and longitude coordinates, subsequently followed by the proposed distribution center locations for proposal 1, installing one new distribution center, and proposal 2, installing two new distribution centers.

Table 1: Latitude/Longitude Coordinates for New Distribution Center Locations

Proposal	Street	Coordinates
Proposal 0 (Current Location)	Avenida Valsequillo	(19.009461, -98.207953)
Proposal 1	Avenida 31 Poniente	(19.0454207, -98.2303798)
Proposal 2	Avenida 31 Poniente	(19.0454207, -98.2303798)
	Camino Real	(19.0511949, -98.2775706)

Table 1 shows the latitude and longitude coordinates for the current distribution center and subsequently, the two proposed locations of new distribution centers. The column labeled STREET indicates the name of the street of the location in the city of Puebla, Puebla (Mexico) The column labeled COORDINATES shows the latitude, longitude of each point.

The principal elements and associated costs that were identified and analyzed in this facility location and distribution logistics proposal were the customers (restaurant franchises), distribution centers (existing and new), transportation, and delivery. The proposals for installing one and two new distribution centers were based on existing assets and the need to avoid installing too many new distribution centers because inventory costs and variability would increase. Since the meat supplier already had three distribution trucks, as well as necessary industrial freezers that could be transferred to new installations, for this reason one and two new distribution centers were proposed. Considering the facility location proposal 2 of installing two new distribution centers, the first located on Avenida 31 Poniente and the second located on Camino Real,

plus the existing distribution center on Avenida Valsequillo, the 27 restaurant franchises (demand points) were a priori partitioned among the distribution centers. The existing distribution center on Avenida Valsequillo was partitioned few demand points because they are the most distant nodes, being located in the outskirts of the city of Puebla. Table 2 presents the restaurant franchises that were assigned to the distribution centers and their respective distances in kilometers from the depots. The restaurant franchises are numbered from 1 to 27 and are not listed in a particular order other than corresponding to the assigned distribution center.

Table 2: Allocation of Franchises to Distribution Centers

Distribution Center	Restaurant Franchise	Distance (Km)
Avenida 31 Poniente	1. Humbolt	7.65
	2. Boulevard Norte	1.47
	3. Avenida 25 Poniente	7.24
	4. Centro	4.98
	5. Avenida 31 Poniente	1.50
	6. Plaza Sur	4.02
	7. Plaza Dorada	0.59
	8. Plaza Centro Sur	2.15
	9. Plaza Loreto	1.52
	10. Angelópolis	2.76
	11. Avenida Juárez	1.96
	12. Avenida 4 Poniente	4.23
	TOTAL DISTANCE	**40.07**
Camino Real	13. Plaza San Diego	2.03
	14. Plaza Express	3.90
	15. Plaza América	4.13
	16. Camino Real	1.97
	17. Cuautlancingo	3.78
	18. Recta Cholula	2.44
	19. Plaza Cruz del Sur	4.36
	20. Plaza Mazarik	5.58
	21. Plaza CAPU	2.82
	22. Cholula	8.70
	23. Mayorazgo	4.21
	24. Zavaleta	4.56
	TOTAL DISTANCE	**48.48**
Current Distribution Center (Valsequillo)	25. Valsequillo	0.54
	26. Atlixco Centro	25.32
	27. Gran Plaza	1.28
	TOTAL DISTANCE	**27.14**

Table 2 presents the 27 restaurant franchises a priori partitioned between the two proposed distribution centers and the existing distribution center on Avenida Valsequillo. In the column RESTAURANT FRANCHISE, the points are numbered 1 to 27 corresponding to the assigned distribution center. In the column DISTANCE (KM), distances between the restaurant franchise and the corresponding distribution center are reported and measured in kilometers.

Theoretically having three installed distribution centers to draw a new logistics system, a CVRP was modeled and programmed in the software Lingo 10 to find the most optimal solution in the vehicle scheduling between the distribution centers and the allocated restaurant franchises, minimizing distances and associated costs. Capacity requirements were taken into account considering the determined demand at each restaurant franchise. Table 3 presents the designed distribution routes between each distribution center and its respective demand points. The number to the left of the name of the restaurant franchise refers to its assigned number in Table 2; how they appear listed in Table 3 is the designed route the vehicle will take to deliver the demanded meat to each restaurant franchise. The first point listed is the depot from where the truck will begin and end its distribution route. To verify if incrementing two additional distribution centers is beneficial to both Antigua Taquería and the meat supplier, a cost analysis is required where current costs incurred by the supplier are compared with the costs that would originate when installing two additional distribution centers on Avenida 31 Poniente and Camino Real. Fixed and variable costs of installations are considered. At the moment the supplier has sufficient personnel, equipment, and infrastructure to supply the capacity of three industrial freezers, so that when increasing two more distribution centers, the current resources were divided between three. An important cost to consider for the supplier is the price of fuel, as the original routes of the distribution trucks were not assigned on the basis of any optimization technique

or mathematical model. With the proposed CVRP routes, it is guaranteed the minimization of distances and therefore a reduction in the cost of consumed fuel. On the other hand, a penalization cost could be incurred if the demanded product is not delivered on time to the restaurant franchises.

Table 3: CVRP Allocated Distribution Routes to Each Distribution Center

Avenida 31 Poniente Distribution Center	Camino Real Distribution Center	Current Distribution Center (Avenida Valsequillo)
5. Avenida 31 Poniente	16. Camino Real	25. Valsequillo
11. Avenida Juárez	19. Plaza Cruz del Sur	
10. Angelópolis	22. Cholula	
1. Humbolt	23. Mayorazgo	
3. Avenida 25 Poniente	13. Plaza San Diego	27. Gran Plaza
2. Boulevard Norte	21. Plaza CAPU	
9. Plaza Loreto	20. Plaza Mazarik	
4. Centro	14. Plaza Express	
12. Avenida 4 Poniente	24. Zavaleta	26. Atlixco Centro
6. Plaza Sur	15. Plaza América	
8. Plaza Centro Sur	17. Cuautlancingo	
7. Plaza Dorada	18. Recta Cholula	

Table 3 shows the allocated distribution routes for each proposed distribution center using mathematical programming of the CVRP. Each column represents one of the three distribution centers: the two proposed distribution centers, Avenida 31 Poniente and Camino Real, and the existing distribution center, Avenida Valsequillo. The restaurant franchises are numbered 1 to 27 corresponding to the respective distribution center.

This penalization would be at the cost of Antigua Taquería because opening hours would be delayed causing a loss in sales. Antigua Taquería has calculated this penalty cost at $2,000MXN per hour of delaying restaurant opening. In Table 4, actual costs for the current and proposed situations are presented to realize a cost analysis. The cost of fuel being utilized is $13.40MXN per liter of gasoline. In the penalty costs of the current situation, an average cost is determined of what the meat supplier incurs with its current delivery delays.

Table 4: Actual Costs for Current and Proposal Situation in Mexican Peso (MXN)

Situation	Current Situation	New + Existing Distribution Centers		
Locations	Current distribution center (avenida valsequillo)	Current distribution center (avenida valsequillo)	Distribution center avenida 31 poniente	Distribution center camino real
Electricity	$18,000.00	$6,000.00	$6,000.00	$6,000.00
Rent	$28,000.00	$13,000.00	$16,000.00	$18,000.00
Freezers	$42,000.00	$14,000.00	$14,000.00	$14,000.00
Equipment	$9,000.00	$3,000.00	$3,000.00	$3,000.00
Inputs	$18,000.00	$6,000.00	$6,000.00	$6,000.00
Administrative Personnel	$24,000.00	$8,000.00	$8,000.00	$8,000.00
Cutting Boards	$30,000.00	$10,000.00	$10,000.00	$10,000.00
Drivers	$36,000.00	$12,000.00	$12,000.00	$12,000.00
Penalties	$30,000.00	-	-	-
Gasoline	$36,000.00	$2,296.00	$2,414.00	$3,998.00
TOTAL	**$271,000 .00**		**$232,708.00**	
SAVINGS		**$38,292.00**		

Table 4 shows a cost analysis comparison for the current situation with one distribution center located on Avenida Valsequillo and the proposed situation with two additional distribution centers to make a total of three working distribution centers for the logistics system of the meat supplier of Antigua Taquería.

A savings difference can be inferred from the cost analysis shown in Table 4. A savings of $38,292.00MXN is presented which represents a 14% savings between the current one distribution center scenario and the proposed three distribution centers scenario. Furthermore than cost savings for the meat distributor, the customer is receiving a more efficient, on-time service, therefore not having to charge penalty fees. Ultimately value from these logistics activities is being created on both ends, for the supplier and the

customer, in terms of timely deliveries and more efficient placing of distribution centers, diminishing vulnerability in the supply chain, minimizing costs and reducing routing distances.

CONCLUDING COMMENTS

In this article a real-life application of optimizing facility location and distribution routes of a logistics system by the means of mathematical modeling has been analyzed and discussed. A P-median model was presented to propose locations of installing new distribution centers, subsequently followed by the application of a CVRP to determine the optimal distribution routes between the initial depot and corresponding demand points. Solutions and a cost analysis of this proposal have been presented to Antigua Taquería to rethink their current logistics system and make necessary changes for higher efficiency and cost savings.

REFERENCES

Baldacci, R., Mingozzi, A., & Roberti, R. (2012). Recent Exact Algorithms for Solving the Vehicle Routing Problem under Capacity and Time Window Constraints. European Journal of Operational Research, vol. 218(1), p. 1-6.

Balinski, M. L., & Quandt, R. E. (1964). On an Integer Program for a Delivery Problem. Operations Research, vol. 12(2), p. 300-304.

Ballou, R. H. (2004). Business Logistics Management. Pearson Education.

Daskin, M. S. (1995). Network and Discrete Location: Models, Algorithms, and Applications. New York: John Wiley & Sons.

Kim, B. I., Kim, S., & Sahoo, S. (2006). Waste Collection Vehicle Routing Problem with Time Windows. Computers & Operations Research, vol. 33(12), p. 3624-3642.

Solomon, M. M. (1987). Algorithms for the Vehicle Routing and Scheduling Problems with Time Window. Operations Research, vol. 35(2), p. 254-265.

Svensson, G. (2000). A Conceptual Framework for the Analysis of Vulnerability in Supply Chains. International Journal of Physical Distribution & Logistics Management, vol. 30(9), p. 731-750.

Toth, P., & Vigo, D. (2001). The Vehicle Routing Problem. Society for Industrial and Applied Mathematics.

Vygen, J. (2004). Approximation Algorithms for Facility Location Problems. p. 3-10.

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APPROACH TO DEVELOP MANAGEMENT OF THAI TEMPLE IN ORDER TO PROMOTE THE CULTURAL TOURISM CASE STUDY: WAT BOWONNIWET VIHARA RAJAVARAVIHARA

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ABSTRACT

This research is aim to explore and investigate of the areas that for development of cultural tourism of Thai temple eventually to Approach to development of Promoting cultural tourism of Wat Bowonniwet ViharaRajavaravihara. This research is divided in to 1 part which the first part is the part of quantitative research (respondents 10 research interviews) in order to explore and investigate of the development of cultural tourism of Thai temple. The research method was separated in to 5 parts as 1. Research study and collect the data. 2. To study in the field of culture tourism of Thai temple 3. To develop a culture tourism of Thai temple 4. To process the developing of led to develop in order to promote the cultural tourism for Thai temple. In the beginning, the result is found that a Thai temple is able to develop for Promoting Culture Tourism. In additional, the temple must focus on the management such as staffing, internal and external analysis, marketing and promotion.

KEYWORDS: Thai Temple, Cultural Tourism, Management

INTRODUCTION

Obviously, tourism is very accepted and important business sector in Thailand which is the main national income and gain very huge money in each year. Moreover,)Department of Tourism, 2012) Thai government concern this point, it lead to Thai government Cabinet approved the establishment of the Ministry of Tourism and Sports by year 2002. Then tourism industry segment now is very significant for every Thai government to drive the nation to success to world economic as it can be seen from the Table 1 total amount of international tourist arrivals in Thailand during 2009-2012.

Table 1: Total International Tourist Arrivals in Thailand During 2009-2012

Regional	2012 Number	2012 %Share	2011 Number	2011 %Share	2010 Number	2010 %Share	2009 Number	2009 %Share
East Asia	12,502,194	56.06	10,345,866	53.80	8,167,164	51.25	7,076,190	50.01
Europe	5,617,817	25.19	5,101,406	26.53	4,442,375	27.88	4,059,988	28.69
The Americas	1,080,148	4.84	952,519	4.95	844,644	5.30	853,381	6.03
South Asia	1,289,641	5.78	1,158,092	6.02	995,321	6.25	826,437	5.84
Oceania	1,046,753	4.69	933,534	4.85	789,632	4.95	737,459	5.21
Middle East	604,659	2.71	601,146	3.13	569,334	3.57	483,983	3.42
Africa	161,853	0.73	137,907	0.72	127,930	0.80	112,403	0.79
Grand Total	22,303,065	100.00	19,230,470	100.00	15,936,400	100.00	14,149,841	100.00

Source: Ministry of Tourism and Sports, 2012.

(Netnapha, 2007) Thai temple has influenced with Thai life, art and culture of Thailand that Thai temple is not only important for Buddhist monk, local life ,art, culture, but also it is the place that provide education, village meeting place cause, Thai people is moral and gentle people along the present time. (Wandee, 2006). Thai Buddhist temple is place where people in the local community get together to do activities together, sharing the love of the community including education which, can contribute to policies and practices, including the management of a measure to promote cultural tourism. Whereas, the data from all the

resources already have knowledge management is the process of creating processing that analysis and use knowledge to increase operational effectiveness in order to promote cultural tourism. Finally, it can be extracted as a model of organizational learning measurement of Thailand to promote tourism to culture.

LITERATURE REVIEW

In this study, the researcher did the literature review as collecting all information about history of Buddhist especially in Thailand. However, the researcher finds out and analyses the statistic about Thai temple. (Drucker, 2009)The management theories are reviewed for example, Peter F. Drucker, Thomas J Peters, Edward Deming, and Douglas Murray McGregor. Moreover, the researcher have to analyze the situation of Thai tourism.

DATA AND METHODOLOGY

(Vichit, 2010) This research paper is designed as the form of qualitative research methods which, is also a survey research can be described the details of research project was carried out as follows:

Phase **1***:* The Studies And Collective The Relevant Documents And Data For Research.

1 The researcher studiedand collective related documents such as the history of the Thai temple and also the important temples in Thailand. Moreover, the researcher studied about process of management that led to manage Thai Buddhist temple in the culture tourism area

2 The researcher took the information and documents that synthesized to guide the conduct of research.
3 Summary of the synthesis document to be used in carrying out the research a step further.

Phase **2***:* To survey components of Thai Buddhist temples to promote cultural tourism.

1 The researcher studied the documents related research leading to the development of the tool for research as in-depth interviews which, is a question for the interview as a open The point of the interview question and the content is the same for the despondences to study the availability of cultural tourism of Thailand temple.

2 The population is the people who involved with the management of Thai Buddhist temple such as abbot, monks, novice, temple manager, tourist and tourist guide totally 10 people.
3 The researcher analyzed using content analysis from in- depth interview documentation and doing the research report paper.

Phase 3: Approach to Develop Management of Thai Temple in order to promote the Cultural Tourism

1 Based on the results from content analysis and to draw conclusions and write a management approach Thai Buddhist temple to promote cultural tourism case study Bowonniwet Vihara Rajavaravihara temple.

RESULTS AND DISCUSSION

From the in-depth interviews with experts, academics as well as those persons involved with the temple in Thailand of 10 members of this research including Thai Buddhist monks, Thai temple manager and those related to the temple Thailand those, who have knowledge and experience. So the researchers have presented a summary of the interview. The following order:

The first interviewee: pra pritakosol (Assistant of Temple abbot)

Bowonniwet Vihara Rajavaravihara temple is not required to have a prototype system is already quite a good deal because we can model our own. We started up a modern bathroom for the disabled is available with either a ramp just renovated in a million baht budget. Our temple still lack of multimedia or billboard to give to international tourists which, now are not enough for them. However, Thai tourists know well about this temple and satisfy this temple which they know the way of doing in the temple. Thai Buddhist temple should pay attention more about management of temple environment to promote culture tourism for international tourist such as flowers, candles, incense, holy water, toilet especially amulets that is very famous for Thai and Chinese people.

The second interviewee:pra wansawan julaphoe (Thai Buddhist monk) Normally, we have not to forget the way of Thai ancient which, involved with temple. We should promote to the tourist want to see and experience the way of Thai Buddhist temple related with the Thai people by the way, we must do the tourism guide booklet for travelling around the temple in order to travel as culture tourism in temple in the right way that also explain the history of Buddhist and the core concept of Buddhism religion. Then, the tourist who come to the Thai Buddhist temple begin to know how to experience and travel correctly in Thai temple that they have to get knowledge and interesting from culture tourism along the travel. On the other hand, we should focus on to manage the external context of temple for example the bus stop, bike lane for the tourist, digital sign post, online of Thai temple information.

The third interviewee: pra khemachitho (Thai Buddhist monk)

If we want really to develop Thai Buddhist temple to be culture tourism, we will study and implement in consistency way for promoting culture tourism. We might do the poster to invite international tourist to travel Thai temple in English version. Moreover, we should focus on clearness around the temple also the security for the tourists who want to visit Thai Buddhist temple. Furthermore, we should set up our staff to teach the international tourists how to travel culture tourism in the Thai Buddhist temple in the Buddhism way for example how to give respect to the monk, Buddha image, Thai people and the rule for tourist when they come in to the Thai chapel or lady act to the Thai Buddhist monk.

The fourthinterviewee: pra thitidhama shae tung(Thai Buddhist monk) We will do the promotion of the Thai Buddhist temple that shows the important of Thai temple to the international tourists for example our temple is the royal Thai temple and also Thai Patriarch used to live in this temple. Moreover, this temple is where, the King RAMA9 used to ordinatein Bowonniwet Vihara Rajavaravihara temple by year 1956.The promotion Thai temple Brochure should be put the several information as temple map, Thai Buddhist temple activities, do or don't things, internal and external temple environment. Furthermore, our temple will organize the temple staff to be tourist staffs to assist the tourist who want to visit Bowonniwet Vihara Rajavaravihara temple which, the temple staff must be trained as a good personality and character before they serve the tourists.

The fifth interviewee: pra jirathikho(Thai Buddhist monk) We must promote our Thai Buddhist temple in the strengths point such as old temple Bowonniwet Vihara Rajavaravihara 170 years old, 4 Thai Patriarch belong to Bowonniwet Vihara Rajavaravihara temple. Moreover, this temple is very important for Thai history and also King RAMA6th's temple which is the first Dhammyuttika temple in Thailand. This temple architecture is the architecture of contemporary China. Since then, we have trade with China. Thailand temple management to promote cultural tourism signs along the navigation and information that this building was intended to do. There is a history to it this study took place at the temple fair or triple what it points clearly in both Thailand and the English language.

*The sixth interviewee:*pra kitthi (Thai Buddhist monk) Bowonniwet Vihara Rajavaravihara temple is set up clearly that inside of the temple that is priority for the senior monk whereas, the other area will serve every people who want to visit and do the Buddhist religion activities. However, the direction and information

signpost will be installed in every important temple areas. Our temple organizes the management and environmental elements whereas, the Buddhist temple where, the international tourists can do the merit a trip to the temples of religious tourism. However, we should do the knowledge management about Thai Buddhist temple and provide the knowledge information to the tourists who not only come to the Thai temple in order to take picture but also they want to visit Thai temple for respect and experience really Buddhist religion. Furthermore, the government sector must pay attention for about promoting Thai temple to be culture tourism more than the part time.

*The seventh interviewee:*pra khemasanho bhiku(Thai Buddhist monk) Generally, Thai Buddhist temple has got its own charming and motivation however,Thai temple should be analyzed and developed internal and external environment of the temple which the significantly is the external environment such as local shop, flower shop, amulets shop, all there must be organized in order and interesting. Moreover, Thai temple should do the signpost which, tell the story of temple such as history, direction, shop, restaurant. However, Thai temple should organize the staff that involve with high school or university take the students come to experience the culture tourism from the Thai Buddhist temple also guide the students to see the temple museum because Bowonniwet Vihara Rajavaravihara templeis one of the most oldest royal temple in Thailand.

*The eighth interviewee:*pra rajchamunee(Thai Buddhist monk) Significantly, Thai Buddhist temple should connect with the department of government which in charge about tourism area such as ministry of sport and tourism, The Tourism Authority of Thailand, department of Thai tourism. According to they can do the tourism promotion which involve with Thai temple in several culture tourism events for example vesak day, Buddhist Sabbath, Thai traditional New Year day, Buddhist history. Furthermore, Thai temple should motivate the international tourist come to visit the temple and do the culture tourism activities such as meditation, Buddhist pray, ordained.

The ninth interviewee: manager of the temple no.1 Bowonniwet Vihara Rajavaravihara temple should do the temple promotion about temple history for example Bowonniwet Vihara Rajavaravihara temple 170 years old, royal temple. Moreover, Thai Buddhist temple should set up culture tourism activities such as temple tour program, Buddha tour program, exorcise tour program, photography tour program however, during the tourists do the activities then the temple should give the temple information and knowledge on order to promote culture tourism in the Thai Buddhist temple.

*The tenth interviewee***:** manager of the temple no.2 Thai Buddhist temple must do the media post to motivate the international tourist in English version intent to do the culture tourism activities in order to promote culture tourism. Moreover, Thai temple must pay attention about cleanness of the temple, security, map and direction whereas; Thai Buddhist temple should give the knowledge that shows the reason why we have to go to the Thai Buddhist temple. Then, we have to set up the internal environment of the Thai Buddhist temple such as tidy and beautiful. Furthermore, Thai Buddhist temple must connect with the local community in order to promote their local temple and they can gain more the benefit money to their own local community as well.

CONCLUDING COMMENTS

From the researcher performed the literature review and also the involved documents in order to develop the in-depth interview after that analyzed the answer data by process of content analysis which can be seen that an approach to develop management of Thai temple in order to promote the culture tourism that Thai temple must set up practically the management culture tourism team or tourism department of the temple implement about tourism management. (McGregor, 2005)The tourism management team of the temple must be organized in each work position clearly which, is included by Thai Buddhist monk, temple manager, local people to integrate and manage in the area of culture tourism. It is consisted the McGregor

theory that is proposed that manager's individual assumptions about human nature and behavior determined how individual manages their employees   However, the temple tourism management team should take responsibility about preparedness and the strength points to be able to promote as culture tourism and also find out the weakness points in order to adjust to be appropriate as culture tourism which is according with the first interviewee (PRA PRITAKOSOL) said that temple should pay attention more about management of temple environment to promote culture tourism for international tourist such as flowers, candles, incense, holy water, toilet especially amulets that is very famous for Thai and Chinese people whereas, we must still do in the concept of originally Thai culture tourism and Buddhist way and also guide the international tourists to pay attention the culture tourism activities in order to promote culture tourism. Moreover, (Bunlert, 2005) Thai temple must pay attention about cleanness of the temple, security, map and direction whereas; Thai Buddhist temple should give the knowledge that shows the reason why we have to go to the Thai Buddhist temple.

Whereas, the temple management team who have to promote culture tourism that should survey the temple context about culture tourism inside the temple and also internal and external environment of the temple that god to be as culture tourism which is according to the eighth interviewee (PRA RAJCHAMUNEE) said that Thai Buddhist temple should connect with the department of government which in charge about tourism area such as ministry of sport and tourism, The Tourism Authority of Thailand, department of Thai tourism in order to do the tourism promotion which involve with Thai temple in several culture tourism events for example vesak day, Buddhist Sabbath, Thai traditional New Year day, Buddhist history. After that (Weera,2015) the tourism management team of the temple should create learning to occur include tourism activities and also tourist attraction site within an appropriate as culture tourism that is according to the researcher did the in-depth interview that interviewee said that should set up culture tourism activities such as temple tour program, Buddha tour program, exorcise tour program, photography tour program however, during the tourists do the activities then the temple should give the temple information and knowledge on order to promote culture tourism in the Thai Buddhist temple that focus on the tourist from Singapore, China, Malaysia, Korea, Japan, England, America. Furthermore, the Thai temple management should do the media post to motivate the international tourist in English version intent to do the culture tourism activities in order to promote culture tourism. Moreover, Thai temple must pay attention about cleanness of the temple, security, map and direction whereas; Thai Buddhist temple should give the knowledge that shows the reason why we have to go to the Thai Buddhist temple that lead them to be as the culture tourists which is consisted with is the Perter Drucker theory as a process of capturing, developing, sharing, and effectively using organizational knowledge (Drucker, 1993)

REFERENCES

Alter, S.(1996) Information Systems: A Management Perspective. 2nd ed. Benjamin/Cummings Publishing.

Battor, M., & Battor, M. (2010). The impact of customer relationship management capability on innovation and performance advantages: Testing a mediated model.

Bunlert Jittangwattana. (1999). A Planning for Development of Sustainable Tourism. Chiang Mai: Faculty of Humanity and Social Science.

Bunlert Jittangwattana. (2005). A Development of Sustainable Tourism. Bangkok: Press and Design Co.,Ltd., Chiang Mai University.

Chantat Wattanom.(2008). Principles of Tour Guide (2nd Edition). Bangkok: Suansunandha Rajabhat University.

Burkart,A.J, and Medlik,S. 1981. Tourism : Past, Present and Future.2nd.ed.Oxford Buiterworth-Hieneman.

Department of Tourism.(2012). Statistics of Tourists (Online). Accessing form: http://www.tourism.go.th/2010/th/statistic/tourism.php [2012, August 14].

Drucker, Peter f., (1993).The Post Capitalist Society, Butterworth-Heinemann.

Douglas McGregor (2005). The Human Side of Enterprise, Annotated Edition. McGraw Hill Professional.

Liebowitz, J. and T. Backman. (1998). Knowledge Organizations: What Every Manager Should Know, St. Lucie / CRC Press, Boca Raton, FL.

M. Earl. (1998). "Why Knowledge Management," Presentation at Andersen Consulting's Knowledge Management Workshop, London, March 9.

McCarthy, C. A. (1997). A reality check the challenges of implementing information power in school library media program. Dissertation Abstracts International, 25, 205-213.

McKercher, B. & du Cros, H. (2002). Cultural tourism: The partnership between tourism and culturalheritage management. New York: Haworth Hospitality Press.

Ministry of Tourism and Sports. (2011). A Report, B.E.2554 (2011). Bangkok:: Ministry of Tourism and Sports.

Mill, Robert Christies. (1990) Tourism The International Business. New Jersey: Prentice Hall.

Namthip Wipawin. (2004). A Konwledge Management with Knowldege Archives. Bangkok: SR Printing Mass   Product Co.,Ltd.

Netnapha Leungsa-at. (2007). Management for Developing Spiritual Tourism in Kanchanaburi Province. A Dissertation of Master of Science (Environmental Chemistry). Bangkok: Srinakharinwirot University.

Peter F. Drucker (2009)The Daily Drucker. HarperCollinsPublisher.

Vijan Panit. (2005). A Knowledge Management, Practitioner Edition. Bangkok: Sukaphap Jai.

Vichit Uan. (2010). A Research and Search of Business Information. Bangkok: Sripatum University.

Wandee Sisang. (2006). A Guidelines for Planning for Development of Sustainably Conservative Tourism of Kanchanaburi Province.Dissertation of Master of Science (Environmental   Chemistry). Bangkok: Srinakharinwirot University

Weera Weerasophon. (2015). A Guideline of Development in Management of Suansunandha Rajabhat University in order to Promote the Cultural Tourism.Bangkok. Suansunandha   Rajabhat University Wina Sumbantit. (2006). An Integrated Strategy Planning for Sustainably Conservative Tourism, Case Study: Samut Songkhram. A Dissertation of Master of Science (Environmental   Chemistry). Bangkok. Srinakharinwirot University.

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BIBLIOGRAPHY

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WHAT IS THE OPTIMAL TIME TO RETIRE (BASED ON CALPERS DATA)?

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ABSTRACT

In this paper, we calculate optimal age of retirement based on mathematical models. We use the data from CALPERS (California Public Employment Retirement System). The results are particularly important to employees. While the specific results of this study are geared to CALPERS employees, the method and the mathematical tools can be easily generalized to any systems. We first derive the basic equation between retirement age, number of years of service, and the benefits (expressed as a percentage of gross salary). The optimal age of retirement depends not only on the amount one would get after retirement but also on the longevity of the person. Once longevity comes into the picture, risk factor comes into the corresponding mathematical model. We collect information on longevity study of employees. Then we derive a mathematical function between retirement age and the number of years a person lives after retirement. These functions will then be combined to get an integrated function which yields an optimal age of retirement. On a plot, the optimal age of retirement is also the intersection of the two functions. The problem becomes quite complex as the retirement benefits vary on the number of years of service. This research considers all the important and relevant information regarding retirement and longevity of the employee to calculate the optimal age of retirement.

INTRODUCTION

This paper investigates the optimal age of retirement, which is determined by many factors. The main factor is the system in which the employee is working. In addition, there are other factors such as health, psychological and sociological factors. We use the CALPERS (California Public Employees Retirement System) data in our study. However, the mathematical tools used are general and can be used for any other systems. Two approaches can be used to solve this problem. While both approaches are discussed in this paper only Approach I is used to get the results reported in this paper. Mathematical principles have been effectively applied to various practical problems in various fields by several authors (Putcha and sloboda 2015; Putcha and Sloboda, 2013).

METHODOLOGY

Approach I

CALPERS provides a table of benefit factors for the CALPERS employees with various years of service. This data is shown in Table 1 for the case of 2% at 55 (CALPERS, 1981). In addition, CALPERS also provides the percentage gross salary versus retirement age. The data is shown in Table 2.

Table 1: Retirement Age and Benefit Factor (CALPERS, 1981)

Retirement Age	Benefit Factor
50	1.100
51	1.280
52	1.460
53	1.640
54	1.820
55	2.000
56	2.064
57	2.126
58	2.188
59	2.250
60	2.314
61	2.376
62	2.438
63+	2.500

Figure 1: Retirement Age and Benefit Factor (CALPERS, 1981)
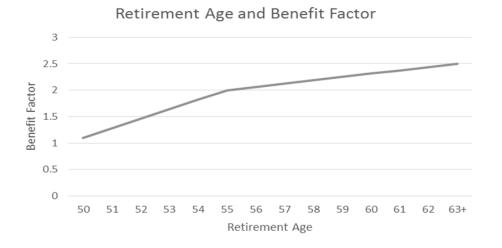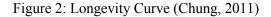
Table 2: % Gross Salary for Various Years of Service and Retirement Age (CALPERS, 1981)

	Years of Service						
	5 years of service	10 years of service	15 years of service	20 years of service	25 years of service	30 years of service	35 years of service
Retirement Age	Percentage of final compensation (%)						
50	5.5	11	16.5	22	27.5	33	
51	6.4	12.8	19.2	25.6	32	38.4	
52	7.3	14.6	21.9	29.2	36.5	43.8	51.1
53	8.2	16.4	24.6	32.8	41	49.2	57.4
54	9.1	18.2	27.3	36.4	45.5	54.6	63.7
55	10	20	30	40	50	60	70
56	10.32	20.64	30.96	41.28	51.6	61.92	72.24
57	10.63	21.26	31.89	42.52	53.15	63.78	74.41
58	10.94	21.88	32.82	43.76	54.7	65.64	76.58
59	11.25	22.5	33.75	45	56.25	67.5	78.75
60	11.57	23.14	34.71	46.28	57.85	69.42	80.99
61	11.88	23.76	35.64	47.52	59.4	71.28	83.16
62	12.19	24.38	36.57	48.76	60.95	73.14	85.33
63+	12.5	25	37.5	50	62.5	75	87.5

These benefit factors are used to calculate the percentage of gross salary of an employee which is essentially the product of benefit factors and number of years of service. It is to be noted that the benefit factors vary with the age of retirement. Fig. 1 shows this variation above. It can be seen from Fig. 1 that it is essentially a linear relation. The equation for this given as:

Benefit Factor and Retirement Age: $y = 0.1026x - 3.8277$ (1)
$R^2 = 0.9325$

To check the statistical adequacy of this equation, two parameters are calculated in general. One is r (Correlation coefficient) and the other is $s_{y/x}$ which is standard error of estimate. For a good fit, $r >= 0.8$ and $s_{y/x}$ $<=$ $s_{y/x}$ in which $s_{y/x}$ is the standard error of estimate and s_y is the standard deviation of the dependent variable y. These expressions are taken from literature (Ang & Tang, 2007). In this paper the correlation coefficient r is used to check the adequacy of the fitted relation. To get an optimal age of retirement this curve is superimposed with the longevity curve. The longevity curve is shown in Fig. 2 based on the data available in literature (Chung, 2011). Figure 3 shows combined curve of benefit factor and longevity curve.

Figure 2: Longevity Curve (Chung, 2011)
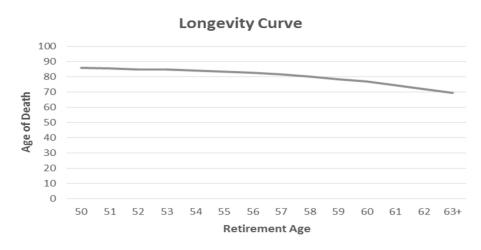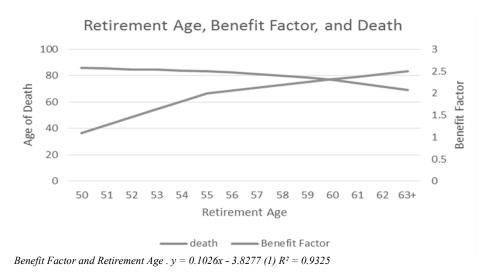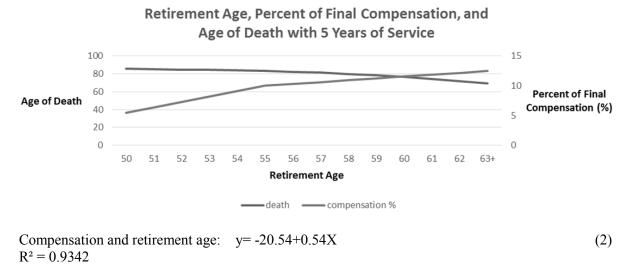
Figure 3: Retirement Age, Benefit Factor, and Death

Benefit Factor and Retirement Age . y = 0.1026x - 3.8277 (1) R² = 0.9325

Using the benefit factor information, plots are generated for % gross salary and retirement age for various service years of 5, 10, 15, 20, 25, 30 and 35. These are shown in Figs. 4-10. A function relation has been developed for each of these plots based on the concept of regression analysis. For a good fit, r >= 0.8. These equations are shown below for each case along with r.
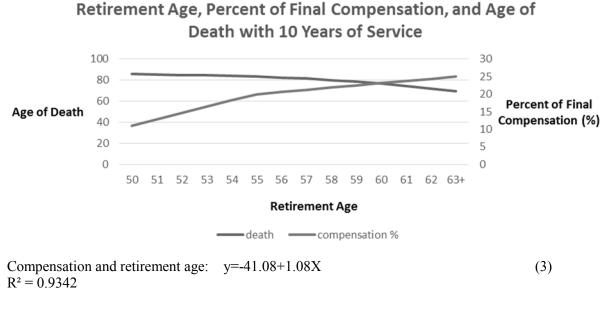
5 Years of Service

Figure 4: Retirement Age, Percent of Final Compensation, and Age of Death with 5 Year of Service

Compensation and retirement age: y= -20.54+0.54X   (2)
R^2 = 0.9342
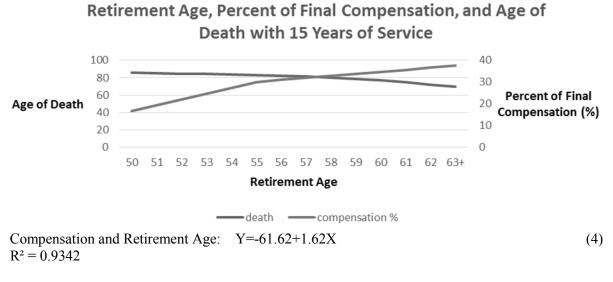
10 Years of Service

Figure 5: Retirement Age, Percent of Final Compensation, and Age of Death with 10 year of Service

Compensation and retirement age: y=-41.08+1.08X   (3)
R^2 = 0.9342

15 Years of Service

Figure 6: Retirement Age, Percent of Final Compensation, and Age of Death with 15 Year of Service

Compensation and Retirement Age: $Y = -61.62 + 1.62X$ (4)
$R^2 = 0.9342$
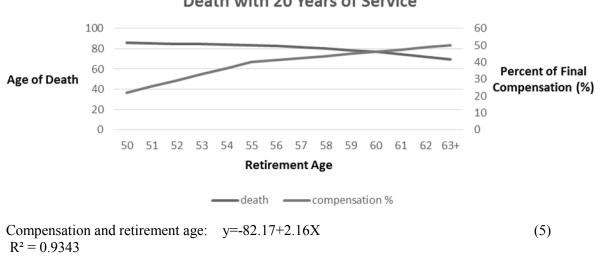
<u>20 Years of Service</u>
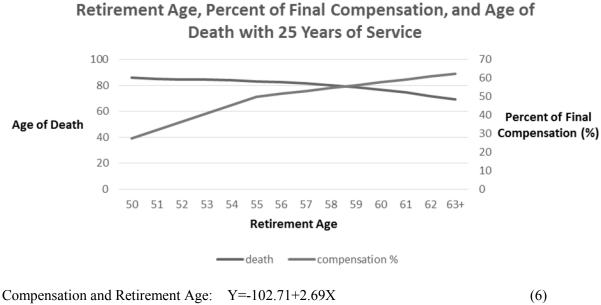
Figure 7: Retirement Age, Percent of Final Compensation, and Age of Death with 20 Year of Service

Compensation and retirement age: $y = -82.17 + 2.16X$ (5)
$R^2 = 0.9343$

25 Years of Service
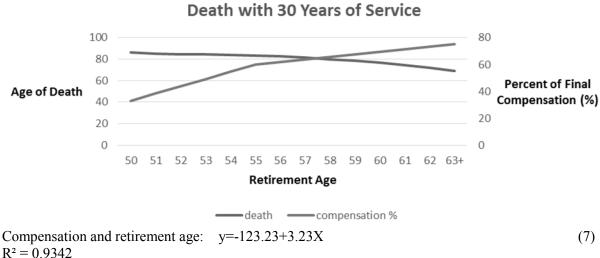
Figure 8: Retirement Age, Percent of Final Compensation, and Age of Death with 25 Year of Service

Compensation and Retirement Age: Y=-102.71+2.69X   (6)
 R² = 0.9343

30 years of Service
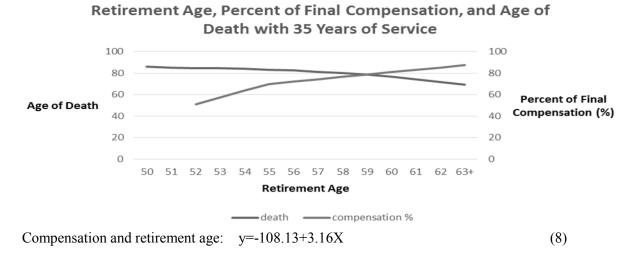
Figure 9: Retirement Age, Percent of Final Compensation, and Age of Death with 30 Year of Service

Compensation and retirement age: y=-123.23+3.23X   (7)
R² = 0.9342

35 Years of Service

Figure 10: Retirement Age, Percent of Final Compensation, and Age of Death with 35 Year of Service

Compensation and retirement age: y=-108.13+3.16X   (8)
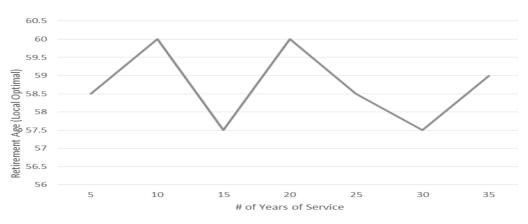
DISCUSSION OF RESULTS

It can be seen from various Tables and figures shown above that the optimal retirement age varies based on number of years of service. These points can be considered to be local optimal for the problem under consideration. These local optimal points are summarized in the Table 4 below.

Table3: Number of Years of Service and Retirement Age (Local Optimal)

# Of Years of Service	Retirement Age (Local Optimal)
5	58.5
10	60
15	57.5
20	60
25	58.5
30	57.5
35	59

This data is plotted in Figure11 below.

Figure 11: Number of 0 Years of Service and Retirement Age (Local Optimal)

\# of Years of Service and Retirement Age.

The corresponding regression Equation for of Years of Service and Retirement Age is given as:

$$y = -0.0893x + 59.071 \tag{9}$$
with $R^2 = 0.034$.

To get an optimal retirement age the results of local optima plotted in Fig. 11 need to be combined with the results plotted in Fig.3 which gives an optimal retirement age of 60. From Fig. 11, the optimal retirement age is also 60. This is because the results plotted in Fig. 4 are based on various number of service plots superimposed with longevity curve. Hence, the maximum points are of interest and that number is 60.

FUTURE RESEARCH

Approach II as stated briefly is the basis of future research on this topic.

Approach II

It is to be noted that Approach I discussed above treats data for 5 years of service, 10 years of service separately. In Approach II, both the % gross salary and number of years of service are treated as independent variables (as x_1 and x_2) and the retirement age as a dependent variable (y). One can then derive a relation between y, x_1 and x_2 using the concept of multiple linear regression analysis. One can then use the principles of calculus to get an optimal value of (% gross salary x_1) and number of years of service x_2) and the corresponding optimal retirement age. Both the results from Approach I and Approach II should be the same. However, this approach is not used in this study. Further research is being conducted using Approach II.

CONCLUSIONS

Hence, based on the detailed research study conducted as reported in this paper the optimal age of retirement is 60 based on CSU retirement system.

REFERENCES

Ang, A.H-S and Tang, W. (2007). Probability Concepts in Engineering. John Wiliey & Sons.
Chung, E (2011). Actuarial Study of life span vs. retirement age.

http://faculty.kfupm.edu.sa/coe/gutu...sc/Retire1.htm
CALPERS (1981). 2% at 55 Formula. Published by CALPERS.

Putcha, C.S. and Sloboda, B. (2015). A New Approach for a Forecasting Model in the Estimation of Social Security Benefits", (with B. Sloboda). 35th International Symposium on Forecasting, Riverside, CA, June 21-24.

Putcha, C.S. and Sloboda, B (2013). Predicting Unemployment Rate in The United States Since 2001. Chandrasekhar Putcha, Brian Sloboda and Kalamogo Coulibaly (Editors), Edwin Mellen Press.

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MATHEMATICAL ANALYSIS OF UNEMPLOYMENT BENEFITS

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ABSTRACT

This research deals with development of a mathematical equation to calculate unemployment benefits. At a conceptual level, unemployment benefits can be considered as directly proportional to salary and the employment period of the worker prior to being laid off. It is also inversely proportional to factors such as other governmental benefits received in that period of unemployment. The rudimentary calculation of unemployment is the sum of the two highest quarter gross wages, divided by 2, then multiplied by a percentage to get your weekly benefits. A simpler formula needs to be derived to calculate the unemployment benefits to keep up with the capricious wages and changing regulations. An analysis of the federal government benefits as well as the state government benefits will be performed to calculate this new formula. Each state should be able to adapt the new formula derived so that it can assess the proper baseline for calculating the unemployment benefits needed for their specific cost of living requirements. A regression analysis will be performed using the salary and working time along with other benefits received indexed with unemployment benefits received to arrive at a mathematical equation for unemployment benefits which will be useful to public and researchers.
Introduction

INTRODUCTIONS

The problem of unemployment benefits is studied in this paper using principles of mathematical analysis. In any physical problem, the corresponding mathematical model is formulated after making certain assumptions. One has to be careful in performing this step. This is because, if one makes too many assumptions, the corresponding mathematical model, while easy to solve may have no relevance to the actual problem to be solved. On the other hand, if too few assumptions are made, the corresponding mathematical model may be too complex to solve. With this in mind, an appropriate mathematical model is first formulated. Then it is solved using the standard available mathematical tools.

METHODOLOGY

The unemployment benefits really depend on two basic parameters. One is the salary that a person was making while working and the other is the period that the person worked before being laid off. While every state in USA has a standard upper limit on unemployment benefits, there is also an implicit minimum on unemployment benefits.   The study is done in 2 phases. The mathematical principles used are similar to the one used by many researchers (Putcha and Sloboda, 2013; Putcha and Sloboda, 2015).

Phase I

In this phase, 7 families were randomly chosen for this study. Tables 1-3 show the period worked in weeks, salary/week, benefits/week and the duration of the unemployment benefits that the person received. Figures 1-3 show the variation of unemployment benefits vs. salary/week for 3 consecutive years from 2012-2014

for the 7 randomly picked people. The intent is to find a functional relation between the parameters of unemployment benefits and the salary, unemployment benefits and duration of benefits and period of work and duration of unemployment benefits for the three consecutive years 2012-14. Each of the function is then checked for statistical adequacy through two standard parameters. One of them is the correlation coefficient (r) and the other is the standard error of estimate (sy/x). For an acceptable fit, r >=0.8, and sy/x < sy). In this paper, only r is used as an adequacy check The necessary equations can be found in the literature (Ang & Tang, 2007).
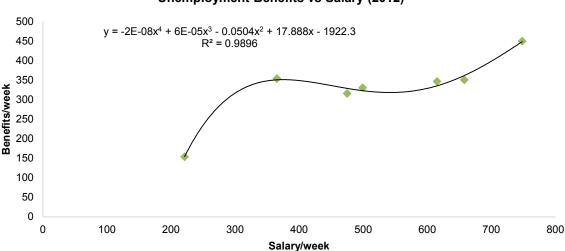
2012

Table 1: period worked in weeks, salary/week, benefits/week and the duration of the unemployment benefits received per person

Person	Period worked (weeks)	Salary/week	benefits/week	Duration (Total Maximum) (weeks)
1	52	475	316	26
2	52	365.38	354	26
3	52	221.15	154	26
4	52	499.04	331	26
5	52	748.08	450	26
6	52	657.69	351	26
7	52	615.38	347	26

Regression Analysis is performed for the data between the Unemployment Benefit – Salary treating unemployment benefit as a dependent variable and salary as independent variable. Figure 1 below shows the behavior.

Figure 1 : Unemployment benefits vs Salary for 2012

The equation for Unemployment benefits vs salary is given below:

$$y = -2E\text{-}08x^4 + 6E\text{-}05x^3 - 0.0504x^2 + 17.888x - 1922.3 \tag{1}$$
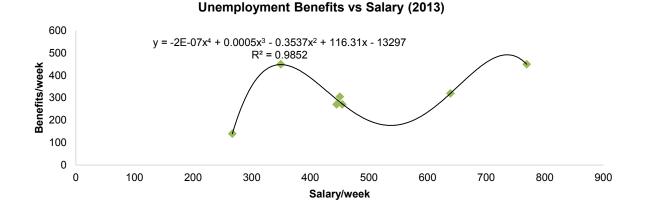
2013

Table 2: period worked in weeks, salary/week, benefits/week and the duration of the unemployment benefits received per person

Person	Period worked (weeks)	Salary/week	benefits/week	Duration (Total Maximum) (weeks)
1	52	454.42	271	26
2	52	450.38	305	26
3	52	266.92	140	26
4	52	444.9	271	26
5	52	769.23	450	26
6	52	639	320	26
7	52	349.61	450	26

Unemployment Benefit – Salary for 2013

Figure 2: Unemployment benefits vs Salary for 2013

Unemployment Benefits vs Salary (2013)

$y = -2E\text{-}07x^4 + 0.0005x^3 - 0.3537x^2 + 116.31x - 13297$
$R^2 = 0.9852$

Unemployment benefits vs salary: equation is given below:

$$y = -2E\text{-}07x4 + 0.0005x3 - 0.3537x2 + 116.31x - 13297 \qquad (2)$$

$r^2 = 0.9852$ (r = 0.992572) which implies that the regession equation obtained is satisfactory.

2014
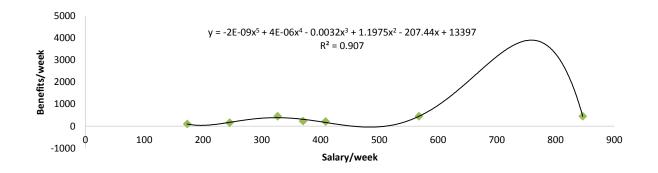
Table 3: period worked in weeks, salary/week, benefits/week and the duration of the unemployment benefits received per person

Person	Period worked (weeks)	Salary/week	benefits/week	Duration (Total Maximum) (weeks)
1	52	370.19	231	13
2	40	245.19	163.63	13
3	52	173.07	105.88	13
4	52	408.65	211.75	13
5	52	846.15	450	19
6	52	567.31	450	14
7	40	326.92	450	17

Unemployment Benefit – Salary for 2014

Figure 3: Unemployment benefits vs Salary for 2014

Unemployment Benefits vs Salary (2014)

$$y = -2E\text{-}09x^5 + 4E\text{-}06x^4 - 0.0032x^3 + 1.1975x^2 - 207.44x + 13397$$
$$R^2 = 0.907$$

Unemployment benefits vs. salary equation is given below:

$$y = -2E\text{-}09x5 + 4E\text{-}06x4 - 0.0032x3 + 1.1975x2 - 207.44x + 13397 \quad (3)$$
$r^2 = 0.907$ ($r= 0.952365$) which implies that the regression equation obtained is satisfactory.

Phase II

In this phase, 3 states (Missouri, Florida and California) were randomly picked and the information on average weekly benefits for each of the 12 months is collected and is shown in Tables 4-6. Figs 4-6 show the histogram of these average/weekly benefits. A visual inspection shows a normal distribution. For exact check, one needs to a do a chi-square test. Which has been done and the normal distribution was found satisfactory. Table 9 shows statistical analysis of the unemployment benefits data.

Table 4: Average weekly benefits for 12 months for Missouri (United States Department of Labor ETA (Office of Unemployment Insurance, Employment & Training Administration), 2015)

STATE	Avg. Wkly Benefit*
Missouri	
1/31/2011	$241.04
2/28/2011	$242.92
3/31/2011	$240.92
4/30/2011	$241.10
5/31/2011	$240.33
6/30/2011	$233.31
7/31/2011	$228.91
8/31/2011	$230.12
9/30/2011	$237.78
10/31/2011	$236.97
11/30/2011	$237.40
12/31/2011	$239.08
1/31/2012	$237.50
2/29/2012	$240.15
3/31/2012	$240.43
4/30/2012	$240.86

5/31/2012	$241.80
6/30/2012	$234.05
7/31/2012	$231.83
8/31/2012	$235.63
9/30/2012	$244.49
10/31/2012	$243.27
11/30/2012	$241.54
12/31/2012	$244.30
1/31/2013	$245.07
2/28/2013	$243.79
3/31/2013	$245.56
4/30/2013	$244.87
5/31/2013	$241.44
6/30/2013	$233.23
7/31/2013	$231.02
8/31/2013	$233.99
9/30/2013	$242.48
10/31/2013	$244.40
11/30/2013	$244.72
12/31/2013	$245.91
1/31/2014	$244.84
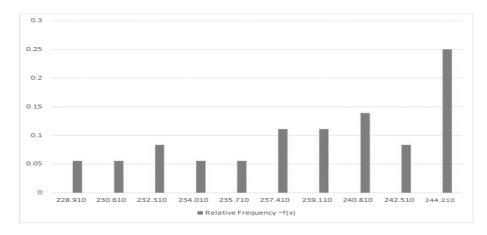
Table 5: Average weekly benefits for 12 months for Florida (United States Department of Labor ETA (Office of Unemployment Insurance, Employment & Training Administration), 2015)

STATE	Avg. Wkly Benefit*
Florida	
1/31/2011	$229.75
2/28/2011	$229.74
3/31/2011	$230.60
4/30/2011	$231.61
5/31/2011	$232.03
6/30/2011	$230.42
7/31/2011	$228.73
8/31/2011	$230.26
9/30/2011	$230.85
10/31/2011	$231.34
11/30/2011	$231.61
12/31/2011	$231.80
1/31/2012	$231.83
2/29/2012	$231.76
3/31/2012	$232.99
4/30/2012	$233.80
5/31/2012	$233.36
6/30/2012	$231.65
7/31/2012	$229.49

8/31/2012	$229.36
9/30/2012	$230.63
10/31/2012	$230.62
11/30/2012	$231.28
12/31/2012	$232.54
1/31/2013	$232.53
2/28/2013	$233.04
3/31/2013	$233.62
4/30/2013	$234.33
5/31/2013	$234.75
6/30/2013	$233.16
7/31/2013	$231.13
8/31/2013	$230.79
9/30/2013	$231.75
10/31/2013	$236.23
11/30/2013	$236.73
12/31/2013	$237.41

Figure 5: Relative Frequency Florida
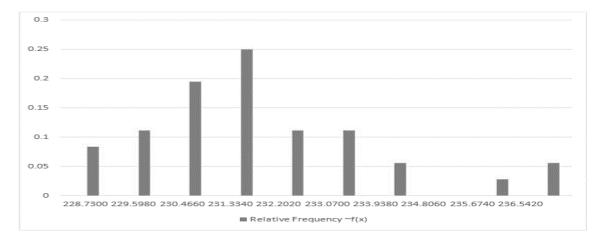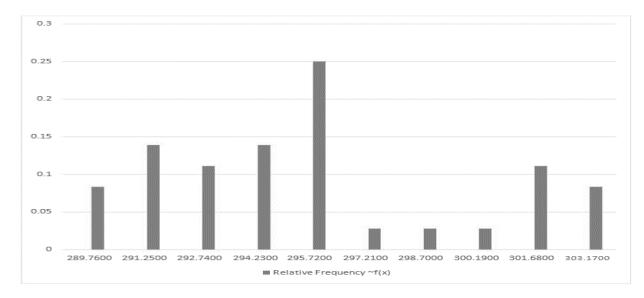
Table 6: Average weekly benefits for 12 months for California (United States Department of Labor ETA (Office of Unemployment Insurance, Employment & Training Administration), 2015)

STATE	Avg. Wkly Benefit*
California	
1/31/2011	$292.64
2/28/2011	$289.76
3/31/2011	$290.78
4/30/2011	$290.92
5/31/2011	$293.31
6/30/2011	$296.54
7/31/2011	$294.69
8/31/2011	$293.55
9/30/2011	$294.86
10/31/2011	$294.76
11/30/2011	$292.98
12/31/2011	$291.88
1/31/2012	$293.30
2/29/2012	$292.21
3/31/2012	$291.54
4/30/2012	$291.98
5/31/2012	$295.25
6/30/2012	$296.93
7/31/2012	$296.80
8/31/2012	$296.82
9/30/2012	$297.56

10/31/2012	$296.82
11/30/2012	$296.32
12/31/2012	$296.14
1/31/2013	$298.87
2/28/2013	$296.19
3/31/2013	$295.42
4/30/2013	$296.88
5/31/2013	$300.95
6/30/2013	$303.59
7/31/2013	$303.13
8/31/2013	$302.67
9/30/2013	$304.50
10/31/2013	$304.65
11/30/2013	$303.16
12/31/2013	$301.93

Figure 6. Relative Frequency California

DISCUSSION OF RESULTS

The data shown for unemployment benefit in Tables 4-6 is analyzed using principles of statistics. Since all this data follows normal distribution, the parameters of normal distribution, the mean (μ) and standard deviation (σ) are calculated and shown in Table 7. In addition, the probability of the Minimum weekly benefit greater than the minimum Federal unemployment benefit is also calculated to see which states are more conservative.

Table 7: Statistical Analysis of The Unemployment Benefits Data

State	μ	σ	Minimum unemployment weekly	P(x>Minimum Weekly Unemployment Benefit)
Missouri	240	4.75	320	1
Florida	232	2.005	275	1
California	296.3	4.16	450	1

CONCLUSIONS

In this paper, mathematical principles are used to do a detailed analysis of unemployment benefits for 3 typical states (Missouri, Florida and California). It is found out that in all the three states, the unemployment benefits are more than the Federal minimum.

REFERENCES

Ang, A.H-S and Tang, W. (2007). Probability Concepts in Engineering. John Wiliey & Sons.
Putcha, C.S. and Sloboda, B. (2015). A New Approach for a Forecasting Model in the Estimation of Social Security Benefits", (with B. Sloboda). 35th International Symposium on Forecasting, Riverside, CA, June 21-24.

Putcha, C.S. and Sloboda, B (2013). Predicting Unemployment Rate in The United States Since 2001. Chandrasekhar Putcha, Brian Sloboda and Kalamogo Coulibaly (Editors), Edwin Mellen Press.

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A NEW MATHEMATICAL MODEL OF MUTUALLY COMPLEMENTARY FOR CORPORATE ALLIANCES: SELECTION OF OPTIMAL PARTNERS USING EIGHT CHARACTERISTICS

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Yoshiyasu Takefuji, Keio University

ABSTRACT

In this paper, a new mathematical model is proposed for choosing a business strategy and selecting business partners, so-called corporate alliances. We have used the real corporate data of 152 Japanese companies based on eight characteristics. These characteristics include engineering skills, sales force, capital resources and other items that represent management resources. These characteristics can be described using a one-dimensional matrix. Subtraction of two one-dimensional matrices shows the strength of the alliance between two companies where mutually complementary relationships are vectorized. We have analyzed 152 companies and the computed results of the corporate alliances based on the proposed model are the same as they exist in reality. The proposed model is implemented by the Python programming language. In addition, from the mathematical model proposed in this paper to calculate the mutually complementary strength value, we can determine which candidate from multiple potential companies would form the best alliance, and by extension, which pair of companies from a total of three would make the best alliance.

INTRODUCTION

The author of this work consulted 152 Japanese companies between May 2008 and March 2015 regarding new business startups and increasing sales.

Additionally, the author defines an corporate alliance as "The state in which more than one company is independent and both are committed to creating new business and complement each other in providing management resources from each company in order to create new business and increase sales revenue of their current businesses, regardless of the presence or absence of a binding contract or capital relationship, by continued cooperation, to share the results."

In this study, the hypothesis of this corporate alliance is satisfied when the mutually complementary relationship between two companies is strong. For this purpose, a mathematical model has been constructed making use of a one-dimensional matrix, bipolar vector, and a normalized-value representing the mutually complementary strength between two companies called the mutually complementary strength coefficient.

Additionally, the mathematical model created from eight different viewpoints, with values allocated from one to five, was verified to function with the data from the 152 consulted companies.

LITERATURE REVIEW

In relation to prior research on the alliance, the theoretical background of the corporate alliance between companies was prepared by Yasuda (2010). This theory relies primarily on Resource-Based Theory shown by Collis & Montgomery(1998). The concept that the corporate alliance is comprised of the exchange of (a) Technological resources, (b) Sales resources, (c) Production resources, (d) Human resources, (e) Capital resources. One other theory also used is the Transaction Cost Theory, which is the belief of the corporate alliance such that in the event of lower costs, it is better to evolve internalized   practices as opposed to reliance on external companies and normal market transactions. In this research document, we will take the view of Resource-Based View (RBV) as it applies to the hypothetical establishment of an corporate alliance (when possible) between 2 companies as it pertains to matters such as the necessary management resources for business deployment and the mutual complement to each company's strengths and weaknesses.

HOW THE DATA OF 152 COMPANIES WERE BUILT

In regards to location: Tokyo (all 23 wards) – 71%, Metropolitan area – 13%, Non-metropolitan area – 16%. Regards company size and longevity: Listed companies (including subsidiaries) – 13%, Long-time small to mid-sized businesses – 40%, Small venture businesses – 47%.   In terms of industry: In-house manufacturing – 17%, Contract manufacturing/Processing/Construction – 35%, Sales and marketing – 30%, Professional/Consulting – 11%. Additionally, IT-related industries – 40%, Non-IT related industries – 60%.

In relation to sales: Under 11 billion yen – 78%, Between 1 and 10 billion yen – 15%, Over 10 billion yen – 7%. In terms of employee size: Under 20 employees – 56%, Between 20 and 100 employees – 32%, Over 100 employees – 13%.

Regarding strengths and weaknesses: (1) Sales Capability, (2) Technical Ability, (3) Creativity of Ideas, (4) Capital Resources, (5) Human Resources, (6) Production Capacity, (7) Branding and Credibility, (8) Flexibility of Organization. Note that items 1 to 5 are listed in descending order of rating.

Even though companies outside of the 152 consulted companies were introduced, in this research the verified data was limited to companies within the total 152 that were or were not in a corporate alliance.

In the research and analysis in this paper, companies are counted as "in an established alliance" are defined as "The introduction of two companies to each other resulting in the development of new products, business or services, expansion of the existing business, new transactions (orders and sales) and the benefits to both companies in mutual cooperation as well as the result of moving both businesses forward". Conversely, those counted as "not in an alliance" are defined as "Having not moved forward at all".

CONSTRUCTION OF THE MUTUALLY COMPLEMENTARY MATHEMATICAL MODEL FOR THE CORPORATE ALLIANCE

Comprehending Mutual Complement and Application of the Physical Model

As we construct a mathematical model that shows the mechanism of the establishment of corporate alliances, we devise a theory based on the physical spin glass magnetic force model (The theory that the N and S poles attract each other).

In the idea of a mutually complementary alliance model, the strengths of company B will complement the weaknesses of company A, and vice versa. It then becomes fundamental for the strengths of company A to

complement the weaknesses of company B. If the complements from one of the companies or both are small, the mutually complementary strength will also be small, but if both companies are committed to complementing the strengths and weaknesses of each other, they will more strongly complement each other. That is, a mutually complementary alliance is considered to be a bipolar model based on the mutually attracting forces between two companies.

Representing the Strengths and Weaknesses of a Company as a One-Dimensional Matrix

The mutually complementary relationship between two companies can be expressed as a one-dimensional matrix. The strengths and weaknesses of companies A and B can be represented as an array of eight characteristics each having values between one and five. The eight characteristics are mainly based on the Resource-Based View (RBV) as explained in the previous chapter, so they are feasible not only as for the data set in this research but also ordinary companies. Also, the integer values represent the score evaluating the strength and weakness of these characteristics for each company.

As an example, take the two following companies,
Company A   a=(1, 3, 4, 2, 5, 1, 3, 1)
Company B   b=(4, 1, 1, 3, 1, 5, 3, 1)

From the above, the result "c" can be shown by calculating (subtracting) the values of each of the characteristics of Company B from Company A in order to get a directional bipolar vector with values for each characteristic ranging from 0 to 4 (positive or negative).

Company A – Company B
c = a-b = (-3, 2, 3, -1, 4, -4, 0, 0)

It should be noted that in this particular case, when calculated using the programming model described later, the mutually complementary strength is 11.997 and the related coefficient is 0.530 by making the calculation as explained in the section of "Mutually complementary strength and the related coefficient".

The Maximum Mutually Complimentary Distance from this Point

The strengths of the mutually complimentary distance are expressed by measuring the distance from the largest mutually complimentary point of strength.

Namely, in regards to the bipolar vector of the length from 0 to 4 of the 8 characteristics (expressed as numbers representing strengths and weaknesses), the maximum mutually complementary value determined from taking 2 sets of 2 characteristics with a maximum value of 8 for each.

 (8 characteristics / 2) * Max length of 4 = (16,-16)

The distance between two points is calculated as follows:

$$\sqrt{(a_1 - a_2)^2 + (b_1 - b_2)^2} \tag{1}$$

The maximum value of the mutually complementary strength of (16,-16) is shown as the distance from (0, -0) to (16, -16), which becomes

$$\sqrt{(16 - 0)^2 + (-16 + 0)^2} = 22.62 \tag{2}$$

The mutually complementary strength is a value between 0 and 11.3, with a large value representing a large mutually complementary strength.
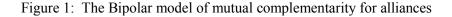
When the distance from the maximum value of (16,-16) is small, it indicates that the mutually complementary strength is strong. Since it is simpler to subtract from larger numbers, the magnitudes of the values have been inverted.
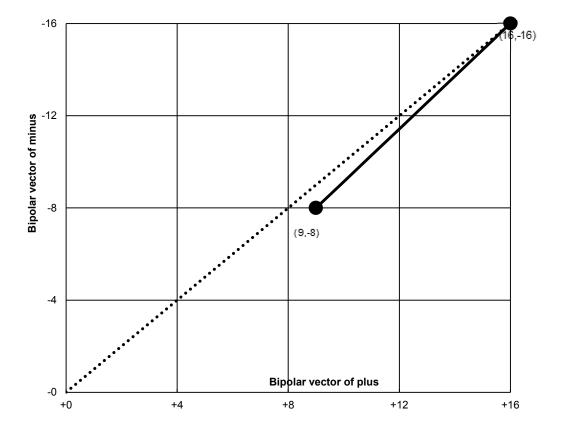
For example, with a mutually complementary strength of (9,-8) it is possible to calculate the distance from (16,-16) by means of subtraction from the maximum value.

$$\sqrt{(16-8)^2 + (-16-(-9))^2} = 10.63 \tag{3}$$

For example, the mutually complementary distance of (9, -8) is calculated from the maximum value of (16,-16) as shown in the following calculation and the following Figure 1.

$$\sqrt{(16-0)^2 + (-16+0)^2} - \sqrt{(16-8)^2 + (-16-(-9))^2} = 11.99 \tag{4}$$

Figure 1: The Bipolar model of mutual complementarity for alliances

This figure shows the example representing the mutually complementary strength of 2 companies by the distance from the maximum value of the mutually complementary strength. In case of 8 characteristics, the maximum value of the mutually complementary strength is (16,-16) and the point presenting the mutually complementary strength of Company A and Company B is (9,-8).

Mutually complementary strength and the related coefficient

Up until this point, the eight characteristics have been described as a mutually complementary bipolar vector. Here is the general equation used to express this.

The mutually complementary strength, derived and explained above, can be expressed by the following formula:

$$\sqrt{2 \times \left(\frac{4 \times len(c)}{2}\right)^2} - \sqrt{\left(\frac{4 \times len(c)}{2} - plus\right)^2 + \left(\frac{-4 \times len(c)}{2} - minus\right)^2} \tag{5}$$

When this value is normalized to a value between zero and one, it becomes easier to handle. The relative mutually complementary strength can be calculated from the following formula, and is here forth defined as the mutually complementary strength coefficient.

$$1 - \frac{\sqrt{\left(\frac{4 \times len(c)}{2} - plus\right)^2 + \left(\frac{-4 \times len(c)}{2} - minus\right)^2}}{\sqrt{2 \times \left(\frac{4 \times len(c)}{2}\right)^2}} \tag{6}$$

In the above formula, len(c) is the number of characteristics, plus=Σ (positive integers), and minus=Σ (negative integers).

PROGRAMMATICAL ANALYSIS OF THE DATA FROM 152 CONSULTED COMPANIES USING PYTHON

Overview of the Company Data Verification

In the data from 152 consulted companies, because the strengths and weaknesses of all eight characteristics are represented by a value from one to five for each, the maximum cross-complementary strength is determined to be (16,-16). The distance from that point shows the mutually complementary strength between the two companies. The calculation of the mutually complementary strength coefficient was executed from a script written in the open-source programming language "Python".

Additionally, although companies outside of the consulted partners were introduced, the consulted partners accurately verified and limited the data to only that which was determined to be satisfactory.
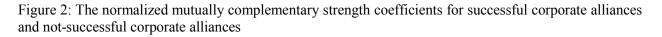
Programmatically Verifying the Results
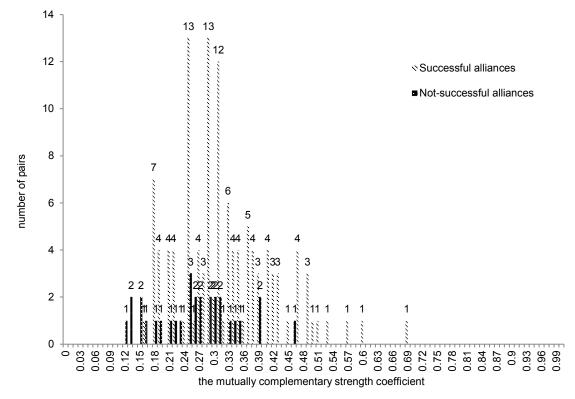
As a result of calculating the mutually complementary strength coefficient programmatically, for 121 pairs of successfully allied companies, the average coefficient was 0.318, whereas for 30 company pairs for which the corporate alliance was not successful, the average coefficient was 0.238. This indicates that the complimentary strength coefficient is higher for two companies in a corporate alliance.

In regards to why the coefficient value does not differ much for companies in a corporate alliance versus those not in one, we begin by stating that we think there is a mutual complement between two companies, which is why they are drawn together.

It should be noted that the average coefficient overall for the 152 company alliances was 0.299. Figure 2 shows the result of tallying the coefficients for all 152 company alliances.

Hence, this mathematical model of the bipolar mutual complement constructed from the actual company data confirms the function as valid.

Figure 2: The normalized mutually complementary strength coefficients for successful corporate alliances and not-successful corporate alliances

This Figure shows the distribution of the mutually complementary strength coefficients for 121 pairs of successful corporate alliances and 30 pairs of not-successful corporate alliances.

COMPUTATIONAL MODEL FOR RELATIONSHIPS BETWEEN MORE THAN TWO COMPANIES

Using the mutually complementary model, we can determine which pairs of companies will best form a corporate alliance based on which pair has a stronger mutually complementary relationship when there are multiple possible combinations of companies for a corporate alliance.

By calculating the mutually complementary strengths and related coefficients for all pairs, it becomes possible to select and appropriate corporate alliance.

For example, take the example of the following three companies, (A, B, C) for which they are attributed values from 1 to 5 for each of their 8 attributes as represented in the following one-dimensional matrices.

$a = (1, 3, 4, 2, 5, 1, 3, 1)$
$b = (4, 1, 1, 3, 1, 5, 3, 1)$
$c = (3, 5, 2, 4, 2, 3, 5, 4)$

From these three companies, by calculating (subtracting) the one-dimensional matrices associated with each possible pair of companies, we can determine the mutually complementary relationship between companies A and B, A and C, and B and C. This is represented here with the following equations.

d=a-b
e=a-c
f=b-c

Based on the results from our Python program (Refer to Appendix A), the results of the mutually complementary strength and the related coefficient for d, e, and f are given below:

Strength of d (=a-b)   =11.99
Strength Coefficient of d (=a-b) =0.530

Strength of e (=a-c)   =11.22
Strength Coefficient of e (=a-c) =0.496

Strength of f (=b-c)   =9.025
Strength Coefficient of f (=b-c) =0.398

Based on these results, we can see that for Company A, if choosing between a corporate alliance with Companies B or C, the resulting value for the calculation of "d" is larger than that of "e", so Company B becomes the more desirable alliance partner.

Conversely, for Company B, we can see that the calculated mutually complementary strength for "d" is greater than "f", so Company A becomes the more desirable alliance partner.

Furthermore, for Company C, when choosing between companies A and B, the calculations above reveal that "e" has a higher value than "f", so therefore Company A becomes the more desirable alliance partner.

Thus, by calculating the mutually complementary strengths and their related coefficients for multiple possible alliance pairings, we can determine the best alliance partners in the event of multiple possible alliances.

Furthermore, in the example of Companies A, B and C above, we can confirm that Company A and Company B are each other's best possible alliance partner, so we can use this method to determine when a corporate alliance is the most mutually beneficial to both companies.

From a number "m" of companies, we can apply this method for "n" alliance case possibilities, which is to say a total of $\binom{m}{n}$ possible alliance combinations.

CONCLUSION

In this paper, we have shown a mathematical model representing the mechanism behind the mutual complement between two companies in a corporate alliance, and have constructed and derived a one-dimensional matrix, bipolar vector, and the distance from the maximum mutually complementary point. Thus, it has been made possible to mathematically capture and express the mutually complementary relationship between two companies, and is possible to determine the complementary strength coefficient.

This mathematical model was confirmed to function based on the actual empirical data from 152 companies. (Eight characteristics each)

Additionally, when there are two possible selection candidates, when we look at them from the view of their mutual complement, we can calculate the mutually complementary strength coefficient using the mathematical model proposed in this paper. From the comparison of these values, we can determine which companies are best suited to form a corporate alliance.

Furthermore, among three corporate candidates, we can use this mathematical model to calculate the mutually complementary strength coefficient to determine if a corporate alliance between two companies is best mutually for both companies when there are alternative alliance options.

From this, we can select the best candidate for a company among m possible candidates by calculating the mutually complementary strength values for n possible corporate alliances.

Our research deals with the problems behind inter-corporate alliances, but this is also applicable to HR matters concerning new business teams, which is to say the alliances of people directly. Additionally, we can even expand this definition to incorporate alliances between countries. We can scientifically verify whether past alliances were appropriate based on this same model, and apply it to potential future alliances between countries.

REFERENCES

Collis, D. J, & C.A Montgomery(1998), "Corporate Strategy:A *Resource-Based Approach,*" the McGraw-Hill Companies, Inc

Doz, Yves & Gary Hamel(1998), "*Alliance Advantage –The Art of Creating Value through Partnering,*" Harvard Business School Press

Tomita, Satoshi(2014), "*Textbook for A New Business Development: The most powerful skills a business leader should have*," Sogo Horei Publishing

Tomita, Satoshi & Yoshiyasu Takefuji(2015), "*Mathematical Complementarity Modeling and Empirical Analysis of Corporate Alliances: - Making Use of Data for the Activities for 152 Consulted Companies -,*" Journal of Japan Society for Management Accounting Vol.20 No.1

Ushimaru, Hajime(2007), "Theory and Empirical Analysis of Interfirm Alliances", *Tongwen Guan.*

Yasuda, Hiroshi(2006), "Strategic Alliance in a Competitive Environment: *Theory and Practice,*" NTT

Yasuda, Hiroshi(2010), "*Alliance Strategy,*" NTT

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REEVALUATING IF A LINKAGE EXISTS BETWEEN CEO COMPENSATION AND THE NET INCOME AND STOCK PRICE OF THEIR FIRM: A MICRO STUDY

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ABSTRACT

Calculating the economic value that a CEO contributes to the worth of a corporation is seemingly a moot point. However, widespread public and legal attention is being paid to executive compensation. Regardless of the industry, place in the economic/industry cycle the issue of analyzing if a CEO's annual compensation is directly correlated to yearly increases or decreases in an enterprise's value is a topic that few outside the boards of directors' corporate compensation committees clearly understand. The purpose of this 2015 quantitative research project was to follow-up a previous research project conducted in 2011 to investigate if any linkage exists between the annual salaries of the CEOs of public traded firms in the State of Wisconsin, USA and increases/decreases in the price of their corporations' stock price and net income. The results of the 2015 research indicate that statistically significant relationships existed between the annual salaries of the CEOs of public traded firms in the State of Wisconsin, USA and increases/decreases in the price of their corporations' stock price and net income. This conclusion is different from the 2011 research findings.

JEL: M120

KEYWORDS: Ceo, Compensation, Employee Participation, Executive Compensation, Executives, Personnel

INTRODUCTION

In 2011, the author conducted an analysis of public traded firms (Keller, 2013) located in the state of Wisconsin (USA) where the author resides. The purpose of the study was to ascertain if statistically significant correlations existed between the compensation of corporate executives of 48 public traded firms in the state of Wisconsin and the stock prices and net incomes of their firms prior to the onset of the Great Recession in 2008 and as the American economy emerged from the economic downturn in 2010. The chief outcomes from that research showed that there was no statistically significant correlation between the compensation of corporate executives of 48 public traded firms in the state of Wisconsin and the net incomes and stock prices of their firms in 2008. In 2010, there was no statistically significant correlation between the compensation of corporate executives of 48 public traded firms in the study and the stock prices of their firms. However, there was a statistically significant correlation between the compensation of these executives and the net incomes of their firms.

The purpose of the 2015 study was to follow-up on 2011 investigation, which was one of the recommendations from the 2011 research paper. Data from 2010 was compared to 2014 data to discover if any statistically significant changes occurred regarding the effect of executive compensation and corporate performance. It should be noted that in the 2010 study 48 corporations and their CEOs were analyzed; in the 2014 research, 33 corporations were evaluated. The reason for the disparity was due to turnover in some of the firms' CEOs. In the 2014 research, the same CEOs who were evaluated in 2010 are studied. The time period covered in the 2014 research project takes into account variances between the post-recession recovery era and the contemporary economic expansion age. Total compensation for CEOs continued to grow during the course of the years of this series of studies from 2008 – 2014 "pushed up by the value of

executive stock awards. The median compensation for the heads of Standard & Poor's 500 companies rose to a record $10.6 million, up from $10.5 million the year before" (Jsonline, 2015, para 12). The consistent, widening gap between executive and employee compensation prompted the Securities and Exchange Commission (SEC) in April, 2015 "to propose rules to require companies to disclose the relationship between executive compensation and the financial performance of a company. The proposed rules, which would implement a requirement mandated by the Dodd-Frank Act, would provide greater transparency and allow shareholders to be better informed when they vote to elect directors and in connection with advisory votes on executive compensation" (SEC, 2015, para. 1).

One of the prominent results of the author's 2011 study of the effect of executive compensation and changes in a firm's stock price and net income in 2010 was that there was no statistically significant correlation between executive compensation and a firm's stock price and a statistically significant correction between executive compensation and a firm's net income. Given the notable increases in CEOs' compensation tied to an enterprise's stock price; the author conducted a follow-up research study on the same public traded firms and their CEOs (who were still in charge of the corporations) using the identical methodology as used in 2011. This research effort continues to scrutinize the question; do the actions of a CEO have a direct connection to corporate financial results? Four threads are explored in the Literature Review, management's impact on corporate performance, CEO compensation trends, CEO and employee pay disparities and an assessment of CEO compensation developments in Wisconsin.

LITERATURE REVIEW

Hubbard (2006) cited the work of Alfred Chandler Jr. and David Landes who asserted that professional management was the key factor for the United States' rise to economic prominence compared to its European rivals. "Through the microeconomic perspective, management is, at heart, a choice made by each firm" (p. 30). An influential study by Bloom and Van Reenen (2006) of more than 700 manufacturing companies in Great Britain, France, Germany and the United States found that the approach taken by corporate leaders was the foremost management influence on enterprise performance. Those firms with superior management were associated with higher productivity, return on equity and market capitalization. Bloom and Van Reenen (2007) followed up their study of 700 European firms with an expanded research project encompassing more than 4,000 American, European and Asian businesses. Bloom and Van Reenen (2007) research further reinforced their 2006 findings. Bloom and Van Reenen also determined that there was no single management practice that provided the key to improved corporate performance. Rather, it was the average score of 18 management practices grouped into "four areas: *operations* (three practices), *monitoring* (five practices), *targets* (five practices), and *incentives* (five practices)" (p. 1361) when compared to an enterprise's economic success that provided the most accurate indicator of success. One micro study (Keller, 2009) was conducted to apply Bloom and Van Reenen's methodology on for-profit corporations in southeast Wisconsin in late 2008. The results from this scholarship showed that management practices did not have a statistically significant impact on the economic performance of for-profit firms with the exception of one ownership type.

Jarque and Muth (2013) examined how CEO remuneration packages were constructed. In their study the authors could not clearly determine what specific metric should be linked to an executive's compensation and the performance of his/her firm. Additionally Jarque and Muth found that the study of executive compensation is constrained by the availability of data. Their study revealed that: "executive compensation packages of most executives include stock and option grants on their own firm's shares, which typically come with requirements that they be held by the executive for at least three or four years. First, the compensation requires that are reported by firms (and are readily available to the press and researchers) are a combination of both expected value of compensation (for deferred compensation in the form of restricted stock and option grants that are not convertible into cash right away) and realized value (salaries, bonus payments, and perks). Second, a given year's compensation package provides income for several years to

follow, since the CEO will be able to realize gains from selling and exercising stock and option grants once their vesting restrictions expire" (p. 252). Ganor (2013) discovered a statistically significant correlation between corporate cash retention and CEO compensation which increased from 2008 – 2010. "The accumulation of cash contributed to an average growth of 10% in the CEO's annual compensation is associated with an average of 3% increase in the firm's money holdings and that the correlation between CEO compensation and cash holdings became statistically significant from 2008 through 2010" (p. 107).

The "invisible hand" influencing the escalation of executive compensation may have been explained by DiPrete, Eirich, and Pittinsky (2010). They assert that the impact of disproportionate pay enlargements for a relatively small number of executives in a given year/s proliferates to peer industry groups. Comparing peer industry averages is a frequently used method by boards of directors to gauge and calculate executive pay packages. DiPrete et al. coined the term "CEO leapfrogging" as one way to comprehend the consistent annual CEO pay escalation since the early 1990s. In August, 2015 unemployment rate in the United States was 5.1%, the lowest rate since August, 2007 (United States Department of Labor, 2015a). The National Conference of State Legislatures (2015) reported an unemployment rate for the State of Wisconsin (the region of interest of this series of studies) of 4.5% in August, 2015, the lowest since 2008. The significant job and economic gains generated during the recovery after the Great Recession have fueled immense gains in wealth and executive compensation.

Much research has focused on wage growth, the growing disparity between executive compensation and wages paid to non-executive employees and what if any legislation may be needed to moderate the pay ratio disparity between CEOs and workers. The Harvard Business School conducted research to discover what Americans thought about the wage discrepancy between CEOs and average workers. The results of the study found that Americans misjudged the salary gap significantly by a factor of nearly 116 times (30 vs. 350 (Ferdman, 2015). According to the AFL-CIO's annual pay gap analysis, the average Fortune 500 CEO in the United States in 2013 made more than $12 million per year; however, the multiple more than doubles when compared to minimum wage workers; the average CEO in 2013 out-earned this group 774 times (Dill, 2015). The national average wage (non-CEO) index for 2013 was $44,888.16. The index is 1.28 percent higher than the index for 2012 (Social Security Administration, 2015). Another perspective that summarizes the wage disparity trend was reported by Harwell and McGregor (2015); "Fifty years ago, the typical chief executive made $20 for every dollar a worker made; now, that gap is more than $300 to $1, and it's growing" (para. 4).

Shin (2014) sought to determine some influences that contributed to the widening wage gap. He concluded that the demise of unionization was a key factor. "In 2014, the union membership rate was 11.1 percent compared to 1983, the first year for which comparable union data are available, the union membership rate was 20.1 percent, and there were 17.7 million union workers" (U.S. Department of Labor, 2015b, para. 1). Shin asserted that unions a) not only contributed to representing workers' economic influence but also impacted executive compensation as a "moral pillar" (p. 1339) to balance standards about evenhandedness and fairness and b) the decline of unions left few if any restraints on tempering the wage fissure. Since 1999, Wisconsin's economy has fared well. According to Fortune (2014) Wisconsin was one of nine states with the most number of companies in the Fortune 500. According to the Wisconsin Department of Revenue (2014): "The Wisconsin economy grew at a moderate pace in 2013 and will gain steam in 2014. The Wisconsin economy, as measured by personal income, grew 3.9% in 2012, just below the 4.2% growth nationwide. Wisconsin personal income should post growth of 2.9% in 2013 and will grow 4.0% in 2014" (p. 1). In 2010 in Wisconsin, the typical pay of a public traded Wisconsin company that was part of the researcher's study was $4.1 million. In 2014 the same group of CEOs' compensation was $4.3 million, an increase of 4%. In contrast the average worker in Wisconsin made $808.00 per week or $42,016 per year (U.S. Department of Labor (2015c) compared to $39,156 in 2010 (an increase of 6%). The pay disparity between Wisconsin CEOs to the average employee in 2014 was 103:1 a 3% increase compared to the 99:1 ratio in 2010 and still significantly lower pay differential than national averages.

The scholarly and popular literature review continues to point to the enlarging chasm between CEO compensation and worker wages. While the causes for the gulf continues to be investigated, the key foundational questions that remain are: a) to what extent do CEOs (i.e. management) have an economic impact on their firms' stock prices and net incomes and is there a relationship between CEO compensation and changes in their firms stock prices and net incomes? This study continued the investigation of these questions focused on public traded companies in the state of Wisconsin.

METHODOLOGY

The problem addressed in this part of the quantitative micro-study was to determine if a linkage existed between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin and increases/decreases in the value of their corporations' stock price and net income. In the 2010 study 48 corporations and their CEOs were analyzed; in this 2014 study 33 corporations were evaluated. The reason for the disparity was due to turnover in certain firms' CEOs. In the 2014 research, the same CEOs who were evaluated in 2010 are studied. In this study, salary, stock prices and net income data were obtained from public available sources, e.g. 10K and DEFA14K reports filed with the SEC and MarketWatch.com. The basic hypotheses that guided the 2011 study were used again in this 2014 research project. Below are two sets of Null and Alternative Hypotheses that guided this 2014 study.

Hypotheses

H1o. There is no statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, and increases/decreases in the price of their corporations' stock prices in 2014.

H1a. There is a statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, and increases/decreases in the price of their corporations' stock prices in 2014.

H2o. There is no statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, and increases/decreases in the net income of their corporations' in 2014.

H2a. There is a statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, and increases/decreases in the net income of their corporations' in 2014.

RESULTS AND DISCUSSION

The researcher used a t-test-Paired Two Sample for Means to analyze the data. A .05 level of significance was used to determine whether to accept or reject Null Hypothesis 1: There is no statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, USA and increases/decreases in the price of their corporations' stock prices in 2014. The data analysis found that there was a statistically significant relationship between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, USA and increases/decreases in the price of their corporations' stock prices in 2014. With a t critical two-tail value of 2.04 needed at the .05 level and a t value of 7.08 was found which is well below the .05 level of significance (2.47E-08). Thus Null Hypothesis 1 is rejected (Table 1) and Alternative Hypothesis 1 is accepted.

Table 1: Relationship of CEO Compensation to Firm's Stock Price 2014

Hypothesis	T-Critical Two-Tailed	T Value Found	P Value Found	Decision
1	2.04	7.08	2.47E-08	Reject Null Accept Alternative

The researcher used a t-test-Paired Two Sample for Means to analyze the data to determine whether to accept or reject Null Hypothesis 2: There is no statistically significant linkage between the annual salaries of the CEOs of 33 public traded firms in the State of Wisconsin, and increases/decreases in the net income of their corporations' in 2014. The data analysis found that there was a statistically significant linkage between the annual total compensation of the CEOs of 33 public traded firms in the State of Wisconsin, USA and increases/decreases in the corporation's stock prices in 2014. With a t critical two-tailed value of 2.04 needed at the .05 level and a t value of 4.0 was found which is well below the .05 level of significance (.0003). Thus Null Hypothesis 2 is rejected (Table 2) and Alternative Hypothesis 2 is accepted.

Table 2: Relationship of CEO Compensation to Net Revenue 2014

Hypothesis	T-Critical Two-Tailed	T Value Found	P Value Found	Decision
2	2.04	4.0	0.0003	Reject Null Accept Alternative

Additional analysis was conducted to compare the findings from research conducted in 2010 with that of 2014. The researcher only compared the stock prices and net incomes of the public traded firms that were led by the same CEOs in 2010 and 2014. The findings of this analysis are shown in Table 3.

Table 3: Comparison of Average Net Income, CEO Compensation, and Stock Price* 2010- 2014

Average Net Income In 2010: $80,716,337	Average Net Income In 2014 $209,106,248	Difference $128,389,911 +61%
Average CEO Salary in 2010 $4,084,465	Average CEO Salary in 2014 $4,344,824	$260,359 +6%
Average Stock Price in 2010 $24.28	Average Stock Price in 2014 $42.70	$18.42 +43%

Closing stock price on 12-31 on 2010 and 2014

The recovery experienced by the United States' economy, and the 33 Wisconsin firms in this 2014 research project, from the depths of the Great Recession to a growth trajectory in 2014 are clearly indicated. Average net income increased between 2010 and 2014 by $128,389,911.00 (61%) and the average per share stock price also enlarged on average by $18.42 (+43%). Interestingly, the average CEO total compensation package increased by $260,359.00 or 6%. Some perspective is needed to understand the 6% salary increase considering the significant improvements in corporate net income and stock prices. In the comparison between 2010 and 2014, in 2014 12 (36%) CEOs received lower total compensation packages and six firms (18%) reported declines in net incomes. Clearly, a rebound of the national economy contributed to increases across the key parameters under investigation in this 2014 study. A broader perspective is also warranted when analyzing CEO pay and its connection to firm performance. Table 4 depicts comparisons from three periods. The key indicators are the relatively small salary increases (+18%) from 2008 – 2014 compared to the very strong (+61%) growth in net income and (56%) surge in the price of the firms' stocks.

Table 4: Comparison of Average Net Income, CEO Compensation, and Stock Price* 2008-2010-2014

Average Ceo Salary In 2008 $3,543,098.00	Average Ceo Salary In 2010 $4,084,465	Difference $550,472 +13%	Average Ceo Salary In 2014 $4,344,824	Difference Between 2008 and 2014 $801,726 +18%
Average Net Income in 2008: $80,716,337	Average Net Income in 2010: $86,379,273	Difference $5,662,936 +7%	Average Net Income in 2014 $209,106,248	Difference Between 2008 and 2014 $128,389,911 +61%
Average Stock Price in 2008 $17.71	Average Stock Price in 2010 $24.70	Difference $6.99 +28%	Average Stock Price in 2014 $42.70	Difference Between 2008 and 2014 $24.00 +56%

Closing stock price on 12-31 on 2008-2010-2014

An important finding in this 2014 study was the consistent relationship between a CEO's pay and his/her effect on their firm's financial performance. The outcomes of research conducted in 2008 showed that there was no statistically significant linkage between the compensation of corporate executives of public traded companies in the state of Wisconsin and the stock prices and net incomes and of their entities in 2008. However, in 2010 while there was no statistically significant relationship between the compensation of corporate executives of 48 public traded firms in the state of Wisconsin and the price of their corporations' stock prices in 2010, there was a statistically significant relationship between the compensation of these executives and the net incomes of their corporations. This 2014 follow-up study indicated a major variance from the 2010 research indicating that there was a statistically significant relationship between the compensation of corporate executives of 33 public traded firms in the state of Wisconsin and both net incomes and stock prices.

CONCLUSION

The significant finding from this study was a major change from the 2010 research indicating that there now is a statistically significant relationship between the compensation of corporate executives of 33 public traded firms in the state of Wisconsin and both net incomes and stock prices of the companies they lead. This 2014 study found that the CEO has the ability to directly influence how a firm conducts its daily fiscal business and manages its human and capital resources. As Bloom and Van Reenan confirmed in their 2006 and 2007 studies, a bundle of 18 management practices, consistently executed directly contribute to the success (financial and operational) of a firm. The mini-longitudinal study conducted by this researcher affirmed Bloom and Van Reenan's contention. This mini-longitudinal research also varied from the findings from the 2010 research regarding the relationship between the compensation of corporate executives of public traded companies in the state of Wisconsin and changes in the stock prices of their entities. The 2014 study found a statistically significant relationship between CEO compensation and increases in the price of their firm's stock price. Perhaps this finding is not remarkable. The numerous variables that influence the daily value of public traded firms are beyond the scope of this research. However; it is difficult to assert that the routine decisions of a rational CEO and his/her staff and governance board have a predictable impact on the psychology of investors' buying and selling judgments. Emotions (fear and greed), economic shocks and etc. all have roles in the ultimate price of a firm's perceived value and most importantly future prospects. Nevertheless, a CEO's compensation package includes lucrative incentives tied to the firm's stock price.

Whether a governance board completely understands the rather tenuous connection between a CEO's decisions, stock price and compensation is a matter for future investigation.Finally, an unanticipated series of findings emerged from this 2014 follow-up research. The governance boards of the 33 public traded

firms located in the state of Wisconsin gave on average a 6% pay increase to their CEOs between 2010 and 2014. Interestingly the average Wisconsin worker also received an average pay increase of 6% during the same time. While the annual increases appear to be equitable, the pay disparity between Wisconsin CEOs to the average employee in 2014 was 103:1 a 3% increase compared to the 99:1 ratio in 2010; however still significantly lower than national averages. Nonetheless; a 99:1 pay differential may not provide much solace to those who struggle to meet their bills on a weekly basis. One reason for the decline in real wages may be the historical percentage weakening of wage and salary workers represented by unions. In 2014 in the state of Wisconsin, 11.3% were represented by unions (U.S. Bureau of Labor Statistics, 2015). The continuous decline of manufacturing industries and union membership in the state of Wisconsin and its possible moderating influence on CEO pay and overall wage disparity is a subject for further research.

REFERENCES

Bloom, N. and Van Reenen, J. (2006) "Measuring and Explaining Management Practices Across Firms and Countries," Accessed August 25, 2007 at:
cep.lse.ac.uk/textonly/people/bloom/papers/BloomVanReenen2.pdf

Bloom, N. and Van Reenen, J. (2007) "Measuring and Explaining Management Practices Across Firms and Countries," *Quarterly Journal of Economics,* vol. 122(4), p. 1351-1408.

Dill, K. (2015) "Report: CEOs Earn 331 Times as Much as Average Workers, 774 Times as Much as Minimum wage Earners," Accessed August 31, 2015 at:
http://www.forbes.com/sites/kathryndill/2014/04/15/report-ceos-earn-331-times-as-much-as-average-workers-774-times-as-much-as-minimum-wage-earners/

DiPrete, T. A., Eirich, G. M., and Pittinsky, M. (2010) "Compensation Benchmarking, Leapfrogs, and the Surge in Executive Pay," *American Journal of Sociology*, vol. 115(6), p. 1671-1712.

Ferdman, R. (2015) "The Pay Gap Between CEOs and Workers is Much Worse Than You Realize," Accessed August 30, 2015 at:
http://www.washingtonpost.com/news/wonkblog/wp/2014/09/25/the-pay-gap-between-ceos-and-workers-is-much-worse-than-you-realize/

Ganor, M. (2013) "Agency Costs in the Era of Economic Crisis: The Enhanced Connection Between CEO Compensation and Corporate Cash Holdings," *Arizona Law Review*, vol. 55(1), p. 105-149.

Harwell, D. and McGregor, J. (2015) "This New Rule Could Reveal the Huge Gap Between CEO Pay and Worker Pay," Accessed October 3, 2015 at:
https://www.washingtonpost.com/news/on-leadership/wp/2015/08/04/this-new-rule-could-reveal-the-huge-gap-between-ceo-pay-and-worker-pay/

Hubbard, G. (2006) "The Productivity Riddle," *Strategy and Business,* vol. 45, p. 28-33.

Jarque, A. and Muth, J. (2013) "Evaluating Executive Compensation Packages," *Economic Quarterly (10697225)*, vol. 99(4), p. 251-285.

Jsonline (2015) "CEO Compensation - Employee Pay Gap," Accessed September 1, 2015 at:
*http://www.jsonline.com/business/national/how-much-more-does-the-ceo-make-you-may-find-*out462f5c5f2d3f426d849dc15abb32657d-*320661172.html*

Keller, G. (2009) "Do Management Practices Affect the Economic Performance of
Firms Located in Southeast Wisconsin, USA?," *International Review of Business Research Papers*, vol.
5(6), p. 79-89.

Keller, G.F. (2013) "Examining if There is a Relationship Between CEO Compensation
and the Stock Price and Net Income of Publically Traded Corporations in the State of Wisconsin, USA,"
GSTF Business Review (GBR) (Print ISSN: 2010-4804, E-periodical: 2251-2888), vol. *2*(4).

National Conference of State Legislatures (2015) "2015 State Unemployment Rates," Accessed
August 30, 2015 at: *http://www.ncsl.org/research/labor-and-employment/2014-state
unemployment-rates.aspx*

SEC (2015) "SEC Proposes Rules to Require Companies to Disclose the Relationship Between
Executive Pay and a Company's Financial Performance," Accessed August 23, 2015 at:
http://www.sec.gov/news/pressrelease/2015-78.html

Shin, T. (2014) "Explaining Pay Disparities Between Top Executives and Nonexecutive
Employees: A Relative Bargaining Power Approach," Social Forces, vol. 92(4), p. 1339-1372.

Social Security Administration (2015) "National Average Wage Index," Accessed August 29,
2015 at: *https://www.socialsecurity.gov/oact/cola/AWI.html*

Tully, S. (2014) "The Fortune 500's 50-State Shuffle," Accessed
August 30, 2015 at: http://fortune.com/2014/06/02/fortune-500-shuffle/

U.S. Department of Labor (2015a) "Labor Force Statistics from the Current Population Survey,"
Accessed September 6, 2015 at: http://data.bls.gov/timeseries/LNS14000000

U.S. Department of Labor (2015b) "Union Members – 2014," Accessed September 5, 2015 at:
http://www.bls.gov/news.release/union2.nr0.htm

U.S. Department of Labor (2015c) "County Employment Wages in Wisconsin – Third Quarter
2014," Accessed September 5, 2015 at: *http://www.bls.gov/regions/midwest/news-
release/countyemploymentandwages_wisconsin.htm#table1.xlsx*

Wisconsin Department of Revenue (2014),"Wisconsin Economic Outlook, Winter 2014,"
Accessed September 5, 2015 at: *http://www.revenue.wi.gov/ra/econ/2014/winter2014_fullrpt.pdf*

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ESTIMATING THE VALUE OF THE HONOLULU RAIL TRANSIT PROJECT: A SEMIPARAMETRIC ANALYSIS OF LAND AND PROPERTY VALUES IN OAHU, HAWAII

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ABSTRACT

America's first fully driverless rail transit project is currently under construction in Oahu, Hawaii. This study assesses the impact of proximity to the Honolulu Rail Transit (HRT) stations on property and land values on the island of Oahu in the US state of Hawaii. The constructed hedonic pricing models incorporate sales prices of more than three thousand single family homes and land values in 2014 and 2015. The independent variables include locational amenities as well as property and neighborhood characteristics. The semiparametric models reveal that the sales of a single-family house is not significantly affected by the HRT (i.e. *there is no significant impact from HRT on the nearby property values). However, results show a small positive distance spillover impact on the land values. Specifically, land values appreciate by about 0.2% for each mile closer to the HRT, which represents an average land value increase of $1,548. There are no significant regional impacts on assessed land values.*

JEL: R3; R4

KEYWORDS: Honolulu Rail Transit (HRT), Semiparametric Model, Property Values, Land Values

INTRODUCTION

Oahu's notorious traffic congestion, limited land mass, growing population and attempts to diversify the economy require innovative public transit solution to promote the state of Hawaii's plans for sustainable growth. The America's first fully driverless rail transit project is currently under construction in Oahu, Hawaii: Honolulu Rail Transit (HRT) project, also known as the Honolulu High-Capacity Transit Corridor Project. By 2030, nearly 70 percent of Oahu's population and more than 80 percent of the island's jobs will be located along the 20-mile rail corridor (HART, 2015) with stops in downtown Honolulu, Waikiki beach, at three University of Hawaii system campuses, Aloha Stadium, the Honolulu International Airport and several shopping centers including Ala Moana. However, the project is controversial. Pro rail advocates argue that rail constitutes an essential component of Hawaii's sustainable future initiatives and transit-oriented, high density, mixed use development plans since rail transit is expected to provide convenient access to the Central Business District (CBD), employment locations, commercial centers, schools, parks, and other recreational opportunities. Supporters note that rail will reduce traffic congestion along the 20-mile corridor; connect major residential areas with primary job centers; alleviate substantial traffic issues affecting the state's most populous urban region; as well as provide a reliable transportation alternative for visitors and commuters in southern Oahu.

For example, the rail could provide a convenient means to get to work, school or home as well as attend special events (including Aloha Stadium sporting events and concerts at the Blaisdell Center) without the hassles of parking and traffic. On the other hand, those against the HRT feel that an above-ground rail system is not cost-effective (the project already overbudget and behind schedule) and will exacerbate traffic congestion and pollution. The controversy over the rail line was a key issue in local politics in the 2008

Honolulu elections and resulted in a city charter amendment which left the final decision to the citizens of Oahu. Construction on the HRT began on February 22, 2011after the amendment passed with 53% of voters in favor. This paper examines whether homeowners are willing to pay a premium to be close to HRT and whether or not land values change in proximity to the HRT. It is expected that any economic benefits which accrue from HRT should be capitalized into the price of nearby homes or land values. Since the HRT is currently under construction ---the initial section of the rail transit system, from Kapolei to Aloha Stadium, is slated to open in 2018; and the entire system, from Kapolei to Ala Moana Center, is set to be fully operational in 2019 --- the impact of the partially completed (and not yet operational) HRT on surrounding single-family housing prices and land values are examined after the HRT ground breaking ceremony in 2011.

While many studies have investigated the economic impacts of rail station proximity on property values, this is the first to examine the impact of rail in the U.S.-affiliated Pacific Island Jurisdictions (USAPI) and the Pacific island region. Only a handful of studies have used semiparametric models to take into account both nonlinearity and spatial heterogeneities. Data from October 2014 to October 2015 is used to analyze the impact of the HRT on single-family house prices and land values in the Oahu housing market. Hedonic pricing models are often utilized to analyze differentiated goods such as houses and cars (Rosen 1974). The differentiated products include distinct characteristics, which add or subtract from the property's overall total price according to how buyers in the market value that amenity or disamenity. This paper incorporates residential and land value hedonics to determine the value of both access to HRT stations under construction and other neighborhood locations, such as schools, parks, wetlands, hospitals, bus stops, ocean, farmers' markets, supermarkets, surf sites, and fire stations.

Fully parametric models possess a number of well-known limitations, including the use of linear models and the assumption of rigid functional forms (such as the identical and independent distribution of random variables) which may produce biased results for spatially-referenced data. To address these concerns the use of semiparametric models is put forth, in order to combine the strengths of both nonparametric and parametric models. The semiparametric results indicate that while the HRT has been under construction from October 2014 to October 2015 there has been no significant impact on the sales price of single-family homes; however, HRT appears to have a significant distance impact on the assessed land values. Specifically, land values appreciate by about 0.2% for each mile closer to the HRT, which represents an average land value increase of $1,548. There are no significant regional impacts on assessed land values. Hence, while the HRT is still under construction, our results provide key insights that should prove informative to analysts, policy makers and future home and land owners.

LITERATURE REVIEW

Both the rail transit literature and the semiparametric literature are now reviewed. Studies examining the relationship between the presence of the rail and house transaction /land values have shown three very different results which can be categorized as follows: no measurable effects of rail on property/land values (category 1); mixed impacts of rail on property/land values (category 2), and positive impacts of rail on property/land values (category 3). In the first category, Mohammad et al. find that rail investments over time impact neither the location nor the values of land/property within the city. Moreover it is shown that including property characteristics and neighborhood types in the estimation model do not change land/property values significantly. In the second category, Duncan (2011) uses a hedonic price model with interaction terms and finds that the premium value associated with rail proximity is conditional upon permissive zoning arrangements and ordinances, which has a negative influence on home prices except in the area immediately surrounding rail stations. Cervero (2004) uses a simple hedonic pricing model to show that the values of multiple land parcels in different rail corridors of San Diego County appreciate, while commercial properties in some other areas accrued small or even negative capitalization benefits. Chen et al. (1998) find that the impact of light rail will negatively or ambiguously impact property values due to

nuisance effects such as noise and vibrations. Chatman et al. (2011) find that the net impact of the rail on the owner occupied housing market in Southern New Jersey is neutral to slightly negative, while lower-income census tracts and small houses appear to appreciate near the rail station. Hess & Almeida (2007) find that rail impacts on residential property values in Buffalo, New York are experienced unevenly across the rail system: the proximity effects are positive in high-income station areas but negative in low-income station areas.

For the third category, a Difference-In-Differences (DID) model shows that light rail transit in Charlotte, North Carolina provides a neighborhood impact of 4% for single-family properties and 11.3% for condominiums sold within 1 mile of the rail stations (Billings, 2011). And that the opening of a new rail on the Montreal (Canada) South Shore generates a location premium for houses located in the stations' vicinity as opposed to houses that do not experience any improvement in accessibility to the line (Dube et al., 2013). Mathur & Ferrell (2013) find that the average home sale price increases by 3.2% ($21,000) for every 50% reduction in the distance between the home and the rail transit in San Jose, California. They also find that housing prices within 1/8 mile of the rail were 18.5% higher than the prices more than 1/8 mile from the line during the post-construction period,7.3% higher during the construction period and not statistically different in the pre-construction period.

Early studies assumed a known model structure and hence used simple hedonic pricing models or linear DID models to estimate the impact of rail on home prices or real estate values; However it is known that the housing characteristics' contributions to price may vary over space, and the combination of nonlinearity and spatial heterogeneity inherent in the spatial dataset suggests that the standard parametric model constitutes an overly simplistic specification (McMillen and Redfern 2010). Bin and Filho (2005) highlight the superiority of non-parametric models over parametric approaches: they investigate one thousand recorded sales in the Portland, Oregon housing market between 1992 and 1994 in order to estimate a hedonic price function with application to an additive nonparametric regression model. They show that the functional form specification problem common in hedonic price models can be conveniently addressed by modelling the conditional means of prices in a nonparametric environment. McMillen and Redfern (2010) show that nonparametric estimation procedures can control for spatial variation in marginal effects while also allowing for nonlinearities. In particular, the authors illustrate that nonparametric and semiparametric procedures can assist in the specification of a hedonic house price function. They considered all sales of single-family homes in 2000 within one-mile of Chicago's elevated train line and used GIS to measure the distance from Chicago's city center. Pagan and Ullah (1999) suggest that the optimal window size is larger when the goal is to estimate marginal effects than when the objective is prediction; specifically they show that prices decline on average by 17 percent per mile based on the CPAR (conditional parametric) model with a 100 percent window size.
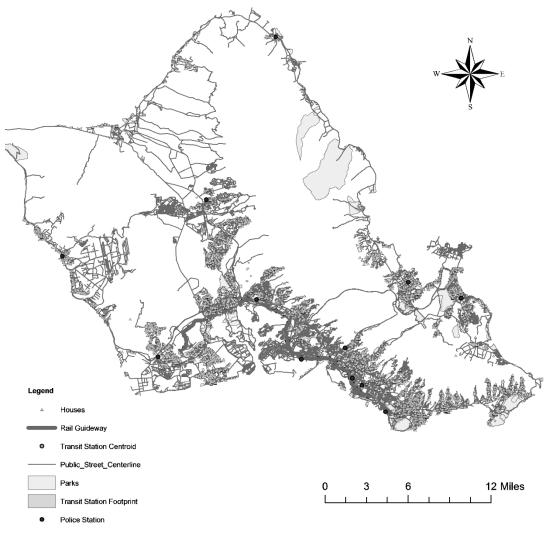
Haupt, Schnurbus and Tschernig (2010) replicate Parmeter et al.'s (2007) application of nonparametric methods for estimating hedonic house price functions by re-estimating their nonparametric specification and comparing it to parametric and semiparametric specifications. They extend their analysis by using the nonparametric specification test used in Hsiao and Racine (2007) for mixed continuous and categorical data and simulation-based prediction comparisons. Haupt, Schnurbus and Tschernig (2010) conclude that the previously proposed parametric specification does not have to be rejected and suggest that the nonparametric methods provide valuable insights during all modeling steps. A majority of studies suggest that nonparametric specifications yield superior results over parametric regression models when estimating spatially referenced datasets because they better capture nonlinearity and reduce errors associated with either underestimation or overestimation. McMillen & Redfern's (2010) semiparametric models form the foundation of the nonparametric component of our semiparametric model. Using insights from Pagan and Ullah (1999), a 75% semiparametric model window size is used for. The regression results in Pagan and Ullah's (1999) study share similar conclusions to those found in Haupt, Schnurbus and Tschernig (2010),

namely that a parametric specification does not have to be rejected and nonparametric methods provide insightful conclusions.

<u>Study Area and Honolulu Transit Line</u>

The study area is the island of Oahu in the US state of Hawaii. The study area, the HRT and the geocoded houses, parks, and fire stations are shown in Figure 1, created by ArcMap.

Figure 1: Study Area and Honolulu Rail Transit

This figure is created using ArcMap 10.3.1. It shows the study area of Oahu, HI. The triangle dots are geocoded house addresses and the highlighted line is the Honolulu Transit Line. Due to the space limit, there are other amenities not shown on this map; only fire stations and parks are indicated on this figure.

Due to the highly congested transportation corridor situated between Kapolei and UH Manoa and Waikiki, a 20-mile elevated rail line featuring 21 stations is under construction to provide high-capacity rapid transit to connect West Oahu with the Honolulu International Airport continuing through downtown Honolulu

with a final stop at Ala Moana Center. The Honolulu Authority for Rapid Transportation (HART) unveiled its first rail column in East Kapolei in June 2012 and HART revealed that the funding of HRT comes from both local funding (0.5 percent surcharge on the General Excise and Use Tax paid by residents, businesses, and visitors on Oahu) and federal funding ($1.55 billion from the Federal Transit Administration). The 21 stations will pass through a 20-mile rail corridor that includes Waipahu, Pearl City, Waimalu, Aiea, and Halawa. Even though the rail construction began February 22, 2011, and may not be completed for several years, this paper investigates a number of key questions: does the current rail construction and partly completed infrastructure have impacts on housing and land values in 2014 and 2015? And if rail indeed impacts property values and single home values, will the impacts occur regionally --- or across the entire island?

DATA AND METHODOLOGY

Table 1 shows the descriptions and summary statistics of all variables. There are 22 variables associated with housing characteristics (4 dummy variables of house qualities; 9 dummy variables of house views, and 4 dummy variables of car spaces) and 11 distance variables associated with amenities/disamenities. These distance variables are created using the 'near' function of ArcMap. The first step to assess the impact of the HRT on property and land values is to build a GIS database from the data collected from the Department of Planning and Permitting. Using housing sales data from the Oahure website, 4,000 real estate transactions between October 2014 and October 2015 were downloaded. After pruning the data and eliminating data with important missing variables and data that cannot be geocoded, 3,401 data remain. The housing data includes the major physical characteristics of the houses such as the number of bedrooms, bathrooms, square footage, living area, age, quality of the house, tax, assessed land value, sold ratio, view from the house, frontage and parking space, etc. ESRI GIS shapefiles (including hospital, preschool, farmers' market, bus stop, park, ocean, fire station, supermarket, surf sites and wetland shapefiles) were downloaded from the State of Hawaii's Office of Planning website. The HRT shapefile is downloaded from the online ArcGIS website.

Hedonic analysis has been applied to data on heterogeneous goods in an attempt to estimate shadow prices of bundled characteristics such as housing attributes and public good amenities acquired through the housing market (Ohsfeldt 1985). Traditional hedonic estimation has been frequently used for the purpose of making inferences about non-observable values of different attributes like air quality, airport noise, and access to transportation (Espey and Lopez 2000). There have been many critical views about traditional hedonic models such as information asymmetry, measurement validity of explanatory variables, market limitations, multicollinearity and price changes. It is thus better to explore additional research designs or to use the hedonic price technique with application to other models. Econometricians frequently recommend the use of Box-Cox transformations (Goodman 1978) as an alternative; however, such a transformation still involves many parametric assumptions. A more robust way to accurately predict the dependent variable is not to impose an *a priori* parametric specification such as a nonparametric model. Several techniques can be used to estimate such models including 'cubic splines', 'nearest neighbors', 'series approximators' and 'kernel estimates' (Anglin and Gencay 1998). The hedonic pricing model is constructed based on three types of different house attributes: physical attributes, community attributes and attributes observed by the consumers but not econometricians (Bajari and Kahn 2005). These unobserved variables usually have some structural constraints associated with them and one can use these constraints to infer their values from the data (Chopra et al. 2007).

Table 1: Descriptions and Summary Statistics of Variables

Variables	Descriptions	Min	Max	Mean	St. Dev
LnPrice	Natural log of sale prices	10.31	16.65	13.51	0.50
Lnlandvalue	Natural log of assessed land values	7.53	16.50	13.40	0.52
Rail	The nearest distance to the HRT in miles	0.30	65.13	16.07	12.92
Rail1m	1= within 1 mile radius of HRT, 0 otherwise	0.00	1.00	0.00	0.07
Rail2m	1=between 1 and 2 miles radius of HRT	0.00	1.00	0.03	0.18
Rail3m	1=between 2 and 3 miles radius of HRT	0.00	1.00	0.09	0.28
y2015	1=sales in year 2015, 0=sales in year 2014	0.00	1.00	0.83	0.37
Beds	The number of bedrooms	0.00	13.00	3.70	1.16
Baths	The number of bathrooms	0.00	4.00	3.37	0.50
SQFT	Sqare feet of the house	0.00	18,388	1,809.4	936.50
Livingarea	Total living space of the house	0.00	6,400	491.50	259.71
Age	Age of the house	0.00	2,015	24.61	40.97
Aaverage	1=condition of the house is above average	0.00	1.00	0.39	0.49
Average	1=condition of the house is average	0.00	1.00	0.22	0.41
Excellent	1=condition of the house is excellent	0.00	1.00	0.30	0.46
Fair	1=condition of the house is fair	0.00	1.00	0.07	0.25
Coast	1=view from the house is coast	0.00	1.00	0.13	0.33
Cemetery	1=view from the house is cemetery	0.00	1.00	0.00	0.04
Diamond	1=view from the house is the Diamond Head,	0.00	1.00	0.04	0.20
Garden	1=view from the house is a garden	0.00	1.00	0.15	0.36
Golfcourse	1=view from the house is a golf course	0.00	1.00	0.01	0.12
Marina	1=view from the house is a marina	0.00	1.00	0.01	0.09
Mountain	1=view from the house is a mountain	0.00	1.00	0.24	0.43
Conser	1=view from the house is conservation site	0.00	1.00	0.01	0.10
Waterfront	1=the front yard of the house is water	0.00	1.00	0.05	0.21
Car1	1=the house has 1 car space	0.00	1.00	0.05	0.23
Car2	1=the house has 2 cars space	0.00	1.00	0.54	0.50
Car3	1=the house has 3 cars apace	0.00	1.00	0.33	0.47
Others	1=the house has street parking space, etc.	0.00	1.00	0.07	0.26
Hospital	The nearest distance to a hospital in miles	0.13	33.90	5.57	4.64
Preschool	The nearest distance to a preschool in miles	0.00	11.35	1.79	1.46
Famarket	The nearest distance to a farmer's market in miles	0.14	28.04	3.87	2.77
Busstop	The nearest distance to a bus stop in miles	0.02	8.04	0.59	0.61
Park	The nearest distance to a park in miles	0.00	5.99	0.82	0.63
Ocean	The nearest distance to an ocean point in miles	0.00	27.23	5.13	5.40
Firestation	The nearest distance to a fire station in miles	0.15	33.30	9.46	6.26
Sumarket	The nearest distance to a supermarket in miles	0.09	28.75	5.73	5.08
Surf	The nearest distance to a surf site in miles	0.17	35.49	15.92	10.24
Wetland	The nearest distance to a wetland in miles	0.00	4.75	1.15	0.91

This table shows the minimum, maximum and standard deviation values of the entire dependent and independent variables in the parametric and semiparametric regression models.

Assuming P is a vector of house prices associated with a vector of structure variables S and set of location variables N then it follows that their relationship can be represented by the following model:

$$\ln(P_i) = \beta_0 + \sum \beta_p S_{ip} + \sum \beta_q N_{iq} + \varepsilon_i \tag{1}$$

where $\ln(P_i)$ = natural logarithm of house sale price of property i; S_{ip} = physical attribute p of property i; N_{iq} = location variable q of property i; β_0, β_p, β_q= intercept and coefficients; ε_i= error. If the neighborhood feature affects house sale prices positively, the first-order relationship of house price with respect to the location variable is:

$$\partial \ln(P_i) / \partial N_{iq} < 0 \tag{2}$$

Nonparametric models offer significant advantages for hedonic price function estimation due to their functional form flexibility and spatially varying coefficients, which help to reduce spatial autocorrelation without imposing arbitrary contiguity matrices or distributional assumptions on the data (McMillen and Redfern 2010). The locally weighted regression (LWR), or *loess,* is a procedure for fitting a regression surface to data through multivariate smoothing: the dependent variable is smoothed as a function of the

independent variables in a moving fashion analogous to how a moving average is computed for a time series (Cleveland and Devlin 1988). Detailed application of *loess* to the house price functions is in McMillen and Redfern (2010): let the target for the nonparametric estimator be a home with structural and locational characteristics given by the vector X. The LWR estimator is derived by minimizing the following equation with respect to α and β :

$$\sum_{i=1}^{n} (\ln p_i - \alpha - \beta'(X_i - X))^2 K(\frac{X_i - X}{h}) \qquad (3)$$

The kernel function K (*z*) determines the weight that each house sold as an observation in estimating the house price at target point *X* with $X_i - X$ defined as the distance between the target point and the ith neighboring house and *h* is a smoothing parameter called the bandwidth. As *z* increases, the weights decline. Though there are various types of kernel functions such as rectangular, triangular, bi-square, tri-cube or Gaussian, the choice of kernel weight function usually has little effect on the results. This study uses tri-cube kernel weighting function but *h* is more important since it determines how many observations receive positive weight when constructing the estimate and how rapidly the weights decline with distance. By replacing more weight on more distant observations, high values of *h* imply local regressions that produce more smoothing than do smaller bandwidths (McMillen and Redfern 2010). This helps the nonparametric part of the semiparametric model, which takes the form as:

$$\ln P_i = \beta S + m(N) + \varepsilon \qquad (4)$$

where m() is the unknown smooth function with the location variables and it is estimated by a least square procedure. By including location variable whose structure is not known *a priori,* one may study the existence of nonlinearities. The intuition here is that the relationship between *lnP$_i$* and structural variables is parametric, while the relationship between *lnP$_i$* and locational variables is nonparametric. This kind of specification has the advantage of containing β parameters which can be given an economic interpretation, while being robust to other aspects of the model which are difficult to express in a parametric way (Ahamada and Flachaire 2010).

RESULTS AND DISCUSSION

The natural logarithms of sales price and assessed land values are the dependent variables and a combination of structural and locational characteristics are the independent variables in our models. Table 2 records the parametric and semiparametric regression results for property values and assessed land values. The comparisons between the actual housing transaction value and the assessed land value show that the data do not actually explain well the variations of the sale prices (Adjusted R^2=0.026), while the data explain very well the variations of the assessed land value (Adjusted R^2=0.7). There are only four significant variables in both the parametric and semiparametric model with the dependent variable: Lnprice. Both show that the age of the house has a negative impact of the housing prices: for every additional year, the house values increase by 0.1%.

A possible reason for this phenomenon might be that if a house was remodeled, the age of the house is actually calculated by the year in which the house was sold minus the year, in which the house finished remodeling. Accordingly, a "younger" house with a slightly lower price might actually be an "old" house which was remodeled recently. The parametric model indicates that a view of the marina has a negative impact on house prices: marina-view houses generally sold for 17.1% less than homes without a marina view; however, the semiparametric model indicates an insignificant relationship between marina views and house prices. The semiparametric model indicates that a golf course view has a negative impact on property

values: houses with a golf course view generally sold 0.1% lower than those without a golf course view; on the other hand, the parametric model indicates an insignificant relationship between a golf course view and house prices. Both models indicate that parks have a positive distance spillover effect: for each mile that a home is closer to a park, the house value increases by about 3%. Both models also indicate that wetlands have a negative distance spillover effect: for each mile that a home is closer to a parcel of wetland, the house value decreases by 1.8%. Both models predict that there is not a significant relationship between distance to the under-construction HRT and house prices. Comparing to the property value model, there are many significant coefficients in the assessed land value models. Both parametric and semiparametric models indicate that there are small amounts of positive HRT distance spillover effects on the assessed land values: for each mile closer to the HRT, the land value increases by about 0.2-0.4%. These percentages can be translated to $1,548-$3,096 reductions of the average land values. There are only negative local impacts that take place between a two to three mile miles radius of the HRT: the land within that radius is generally valued at 2.4% less than land less than two miles from the HRT (or more than three miles from the HRT).

The following observations were made. First, the land value in 2015 appreciates by about 3% compared to the previous year (possibly due to the improving economic conditions after the recent economic recession). Second; the number of bedrooms has a negative impact on assessed land values: with each additional bedroom, the land value depreciates about 1.2-1.5%. Third, both the square footage of the house and the living areas have a positive impact on the land values: with each additional square foot, the land value appreciates by 0.03%; and with each additional square foot of the living room, the land value appreciates by 0.1%. Fourth, the age of the house has a positive impact on the land values: for each additional year since the home was constructed, the land value appreciates by 0.1%. Specifically, if the quality of the house is above average, the land value appreciates by 9.4-9.5%; if the quality of the house is average, the land value appreciates by 8.6-9.3%; if the quality of the house is excellent, the land value appreciates by 9.5-9.8%; and if the quality of the house is fair, the land value appreciates by 8.1-8.7%. Finally, the impact of views are considered: If the house has a view of the coast, the land value is 3.2-5.9% higher; if the house has a view of the

Diamond Head, the land value is 6.3-8.9% higher; if the house has a garden view, the land value is 4.5-6.4% higher; and if there is any type of waterfront view, the land value is 7.9% higher. The car space variables have very significant positive impacts on the land values. For the location variables: the hospital is a disamenity to the land; farmer's market is an amenity to the land under the parametric model, but insignificant in the semiparametric model; The bus stop is a disamenity to the land under the semiparametric model, but insignificant under the parametric model; the ocean frontier is a disamenity to the land under the semiparametric model, but insignificant under the parametric model; both the supermarket and surf sites are amenities to the land; the wetland is an amenity to the land under the semiparametric model, but insignificant under the parametric model.

Table 2: Model Results with Dependent Variables: Lnprice and Lnlandvalue (N = 3041)

| Variables | Dependent Variable = Lnprice | | | | | | Dependent Variable = Lnlandvalue | | | | | |
| | Parametric | | | Semiparametric | | | Parametric | | | Semiparametric | | |
	Coeff	Std. Error	Sign.	Coeff	Std. Error	Sign.	Coeff	Std. Error	Sign.	Coeff	Std. Error	Sign.
Intercept	13.59	-0.308	***				11.76	-0.177	***			
Rail	0.002	-0.001		0.001	-0.002		-0.004	-0.001	***	-0.002	-0.001	**
Rail1m	-0.057	-0.135		-0.054	-0.135		-0.106	-0.077		-0.102	-0.072	
Rail2m	0.099	-0.062		0.099	-0.063		-0.018	-0.036		-0.011	-0.033	
Rail3m	0.017	-0.041		0.017	-0.043		-0.143	-0.024	***	-0.085	-0.023	***
y2015	0.030	-0.023		0.030	-0.023		0.029	-0.013	**	0.032	-0.012	**
Beds	0.001	-0.010		0.001	-0.010		-0.012	-0.006	**	-0.015	-0.005	**
Baths	0.018	-0.018		0.019	-0.018		-0.001	-0.010		0.006	-0.010	
SQFT	0.000	0.000		0.000	0.000		0.000	0.000	***	0.000	0.000	***
Livingarea	0.000	0.000		0.000	0.000		0.001	0.000	***	0.001	0.000	***
Age	0.001	0.000	***	0.001	0.000	***	0.001	0.000	***	0.000	0.000	***
Aaverage	-0.007	-0.054		-0.007	-0.054		0.095	-0.031	**	0.094	-0.029	**
Average	-0.048	-0.054		-0.049	-0.055		0.093	-0.031	**	0.086	-0.029	**
Excellent	-0.007	-0.055		-0.007	-0.055		0.095	-0.032	**	0.098	-0.029	**
Fair	-0.011	-0.061		-0.012	-0.061		0.087	-0.035	*	0.081	-0.033	*
Coast	-0.022	-0.030		-0.022	-0.030		0.032	-0.017	*	0.059	-0.016	***
Cemetery	0.308	-0.205		0.302	-0.206		0.005	-0.118		-0.074	-0.109	
Diamond	0.046	-0.045		0.045	-0.046		0.089	-0.026	***	0.063	-0.025	**
Garden	-0.005	-0.027		-0.007	-0.027		0.064	-0.016	***	0.045	-0.015	***
Golfcourse	-0.002	-0.099		-0.001	-0.100	*	0.088	-0.057		0.072	-0.053	
Marina	-0.171	-0.100	*	-0.176	-0.101		0.042	-0.058		-0.012	-0.054	
Mountain	-0.012	-0.024		-0.014	-0.024		-0.018	-0.014		-0.022	-0.013	
Conser	-0.028	-0.087		-0.031	-0.087		0.000	-0.050		-0.043	-0.047	
Waterfront	0.040	-0.046		0.042	-0.046		0.039	-0.026		0.079	-0.024	***
Car1	-0.202	-0.293		-0.204	-0.293		0.702	-0.168	***	0.710	-0.156	***
Car2	-0.146	-0.290		-0.145	-0.291		0.776	-0.167	***	0.814	-0.155	***
Car3	-0.183	-0.290		-0.182	-0.291		0.747	-0.167	***	0.796	-0.155	***
Others	-0.161	-0.292		-0.158	-0.293		0.717	-0.167	***	0.774	-0.156	***
Hospital	-0.003	-0.003		-0.001	-0.004		0.015	-0.002	***	0.012	-0.002	***
Preschool	0.002	-0.006		0.002	-0.006		-0.001	-0.003		-0.004	-0.003	
Famarket	0.004	-0.004		0.005	-0.004		-0.015	-0.002	***	-0.003	-0.002	
Busstop	0.005	-0.016		0.006	-0.016		0.003	-0.009		0.023	-0.009	***
Park	-0.027	-0.015	*	-0.026	-0.015	*	0.006	-0.009		-0.007	-0.008	
Ocean	-0.001	-0.002		-0.001	-0.002		0.001	-0.001		0.006	-0.001	***
Firestation	-0.002	-0.002		-0.003	-0.002		0.009	-0.001	***	0.001	-0.001	
Sumarket	-0.002	-0.003		-0.002	-0.004		-0.032	-0.002	***	-0.012	-0.002	***
Surf	0.000	-0.001		0.001	-0.002		-0.002	-0.001	**	0.002	-0.001	**
Wetland	0.018	-0.010	*	0.018	-0.010	*	-0.009	-0.006		-0.019	-0.006	***
Adjusted R^2	0.026						0.700					

Notes: *10% significance, ** 5% significance, ***1% significance This table shows the parametric and semiparametric regression results. The parametric model is the benchmark Ordinary Least Squares (OLS) model and the semiparametric model uses a 75% window size. The coefficient of SQFT under the Lnlandvalue is 0.0003.

CONCLUSION

South Oahu's notorious traffic congestion, limited land mass, growing population and attempts to diversity Oahu's economy provide numerous opportunities for public transit. In this paper we study the impact of the HRT on property and land values in Oahu from October 2014 to October 2015. Both the parametric and semiparametric results indicate that the HRT does not have a positive impact on property values (probably due to the ongoing construction) and that there is a slightly positive distance spillover impact from the HRT on the land values. However, since there are no significant regional impacts within the two miles radius of the HRT on the land values, the positive distance spillover effects might arise due to the impact from other existing amenities near the HRT. This spatial collinearity could be solved by the semiparametric model, but due to our limited data size, we would be forced to choose a window size of 0.75 or larger. These results support previous studies which show that a parametric specification can be employed but the semiparametric methods provide valuable insights throughout the modeling process (Hsiao and Racine 2007). We are currently in the process of building a more expanded database by using ten years of housing sales data from 2006-2015 provided by the Multiple Listing Service (MLS) in Honolulu. We also plan to strengthen the model by applying a fixed effects model to remove unobserved fixed neighborhood heterogeneities and using a semiparametric model with an optimal bandwidth. There are a number of suggestions for future work. Our research could be expanded by exploring the health, environmental, social and economic impacts of rail transit in Honolulu. Moreover, a Sustainable Impact Analysis of the rail could help to identify synergies, conflicts and trade-offs across these impacts, and to propose creative options to provide policy makers with pareto-optimal transit outcomes.

REFERENCES

Anglin, P. and Gencay, R. (1996), Semiparametric Estimation of a Hedonic Price Function. *Journal of Applied Econometrics,* 11(6), 633-648.

Bajari, P. and Kahn, M. (2005). Estimating Housing Demand with Application to Explaining Racial Segregation in Cities. *Journal of Business and Economics Statistics,* 23(1), 20-33.

Chopra, S., Trampy, T., Leahy, J., Caplin, A., and Lecun, Y. (2007), Discovering the Hidden Structure of House Prices with a Nonparametric Latent Manifold Model. Proceedings of the 13th ACM SIGKDD international conference on Knowledge discovery and data mining.

Cleveland, W. and Devlin, S. (1988), An Approach to Regression Analysis by Local Fitting. Journal of the American Statistical Association, 83(403), 596-610.

Mohammad, S., Graham, D., Melo, P., and Anderson, M. (2013), A Meta-Analysis of the Impact of Rail Projects on Land and Property Values. *Transportation Research Part A,* 50, 158-170.

McMillen, D. and Redfern, C. (2010), Estimation and Hypothesis Testing for Nonparametric Hedonic House Price Functions. *Journal of Regional Science,* 50(3), 712-733.

Mathur, S. and Ferrell, C. (2013), Measuring the Impact of Sub-urban Transit-oriented Developments on Single-Family Home Values. *Transportation Research Part A,* 47, 42-55.

Chatman, D., Tulach, N., and Kim, K. (2012), Evaluating the Economic Impacts of Light Rail by Measuring Home Appreciation: A First Look at New Jersey's River Line. *Urban Studies,* 49(3), 467-487.

Cervero, R. (2004), Effects of Light and Commuter Rail Transit on Land Prices: Experiences in San Diego County. *Journal of the Transportation Research Forum,* 43(1), 121-138.

Billings, S. (2011), Estimating the Value of a New Transit Option. *Regional Science and Urban Economics,* 41, 525-536.

Hess, D. and Almeida, T. (2007), Impact of the Proximity to Light Rail Rapid Transit on Station-area Property Values in Buffalo, New York. *Urban Studies,* 44(5/6), 1041-1068.

Duncan, M. (2011), The Synergistic Influence of Light Rail Stations and Zoning on Home Prices. *Environment and Planning,* 43, 2125-2142.

Rosen, S. (1974), Hedonic Prices and Implicit Markets: Product Differentiation in Pure Competition. *Journal of Political Economy,* 82(1), 34-55.

Bin, O. and Filho, M. (2005), Estimation of Hedonic Price Functions via Additive Nonparametric Regression. *Empirical Economics,* 30(1), 91-114.

Pagan, A. and Ullah, A. (1999), Nonparametric Econometrics, Cambridge University Press, New York. Haupt, H., Schnurbus, J., andTschering, R. (2010), On Nonparametric Estimation of a Hedonic Price Function. *Journal of Applied Econometrics,* 25(5), 894-901.

HART (2015), The Rail Facts – Honolulu Rail Transit. Last viewed on November 19, 2015. http://www.honolulutransit.org/rail-facts.aspx

Parmeter, C., Henderson, D., and Kumbhakar, S. (2007), Nonparmaetric Estimation of a Hedonic Price Function. *Journal of Applied Econometrics,* 22(3), 695-699.

Hsiao, L. and Racine, J. (2007), A Consistent Model Specification Test with Mixed Discrete and Continuous Data. Journal of Econometrics, 140(2), 802-826.

Ohsfeldt, L. and Smith, A. (1985), Estimating Demand for Heterogeneous Goods. *The Review of Economics and Statistics,* 67(1), 165-171.

Espey, M. and Lopez, H. (2000), The Impact of Airport Noise and Proximity on Residential Property Values. Growth and Change, 31(3).

Goodman, A. (1978), Hedonic Prices, Price Indices and Housing Markets. *Journal of Urban Economics,* 5(4), 471-484.

THE DETERMINANTS OF THE INDEX OF PRICES AND QUOTATIONS ON THE MEXICAN STOCK EXCHANGE: SENSITIVITY ANALYSIS BASED ON ARTIFICIAL NEURAL NETWORKS

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ABSTRACT

This study aims at applying a neural network (NN) methodology to determine the relative variable impact between the variables [established by financial theory] determinants of Index of Prices and Quotations (IPC) on the Mexican Stock Exchange. A NN model is proposed due to these variables have nonlinear and nonparametric behavior, which makes this type of modeling most appropriate and efficient than conventional linear models. The architecture used to implement the network was Multilayer Perceptron (MLP) with a hidden layer. The following variables were used in the input layer: Index Dow Jones Industrial Average (DJIA), Consumer Price Index (CPI), International Reserves (RI), Yields on Treasury Certificates (CETES), Monetary Aggregate (M1), and Exchange Rate (TC). The algorithms applied in order to assess variable contribution were Connection Weights Approach and Garson's Algorithm. Then, a comparative analysis of the results of each algorithm was performed, concluding that the variable International Reserves has the greatest impact. Moreover, the results allow quantifying the impact of each proposed variable on the IPC of the Mexican Stock Exchange. This study adds to research that prove the efficiency of artificial neural networks for the simulation and provides a methodology to determine the relative importance of financial economic variables.

JEL: E31, C45

KEYWORDS: Financial Economic Variables, Mexican Stock Exchange, Artificial Neural Network, Sensitivity Analysis

INTRODUCTION

In most cases, the relationship between financial economic variables are highly complex and present a non-linear behavior. Such is the case of the variables that impact the stock market, one of the most important financial markets. The market works as an intermediary between debt instruments and actions, increasing the efficiency of funding because of the competition between the various sources. It is a means to make long-term investments and for companies to obtain finance to carry out their investment projects, which is of great interest to know what the origin of variations in yield is and the discount rate expected.

One of the most efficient methods for modeling price indices is artificial neural networks. In this methodology the models are not parametric, which is a big advantage because the input variables should not meet normality or linearity criteria. An artificial neural network (ANN) mimics the structure and behavior of the brain to find a solution to different problems. Its objective is to find the functional relationship between the input and output elements by using a set of mathematical algorithms that are nonlinear relationships between data sets. They are usually used as tools for predicting trends, and to classify and determine the level of association between data sets. (Haykin, S., 1999).

There have been several studies indicating that neural networks fail to adequately simulate fluctuations in the levels of stock prices over time. But still, one needs further research to know to what extent each one of the variables impact the performance of the Index of Prices and Quotations. This study presents an

evaluation of two methods of sensitivity analysis—Connection Weights Approach and Garson's Algorithm—applied to the variables determining the Index of Prices and Quotations of the Mexican Stock Exchange from synaptic weights obtained as output of an artificial neural network. Comparison of association rates obtained with each of these methods is performed.

LITERATURE REVIEW

There have been several studies to try to determine the factors that affect the behavior of the Index of Prices and Quotations on the Mexican Stock Exchange. Fama and French (1989) conclude that the market value and rates of interest are two variables that have a high explanatory power on the expected value of performance. Guzmán M., Leyva S., and Cárdenas A. (2007) infer that the Index of Prices and Quotations on the Mexican Stock Exchange is directly explained by market value, exchange rate, and Yields on Treasury Certificates (CETES). On the other hand, Parisi and Guerrero (2003) analyze the predictive ability of neural network models to predict changes in stock indexes, eventually concluding that neural network models outperform autoregressive integrated moving average (ARIMA) models.
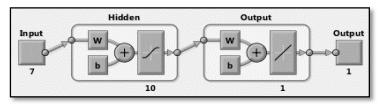
METHODOLOGY

From existing studies, the following variables were selected as inputs for the model:

Index Dow Jones Industrial Average (DJIA)
Consumer Price Index (CPI)
International Reserves (RI)
Yields on Treasury Certificates (CETES)
Monetary Aggregate M1
Exchange (TC)

The database was built with monthly values of the variables mentioned from January 2000 to May 2015. To develop the model, nonlinear architecture known as neural network Multilayer Perceptron is used. This architecture came from the evolution of the Simple Perceptron, which has the limitation that it can only classify linearly separable sets. Its main advantage is that it allows network training to be performed in hidden layers, i.e., layers that do not directly connect the inputs and the outputs. Architectural alternatives were tested on MATLAB platform, in order to find the optimum number of neurons in the hidden layer. By comparing the goodness of fit of each architecture using the correlation coefficient, it was obtained that the optimal architecture is one of ten neurons in the hidden layer, it is shown in Figure 1.
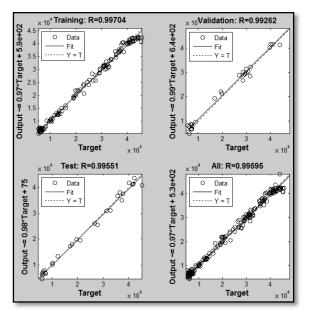
Figure 1: Architecture Multilayer Perceptron

This figures shows the optimal architecture for the model, composed of seven neurons in the input layer, ten neurons in the hidden layer and one neuron in the output layer.

The network achieves minimized error within the first ten iterations, stopping its training where the validation reaches the slightest error. Figure 2 shows that the model has a global setting of 0.99595.

Figure 2: Goodness of Fit

This figures shows the goodness of fit of the model at each stage: Training, Validation, Test, and Global.

Garson's Algorithm

Garson proposed a method of partitioning the neural network weights to determine the relative importance of each input variable in the network. This algorithm calculates the relative contribution of each variable by the product of the weights obtained from the input layer to the hidden and the weights of the hidden layer to the output. (Garson G. D., 1998) The next formulas represent the calculation of variable importance for predictor variable X (where X = 1 to 7) using the weights connecting each of the input neurons Z (where Z = 1 to 7) to each of the hidden neurons Y (where Y = A to J) to the single output neuron. (Olden et al., 2004)

$$\text{Input}_X = \sum_{Y=A}^{J} \frac{|\text{Hidden}_{XY}|}{\sum_{Z=7}^{7} |Hidden_{ZY}|} \tag{1}$$

Connection Weights

Garson's algorithm uses the absolutes values of the connection weights, so it does not provide information on the effect of input variables in terms of directly or inversely related to the output. Olden et al. (2004) presented a connection weight approach in which the actual values of input-hidden and output-hidden weights are taken. This method sums the products across all the hidden neurons (Olden, J. D., Jackson D. A., 2002).

$$\text{Input}_X = \sum_{Y=A}^{J} \text{Hidden}_{XY} \tag{2}$$

RESULTS AND DISCUSSIONS

Values of synaptic weights are summarized in Table 1. Each weight represents the intensity of signal transfer between a neuron to another.

Table 1: Synaptic Weights

Input/Hidden	A	B	C	D	E	F	G	H	I	J
RI	2.97	-0.03	-0.46	-0.04	-0.73	0.17	-0.09	0.07	0.07	0.38
M1	-0.42	-0.10	0.47	-0.02	0.86	0.09	0.00	-0.56	0.16	0.37
DJIA	-0.59	0.08	-0.15	-0.03	0.29	-0.12	-0.07	0.11	0.43	-0.41
TC	0.89	0.15	-0.31	0.02	-0.82	0.06	0.34	-0.06	0.47	-1.07
CETES	0.38	-0.00	0.61	0.04	-0.42	0.00	-0.02	0.17	0.08	0.39
INPC	-0.71	-0.02	0.40	-0.00	-0.07	0.02	0.42	0.32	-0.02	-0.55
CPI	0.35	0.04	-0.10	-0.02	1.23	-0.23	0.10	0.08	-0.30	0.12

This table shows the synaptic weights between input layer and hidden layer.

Following the methodology described, the sensitivity analysis is presented in Table 2.

Table 2: Relative Importance of Inputs

Input	Garson's Algorithm		Connection Weight Approach	
	Relative Importance (%)	Ranking	Relative Importance (%)	Ranking
RI	16.5	2	36.8	1
M1	15.4	3	13.7	3
DJIA	13.1	5	-7.3	5
TC	20.0	1	-5.5	6
CETES	9.5	7	12.9	4
INPC	12.2	6	-3.5	7
CPI	13.2	4	20.3	2

This table shows the relative importance of different inputs as per Garson's Algorithm and the Connection Weight Approach.

According to Connection Weight Approach, the variable International Reserves has the greatest impact (36.8 %) while the Garson's Algorithm placed second with 16.5%, considering the Exchange Rate in the first place (20%). We can see that both results are similar but the Connection Weight Approach has the added advantage of showing the positive or negative effect of input on output.

CONCLUSION

In this paper, the relationship between the main factors, according to economic theory, that can be considered as determinants of Index of Prices and Quotations (IPC) on the Mexican Stock Exchange was analyzed. The artificial neural network model allowed us to verify the relationship and get the level of significance of each of the variables proposed. According to the results of this analysis, we can say that the behavior of Index of Prices and Quotations is mostly determined by the variable International Reserves, and that a change of one percentage point in that variable causes a variation of 36.8% in the Index of Prices and Quotations.

REFERENCES

Olden, J. D., Jackson D. A. (2002). "Illuminating the ''black box'': a randomization approach for understanding variable contributions in artificial neural networks", Ecological Modelling 154, 135–150.

Haykin, S. (1999). "Neuronal Networks: A comprehensive foundation", McMaster University, Prentice Hall International Ontario.

Olden, J. D., Joy M. K. and Death R. G (2004). "An accurate comparison of methods for quantifying variable importance in artificial neural networks using simulated data" Ecological Modelling 178.3 389-397.

Garson G. D. (1998). "Neuronal Networks: An Introductory Guide for Social Scientists", SAGE Publications London.

Fama E. and French K. R. (1988). "Permanent and Temporary Components of Stock Prices", Journal of Political Economics 96.2, 246-273.

Parisi, A., Franco and Edinson C. (2004). "Algoritmos genéticos y modelos multivariados recursivos en la predicción de índices bursátiles de América del Norte", El Trimestre Económico LXXI.284, 789-809.

Guzmán M., Leyva S., and Cárdenas A. (2007). "El futuro del Índice de Precios y Cotizaciones de la Bolsa Mexicana de Valores", Análisis Económico 2007, XXII (49).

RECOGNIZING THE CAPACITY OF A MULTINATIONAL ORGANIZATION TO REPATRIATE THE EXPATRIATE: A PARADIGMATIC LENS

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ABSTRACT

Expatriates are an important resource for multinational corporations (MNC). Unfortunately, repatriation is not always successful with almost 40% of these employees leaving the firm within two years of coming home. The employee's resignation translates to a loss to the organization of both the financial investment made in the employee and the skills and experience that the employee developed while in the expatriate assignment. Efforts are made by human resource departments to assist the expatriate's return to the home organization. The high turnover rate, however, emphasizes that more is needed to retain the talent of the expatriate and protect the investment made by the organization. It is time for a new way of doing business, and that includes recognizing the role that the leadership of the MNC has in repatriating the expatriate. To ground the research, a rapid systematic review is conducted that involves examining both theoretical and empirical on repatriation. Using Perlmutter's EPRG Model (1969) and Ernst and Chrobot-Mason's boundary spanning leadership model (2010), a paradigmatic lens for multinational organizations to examine their capacity to repatriate the expatriate is developed. An analysis of each model individually, followed by an integration of concepts, provide a mechanism to elevate the subject of repatriation from a pedestrian list of action items to a higher-order analysis of the organization. This author proposes that for repatriation to work, leaders must have a geocentric attitude and embrace the need to develop collaboration between groups. The advantage of this approach is the ability to ascertain where leadership is on the continuum and identify what it will take to improve the probability of successfully repatriating the expatriate. The article concludes with implications for future research for scholars and management practice for practitioners.

JEL: M12, M16

KEYWORDS: Repatriate, Multinational Corporation, EPRG Model, Boundary Spanning

COGNITION AND THE TEACHING-LEARNING SYSTEM

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ABSTRACT

The progress of the society of knowledge and of the information technologies has significantly influence in education and the form which the teaching-learning systems acquire. Accordingly, the intention is not only an amendment of the teacher-pupil relationship placing at the classroom centre stage the learning and the interplay among students, but also the collaborative engagement of the teacher as agent of change.Another axis of the educational change comes from the educative system approach throughout ICT´s; the command of computer knowledge by teachers is a must for them   a) to equate their pupil´s skills and b) to implement it into teaching strategies. Today, items such as e-mails and web (Internet) are essential tools for the modern development of education. The cognitive systems known as dual, comprising an automatic system and another system – a slower and thinking one- allows the creation of an interface between the mode in which the brain processes the information and the mode in which the teaching-learning system uses the ICT´s to improve the pupil´s skills.

J.E.L. CLASSIFICATION: I21, I22

INTRODUCTION

The scientific and technological progress of the last decades, mainly in the field of the ICT´s, mainly the ones linked to the ICT´s, means more and better opportunities to extend education, allowing a reduction of the *time and distance* problem through innovations; the latter covering also the teaching-learning systems. As a result, the new methodologies of study can promote the "learning to learn" concept, understanding this latter as the tool needed to develop an autonomous knowledge, Each institution decides to integrate or not to the ICT´s, according to their infrastructure, interests or skills. This problem appears in the 21st century as a great digital gap (not yet corrected) in the educational environment. The problem tends to be enlarged since the year 2006 with the emergence of the "cloud computing"; the concept is orientated to the use of diverse applications and services for which it is necessary to have a PC with connection to Internet.

The technological progress of our century generate a projection for a virtual education, supported by digital means such as Internet, videoconferences, social networks, professional networks and online libraries, with a dynamic approach. So, the user –pupil or teacher – gains access to archives and programs stored in a indefinite site, even in other countries, which are not in his/her computer. Thence the origin of the term *cloud*. Currently many of the teachers of secondary and higher education have acquired their competence for cloud applications in training courses in recent years; however, they were not trained in this kind of training environment and for that reason a great ignorance exist about dozens of free educative applications available in Internet. In consideration of the classroom activities and according to the author Díaz Barriga (w/d), the possibility to obtain satisfactory results from the didactic situations to which people have been faced was identified. And so, many times they have learned to learn, because:

They control their own learning process
They recognize and appreciate what they do
They appreciate the demands of the task and respond accordingly
They plan and review their own achievements identifying hits and errors
They employ appropriate strategies to analyze each situation

They value the attained achievements and correct they mistakes

The legacy of the French psychologist Gabriel Tarde is used in the psychological analysis of this work. Tarde´s research about the processes of cognition, decision and rationality were recovered in recent years by Latour & Lépinay (2008) who presented a theory on the mode in which people realize the cognition processes based in imitation and creation, the latter being unique to humans (López & Sánchez Criado, 2006; Nocera 2006; Denegri Coria w/o date). The analysis of the behavioral model of Tarde (Latour, 2008; López & Sánchez Criado, 2006; Denegri Coria w/o date) has relation with the two systems model, named S1 and S2 by Stanovich & West (2000); this model is sustained by rationality models validated by means of justifications providing the necessary support (García Campos, 2008, 2009; Stanovich & Est, 2000, 2003; Vieira Cano, 2008; Estrada Gallego, 2006). It is directly related to education, because it indicates the form by which human beings acquire signification, starting from rational processes, as a necessary step towards comprehension and acceptation of reality and knowledge. This work continues with the section on methodology, then develops the different epistemological positions. Finally complete with the discussions and the conclusion. The purpose of the paper is to contribute to interpret the difficulties encountered due to the advancement of information technology and new forms of education. The way to future research on the benefits and the problems caused by the use of new technologies and their impact on quality education and training of the individual is open.

METHODOLOGY

According to the characteristics of a work of theoretical research, the methodological path used mainly is the collection of papers from psychologists who have worked on economic behavior and academic economics conducting research in behavioral economics, coupled to the classical theories the administration. It is essentially a descriptive work that tries to provide answers within the academic exploration within its own conceptual map of Latino culture to the concepts of learning organizations. The literature search was conducted in the field of prestigious academic journals Latin American universities in particular, by blind search technique, oriented keywords. While it is a qualitative research from the standpoint of the study of specific event, such events do not arise from the empyrean but are the product of observations of primitive work then developed through the filter of cultural vision and mental maps of the authors Latinos.

LITERATURE REVIEW

The behavioral model of Gabriel Tarde According to Denegri Coria (w/o date, p. 10) "Tarde claims that the social behavior is explained by means of the complementary concepts of imitation and invention". Imitation is the crucial phenomenon to explain the human relationships starting from the individuals. It is a kind of hypnotic state that leads individuals to repeat automatically the conduct previously developed by models. Imitation is the psychological procedure by which ideas are repeated and spread among the society; it starts from internal states such as beliefs and desires".

Imitation is interpreted as the situation that allows to the author Tarde to claim that social reality is a result of psychological states, resulting from the association of individuals, allowing the construction of a group psychological representation; then, the level of reality are the grouped individuals and the collective effect on the individual conscience (López Parra, 2008). Therefore, the group construction of the psychological reality imposes conditions to the group components into an attitudinal and sentimental reference frame, in which individual decisions are adopted. In contrast to Gabriel Tarde, Gustave Le Bon introduced the "collective mind" concept, claiming that when the individuals are part of a collective, psychological traits emerge that are absent in the subjects taken in an isolated mode; instead, Le Bon states that some psychological behavior exist and emerge spontaneously as a consequence of their reunion.

The concept of invention is much more important for human development, because it allows the evolution starting from certain recognized situation (by means of imitation) to a new realization (invention) and so permits the individual progress at the knowledge level and the society progress. Meanwhile, Denegri Coria (w/o date) defines invention as *any thinking or creation that arises from the combination of two or more ideas* acquired previously by means of imitation and by contrasting and opposition between imitation (accepted idea) and the existing practices. It is a feature of individuals especially talented, that are followed (and copied) by the *human mass*. The society advances thanks to inventions and creations.

The idea on which Gabriel Tarde works has two well differentiated aspects, but simultaneously and perfectly related and complemented to explain the form in which the human beings incorporate concepts and ideas; concepts and ideas turns humans able to realize rapid decision making and to acquire and store new knowledge by means of imitation. Tarde states that imitation and repetition are the adequate instruments for the acquisition of abilities and skills by human beings, that then may be applied by means of creation - understood as the sum of two concepts already seized – that may only be available to those who possess a remarkable degree of cognition and reasoning. The model of behavior of Tarde implies certain laws that may be applied to the education to explain, for example, that:

Imitation may explain either fashion or productive processes and cycles of
 teaching-learning
The *homo economicus* is explained (in psychology) by the causes of desire and beliefs
The *knowledge consumer* is a being made of desires to satisfy, according to a gradation of preferences.
Learning depends on the imitation concept.
Research is related to technological innovation, i.e. with invention.

The Dual Reasoning Model (*Or*: the Two Systems Model)

The dual theory of systems was developed in the field of cognitive psychology and captivated the attention of an important group of psychologists; it developed steadily since 1990 until today. This theory postulated two diverse processes of reasoning that coexist into the human brain, called S1 and S2 by Stanovich and West. For Evans (García Campos, 2008, p. 68) and Stanovich and West (2000, 2003), S1 contains processes shared only with animals, while S2 seems to be a system used exclusively by human beings at large. These authors assign to the S1 system a rapid response capability, great operative capability (computational capability) which enables immediate responses, including to complex reasoning problems; the drawback consist in the fact that the answers not always are correct. This system is deemed innate for human beings and archaic in terms of evolution (García Campos, 2008, 2009). Instead, S2 is a slower system of reasoning, but able to meet certain regulatory requirements leading to a more correct answer in terms of rationality; moreover, this system has capacity – in some measure – to control the outputs of S1 and to inhibit them. Stanovich and West (2003) stated that S1 is a compound of some processes that shared certain distinctive characteristics, common but liable of identification, such as:

They are associative processes or processes experimental learning
They are preceptual and language systems
They are automated processes

Into an ulterior paper García Campos stated a relationship between the dual theory of reasoning and the concepts of justification and rationality. Justification is (for him) a compound of two essential axes:

A *"fundational"*-coherent axe; in "fundationism" 1) series of basic beliefs exist that are not liable of justification, because they are the base to justify the universe of "not basic" beliefs; 2) the justification has only one direction: it goes from basic beliefs to no basic beliefs. While, "*coherentism*" adopts one level or status of beliefs and therefore, justification is bidirectional.

The second axe is formed by "*internalist-externalist*" theories. In *internalism* the justification depends on internal states such as reflection, reasoning o memory, to which an experimental subject has immediate access; for "*externalism*" the justification depends on the *external state*, that starting from own beliefs leads to products of an adequate process of cognition.

The defenders of internalism express that the rationality criteria are the possibility to give and to offer reasons and underlies the notion of justification, while those who defend de externalist position suggest that justification entails the idea of operate (execute) inferential processes of induction and deduction (inductive and deductive reasoning). Now, an important definition is the concept of rationality, for which the position of Stein is adopted; he (quoted by García Campos, 2009) called it the "standard vision of rationality".

"According to this vision, to be rational means thinking in agreement with the principles of reasoning based on the rules of logics, probability and so on". Assuming that the standard vision of reasoning is correct, then the principles which we must apply to reason are the normative principles of reasoning" (Stein, quoted by García Campos, 2009, p. 66). Therefore, in this context the rationality is the primary criterion to evaluate the human behavior using the rules of logics, mathematics, probability and decision theory. Moreover, another definition of rationality exists, named "*consequentialist view"* of rationality; this one refers that the rationality is subject to the achievement of certain results proposed in advance, for which it is necessary to know the obtained results for an assessment of the rationality of an action.

The relationships between S1 and S2 and the forms of justification and rationality. Therefore, we can say that rationality (R1) has relationship with the previously before mentioned consequentialist vision, while rationality (R2) seems adjusted to the standard vision of rationality previously defined; then, it can be expected that (accepting that two kinds of rationality exists) for certain problems it is possible to offer an answer that while for R1 is desirable and rational, not necessarily will verify this condition under the postulates of rationality (2) and vice versa. Let´s remember that the concept of rationality (R1) means that it is in accordance with certain principles indicating the response to an event. The answer is esteemed as correct because it complies with the requirements of beliefs that are not necessarily verifiable from the before mentioned *standard* point of view, because it is not a consequence of a ruled reasoning; instead, if the response system correspond to the rationality 2, the process for decision making becomes responsible for validating the response. S1 is a system without access to the processes, but one that has knowledge of the outcomes, whose rationality is implied and instrumental into a genetic level.

Their justification relies in basic beliefs that do not require demonstration (axioms and postulates). It is *consequentialist*-evolutionist. The dual model explains that the human brain responds to a stimulus with one of the two systems named S1 and S2. Meanwhile, each system must be admitted by means of a rationality mechanism conferring confidence to the response. Also, both systems must be validated by means of appropriate justifications. S2 signifies a slower and difficult reasoning procedure, requiring will and decision of the person to operate and a normative frame indicating which are the adequate procedures to find the correct answer to different stimulus. It usually acts according to the standard notion of rationality or another standard known beforehand, applies the rules of logics, mathematics, probability and decision theory; it finds justification in explicit models, because the process is known and validated; and, too, receipts the o*utput* due to the fact that it is the exit of an accepted system.

The main difference observable between human beings and other species is the ability to memorize, essential requirement to learn. Edgar Dale represents into a figure the ability of human beings to retain and memorize, according to the activity involved. Therefore, the strategy to be applied to achieve learning will depend on each didactic unit; to start with an area or problem is something manageable, but it is possible that we need to deal with a lot of interrelated activities or problems. More on Dale´s cone: the individuals

learn better when they interact with other individuals, including when that intervention is dramatized … and with the exterior milieu in an *active attitude*, than whit a passive attitude. With regard to *groups*: their learning ameliorates when each member cooperate to achieve common objectives and posses a common vision. The organization, as a global and integral system, learns by having feedback with the environment and manages to anticipate future changes.

RESULTS AND DISCUSSIONS

The human being is born in the bosom of a certain society having determinate customs that he absorbed since his birth; customs are very strong, they determines him for the rest of his life. A person receives a social, cultural and economic frame of reference that – like an iceberg – will stay secret, becoming manifest in certain situations or when required by an extraordinary event. By means of socialization processes and formal and informal education the human will add models of troubleshooting, from S_1 to S_2 to give quick answers – almost always correct – to complex problems. Therefore, the interpretation of the economic and social reality will substantiate the answer which will be duly justified by appropriate criteria, according to the type of rationality utilized. The cycle of formal education begins with schooling by means of the acquisition of new knowledge requiring effort of the intellect. For example, for reading S_2 must actively participate to "bring to mind" a set of symbols and to initiate the assembly of the puzzle of their conjunctions. Then is when children begin to use words, but they do not understand o know what they have read because they have not yet passed to S_1 the reading process and, therefore, according to Kahneman (2003) lacking the sufficient aptitude to realize two cognitive activities (requiring effort) simultaneously then they cannot understand what they read. The way for contents comprehension will begin only whit the reading procedure is transferred to S_1 and the child realizes this process without effort. We recognize an identical path for the following stages of schooling and contents of formal education and learning of jobs.

In the education process the formalization of behavior occurs and adequate tools are acquired leading to problems resolution; the interpretation of the reality will take from the sum of beliefs those that support justified solutions in complex and unknown environments. Simon´s bounded rationality is a base for the construction of forms of decision making at any level (professor or student), slanted by their system of beliefs, values and principles, innate and acquired. The cognition systems allow that the use of the new tools provided by ICT´s to resolve difficult problems can be separated in two, in order not to exhaust the brain capacity: on one hand, resolution of simple mathematical schemes without major implications (stores in S_1) and, as a second process, incorporate the academic content through S_2. This not means that the tool signifies an extraordinary use of the computational capacity defined by Simon.

The incorporation of simple schemes into the teaching process allows that the students acquire concepts, according to their learning strategies *technologically advanced* (in comparison with the docent background). The use of new technologies is a must for teachers today and also the utilization of social networks to communicate with their students and to transmit teachings. At high levels of education (specialization and masters) the students (yet practicing professionals) are instructed to work with models that have their justification in programs according to their understanding of rationality, as stated by the standard model. The environment of excellence of academic cloisters facilitates beliefs in S_1 levels, when it turns out complex to interpret conceptually his developments; then is when the force of imitation allows the application of complex models apprehended and lodged in S_1 to resolve other kind of problems. However there are elements justifying their use, either due to the high notability or by its accessibility.

CONCLUSION

The universities are faced with the challenge to actualize their methods, articulate their careers and promote common actions between teachers and students as part of the challenges whose origin is the EEES ("Espacio Europeo de Educación Superior, European Space of Higher Education"); this space operates as guide for

American universities trying to be at the forefront of higher education. The professor attitude must change; today the access to knowledge is collaborative, not only among professors, but between students and teachers; the resources have changed and will change from now on. Chalk and blackboard seem to be things of a distant past; now, teaching via WEB also in the classroom with presence of the professor, this latter explaining with the help of information received via Internet by his students is a reality. And, of course, the use of blogs and other tools are mandatory to obtain the accompaniment of the student on his way to the discovery of knowledge (understood as the acquisition of skills and competences) until the time of his graduation.

REFERENCES

Agulló Tomás, Esteban (2005) "Reseña de "Psicología Social, Perspectivas Psicológicas y Sociológicas" de José Luis Álvaro y Alicia Garrido", Psicothema, año/vol. 17, número 001, pp. 177-178, Universidad de Oviedo, España. ISSN 1886-144X.

Alcoba, J. (2013). Organización de los métodos de enseñanza en función de las finalidades educativas: el alineamiento curricular en Educación Superior. Profesorado, 17(3), 241-255.

Batle, R. (2013). El Aprendizaje-Servicio en España: El contagio de una revolución pedagógica necesaria. Madrid: Educar.

Becerra, Sebastián; Chaz Sardi, María; El Alabi, Emilio; Fidami, Eduardo; Martino, Sofía (2011) "Toma de decisiones y sesgos de comportamiento: alguna evidencia experimental", Universidad Nacional del Sur, República Argentina.

Bernardo, J. y Calderero, J.F. (2000). Aprendo a investigar en educación. Madrid: Rialp. Bisquerra, R. (1996).Bolívar, A. (2008). El discurso de las competencias en España: educación básica y educación superior. Revista de Docencia Universitaria, número monográfico 2.

Brown, D. M. (2001). Puling in together: A method for developing service-learning and community partnerships based in critical pedagogy. National Service Fellow Research. Recuperado de https://www.nationalserviceresources.gov/files/r2087-pulling-it-together.pdf

Cortada de Kohan, Nuria (2008) "Los sesgos cognitivos en la toma de decisiones" International Journals of Psychological Research, Vol. 1, Nº 1, pp. 68-73, Medellín, Colombia.

De Miguel, M. (2005a). Cambio de paradigma metodológico en la Educación Superior. Exigencias que conlleva. Cuadernos de Integración Europea, 2, 16-27.

De Miguel, M. (2005b). Modalidades de enseñanza centradas en el desarrollo de competencias. Orientaciones para promover el cambio en el marco del EEES. Oviedo: Servicio de publicaciones de la Universidad de Oviedo.

De Miguel, M. (2006). Metodologías de enseñanza y aprendizaje para el desarrollo de competencias. Orientaciones para el profesorado universitario ante el espacio europeo de educación superior. Madrid: Alianza Editorial.

Denegri Coria, Marianela (s/d) Introducción a la psicología económica, Psicom Editores, Bogotá, Colombia.

Fernández Christlieb, Pablo (2005) "Los dos lenguajes de las dos psicologías de lo social", Athenea Digital, Nº 8, otoño de 2005, disponible en http://antalya.uab.es/athenea/num8/sfernandez.pd

García-Campos, Jonatan (2008) "Psicología cognitiva del razonamiento. Algunas expectativas y retos", Ludus Vitalis, Vol. XVI, núm. 29, pp. 173-176, México.

García-Campos, Jonatan (2009) "Justificación y racionalidad desde la teoría dual del razonamiento", Ideas y Valores, Nº 139, pp.61-86; Bogotá, Colombia.

Kahneman, Daniel; Knetsch, jack y Thaler, Richard (1991) "Anomalies: The Endowment Effect, Loss Aversion, and Status Quo Bias", The Journal of Economic Perspectives, vol. 5, Nº 1, pp. 193-206, EEUU.

Kahneman, Daniel (2003) "Mapas de racionalidad limitada: psicología para una economía conductual", Revista Asturiana de Economía, RAE Nº 23, España.

López Gómez, Daniel y Sánchez-Criado, Tomás (2006) "La recuperación de la figura de Gabriel Tarde", Página web consultada el [20, 01, 2013]. Disponible web en: http://www.aibr.org/socios/tomassanchezcriado/inv/tarde2006.pdf

López Parra, Hiader (2008) "Especialización en intervenciones psicosociales, Módulo Epistemología de la psicología social", Fundación Universitaria Luis Amigó, Facultad de Psicología, Medellín, Colombia.

Miller Moya, Luis (2004) "Acción colectiva y modelos de racionalidad", Revista Estudios Fronterizos, vol. 5, Nº 9, pp. 107-130, Universidad de Baja California, México.

Nocera, pablo (2006) "La fotografía como metáfora en el pensamiento de Gabriel Tarde", Nómadas.

Revista crítica de Ciencias Sociales y Jurídicas, Nº 14, editado por Universidad Complutense de Madrid, España.

Paricio, J. (2007). Implicaciones del paso de la docencia centrada en contenidos a la docencia centrada en competencias. En VIII Foro Aneca: ¿Es posible Bolonia con nuestra actual cultura pedagógica? Propuesta para el cambio, 25-29. Madrid: Aneca.

Pétriz, F. (2007). Estrategias para el cambio metodológico en la universidad española. La Cuestión Universitaria, 2. Recuperado de http://www.lacuestionuniversitaria.upm.es/web/articulo.php?id_articulo=14

Plata, Leobardo y Mejía, Indalecio (2012) ¿Racionalidad clásica o racionalidad limitada? Presentado en el XVI Jornadas de Epistemología de la Economía, Facultad de Ciencias Económicas, Universidad de Buenos Aires.

Scarano, Eduardo (208) "La teoría estándar de la racionalidad: Perspectivas metodológicas", Revista Economía, Nº XXXIII, pp. 63-92.
Stanovich, K. (2006) The Robot Rebellion. Finding Meaning in the Age of Darwin, The University Chicago Express, Chicago, EEUU.

Stanovich, Keith y West, Richard (2000) "Individual differences in reasoning: Implication for the rationality debate?" Behavioral and brain sciences, Nº 23, pp. 645-665, Cambridge University Press.

Stanovich, Keith y West, Richard (2003) "Evolutionary versus instrumental goaos: How evolutionary psychology misconceives human rationality" en Evolution and the Psychology of Thinking: The Debate; East Sussex: Psychological Press.

Torrego, L. (2004). Ser profesor universitario, ¿un reto en el contexto de convergencia europea? Un recorrido por declaraciones y comunicados. Revista Interuniversitaria de Formación del Profesorado, 18(3), 259-268.

Tünnermann, C. (1998). La educación superior en el umbral del siglo XXI (2 ed.). IESALC/UNESCO. Tversky, Amos y Kahneman, Daniel (1981) "The Framing of Decisions and the Psychology of Choice", Science, New Series, Vol. 211, Nº 4481, pp. 453-458.

Vidal de la Rosa, Godofredo (2008) "La Teoría de la Elección Racional en las ciencias sociales", Sociológica, año 23, Nº 67, pp. 221-236, México.

Vieira Cano, Mayra (2008) "Nuevos paradigmas del pensamiento económico: un llamado a la interdisciplinariedad", Revista Ciencias Estratégicas, Vol. 16, Nº 20, pp. 335-350, Universidad Pontificia Bolivariana, ISSN 1794-8347, Colombia.

Villa, A. (2006). El proceso de convergencia europeo y el papel del profesorado. Foro de educación, 7, 103-117.

Villa, A. y Villa, O. (2007). El aprendizaje basado en competencias y el desarrollo de la dimensión social en las universidades. Educar 40, 15-48.

Vivar, J. (1971). Principios y tareas de la universidad. Ecuador: Universidad de Loja.

Wilczenski, F. L. y Coomey, S. M. (2007). A practical guide to service learning: Strategies for positive development in schools. New York, NY: Springer.

Zabalza, M. (2006). La convergencia como oportunidad para mejorar la docencia universitaria. Revista inter-universitaria de formación del profesorado, 20(3), 37-69.

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PROSPECTS OF REAL OPTIONS USE IN INVESTMENT PROJECT VALUATION IN BANKS

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ABSTRACT

This article discusses the necessity of bank managers to evaluate investment projects with real options. The object of study is the investment activity of banks, and the subject is optimization of investment projects valuation method in the framework of banks risk management. The main objective of the study is to develop an optimal methodology for the investment project valuation that will enable the effective management of bank funds and obtain sufficient investment income. While studying the problem, there were set following tasks to solve: Analyze investment project valuation methods and ways of their optimization; Identify opportunities of using real options in the valuation of investment projects in bank; Make own conclusions on the studied subject. The relevance of the chosen topic is determined by the necessity of optimal risk management tools and definitions in assessment methods of the investment project. The use of real options is one of the innovative approaches to the valuation of assets. Traditional methods of valuating investment projects are not taken into account when calculating the competitive advantage and flexibility in management. Moreover, bank managers face the uncertainty at the beginning and in further development of the project that forces managers to use more flexible tools for assessing the investment project. As the result of this topics study there arises a question to consider for the heads of the bank about including real option method in its activity. The use of this method is one of the innovative methods in evaluating investment projects and will let managers of the bank to be more flexible.

JEL: G00

KEYWORDS: Investment project, investment project valuation, real option, banks, risk-management.

The investment activity of commercial banks, along with its classic operations, such as loans, plays a significant role in the formation of bank assets. These operations are aimed at the formation of the trading portfolio in order to obtain speculative and investment income, investments in securities and shares of organizations for the purpose of joint commercial activities as well as investing in the project, which is significantly important area for the success of the bank.

At the present time methods of valuation of investment projects in banks are limited. The market is characterized by high uncertainty, which leads to the importance of qualified evaluation. Therefore, there is need to expand the system of assessment methods that would reduce the risk of loss of funds for the bank and for the companies that are the creators of the project. These tools include real options method, which was proposed by a number of foreign authors in the mid-1980s, which began to put into practice since 1990s (Mostly in oil and mining companies.) The main feature of this method is the fact that it fits into a rapidly changing economic environment. In Russia, for example, there are not many authors who do a research about this method, and especially its application in banks. The monograph of Russian economist Gusev A. A., which was released in 2009 considering the full range of real options in valuation of business and investment based on the number of foreign authors [1]. In this work he shows the necessity and importance of real option method for the company, but didn't pay attention on its application in banks. There were numerous articles published by authors such as Abramov G. F., Bulgakov L.G., Grishina S. A., from which it's clear that Russia, for example, has an increasing interest in this issue every year, although the degree of scrutiny is rather small. Abramov G. F. gave the definition of real option in his article, its difference from a financial option and the method of investment projects evaluation with real options. While Bulgakov L. G. studied the possibility of banks participation in financing investment projects. Comparative

analysis between the traditional method of project appraisal and real options method held in the work of Grishina S. A., but it does not show possible applications, in particular in banks [2]. Thus, the extent of studying this topic is relatively small and the application of real option method is not used in the banks investment project evaluation.

projects. Traditional methods of evaluation of investment projects, based on discounted cash flows, which have some disadvantages:
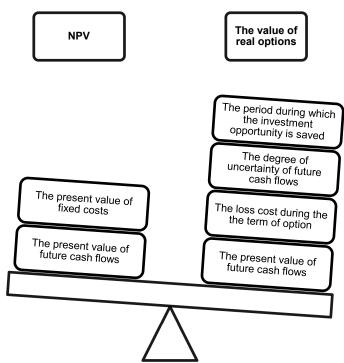
Assume that managers decisions immutable;

Do not consider the possibility of changes in managers decision in several periods of time;

Do not count the period in which the investment opportunity is retained; the uncertainty of future cash flows, the yield of securities; the cost depreciation during the term of the option.

But the use of real options can solve the problems above. This method is an alternative view of the investment analysis and projects evaluation in the present economic condition.

Figure. 1. A comparative illustration of the factors considered in the NPV (net present value) and the value of real option [3]

Traditional approaches of project evaluation are based on the applicable accounting approach and a stable market situation, but in today's fast-growing market with a high degree of uncertainty it is preferable to use real options. Generally real option gives the right but not the obligation, to its owner to commit various types of management decisions in the future. If a financial option is usually the right to purchase/sale of financial assets, such as stocks, bonds and to hedge financial risks, the real options allow you to change the course of the project and to insure against strategic risks.

Although, there are two different methods NPV and real options, these methods are not isolated from each other. On the contrary, the practical application of the theory of real options based on traditional instruments of discounted cash flows and they are used in more effective assessment of the investment.
In general, main risks of financing investment projects are (Risks that are specific for the project):

Market risk, which is defined as the risk of shortfall in the planned profit due to low sales and prices of goods. The main reasons are the rejection of a new product by the market or just too optimistic assessment of sales due to incorrect valuation of the competitiveness of goods and misuse of pricing. Moreover there may be errors in positioning and product promotion policy, in other words the wrong way of promotion can lead to this kind of risk;

The risk of exceeding the project budget and non-compliance with schedule, which leads to an increase in payback period of the project. The causes of this risk can be objective, such as changes in legislation and be subjective, which is associated with a lack of study and work on the inconsistency of the project;
General economic risks, including all external risks affecting the project and the bank, such as currency risk and interest rate risk, increase or decrease in inflation and the risk of increased competition in the industry [4].

The main advantage of the project evaluation with real options is that it accounts the degree of uncertainty and the retention period of investment opportunities, as well as reducing these risks and provides an opportunity to change the course of the project upon the occurrence of general economic risks.
The following example shows the effect of uncertainty on the value of option.

Bank A invests in a completely new project of organic products production and create the possibility of release after 2 years. If competition in the market will increase by the time of the investment, the rate of NPV (net present value) of the draft can become negative (Meaning that cash flow may decline from the planned value.) And then there is a dispute about whether to continue to invest, if increased competition may reduce the NPV of the project to zero. The net present value based on a discount rate of risk:

$$NPV = C_O + \sum_{t=1}^{N} \frac{C_t}{(1+k)^t}$$

Where C_t - the expected cash flow for the period of time t;

k - the discount rate based on risk.

For example, the expected probability of NPV = 5 million USD is 0.5 and the expected probability that NPV = - 5 million USD is also 0.5.
Hence, the average weighted NPV = (5 × 0.5) + (0.5 × (-5)) = 0.

At this stage Bank stops its investment and the project is over. But this decision is not correct, because it does not take into account the fact of the possibility of project management choice. For example, if the projected NPV becomes negative, the management may refuse financing the project and reduce the NPV to zero.

0.5 × 5 + 0.5 × 0 = 2.5 million.

Obviously, the choice has certain cost. In this case, the expected value of real option will be 2.5 million dollars. The correct solution to this situation would be a continuation of investments in the project as long as the total amount does not exceed $ 5 million.

Let's examine the impact of uncertainty on the value of option. If in the above example, the allowable options NPV will be equal to -10 and 10 million dollars. (in other words, the spread of likely values of the underlying asset value increases) with equal probability of 0.5; value of the option will have $ 5 million. If you have a choice, the increased risk increases cost of real investment project. This fact is well known in the financial options and, as just illustrated, it is true for the options in the real sector as well.

Thus, in this situation, the payment for option will be the volume of investment in the project, which allows the use of competitive environment opportunities in the future. In this respect, the real option is almost identical to the financial call option. The future value of the underlying asset will be the income earned on the project.

Given the positive correlation between the level of uncertainty and the value of the option it should be noted that options lose value if there is no ambiguity since the choice decreases to the one and only possibility.

In general, the conditions of real options that they have a strategic value are:
> project operates in an uncertain market conditions;
> this uncertainty has an impact on the market value of the project;
> project management has managerial flexibility in decision-making;
> the bank's management strategy is realistic and feasible;
> management must be rational in the implementation of this strategy.

Failure to comply with at least one of these conditions leads to the inability of real option use.
Parameters used in evaluating real options using the Black & Scholes model and other models are similar to the six parameters used in the valuation of financial options. Black & Scholes model is one of the most important concepts in modern financial theory. It was designed in 1973 by Fischer Black, Robert Merton and Myron Scholes, and is still widely used and considered as one of the best ways to determine the fair value of options. The work was published under the title "Assessment of Options and Corporate Liabilities" in the Journal of Political Economy (Journal of Political Economy) in 1973.

In options there is a financial contract that gives the right to buy or sell the underlying asset at the time of exercising the option, and real options possess some asset that allows the company to launch an investment project.

The price paid for the option (premium) is the cost of acquisition of the asset, which enables the implementation of some of the investment project. If the price of the option, in other words, the average projected cash flows from the sale of the option exceeds the fee for the option, its execution is beneficial. And the exercise price is the value of all costs in the period of the investment. There are a number of methodologies to evaluate the real options:

> using differential equation
> using formulas assessment as Black & Scholes model and analytical model
> with binomial or decision tree.

Using the formula for option pricing is a fast, accurate way without complex calculations. But the main disadvantage is the difficulty in understanding and explanation, since most formulas were derived through complex calculations in the field of stochastic processes.
Black & Scholes model was developed to estimate the European options (fixed date), so criticism of the model argue that it is not suitable for the assessment of real investment projects. Besides the numerous risk factors and the possibility of execution of the project at any time, making it impossible to assess the real options purely analytical way, so you have to use mathematical analysis methods, which include the binomial model, a model based on differential equations and the model of Monte - Carlo.
The formula of Black & Scholes, the price of the call option

$$C(S,t) = SN(d_1) - Ke^{-r(T-t)}N(d_2)$$

$$d_1 = \frac{\ln\left(\frac{S}{K}\right) + (r + \frac{\sigma^2}{2})(T-t)}{\sigma\sqrt{(T-t)}}$$

$$d_2 = d_1 - \sigma\sqrt{(T-t)}$$

C (S, t) - current value of the call option at time t before the expiry of an option;

S - the current price of the underlying share;

N (x) - the probability that the deviation will be smaller in terms of the standard normal distribution;

K - the strike price;

r - risk-free interest rate;

(T-t) - the time before the expiration of the option (the option period);

σ - volatility (the square root of the variance) the underlying share.

This model, in principle, is easy to use, if you program it in MS Excel.
Cox, Ross and Rubinstein first proposed the binomial model in 1979 and it is an effective tool for assessing the investment projects. The advantage of this model is the fact that it is simple, suitable for any consideration of the motion sequences of funds caused by the use of the underlying asset and may be used in the assessment of the American option (n comparison with the European option, American option can be exercised at any time before the mature date). It is characterized by a graphic illustration of the cost of changing the value of the underlying asset, but it's difficult to take account of more than two stochastic factors.
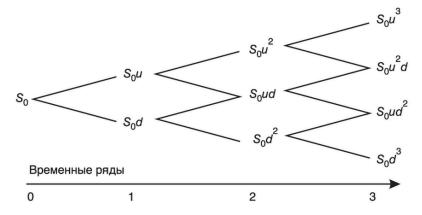
In evaluating real option binomial model there are built two grids, one - net change in value of the underlying asset, and the second - a grid of calculating the cost of the real option. Also calculated such parameters as discounted cost of the underlying asset at the time of exercising the option at the time of evaluation (S); the price of the option (X); uncertainty σ (the maximum deviation of the natural logarithm of the free cash flows of the underlying asset from the average, the term of the option (T); the risk-free discount rate (rf); loss as a missed dividends (b).

Based on these factors, the factors of uplink are calculated u (up), i.e. the probability of growth in the value of option and the downward movement d (down), i.e. the probability of decrease in the value of option and the risk-free probability (P). When calculating the probability of option value growth u is used as an uncertainty parameter and the square root of the given time interval (δt).

$$u = e^{\sigma\sqrt{\delta t}}$$

$$d = e^{-\sigma\sqrt{\delta t}} = 1/u$$

$$P = \frac{E^{(rf-b)(\delta t)} - d}{u - d}$$

After calculating these parameters the binomial tree of change in underlying asset value is built. To find the value of the asset values of the upper and lower nodes of the grid at the end of the first period must be multiplied by the original value of asset value, respectively, factors of upward and downward movement.

Figure 2: Binomial tree of three time periods

S_0 - the value of the underlying asset at the first period;
S_u - the value of the underlying asset in the case of price increase;
  S_d - value of the underlying asset in the case of price decrease;

Let C - is the value of the option at the initial time, then Cu - is the price of an option in the case of increase in underlying asset value, and Cd - in the case of decrease in underlying asset value. R - is a compounding factor for the risk-free rate, whereas

$$C = \frac{C_u \frac{(R-d)}{(u-d)} + C_d \frac{(u-R)}{(u-d)}}{R}$$

If you simplify the expression by adopting the probability of price increase in the underlying asset for p, and the (1-p) for the probability of price decrease, we get:

$$p = \frac{R-d}{u-d}; 1-p = \frac{u-R}{u-d}$$

$$C = \frac{pcu + (1-p)cd}{R}$$

Thus, this formula is used to determine the value of the investment project.
Model Monte - Carlo, in turn, allows option evaluation with the help of computer simulation. Although it does not assess the American option, but provides an opportunity to assess the investment with a large degree of uncertainty, and in the presence of a number of factors affecting the cost of the project in question.

Real options allow bank managers to postpone the investment, if necessary, to achieve the level of confidence in the feasibility and profitability of investments. In addition, evaluation of investment projects with real options is available for any bank, although some banks have more opportunities for their use than others.

This method of assessment is based on the discounted principles, and at the same time it takes into account management flexibility, as the project is regarded as a system of real options, which in the future may be exercised or not exercised. Real option can assist in the assessment of the project at the stage of completion of the payback period. For this purpose the information about the prospects of using probabilistic methods

is gathered. Then a mathematical model that shows the optimal sequence of decision-making and implementation for a variety of future options is built.

Optional model previously was used for mining and energy companies, but now they are widely used in other industries. It is also possible to use them in banks.

Project investment is not the main activity of banks, but can become an effective way of placing accumulated funds. Using real options when evaluating the project, the bank protects itself from future risks and loss of profits. In this crisis period the banks are paying more and more attention on risk management and try to tighten the criteria for granting loans and attract deposits as much as possible. Banks see investment in the project as long-term financing and don't like this type of operations, as they are characterized by numerous of uncertainties and risks. A real option is just a tool for assessing the project in an uncertain situation.

The main area of the project, in which the real option is useful are the projects of launching new products, because in such situations, it is possible to add or eliminate a real option, even though the options can be used almost everywhere. In such cases, real options will help in better definition of project value and understanding the interaction with the risk.

In practice, for example, the company Real Options Valuation, Inc. produces software, training and consulting services in the field of risk analysis. It uses the tools of risk analysis and risk management techniques, such as the analysis of real options; forecasting, optimization, analysis of projects with risk; identification and quantification of projects. Moreover, there are many companies that operate like the company mentioned above, which uses real options for risk reduction, so this method can be widely applied in practice, not remaining theoretical level.

Thus, banks are encouraged to expand their activity by financing investment projects and at the same time use real options to minimize their risk of loss of invested financial, human and time resources.

REFERENCES

[1] Grishina S. A. Option method of evaluation investment effectiveness. – *Banking services*, 2011, no. 10. S. 6.

[2] Gusev A. A. Real options in the assessment of business and investment . Monografija, M.: ID RIOR, 2009, pp. 118.

[3] Kolesov P.F. The Role of investment activity in enhancement of banks competitiveness - *Banking services,* 2012, no. 6. pp. 9.

[4] Moskvin V. A. Risk management of investment projects in commercial banks.. M.- Finansy i statistika. 2004, pp. 352.

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DURATION RISK: IS IT TIME FOR TRANSPARENCY?

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ABSTRACT

Most investors know that bond prices move inversely with interest rate fluctuations. These same investors, however, may not fully understand how to assess the interest rate risk of different fixed income investments. This is particularly timely given the improving U.S. economy and Federal Reserve's expectation of increasing interest rates in the near future. The simplest measure of interest rate risk for the average investor is something called duration. The Financial Industry Regulatory Authority (FINRA) stated that the one number a bond investor should know is duration. This article will explain what duration is, how to use this measure to evaluate risks, examples of how changes in interest rates will impact bonds or bond funds with different durations, and where investors can find this information.

INTRODUCTION

As baby boomers age, the traditional investment advice is to allocate a larger percentage of one's assets to fixed income as opposed to equities or other investments. Many investors erroneously believe that investments in high quality long-term bonds or bond funds have very minimal risks. This may be true if individual bonds are held to maturity or have a very short maturity. However, if interest rates increase, the value of their bonds or bond funds will decline. This is called interest rate risk and as this article will illustrate interest rate risk generally increases as the maturity of the bond or bond fund increases. Although there may be limited credit risk in a 20-year AA rated bond, investors should still be concerned about interest rate risk. A bond maturing in 20 years may be twice as sensitive (volatile) to changes in interest rates as a 10-year bond. This is a very important point to remember as individuals and some funds are "chasing higher yields" by investing in longer maturity bonds that generally pay a higher rate of interest. Some investors might initially believe that they will hold their bonds to maturity, but unforeseen circumstances may develop. Even more likely, an investor may want to either sell their existing low yield investment to obtain a higher yield or to change their asset allocation to increase their equity exposure. A risk adverse conservative investor might be surprised to incur a significant loss on the sale of their "safe" investment. Current interest rates are at historically low levels and the realistic expectation is that they cannot go any lower and may increase in the near future. Hence, fixed income investments are not necessarily as safe and less volatile as they had been in the past. Bond funds also present a different challenge for investors than holding individual bonds. Individual bond investors can hold their bonds and receive the par amount at maturity assuming the bonds do not default. However, bond funds are typically structured as short-term, intermediate term (typically 5-7 year maturity) and long-term (typically ten or more years' maturity). The bond funds' managers will routinely purchase new bonds as existing ones mature in order to maintain the target average maturity so most bond funds never mature.

LITERATURE REVIEW

The Financial Industry Regulatory Authority (FINRA) was established in 2007 by Congress to protect investors. FINRA has cautioned investors who own bonds or bond funds that the one number an investor should know is duration. On February 14, 2013 FINRA issued a new investor alert called "Duration: What an Interest Rate Hike Could Do To Your Bond Portfolio" which warned investors that duration could cause

their bond or bond portfolios to decline in value if interest rates were to rise. Thomas S.Y. Ho (1992) states in his paper entitled Key Rate Duration: Measures of Interest Rate Risks, that "identifying interest rate exposure is central to active and structured portfolio management." Key rate duration is defined as "holding all other maturities constant, this measures the sensitivity or the value of a portfolio to a 1% change in yield for a given maturity." Investopedia. T. Ho further states (2013) that "key rate duration gives us a measure to enable us to manage our yield curve risk". F. R. Macaulay (1938) first defined the definition of duration basically as the "essence of the time element of a loan". Cox, Ingersoll and Ross (1979) examines in their paper, Duration and Measurement of Basis Risk, the traditional measurement of duration and the conditions under which it is valid to use in risk comparisons. Their findings were that the Macaulay method of interest calculation was a pure bond discounting and too theoretical. Hence their findings supported a modified or effective duration calculation.

How Can an Investor Determine Their Interest Rate Risk?

The most widely accepted measure of interest rate risk for the average investor is something called duration, which is a measure of the sensitivity of bond prices to changes in interest rates. Duration is a number that at a particular point in time will tell an investor approximately what percentage a non-callable bond will change in value given a 1 percent change in interest rates. With a known bond or bond fund's duration, an investor can estimate, all else being equal, how the investment will react to a change in interest rates and make an informed decision based on his expectation of future interest rates. The time to maturity for a given bond may provide a general sense of its interest rate sensitivity, but duration is a much more accurate measure. An example is Vanguard's Intermediate Term Treasury Bond Fund (VBILX), which has an "effective maturity" of 7.2 years but an "average duration" of 6.5 years. Generally the higher the duration number of a bond, the more sensitive the bond is to interest rate changes. Investors who are expecting higher interest rates might wish to invest in bonds with shorter durations or maturities to limit their potential losses.

How is Duration Calculated?

Duration is the number of years it would take an investor to recoup the full cost of their bond or bond fund considering the present value of all interest and principal payments to be received. Hence, a bond's cash flow payments for both interest and principal are discounted at current market interest rates divided by the current market value of the bond. In general, the greater the duration of the bond, the more sensitive that bond will be to interest rate changes. It should be noted though that duration is generally accurate for small changes in interest rates. Utilization of duration for large interest rate changes requires taking into account a concept known as convexity which measures the change in duration as interest rate changes become more significant. The market value of a bond will generally decline less for larger interest rate increases. Convexity depending on the characteristics of the bond or bond fund can be both negative and positive, which means that the duration can actually decrease or increase based on the degree of interest rate change. Thus the correlation between a change in interest rates and their effect on bond prices is not necessarily symmetric. This paper will not address convexity however; but investors should be aware that it may impact their investment decisions if there are large changes in interest rates.

An example of how duration can be applied: Assume an investor puts $10,000 into a bond fund which has an average duration of 5. Generally, a 2 percent across the board increase in interest rates will result in approximately a 10 percent (5 duration x 2%) or a $1,000 decline in the fund's value to $9,000, all else being equal. However, if that same $10,000 had been invested in a fund with duration of 10 with this same 2 percent interest rate increase, the investment would have decreased 20 percent (10 duration x 2%) or $2,000 and now be worth $8,000. Conversely, a 2% *decrease* in interest rates could result in the fund increasing in value by 20%.
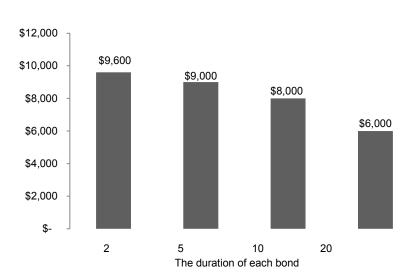
Figure 1: Illustration of How a 2% Increase in Interest Rates Reduces a $10,000 Bond's Value Based on its Duration

Illustration of how a 2% increase in interest rates reduces a $10,000 bond's value based on its duration

Figure 1 illustrates the theoretical impact of a two (2%) interest rate increase for bonds with different durations. An example of a bond fund with a high duration is the Schroder Long Duration Investment Grade Bond Fund (STWLX) which has a duration of 14.79 as of September 2015.

How Does Duration Impact Investment Decisions: The level of interest rate risk that an investor may take is a function of their overall risk tolerance, time horizon and their expectation of future interest rate changes. The key is that knowing the duration of a fixed income investment allows the investor to quantify their interest rate risk and make an informed decision. An example of such an evaluation process was expressed by the brokerage firm, Charles Schwab, on their website in September 2015. Their advice to clients who might be tempted to purchase longer-term bonds for a slightly higher yield was that the increased duration may not be worth the risk.

"We see limited value and higher risks in long-term funds today compared to intermediate-term funds. The benefits of a slightly higher rate aren't well-balanced with the increased interest-rate risk, in our view, for funds with average maturities much greater than 10 years. An exception might be if you're focused on income and income alone and won't need to sell, or if you believe that interest rates will fall. While we believe rates could stay lower longer than many investors expect, they will rise eventually. Also, pay attention to the fund's duration. Duration is a measure of interest rate sensitivity, but it can also be thought of as a measure of how long it takes to recover your initial investment. Funds with shorter durations will typically be less sensitive to increases in interest rates and you'll generally recover your initial investment sooner if interest rates rise as compared to funds with longer durations. However, funds with shorter durations typically have lower yields." C Schwab 2015.

Where does an investor find duration information? The duration for an individual bond may be obtained by contacting the bond issuer, a broker or by using an online bond duration calculator, which can compute a specific bond's duration. With regard to bond funds (versus individual bonds), most fund issuers provide "fund facts" on their websites, which disclose their average duration as well as other information including yield, expense ratio and average maturity. Another excellent source of information on the duration of many

bond funds can be found at finance.yahoo.   By inputting the fund's ticker symbol and then selecting "holdings", the duration, average maturity and credit quality are disclosed and can be compared to the relevant category averages.

Several Methods Are Utilized to Calculate Duration

The Macaulay duration calculation is a commonly used method. It measures a bond's sensitivity to interest rate changes by calculating the weighted average number of years the investor must hold a bond until the present value of the bond's cash flows equals the amount paid for the bond. It is a pure discounting of the present value of a bond's cash flows so tends to theoretical. (Cox et al). Modified duration is a modified Macaulay computation that directly measures price sensitivity. Effective duration, on the other hand, is often the calculation cited for bonds that may have special redemption features. Unlike Macaulay duration, effective duration takes into account the potential changes in cash flows which can occur from redemptions. Redemptions can occur from prepayments and the exercise of call and put options. Understanding the formula calculation is not as important though as understanding that duration is a measure of risk in relation to interest rate fluctuations. However some bond funds, such as Blackrock, have their own proprietary method for calculating duration and in those instances financial websites may not show duration for those funds and direct you to the fund's actual web site.

There are also some special circumstances that could affect duration. Duration assumes that for every movement in interest rates, there is an equal change in bond prices in the opposite direction. However, this is not always the case. For example, when interest rates drop, a residential mortgage-backed security (a bond backed by home loans) might not see an equal increase in the bond's price because it might prompt homeowners to refinance their mortgages. This in turn may limit increases in the bond's price as the underlying mortgages are being refinanced at lower interest rates.

Changes in the Slope of the Yield Curve

The yield curve refers to the graphical representation of interest rates over a specified time period. Generally interest rates increase as the time to maturity increases. However, there have been rare times when the yield curve has been "inverted", meaning that shorter-term rates were higher than long-term rates. More importantly, the application of duration assumes that a given 1% change in interest rates occurs uniformly across the yield curve. The reality is that interest rate changes may not be the same for all maturities. Consequently, the change in value of a bond or a bond fund is directly affected by its position on the yield curve and where interest rates are changing on that curve. Figure 2 illustrates both the 2008 and 2014 yield curves. One can see that interest rates may not stay at their current historically low levels and might revert to a more normal level in future years. Figure 2 also shows that actual shifts in the yield curve are not usually perfectly parallel when interest rates rise across the board. (Investopedia).
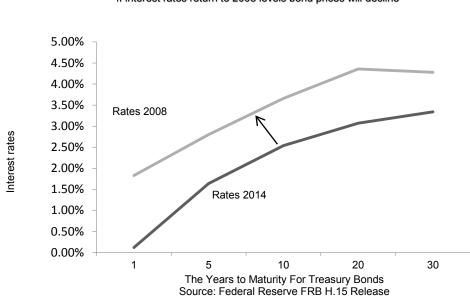
A Bond Fund's Name is Not Always an Accurate Gauge of its Duration Level

It is not always possible to judge a bond fund by its name. U.S. News and World Report regularly publish a listing of "Best Mutual Funds" which includes a list of "Intermediate-Term Bond" funds. U.S. News does appropriately note that their list of intermediate-term bond funds have durations from 3.5 to 6 years, which represents a significant range of interest rate sensitivity. Investors cannot just rely on the name of bond funds to accurately judge their interest rate risk. A case in point are two well respected funds on this intermediate-term bond fund listing that have very different durations as of October 2015. The Loomis Sayles Intermediate Duration Bond Fund (LSDIX) has a duration of 3.87 which is below the category average of 4.93 for Intermediate-term bond funds and therefore is less sensitive to interest rate changes then the general category. At the other end of the spectrum on that same list is the Vanguard Intermediate-Term Bond Index (VBIIX) which has a duration of 6.49.   This is 68% greater than the aforementioned Loomis

Sayles Fund, and is also 32% higher than other funds in this category average. Consequentially, Vanguard's fund has a significantly higher interest rate risk. This does not mean that the Vanguard Fund is inferior to the Loomis Sayles Fund. In fact, the Vanguard fund has very high credit quality and half the annual expense ratio of the Loomis Sayles Fund. The two funds just have very different interest rate risk characteristics. During the last year twelve months when interest rates declined slightly the Vanguard fund reported a one-year return of 4.07% versus a return of only 2.42% for the lower duration Loomis Sayles Fund. This is an excellent example for investors that higher duration (all else being equal) means higher returns in a declining interest rate environment and lower relative returns in an increasing interest rate scenario. In addition to duration, investors should consider the type of bonds, their credit quality, fund managers and the expense ratios charged. FINRA warned investors to be cautious of duration but that also other factors including inflation risk, call risk and default risk could affect the value of a bond or bond fund. Investors should always check a bond fund's prospectus for these risk factors.

Figure 2: Yield Curves for US Treasuries

Yield Curves for US Treasuries
If interest rates return to 2008 levels bond prices will decline

Source: Federal Reserve FRB H.15 Release

Lifecycle or Target Date Funds Bear a Closer Examination for Interest Rate Risk

Many baby boomers who may currently be or approaching 60 years old and hoping to retire by age 65 may be in an age based life cycle fund such as TIAA-CREF's Lifecycle 2020 Fund. The purpose of an age based lifecycle fund is that it regularly changes the asset allocation reducing the individual's equity exposure and increasing their fixed income exposure under the premise that fixed income investments are less risky than equities. However, in our current economic climate in which interest rates are at abnormally low levels, fixed income investments of any significant duration may not be significantly less risky than equities. There is a risk for older investors in lifecycle target date funds since they are more heavily invested in fixed income. Consider the example of a baby boomer with $1 million in the TIAA/CREF's 2015 Lifecycle fund (TCNIX). At September 30, 2015, 34.1% of the fund's assets were invested in CREF bonds.

(tiaa-cref.org). This means that if interest rates increase 2% across the board (parallel shift of the yield curve), the bond fund portion of the portfolio would decline by approximately 10.8% (5.4 duration x 2%). 34.1 percent of the $1 million investment is $341,000, and a 10.8% decline would result in a loss of $36,828. (TIAA/CREF has received multiple awards including the 2013 and 2014 Lipper Fund Award "as the best large fund management company overall". (de Aenlle). Most investors consider TIAA/CREF to be one of the safest options for retirement portfolios and thus might never expect *any* loss.)

How to Lower Your Interest Rate Risk (Duration) Without Giving Up Yield

As previously discussed, during this time of extremely low interest rates, many investors and money managers seek to increase the yield on their fixed income investments by buying longer maturity bonds, "going further out on the yield curve". Longer maturities will of course typically result in a higher duration/interest rate risk. However there is a little known strategy used primarily by institutional investors of keeping the higher yield on longer dated bonds but reducing their duration. Consider an example of two 20-year bonds which both have an effective yield of 2%. Bond A is a bond trading at par (value at maturity) which has a stated interest rate of 2%. Since the bond is trading at par, the effective yield is also 2%. Bond B trades at a large premium (price over par) because the stated interest rate (coupon) on the bond is 5%. However the effect of paying a premium for the bond reduces the effective yield on Bond B to 2%, equivalent to Bond A. While the term and yield on these two bonds are identical, the durations are very different. Using one of the many online duration calculators (WolframAlpha), Bond A with the 2% coupon has a 16.41 modified duration (16.58 Macaulay), while Bond B with the 5% coupon has a 14.13 modified duration (14.27 Macaulay). How is that possible? While the overall return (yield) to investors is the same, the higher stated/coupon interest payment the investor receives from Bond B (typically semi-annually) effectively returns the investment slightly faster back to the holder of Bond B and consequently reduces the duration of the bond. How important is this difference of 2.28 in duration between Bond A and B? If interest rates increase 1%, Bond A's price will theoretically decline 2.36% MORE than Bond B's price. Besides the reduced interest rate risk, institutional money managers can also report a lower duration for their mutual fund or portfolio by using this tactic. Hence, an observant investor might notice that bond issuers prefer to sell more of their bonds at a premium. In an efficient market, the buyer of Bond B who paid a premium could potentially lose some or all of that premium paid over the face value of the bond if the issuer calls that bond before maturity. Consequently, it is very important for an investor to understand the call or redemption provisions before buying a bond at a premium. A low duration does not mean that a bond or bond fund is risk-free.(FINRA 2013)

CONCLUSION

In conclusion, investors do not have to know how to calculate duration. However, even the Financial Industry Regulatory Authority has indicated that any knowledgeable investor should know a bond or bond fund's duration number before blindly making an investment. A savvy investor should also be aware of what percentage of their life cycle holdings are held in bonds and the duration number for those bonds. Duration is a good estimate of what effect an interest rate increase or decrease will have on bond investments or bond funds. If interest rates were to rise by 3 percent over the next 10 years, a bond or bond might potentially decline in value by approximately 3 percent times a bond's duration number. Conservative investors who seek safety may be unpleasantly surprised to realize that they may be experiencing losses in their "safe" investment portfolios if there is a reversion to the mean and more normal interest rates.

REFERENCES

Cooper, I.A. (1977). Asset Values, Interest-Rate Changes, and Duration. Journal of Financial and Quantitative Analysis, 12, pp 701-723.

Cox, J.C, Ingersoll, J.E, Ross, S.A. "Duration and Measurement of Basis Risk." The Journal of Business, Volume 52(1), January 1979. Pages 51-61.

de Aenlle, C. (2014). LIPPER AWARDS-Why TIAA-CREF stands out as a fund manager. Retrieved November 14, 2015. http://www.reuters.com/article/2014/03/24/lipper-awards-tiaa-idUSL2N0M81RI20140324#0rgcWhdjvXX2swh8.99

Federal Reserve HRB H.15 Release. Retrieved November 6, 2015. http://www.federalreserve.gov/releases/h15/data.htm

FINRA Investor Alert (2013).   Duration--What an Interest Rate Risk Could Do to Your Portfolio. Retrieved September 6, 2015. https://www.finra.org/investors/alerts/duration-what-interest-rate-hike-could-do-your-bond-portfolio

Fitch Ratings (2013). Timing Is Everything for Potential "Bond Bubble". Retrieved September 16, 2015. https://www.fitchratings.com/gws/en/fitchwire/fitchwirearticle/Timing-Is-Everything?pr_id=779231

Fitch Ratings (2012). The "Bond Bubble": Risks and Mitigants. Retrieved September 14, 2015. http://www.sifma.org/uploadedfiles/for_members/thought_leader_library/2012/fitch-bond-bubble.pdf?n=34035

Ho, Thomas (2013). Yield Curve Movements and Key Rate Durations. Retrieved November 1, 2015. http://www.thomasho.com/space/viewBlog.asp?blog=33

Macaulay, F.R. (1938). Some Theoretical Problems Suggested by the Movements of Interest Rates, Bond Yields and Stock Prices in the United States since 1856. New York, Columbia University Press.

U.S. News and World Report. Best Long-Term Bond. Retrieved October 26, 2015. http://money.usnews.com/funds/mutual-funds/rankings/long-term-bond

U.S. News and World Report (2010). Best Fit Intermediate-Term Bond. Retrieved October 26, 2015. http://money.usnews.com/funds/mutual-funds/rankings/intermediate-term-bond

WolframAlpha computational knowledge engine. Retrieved November 10, 2015 and November 14, 2015. http://www.wolframalpha.com/input/?i=bond+duration+calculator&a=*FS-_**BondDuration.DMOD-.*BondDuration.rc-.*BondDuration.y--

&f2=5+Apr+2016&f=BondDuration.SD%5Cu005f5+Apr+2016&f3=4+Apr+2036&f=BondDuration.MD %5Cu005f4+Apr+2036&f4=2%25&f=BondDuration.y%5Cu005f2%25&f5=5%25&f=BondDuration.rc %5Cu005f5%25&a=*FP.BondDuration.f-_SemiAnnual&a=*FVarOpt-_**BondDuration.D-- &a=*FVarOpt.2-_**-.***BondDuration.DCC---.**BondDuration.DMOD---

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DOES OWNERSHIP TYPE MATTER FOR CORPORATE SOCIAL RESPONSIBILITY DISCLOSURE: EVIDENCE FROM CHINA

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ABSTRACT

The evidence of the effect of ownership structure on corporate social responsibility (CSR) is relatively sparse especially in the emerging economies. This paper seeks to address this situation to comprehensively examine the link between different types of shareholders and CSR disclosure in the context of China. Our findings reveal that different owners have differential impact on the CSR. The firms controlled by the state are more likely to disclose CSR information and their CSR reports' quality is better compared with non-SOEs. Interestingly, firms with more shares held by mutual funds, foreign investors or other corporations are significantly better at CSR disclosure. The study also discloses that firm size, profitability, and leverage affect CSR in China. Overall the study contributes to the literature on CSR practices in emerging countries and point to some policy suggestions.

JEL: M4

KEYWORDS: CSR, China, Ownership Structure, Soes, Stakeholder Theory

INTRODUCTION

Corporate social responsibility (CSR) disclosure has attracted attention from both academic researchers and business practitioners over the past three decades, with a focus on its impact on corporate financial performance (Pava & Krausz, 1996; Margolis, Elfenbein & Walsh, 2007; Nakao, Amano, Matsumura, Genba, & Nakano, 2007; Orlitzky, Schmidt & Rynes, 2003). However, corporate scandals around the world posit whether firms should have social elements as part of their corporate goals (Margolis & Walsh, 2003). This in turn has increased growing concern about what governance structures can effectively influence social business behavior (Walls, Berrone & Phan, 2012: 885). Recent studies suggest that differences in corporate governance have an impact on CSR (Walls, Berrone & Phan, 2012; Aguilera, Williams, Conley & Rupp, 2006; Dam & Scholtens, 2012; Li, Luo, Wang & Wu, 2013; Li & Zhang, 2010).

Despite the progress that has been made in understanding how corporate governance might influence the decision to disclose social and environmental issues as well as quality of CSR disclosure, the opportunity exists to explore this dynamic more fully. Firstly, the evidence of the effect of corporate governance on CSR is relatively sparse in the emerging economies. Rather, most studies offer insight mainly from the perspective of developed economies (see Walls, Berrone & Phan, 2012). Secondly, the evidence is mixed. For example, Dam and Scholtens (2012), and Barnea and Rubin (2010) find no relationship between institutional ownership and CSR, while other researchers (Neubaum & Zahra, 2006; Aguilera *et al*., 2006; Oh & Chang, 2011) identify a strong and positive relationship. This contradictory empirical evidence indicates that the time is right for us to re-examine this issue by returning to its facts to contribute to develop a dominant theoretical framework to inform the research (Walls, Berrone & Phan, 2012). Thirdly, the majority of prior studies have largely examined the relationship between CSR and institutional investors (Dam & Scholtens, 2012), which neglect the link between other types of investors and CSR disclosure.

This paper seeks to examine the effect of corporate ownership on CSR disclosure in China using stakeholder theory. We identify different types of owners and investigate how various types of shareholders influence the decision to undertake CSR disclosure and the quality of such disclosure. It can be argued that different types of investors will have differential impact on the corporate decision regarding disclosure of social and environmental information and the level of CSR disclosure (Oh & Chang, 2011). Insights into the decision and quality of CSR disclosure from the perspective of corporate ownership can help firms recognise how particular types of owners value their efforts regarding CSR engagement. This study will also assist policy makers in promoting the transparency of ownership information with investors.

We focus on Chinese companies for the following reasons. Firstly, whereas many studies have assessed the extent to which ownership structure explains firm's CSR engagement across developed nations (for an overview see Walls, Berrone & Phan, 2012), relatively little research has been undertaken in emerging markets (e.g. Li *et al*., 2013; Li & Zhang, 2010; Oh & Chang, 2011; Khan, Muttakin & Siddiqui, 2013). Level of CSR disclosure can be explained by the country of origin (Gray, Javad, Power & Sinclair, 2001; Smith, Adhikari & Tondkar, 2005) due to the differences in institutional structure, such as national economy and legal and regulatory structure. Whether the relationship between CSR disclosure and ownership documented in the previous studies in the developed countries still apply in the emerging market setting, for example, China, is questionable.

Secondly, the quantity of CSR disclosure has dramatically increased since 2008 due to several initiatives launched to promote social responsibilities. For example, the 2006 Chinese Company Law first gave explicit recognition to CSR and required firms to undertake social responsibility in the course of business (Ip, 2008; Lin, 2010). In 2008, State-owned Assets Supervision and Administration Commission issued the Corporate Social Responsibilities Guideline for State-owned enterprises (SOEs) to encourage them to consider CSR in their reform process (Hu & Yusuf, 2015). As for listed companies, the China Securities Regulatory Commission (CSRC) issued the National Code of Conduct which required firms to act socially responsible (Kimber & Lipton, 2005). The two stock exchanges, the Shenzhen and Shanghai Stock Exchanges released a further guide on listed companies' social responsibility in 2006 and 2007 respectively (In 2006 the Shenzhen Stock Exchange released a Guide on Listed Companies' Social Responsibility, but has yet to issue mandatory requirements around Environmental, Social and Corporate Governance Disclosure. In 2008, the Shanghai Stock Exchange issued a Guide on Environmental Information Disclosure for Companies Listed on the Shanghai Stock Exchange). and encouraged listed companies to include CSR information in their annual reports in 2008 (Li *et al*., 2013; Hu & Yusuf, 2015). Despite these efforts to institutionalise CSR in the Chinese legal system and capital market, the level of CSR disclosure varies and this difference may be reflected in the different types of ownership.

Thirdly, China's secondary privatization (the split-share structure reform) in 2005 was initiated to remove the dual share structure by converting non-tradable shares into tradable shares (Liao, Liu & Wang, 2014) (Before the split-share structure reform, shares of Chinese listed companies were divided into non tradable shares and tradable shares. The no-tradable shares, were mainly held by state (central or local governments), or legal person shareholders (i.e. affiliated to state-owned firms, manager, etc.). After almost a decade the beginning of the implementation of this reform, it is relevant to investigate how particular types of owners could have a specific impact on the firm's CSR disclosure. Prior CSR studies on ownership in China rely on the official classification scheme which ignores the nature of shareholders as well as obscure the controlling shareholder of a firm (Chen, Firth & Xu, 2009; Kang & Kim, 2012), leading to inconsistent empirical results (e.g. Li & Zhang, 2010; Li *et al*., 2013). This study uses an alternative classification scheme for the ownership of SOEs that focuses on the ultimate owner of the firm instead of the owner disclosed by the firm to examine the link with CSR disclosure.

The study contributes to the literature in six ways. Firstly, most of the previous studies examined the relationship between CSR and the domestic institutional investors. The current study includes several non-

financial domestic investors, for example, state, corporation and foreign investors, which add richness of the literature of CSR and corporate governance. To the best of our knowledge, this study constitutes the first effort to include the foreign investors-CSR relationship. Secondly, prior research on CSR mainly focuses on Western Europe, and the U.S. This study aims to understand how the different types of shares motivate firms towards the CSR engagement in China. Our study reveals that the ownership-CSR relationship has a distinct implication in the context of China as compared to Western contexts. Firms controlled by the government are better at CSR disclosure and produce better CSR reports than firms controlled by private individuals or non-government related entities.

Thirdly, our study extends the understanding of the association between CSR and organizational factors, such as firm size, profitability, leverage etc. These findings confirm those of prior research conducted in the developed countries, suggesting CSR activities are largely driven by strategic motivations. Fourthly, our findings on the relationship between CSR and ownership type have implications in other countries where state ownership is prevalent, such as Singapore, Austria, and Finland (Faccio and Lang, 2002; Li & Zhang, 2010). Fifthly, various theoretical frameworks have been applied around CSR and corporate governance (Walls, Berrone & Phan, 2012) but this study, from a 'facts' perspective, contributes to the progress of building a dominant paradigm to inform the research in corporate governance and CSR. Finally, our study supplements the literature on transition economies by providing empirical evidence that state ownership motivates firms to undertake and influence the quality of CSR. The rest of the paper is organised as follows. The next section highlights the use of stakeholder theory as a basis for our study and formulates the study's hypotheses, followed by the research method. The empirical evidence is then presented. The last section offers conclusions and possible policy recommendations.

Stakeholder theory and Hypotheses

Ownership is often separated from control in large public companies because different stakeholders have different demands on firms causing conflicts of interest among stakeholder groups. This creates a big challenge for managers to control the diverse interests of multiple stakeholders. Management therefore prioritize their stakeholders according to their attributes of power, legitimacy and urgency (Agle, Mitchell, & Somenfiled, 1999). By disclosing CSR information, a firm addresses the information needs of stakeholders and CSR disclosure can be seen as a strategic tool to shape stakeholder perceptions of firms and justify the firms' acceptance and approval of their operations from stakeholders (Deegan & Rankin, 1996). If the owner is predominantly motivated by financial performance, we assume that agency problems will be relatively high. In this case, CSR disclosure may be employed as a means of conflict resolution and is viewed as a means to neutralize agency problems from the perspective of stakeholder theory (Dam & Scholtens, 2012). Botosan (1997) find CSR disclosure leads to a reduction in information asymmetry between managers and investors, thus helps increase share liquidity, builds up a positive image, improves firms' access to global capital markets, attracts investors more easily and improves operating performance (Hooghiemstra, 2000; Spence, 2007). Although the empirical evidence on the effect of CSR on financial performance is inconsistent, the majority of studies show a positive relation between CSR ratings and financial performance (Barnea & Rubin, 2010: 72).

However, when non-financial motives are included in the decision to disclose CSR information, transaction and agency costs are reduced and may become less important (Dam & Scholtens, 2012), CSR reporting may be used to seek preferred status and associated resources and meet particular expectations from the key stakeholders. If this argument holds, CSR disclosure can be used to secure the legitimacy from certain stakeholders thus enjoying positional advantage. It can be argued that different types of owners have divergent preference regarding various corporate decisions and investments (Oh & Change, 2011). Whether to disclose CSR information is decided by the corporate management under pressure from stakeholders. The main issue is how the decision to undertake CSR disclosure and the quality of such disclosure is affected by the holdings of a particular owner. We investigate four types of owner: the state, institutional

investors including, mutual funds, banks, insurance companies, security companies, finance companies, pension funds, and investment trusts, corporate investors and foreign investors. Regarding CSR disclosure, we look at two decisions made by the management, (i) whether to issue a CSR report and, (ii) how much information should be disclosed.

State Ownership

State ownership refers to investments by government and government-related institutions. China has unique cultural and institutional features with nearly 60% of listed companies being SOEs (Li *et al*., 2013). Although the split-share structure reform programme converts non-tradable state owned shares into tradable shares, the government still maintains considerable ownership and control of SOEs (Marquis & Qian, 2014) through different types of controlling shareholders, ranging from solely state-owned agencies, for example, the state asset management bureaus, to the firms affiliated to the government. As a result, this study classifies Chinese firms into SOEs according to the ultimate owner of the firm instead of the legal classification of shares as done in previous studies.

The political connections with the government in SOEs have a critical effect on their operations (Hillman, Zardkoohi & Bierman, 1999). The objectives of SOEs include not only profit, but also social aims, for example, greater employment (Li et *al*., 2013: 163), which helps to improve CSR. The inherent political interference enables SOEs to receive political and financial support from the government easily (Li *et al*., 2013; Marquis & Qian, 2014), if they act in the government's communicated interests. For example, SOEs are provided with listing privileges based on political rather than economic objectives (Aharony, Lee & Wong, 2000) and government is more likely to bail out large SOEs when they are in financial distress (Wang, Wong & Xia, 2008; Li *et al*., 2013). In exchange for governmental support, SOEs are subject to monitoring by the state to a greater extent than private controlled listed firms. The political legitimacy of SOEs lies in the eyes of the government. Their performance is more likely to be reviewed by government agencies (Li *et al*., 2013). For example, in 2007 China's Ministry of Environmental Protection promulgated further Measures on Open Environmental Information (for Trial Implementation) to regulate the disclosure of environmental information by government environmental agencies and by firms. In early 2008, the State-owned Assets Supervision and Administration Commission issued the Corporate Social Responsibilities Guideline for SOEs. Therefore, we assume that SOEs are the firms most likely to issue CSR reports as a result of coercive pressure from their government owners. We then hypothesize:

Hypothesis 1a: SOEs are more likely to issue CSR reports than non SOEs.
Hypothesis 1b: If SOEs do issue CSR reports then they are of higher quality than the CSR reports issued by than non SOEs.

Institutional Ownership

Institutional ownership refers to the stock market investments of institutional investors, such as, pension funds, insurance companies, mutual funds etc. Many studies have reported that institutional owners have significant influence on organizational decisions by exercising substantial voting rights (Neubaum & Zahra, 2006; Shleifer & Vishny, 1997), thus large holdings by institutional owners are likely to gain the attention of management informed by the stakeholder theory. In most cases, institutional investors invest a considerable part of their funds in stocks. Graves and Waddock (1994) suggest that institutional holders are likely to support CSR related actions. One of the reasons is institutional investors use CSR to show their potential clients reliability and responsibility, thereby differentiating their services (Siegel & Vitaliano, 2007). The other reason is institutional investors see the long-term benefits of a firm's participation in and spending in CSR (Turban & Greening, 1997). This argument has been documented in previous studies (Cox, Brammer & Millington, 2004; Sethi, 2005; Oh & Chang, 2011; Neubaum & Zahra, 2006). Thus, it appears for this type of shareholder disclosing CSR information reduces conflicts and may even mitigate

firm specific risk (Harjoto & Jo, 2011; Margolis *et al*., 2007). We therefore posit there is a positive association between CSR and institutional ownership.

Hypothesis 2a: Institutional ownership is positively associated with the probability of disclosing CSR information.
Hypothesis 2b: Institutional ownership is positively associated with the quality of CSR report.

Foreign Ownership

It can be argued that firms can be influenced by foreign practices if the volume of foreign investors rises. Oh and Chang (2011) notes that current trends of CSR practice in Asia have been largely affected by Western-style management practices and globalization. In the context of China, a substantial proportion of foreign investment is received from North America and Europe where CSR disclosure is a must or desirable. According to KPMG (2005), CSR disclosure in China will be boosted as a result of external pressures, such as the expansion of foreign trade, local firms seeking overseas listings, and the supply chain requirements on local manufactures. Thus, foreign investors are assumed to have a positive impact on the promotion of CSR engagement. Further, investment in a foreign country is uncertain due to increased information asymmetries (Gehrig, 1993). Investing in socially responsible companies is a way to reduce risk for the foreign investors, particularly institutional investors, and it also shows their clients that they themselves are highly reputable (Siegel & Vitaliano, 2007). Gelb & Strawser (2001) consider a great amount of CSR disclosure itself is a form of socially responsible behavior. Given this reasoning, it is rational for foreign investors, especially institutional investors, to invest in socially responsible companies. We therefore hypothesize:

Hypothesis 3a: Foreign ownership is positively associated with the probability of disclosing CSR information.
Hypothesis 3b: Foreign ownership is positively associated with the quality of CSR report.

Corporate Ownership

Corporate ownership relates to shares held by firms. Firms do invest in other corporations for not only financial returns but for strategic reasons such as prospective mergers and branding (Dam & Scholtens, 2012; Hillier, Grinblatt & Titman, 2008). If financial benefits are the major motive in corporate portfolio investment, firms are less likely to invest in other companies that are substantially involved in CSR because CSR in their eyes is a cost and has limited benefits in the short-term. If the strategic objective dominates, for example, branding and reputation management, firms are more likely to invest in other corporations (Becker-Oslen, Cudmore & Hill, 2006; Klein & Dawar, 2004). By acquiring part and whole of another firm with a good reputation, the investor expects the good reputation improve its own reputation (Delgado-García, de Quevedo-Puente & de la Fuente-Sabaté, 2010; Dam & Scholtens, 2012). These strategic objectives are well documented in the previous studies (see Hendry & Kiel, 2004; Knapp, Dalziel & Lewis, 2011; Schmidt & Brauer, 2006). On the basis of these studies, we assume that the strategic ownership motives in most cases dominate the financial motives. Therefore, we hypothesize:

Hypothesis 4a: Corporate ownership is positively associated with the probability of disclosing CSR information.
Hypothesis 4b: Corporate ownership is positively associated with the quality of CSR report.

RESEARCH METHOD

To investigate the impact of ownership structure on CSR of firms, we construct the sample from two sources. The firm-specific accounting and ownership data are extracted from China Stock Market and

Accounting Research (CSMAR) database. After eliminating firms under special treatment (ST) (ST means special treatment. The Department of Security Administration will afford special treatment if a company is encountering a financial problem or crisis, for example; if the net profit in the last two financial years has been negative) or with missing observations, our sample comprises of 1872 listed Chinese firms with A-shares traded at the end of 2010. To identify firms that disclosed CSR information we use the 2011 White Paper on Chinese Firms' Corporate Social Responsibility published by the Research Centre for Corporate Social Responsibility Chinese Academy of Social Sciences (CASS-CSR) (2011). CASS-CSR aims to encourage Chinese firms' CSR disclosure and to improve the quality of CSR reports. For fiscal year 2010 CASS-CSR documented 523 CSR reports released by Chinese listed firms. After removing firms only listed overseas stock exchanges, we have 491 firms with CSR report, amounting to 26.23% of firms listed in domestic stock exchanges in China.

Multivariate Analysis

To examine the relationship between firm ownership structure and the likelihood and quality of CSR disclosure, we run Probit and Tobit regressions using the following models, respectively:

$$\Pr(dis_i) = \beta_0 + \beta_1 SOE_i + \beta_2 Institution_i + \beta_3 Foreign_i + \beta_4 Corporate_i + \beta_5 TotalAsset_i + \beta_6 ROA_i$$
$$+ \beta_7 Leverage_i + \beta_8 Top10_i + \sum_k \beta_k Industry_{k,i} + \varepsilon_i \qquad (1)$$

$$Score_i = \beta_0 + \beta_1 SOE_i + \beta_2 Institution_i + \beta_3 Foreign_i + \beta_4 Corporate_i + \beta_5 TotalAsset_i + \beta_6 ROA_i$$
$$+ \beta_7 Leverage_i + \beta_8 Top10_i + \sum_k \beta_k Industry_{k,i} + \eta_i \qquad (2)$$

where *dis* is a dummy variable for CSR disclosure, *score* is a measure of the quality of CSR disclosure, SOE is a dummy variable for the nature of the controlling shareholder, Institution is the proportion of shares held by domestic financial institutions; Foreign is the proportion of shares held by Qualified Foreign Institutional Investors (QFIIs); Corporate is the proportion of shares held by Chinese listed firms; Total Asset is the log form of total assets; Return on assets (ROA) is the net profits divided by total assets; Leverage is the ratio of total liabilities to total assets; Top 10 is the proportion of shares held by the largest 10 shareholders; Industry is a range of dummy variables.

Variables

CSR Dummy and Score: CSR dummy and score variables are based on the scores assigned by CASS-CSR to CSR reports using CASS-CSR 2.0 guideline. If the firm issued a CSR report in 2010, then CSR dummy equals 1, and 0 otherwise. If the firm issued a CSR report, then CSR score variable equals the numerical score (ranging from 0 to 100) assigned to the CSR report by CASS-CSR on the basis of six indicators: completeness (25%), substantiality (30%), balance (10%), comparability (10%), readability (20%), and creativity (5%), and 0 otherwise.

Ownership Structure: We categorize ownership structure into state ownership, institutional ownership, foreign ownership and corporate ownership. The institutional background of Chinese listed firms leads to a high proportion of firms being controlled by government or government agencies. Following Chen, Firth, Xin and Xu (2009) we categorize Chinese firms according to the type of controlling shareholder instead of the type of share that followed the legal classification of shares. State ownership is measured by SOE dummy, which is based on the nature of the controlling shareholder. The ultimate controlling shareholder for each firm is identified by studying the equity control chain. If the ultimate controlling shareholder is government, then SOE equals 1, and 0 otherwise. Institutional ownership is measured by the proportion of shares held by domestic financial institutions. Furthermore, we distinguish between seven types of financial institution: (1) mutual funds, (2) pension funds, (3) insurance companies, (4) finance companies, (5)

security firms, (6) banks and (7) investment trusts. Foreign ownership is measured by the proportion of A-shares held by foreign institutions. Since 2003, China has allowed Qualified Foreign Institutional Investors (QFIIs) to buy domestic A-shares under a quota system. They are exclusively large internationally renowned funds and investment banks (Huang & Zhu, 2015) because QFIIs have been subject to stringent regulations. Corporate ownership is measured by the proportion of shares held by Chinese listed companies.

Control Variables: We include several control variables to control industry and firm characteristics. Firm size is documented to be positively related to the level and quality of CSR disclosure (Stanwick & Stanwick, 1998; Orlitzky, 2001). This may occur because larger firms have greater visibility (Metcalf, 1980) and attract more attention from various stakeholder groups to whom they need to respond more attentively (Waddock & Graves, 1997). We use the logarithm of the total assets at the end of 2010 to measure firm size. Prior research also indicates a positive relationship between firm's financial performance and CSR (Orlitzky, 2001; Scholtens, 2008; Li *et al*., 2013; Waddock & Graves, 1997). More profitable firms have more organizational slack, thus are more likely to invest in CSR (Waddock & Graves, 1997). Firm's financial performance is measured by the return on asset (ROA) of 2010.

Leverage is found to have a positive relationship with CSR by some researchers (Roberts, 1992) but a negative or no relationship by others (Branco & Rodrigues, 2008; Cormier *et al*., 2005; Reverte, 2009). Leverage ratio measures the influence of creditor power (Roberts, 1992). Creditors could be supportive of CSR out of the concern for firm's irresponsible risk taking. Alternatively, they could be indifferent or even against CSR because they have private access to management information. The slack-resource theory (Waddock & Grave, 1997) also predicts a negative relationship between leverage ratio and CSR because firms with a high level of debt focus more on short-term goals such as profit maximization instead of long-term goals such as CSR engagement. We use the ratio of total liabilities to total assets at the end of 2010 to measure leverage.

Previous research suggests CSR is negatively related to ownership concentration and positively related to ownership dispersion (Cormier *et al*., 2005; Reverte, 2009; Li *et al*., 2013). Dispersed corporate ownership brings broader demand from various stakeholders including those concerned with CSR (Keim, 1978; Ullmann, 1985). Furthermore, the theory of type II agency problem argues that the largest shareholder may expropriate minority shareholders, impairing stakeholders' interest and declining CSR. More dispersed corporate ownership may mitigate the extent of type II agency problem and lead to better CSR engagement (Johnson & Greening, 1999; See, 2009). However, using Chinese data, Li and Zhang (2010) found a positive relationship between dispersion and CSR only among non-SOE firms but a negative relationship among SOE firms. This may be because the state has incentives to divert wealth to obtain social stability (Bai *et al*., 2006), which helps to improve CSR. Ownership concentration is measured by the proportion of shares held by the largest ten shareholders at the end of 2010. Finally we include industry dummies to control for industry effects, which have been found by many researchers to be important in explaining CSR (Patten, 1991; Gray *et al*., 1995; Cormier *et al*., 2005). Eighteen industry dummies are created on the basis of the 2012 industry codes of the China Securities Regulatory Commission.

RESULTS

This Section Presents the Results of the Study

Descriptive Statistics

Table 1 presents the descriptive statistics of ownership variables and control variables and compares the differences between the characteristics of CSR sample firms and non-CSR sample firms. The results in panel A indicate that half of the firms in the whole sample are ultimately controlled by the state. The figure is higher for the CSR sample at 68.64% and lower for the non-CSR sample at 44.17%. Overall, institutional

investors hold 5.09% of all shares, among which mutual funds' holding is the largest at 3.27%. The holding of foreign investors is low at 0.16%. The holding of listed firms is 1.85%, making them the third biggest group of shareholders after the state and mutual funds. Among the firms with CSR reports the average score is 25.73. Considering the range of score is between 0 and 100, the average score is low and the quality of CSR reports is far from good. The t test statistics suggest that mutual funds, foreign investors and corporate investors hold significantly more shares of firms with CSR reports than those without them. In line with the prior literature, the results in Panel B suggest that CSR firms are larger and more profitable than non-CSR firms. However, contrary to the findings like Li et al. (2013), CSR firms tend to have more concentrated ownership structure and higher debt-to-asset ratio.

Table 1: Descriptive Statistics

Variable	Whole sample (n = 1872)		CSR sample (n = 491)		Non CSR sample (n = 1381)		t test for the difference
	Mean	Variance	Mean	Variance	Mean	Variance	
Panel A: Explanatory variables							
SOE	50.59		68.64		44.17		
Institution	5.09	33.15	5.82	41.80	4.81	29.83	3.07***
Institution_Mutual funds	3.27	17.71	3.73	16.60	3.11	18.01	2.87***
Institution_Security firms	0.48	3.84	0.54	10.18	0.45	1.60	0.55
Institution_Insurance	0.46	4.29	0.67	12.46	0.38	1.37	1.78*
Institution_Pension funds	0.35	0.77	0.35	0.71	0.35	0.79	-0.07
Institution_Investment trusts	0.45	5.12	0.45	3.88	0.44	5.56	0.06
Institution_Finance companies	0.03	0.05	0.04	0.06	0.02	0.05	1.18
Institution_Banks	0.05	0.47	0.04	0.23	0.05	0.55	-0.26
Foreign	0.16	1.04	0.38	3.46	0.09	0.16	3.38***
Corporate	1.85	65.55	3.58	136.58	1.24	38.93	4.24***
Score			25.73	202.79			
Panel B: Control variables							
Total Asset	21.86	1.98	22.99	3.16	21.46	0.95	18.13***
ROA	5.00	21.64	5.75	22.47	4.73	21.08	4.14***
Leverage	43.93	518.87	51.42	442.92	41.27	519.16	8.98***
Top 10	58.95	281.53	60.19	299.87	58.50	274.48	1.87*

*Note: SOE is the state-ownership dummy variable. It equals 1 if the state is the ultimate controller of the firm at the end of 2010 and 0 otherwise. Institution is the proportion of shares held by domestic financial institutions at end of 2010. Foreign is the proportion of shares held by Qualified Foreign Institutional Investors (QFIIs) at the end of 2010; Corporate is the proportion of shares held by Chinese non-financial listed firms at the end of 2010; Total Asset is the log form of total assets at the end of 2010; ROA is the net profits divided by total assets of 2010; Leverage is the ratio of total liabilities to total assets at the end of 2010; Top 10 is the proportion of shares held by the largest 10 shareholders at the end of 2010 *** significant at 1% level; ** significant at 5% level; * significant at 10% level*

REGRESSION RESULTS

Table 2 presents the regression results. Model 1 is the Probit regression of the effect of state, aggregate domestic financial institutional, foreign and corporate ownership on the likelihood of CSR disclosure. Model 2 is the Probit regression of the effect of all the above type of ownership except the aggregate domestic financial institutional holding replaced with its seven individual components. In Model 1 (2) the coefficient for SOE is 0.174 (0.194) and significant at 5% level, indicating firms controlled by the state are more likely to disclose CSR information. This result supports hypothesis 1a. In Model 1 the coefficient for the aggregate institutional holding is insignificant. However, in Model 2 the coefficient for mutual funds holding is 0.022 and significant at 1% level. This suggests that mutual funds tend to hold more shares of firms that disclose CSR information, in contrast to the other types of financial institutions. These results lend partial support to hypothesis 2a. Furthermore, in Model 1 (2) the coefficient for foreign ownership is 0.131 (0.125) and significant at 10% level, suggesting foreign investors tend to prefer to hold shares issued by firms that disclose CSR information. This provides some support for hypothesis 3a. Finally, the coefficient for corporate holding is 0.011 (0.010) and significant at 1% level in Model 1 (2), indicating listed firms prefer to hold shares issued by fellow listed firms that disclose CSR information. This result supports hypothesis 4a.

Model 3 is the Tobit regression of the effect of state, aggregate domestic financial institutional, foreign and corporate ownership on the quality of CSR report. Model 4 presents the results on the effects of all the above owner type except the aggregate financial institution replaced with its seven individual components on the quality of firm's CSR report. The results of Model 3 (4) are similar to those in Model 1 (2). Firms controlled by the state tend to produce better quality CSR report, supporting hypothesis 1b. Although the coefficient of aggregate institutional holding is insignificant in Model 3, the coefficient of mutual funds is 0.530 and significant at 1% level in Model 4, indicating that mutual funds hold more shares issued by firms with better CSR report. Together the results provide partial support to hypothesis 2b. Furthermore, the coefficient of corporation's holding is 0.298 (0.280) in Model 3 (4), suggesting listed firms tend to hold shares of firms with better quality CSR reports. This supports hypothesis 4b. However, Model 3 and 4 indicate no significant relationship between foreign ownership and CSR report quality, invalidating hypothesis 3b.

Table 2: Regression Results

Variable	Model 1	Model 2	Model 3	Model 4
SOE	0.174**	0.194**	4.943***	5.207***
	(2.130)	(2.355)	(2.532)	(2.665)
Institution	0.006		0.130	
	(0.908)		(0.908)	
Institution_Mutual funds		0.022***		0.530***
		(2.483)		(2.472)
Institution_Security firms		0.001		0.260
		(0.048)		(0.746)
Institution_Insurance		-0.040*		-0.499
		(-1.833)		(-1.494)
Institution_Pension funds		-0.048		-0.864
		(-1.140)		(-0.876)
Institution_Investment trusts		-0.008		-0.093
		(-0.476)		(-0.253)
Institution_Finance companies		-0.060		-2.231
		(-0.342)		(-0.600)
Institution_Banks		-0.068		-2.700
		(-0.812)		(-1.287)
Foreign	0.131*	0.125*	-0.077	-0.272
	(1.716)	(1.639)	(-0.111)	(-0.389)
Corporate	0.011***	0.010***	0.298***	0.280***
	(2.605)	(2.500)	(3.462)	(3.254)
Total Asset	0.561***	0.572***	13.634***	13.877***
	(13.802)	(13.855)	(15.935)	(15.994)
ROA	3.879***	3.492***	103.123***	91.360***
	(4.148)	(3.682)	(4.715)	(4.125)
Leverage	-0.339	-0.410*	-6.658	-8.401
	(-1.422)	(-1.706)	(-1.180)	(-1.486)
Top 10	-0.005***	-0.005**	-0.083	-0.068
	(-2.244)	(-1.987)	(-1.540)	(-1.251)
Intercept	-12.973***	-13.202***	-320.463***	-325.840***
	(-15.243)	(-15.291)	(-17.402)	(-17.453)
R squared	0.242	0.246		
Log likelihood			-2804.972	-2799.534

Note: ***Significant at the 1% level; **significant at the 5% level; *significant at the 10% level. The numbers in bracket are z-statistics based on standard errors with White's (1980) correction.

Table 2 also presents the estimation results for control variables. Similar to Stanwick & Stanwick (1998), Orlitzky (2001), Scholtens (2008), Li et al. (2013) and Waddock and Graves (1997), we find both firm size and financial performance are positively related to CSR. Furthermore, similar to the existing literature (Ullmann, 1985; Graves and Waddock, 1994; Cormier et al., 2005; Reverte, 2009; Li *et al*., 2013) we find ownership concentration is negatively related to the likelihood of CSR disclosure, as indicated by the negative and significant coefficient for Top 10 in Model 1 and 2. However, the relationship between ownership concentration and the quality of CSR report is insignificant. Finally, the coefficient for leverage is negative but insignificant in Model 1, 3 and 4 and only marginally significant in Model 2, suggesting either negative or zero relationship between leverage and CSR (Branco & Rodrigues, 2008; Cormier et al., 2005; Reverte, 2009).

CONCLUSION

This paper comprehensively examines the link between different types of shareholders and CSR in the context of China. Our findings reveal that different owners have differential impact on the CSR. The SOEs are the best at CSR disclosure and their CSR reports' quality is the best compared with others. Among the institutional investors, firms with more shares held by mutual fund are significantly better at CSR disclosure and their CSR reports are of significantly better quality. We also found foreign investors played a significant role in the decision process to adopt CSR disclosure; however, the quality of company CSR reports is not significantly different from others. In addition Chinese public listed firms prefer to invest in fellow listed companies that disclose CSR information. This paper enriches our understanding of the development of CSR disclosure in different institutional environment. It provides managers insight into the process of how different types of ownership affect the decision to disclose CSR information as well as the quality of such disclosure. Our findings have practical implications as firms can recognise how particular types of owners value their efforts regarding CSR. Policy makers should promote the transparency of ownership information with both investors and listed firms. From a theoretical perspective, this study suggests the importance of accounting for the heterogeneity among shareholders in relation to CSR due to their differences in role, position and size within society.

REFERENCES:

Agle, B. R., Mitchell, R. K., & Somenfield, J. A. (1999). Who matters to CEOs? An investigation of stakeholder attributes and salience, corporate performance and CEO values. *Academy of Management Journal*, 28: 446-443.

Aguilera, R.V., Williams, C. A., Conley, J. M., & Rupp, D. E. (2006). Corporate governance and social responsibility: a comparative analysis of the UK and the US. *Corporate Governance,* 14(3): 147–158.

Aharony, L., Lee, C. W. J., & Wong, T. J. (2000). Financial packaging of IPO firms in China. *Journal of Accounting Research*, 38(1): 103-126.

Bai, C. and L. C. Xu (2005). Incentives for CEOs with Multitasks: Evidence from Chinese State-Owned Enterprises, *Journal of Comparative Economics,* 33(3): 517–539.

Barnea, A., & Rubin, A. (2010). Corporate social responsibility as a conflict between shareholders. *Journal of Business Ethics*, 97: 71-86.

Becker-Olsen, K. L., Cudmore, B. A., & Hill, R. P. (2006). The impact of perceived corporate social responsibility on consumer behavior. *Journal of Business Research*, 59: 46–53.

Botosan, C. A. (1997). Disclosure level and the cost of equity capital. *Accounting Review*. 72(3): 323-350.

Branco, M. C. & Rodrigues, L. L. (2008). Factors influencing social responsibility disclosure by Portuguese companies. *Journal of Business Ethics*, 83(4): 685–701.

Brown, J., & Fraser, M. (2004). Competing disclosures in social and environmental accounting: an overview of the conceptual landscape. Working Paper Series, Victoria University of Wellington.

Carroll, A. B. (1979). A three dimensional conceptual model of corporate social performance. *Academy of Management Review*, 4; 479 – 505.

Chaganti, R., & Damanpour, F. (1991). Institutional ownership, capital structure, and firm performance. *Strategic Management Journal*, 12: 479-491.

Chen, G., Firth, M., & Xu, Li. (2009). Does the type of ownership control matter? Evidence from China's listed companies. *Journal of Banking and Finance*, 33:171-181.

Cormier, D., Magnan, M. and Velthoven, B.V. (2005). Environmental disclosure quality in large German companies: economic incentives, public pressures or institutional conditions? *European Accounting Review*, 14:1, 3–39.

Cox, P., Brammer, S., & Millington, A. (2004). An empirical examination of institutional investor preference for corporate social performance. *Journal of Business Ethics*, 52: 27-43.

Dam, L., Scholtens, B. (2012). Does ownership type matter for corporate social responsibility? *Corporate Governance: An International Review*, 20(3): 233-252.

Deegan, C., & Rankin, M. (1996). Do Australian companies report environmental news objectively? An analysis of environmental disclosures by firms prosecuted successfully by the environmental protection authority. *Accounting, Auditing & Accountability Journal*, 9: 52-69.

Delgado-García, J. B., de Quevedo-Puente, E., & de la Fuente-Sabaté, J. M. (2010). The impact of ownership structure on corporate reputation: Evidence from Spain. *Corporate Governance: An International Review*, 18: 540–556.

Faccio, M., & Lang, L. H. P. (2002). The ultimate ownership of Western European Corporations. *Journal of Financial Economics*, 65(3): 365-395.

Friedman, M. (1970). The social responsibility of business is to increase profit. *New York Times Magazine*, September 13:32.

Gehrig, T. (1993). An information based explanation of the domestic bias in international equity investment. *The Scandinavian Journal of Economics*, 95: 97-109.

Gelb, D. S., & Strawser, J. A. (2001). Corporate social responsibility and financial disclosures: an alternative explanation for increased disclosure. *Journal of Business Ethics*, 33(1): 1-13.

Gray, R., Javad, M., Power, D. M., & Sinclair, C. D. (2001). Social and environmental disclosure and corporate characteristics: a research note and extension. *Journal of Business Finance & Accounting*, 28(3/4): 327-356.

Gray, R., Kouhy, R. and Lavers, S. (1995). Corporate social and environmental reporting: a review of the literature and a longitudinal study of UK disclosure. *Accounting, Auditing and Accountability Journal*, 8(2): 47–77.

Graves, S. B., & Waddock, S. A. (1994). Institutional owners and corporate social performance. *Academy of Management Journal*, 45: 1034-1046.

Harjoto, M. A. & Jo, H. (2011). Corporate governance and CSR nexus. *Journal of Business Ethics*, 100:45-67.

Harrison, J. S., & Freeman, R. E. (1999). Stakeholder, social responsibility and performance: empirical evidence and theoretical perspectives. *Academy of Management Journal*, 42: 479-485.

Hendry, K., & Kiel, G. C. (2004). The role of the board in firm strategy: Integrating agency and organisational control perspectives. *Corporate Governance: An International Review*, 12: 500–520.

Hillier, D., Grinblatt, M., & Titman, S. (2008). *Financial markets and corporate strategy*. Maidenhead: McGraw-Hill.
Hillman, A. J., Zardkoohi, A., & Bierman, L. (1999). Corporate political strategies and firm performance: indications of firm-specific benefits from personal service in the U.S. government. *Strategic Management Journal*, 20 (1): 67-81.

Hooghiemstra, R. (2000). Corporate communication and impression management – new perspectives why companies engage in corporate social reporting. *Journal of Business Ethics*, 27: 55-68.

Hoskisson, R. E., Hitt, M. A., Johnson, R. A., & Grossman, W. (2002). The effects of institutional ownership heterogeneity and internal governance on corporate innovation strategies. *Academy of Management Journal*, 45:697-716.

Hu, Y., & Karbhari, Y. (2015). Incentives and disincentives of corporate environmental disclosure: evidence from listed companies in China and Malaysia. *Thunderbird International Business Review*, 57(2): 143-161.

Huang, W., & Zhu, T. (2015). Foreign institutional investors and corporate governance in emerging markets: Evidence of a split-share structure reform in China. *Journal of Corporate Finance*, 32: 312-326

Ip, P. K. (2009). The challenge of developing a business ethics in China. *Journal of Business Ethics*, 88: 211-224.

Johnson, R. A. & D. W. Greening (1999). The Effects of Corporate Governance and Institutional Ownership Types on Corporate Social Performance, *Academy of Management Journal,* 42(5), 564–576.

Kang, Y., & Kim, B. (2012) Ownership structure and firm performance: evidence form the Chinese corporate reform. *China Economic Review*, 23: 471-481.

Keim, G. (1978). Managerial Behavior and the Social Responsibilities Debate: Goals Versus Constraints, *Academy of Management Journal* 21(1): 57–68.

Kimber, D., & Lipton, P. (2005). Corporate governance and business ethics in the Asia-Pacific region. *Business and Society*, 44(2): 178-210.

Khan, A., Muttakin, M., & Siddiqui, J. (2013). Corporate Governance and Corporate Social Responsibility Disclosures: Evidence from an Emerging Economy. *Journal of Business Ethics,* 114: 207–223.

Khorana, A. (1996). Top management turnover: an investigation for mutual fund managers. *Journal of Financial Economics*, 40: 403-427.

Klein, J., & Dawar, N. (2004). Corporate social responsibility and consumers' attributions and brand evaluations in a product-harm crisis. *International Journal of Research in Marketing*, 21:203–217.

Knapp, J. R., Dalziel, T., & Lewis, M. W. (2011). Governing top managers: Board control, social categorization, and their unintended influence on discretionary behaviors. *Corporate Governance: An International Review*, 19: 295–310.

KPMG (2005). *KPMG International Survey of Corporate Responsibility Reporting 2005. KPMG*: Amsterdam.

Lam, K. C., & Shi, G. (2008). Factors affecting ethical attitudes in Mainland China and Hong Kong. *Journal of Business Ethics*, 77(4): 463-479.

Li, Q., Luo, W., Wang, Y., & Wu, L. (2013) Firms performance, corporate ownership, and corporate social responsibility disclosure in China. *Business Ethics: A European Review*, 22(2): 159-173.

Li, W., Zhang, R. (2010). Corporate social responsibility, ownership structure, and political interference: evidence from China. *Journal of Business Ethics*, 96:631-645.

Liao, L., Liu, B., & Wang, H. (2014). China's secondary privatization: perspectives from the split-share structure reform. *Journal of Financial Economics*, 113: 500-518.

Lin, L. (2010). Corporate Social Responsibility in China: Window Dressing or Structural Change? *Berkeley Journal of International Law*, 28(1): 64-100.

Marquis, C., & Qian, C. (2014). Corporate social responsibility reporting in China: symbol or substance? *Organization Science*, 25(1): 127-148.

Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2007). *Does it pay to be good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance*. Working Paper, Harvard University, Cambridge, MA.

Margolis, J. D., & Walsh, J. P. (2003). Misery loves companies: Rethinking social initiatives by business. *Administrative Science Quarterly,* 48: 268–305.

Nakao, Y., Amano, A., Matsumura, K., Genba, K. & Nakano, M., 2007. Relationship between environmental performance and financial performance: An empirical analysis of Japanese corporations. *Business Strategy and the Environment,* 16: 106–118.

Neubaum, D. O., & Zahra, S. A., (2006). Institutional ownership and corporate social performance: the moderating effects of investment horizon, activism, and coordination. *Journal of Management* 32(1): 108–131.

Oh, W. Y., Chang, Y. K. (2011). The effect of ownership structure on corporate social responsibility: empirical evidence from Korea. *Journal of Business Ethics*, 104:283-297.

Orlitzky, M.: (2001). Does Firm Size Confound the Relationship Between Corporate Social Performance and Firm Financial Performance? *Journal of Business Ethics* 33(2): 167–180.

Orlitzky, M., Schmidt F. L., & Rynes, S. L. (2003). Corporate social and financial performance: a meta-analysis. *Organization Studies,* 24(3): 403-441.

Patten, D.M. (1991). Exposure, legitimacy, and social disclosure. *Journal of Accounting and Public Policy*, 10(4): 297–308.

Pava, M. L., & Krausz, J. (1996). The association between corporate social-responsibility and financial performance: The paradox of social cost. *Journal of Business Ethics,* 15: 321–357.

Research Centre for Corporate Social Responsibility Chinese Academy of Social Sciences (CASS-CSR) (2011), *2011 White Paper on Chinese Firms Corporate Social Responsibility.* http://www.cass-csr.org/ois/uploadfile/com_content/134093693342965900.pdf [Accessed: August 20th, 2015]

Reverte, C. (2009). Determinants of corporate social responsibility disclosure ratings by Spanish listed firms. *Journal of Business Ethics*, 88(2): 351–366.

Roberts, R. W. (1992), Determinants of Corporate Social Responsibility Disclosure: An Application of Stakeholder Theory, *Accounting Organizations and Society,* 17(6): 595–612.

Scherer, A., Palazzo, G., & Baumann, D. (2006). Strategic governance: how to assess board effectiveness in guiding strategy execution. *Corporate Governance: An International Review*, 14: 13-22.

Schmidt, S. L., & Brauer, M. (2006). Strategic governance: How to assess board effectiveness in guiding strategy execution. *Corporate Governance: An International Review*, 14: 13–22.

Scholtens, B. (2008). A note on the interaction between corporate social responsibility and financial performance, *Ecological Economics* 68(1): 46–55.

See, G. K. H. (2009). Harmonious society and Chinese CSR: is there really a link? *Journal of Business Ethics*, 89(1): 1–22.

Sethi, S. P. (2005). Investing in socially responsible companies is a must for public pension funds – because there is not better alternative. *Journal of Business Ethics*, 56: 99-129.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. *The Journal of Finance*, 52: 737-783.

Siegel, D. S., & Vitaliano, D. F. (2007). An empirical analysis of the strategic use of corporate social responsibility. *Journal of Economics & Management Strategy*, 16: 773-792.

Smith, J. L., Adhikari, A., & Tondkar, R. H. (2005). Exploring differences in social disclosures internationally: a stakeholder perspective. *Journal of Accounting and Public Policy*, 24(2): 123-151.

Spence, C. (2007). Social and environmental reporting and hegemonic disclosure. *Accounting, Auditing, & Accountability Journal*, 20(6): 855-882.

Stanwick, P. A. & S. D. Stanwick (1998). The relationship between corporate social performance and organizational size, financial performance, and environmental performance: an empirical examination, *Journal of Business Ethics* 17(2): 195–204.

Turban, D. B., & Greening, D. W. (1997). Corporate social performance and organisational attractiveness to prospective employees. *Academy of Management Journal*, 40:658-672.

Ullmann, A. (1985). Data in search of a theory a critical examination of the relationship among social performance, social disclosure, and economic performance, *Academy of Management Review,* 10(3): 540–577.

Walls, J. L., Berrone, P., & Phan, P. H. (2012). Corporate governance and environmental performance: is there really a link? *Strategic Management Journal*, 33:885-913.

Wang, Q., Wong, T. J., & Xia, L. J. (2008). State ownership, the institutional environment, and auditor choice: evidence from China. *Journal of Accounting and Economics*, 46(1): 112-134.

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THE LOCALIZATION PROCESS OF FAMILYMART IN THAILAND AND ITS RELATIONSHIP WITH BUILDING DYNAMIC CAPABILITIES

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ABSTRACT

This paper investigates the localization process of FamilyMart in Thailand using a convenience store business model and applying the dynamic capabilities concept. This study's research method uses survey analysis, with data collected through frequent interviews with company executives in Japan and Thailand between 2013 and 2015. The results of this study show that FamilyMart could not reach break-even point in Thailand until 2009 due to financial risks, political instability, and lack of a suitable local partner. The requisite dynamic capabilities were gradually formed through experience, learning, and organizational restructuring. Eventually, in 2012, FamilyMart found a good local partner in Thailand, Central Group, and successfully transferred its expertise and know-how to the Thai market.

JEL: M16, M31

KEYWORDS: Convenience store; Retail Internationalization; Localization; Dynamic Capabilities

INTRODUCTION

The major convenience store chains in Japan are shifting their focus to overseas markets as the domestic market shrinks. Although many of these chains are managed by local joint venture companies, there are surprisingly few profitable Japanese convenience store chains. By the end of July 2015, Taiwan, Thailand, and China's FamilyMart chain was one of the few successes. Author (2015) investigates the localization process of Taiwan's FamilyMart, and Thailand's FamilyMart is another case study that provides a deeper understanding. However, FamilyMart reached a break-even point following 16 years in Thailand and only six in Taiwan. This indicates that differing markets and influence factors affect the results of convenience store internationalization. This paper investigates the localization process of FamilyMart in Thailand using a convenience store business model and applying the dynamic capabilities concept. This paper discusses how Japanese FamilyMart transferred its expertise and know-how to the Thai market and demonstrated other success factors that were critical for the convenience store's internationalization.

LITERATURE REVIEW

Studies relating to Japanese convenience store operations in East Asia are rare. Kawabata (2000; 2006) and Kawabe (2006) assessed FamilyMart, but these studies focused primarily on operational development before 2006. The first study on the localization process of FamilyMart was conducted by author 2009 in China (Author, 2009). The recent study was represented by author 2015 in Taiwan (Author, 2015). This paper proposes a new model titled the "convenience business system (model)" to investigate the localization process of convenience store chains. The "convenience store business system" consists of six elements in three categories: (1) Front system: retail mix, service, quality, and cleanliness (S&QC), and store development strategy, (2) Store operation, (3) Background system: merchandise sourcing system, and merchandise supply system (distribution system and information system). Author (2015) suggests that a five-point summary explains FamilyMart's critical success factors in the evolution of Japanese convenience stores. Thus, these five-point critical success factors are included in the proposed "convenience business system (model)." The definition of dynamic capabilities is "the firm's ability to integrate, build, and

reconfigure internal and external competences to address rapidly changing environments" (Teece et al., 1997). Dawson and Mukoyama (2015) proposed using the dynamic capabilities theory to study retail internationalization. Cao (2011) demonstrated the dynamic capabilities through case studies on large store chains, and Frasquet *et al.*, (2013) focused on the fashion apparel sector.

DATA AND METHODOLOGY

This study's research method uses survey analysis, with data collected through frequent interviews with company executives in Japan and Thailand between 2013 and 2015. Additionally, historical information from newspapers and magazines, FamilyMart corporate news releases, public websites, and other corporate documents are utilized.

RESULTS AND DISCUSSION

Market Entry Stage (1992 To 1998)

Thailand's (Siam) FamilyMart was established in 1992 as a joint venture between Japan's FamilyMart (30%), Japan's Itochu Corporation (10%), Thailand's Robinson & Co. department stores (40%), and Saha Group (20%). Thailand was the first Southeast Asian country that FamilyMart entered. Therefore, FamilyMart conservatively limited the capital to one hundred million Baht (about 318 million yuan) and operated only five stores in the first two years. As a result, the transfer of the six elements of the "convenience store business system" was "weak" in the background system and "fairly weak" in the store operation and front system. This was the initial stage of FamilyMart's internationalization. "Groping" and testing the possibility of the market were features of this stage. The overseas business experience within the company was limited, and the dynamic capabilities for internationalization only came from related experience within Itochu Corporation and shared connections (See Table 1).

Table 1: Transferring the "convenience store business system" in the market entry stage

	Background System	Store Operation	Front System
Transferring situations	Merchandise sourcing system: Although minimal, it was related with ready-to-eat foods. Distribution system: Used local partner's facility and distribution center. Technical support by Itochu Corp.'s subsidiary. Information system.: Developed an original system in Thailand.	Persuaded use of a franchise system from 1995. Introduced a supervisor system and franchise accounting system from Japan.	Retail mix: Catered to local needs. S&QC: Transferred Japanese concepts through education in the local market. Store development strategy: "Dominate" strategy with a focus on Bangkok and its vicinity.
Practice levels	Weak	Fairly weak	Fairly weak

This paper sets the practice levels as "normal" in 2009 when the company achieved its first year's surplus.

The First Stage of Growth (1999 to August 2012)

In July 1997, the operating rights of Thailand's FamilyMart was transferred from the local partner to Japan's FamilyMart, since the local partner suffered a business decline due to the financial risks in Thailand. In 1999, Thailand's FamilyMart increased their capital investment and established a subsidiary titled SFM Holding Co., Ltd. in Thailand to meet the legal requirements for foreign investment. The transfer of the Japanese convenience store business system in the first stage of growth occurred in the following steps. First, Thailand's FamilyMart began to sell box lunches to improve the merchandise sourcing system. Second, a distribution subsidiary was established and a point of sale (POS) system was introduced to improve the merchandise supply system. Additionally, S&QC was also improved. As such, the background system was improved from being "weak" in the market entry stage to "normal" in the first stage of growth through a deeper understanding of the local markets. However, the store operation temporarily became "weak" due to the company's rapid expansion of stores that could not be supported by the employee's education.

Eventually, this recovered from "weak" to "normal" following a revised strategy. The same situation occurred with the front system (See Table 2). In the end of 2003, a "Pacific Rim Initiative" strategy had been established for the future growth of FamilyMart by the new president Mr. Ueda. Concurrently, overseas business was positioned next to domestic business within the company. Through learning and experience, FamilyMart deepened their understanding of the local markets, which was one dynamic capability formed during this stage. In Thailand, a dynamic capability resulted from twice overcoming the risk of bankruptcy in 1997 and 2005. Finally, Thailand's FamilyMart reached a break-even point in 2009.

Table 2: Transferring Levels of the "Convenience Store Business System" in the First Stage of Growth

	Background System	**Store Operation**	**Front System**
Transferring situations	Merchandise sourcing system : S sell boxed lunch and introduced ready-to-eat food manufacturing expertise from Japan. Distribution system: established a distribution subsidiary for room temperature goods in 2004. Information system: From 2004, gradually introduced the POS system.	Persuaded use of a franchise system: Provided special programs for employees from 2004. Supervisor system and franchise accounting system: System was weak because of rapid expansion, which was improved after revising the company's plan.	Retail mix: Increased the ready-to-eat food category, such as Oden and chilled boxed lunches. S&QC: Quality became temporarily worse, but recovered after revising the company's plan. Store development strategy: "Dominate" strategy.
Practice levels	Normal	Weak→Normal	Weak→Normal

The Second Stage of Growth (September 2012 To 2015)

On September 2012, FamilyMart began to cooperate with a giant retailer in Thailand, Central Group, to encourage the company's growth strategy. In 2013, Thailand's FamilyMart was renamed Central FamilyMart as a joint venture between Japan's FamilyMart (48%), Central Group (51%), and others (1%). The principles of selecting joint venture partners and transferring the Japanese convenience business system overseas were formulated by Japan's FamilyMart as dynamic capabilities. Eventually, Japan's FamilyMart found a suitable local partner in Thailand and the transfer of the "convenience store business system" improved from "normal" to "slightly strong" in this stage (See Table 3).

Table 3: Transferring Levels of the "Convenience Store Business System" in the Second Stage of Growth

	Background System	**Store Operation**	**Front System**
Transferring situations	Merchandise sourcing system: Strengthened production techniques of the ready-to-eat foods category, such as boxed lunches and the in-store kitchen. Distribution system: Established a distribution subsidiary for chilled goods in 2012. Information system: Renewed irregularly in the local market to suit local needs.	Persuaded use of a franchise system: Used TV CM and other methods to improve the company's brand image, then increased the numbers of franchise shops. Franchise accounting system: Same as previous stage. Supervisor system: Educated 200 supervisors. One supervisor advised five to six stores.	Retail mix: Strengthened the ready-to-eat foods category and the promotion strategy. Introduced FamilyMart's private label products. S&QC: Added several service products. Store development strategy: "Dominate" strategy that focused on Bangkok and its vicinity, southern Thailand, and the tourist areas.
Practice levels	Slightly strong	Slightly strong	Slightly strong

CONCLUDING COMMENTS

The results of this study show that FamilyMart could not reach break-even point in Thailand until 2009 due to financial risks, political instability, and lack of a suitable local partner. The requisite dynamic capabilities were gradually formed through experience, learning, and organizational restructuring. Eventually, in 2012, FamilyMart found a good local partner in Thailand, Central Group, and successfully transferred its expertise and know-how to the Thai market. In conclusion, the formation of dynamic capabilities influenced knowledge transformation. In the case of FamilyMart, the two important dynamic capabilities related to

internationalization are: (1) being clear on the local partner selection criteria, and (2) building relationships with these partners. Above all, this paper demonstrated three success factors for the internationalization of convenience stores, which are also demonstrated in the author's previous study of Taiwan FamilyMart (Author, 2014): (1) Establish joint venture arrangements with a good local partner. (2) Grant local partners majority management and empower them to pursue innovation. (3) Support the technical expertise of local companies by maximizing resources.

REFERENCES

Cao, L. (2011) "Dynamic Capabilities in a Turbulent Market Environment: Empirical Evidence from International retailers in China," *Journal of Strategic Marketing*, vol. 19(5), p.455-469.

Chung, S. (2009) "Retail internationalization in the Taiwanese market" in M. Mukoyama and S. Chio (eds.), *International Development of Retailers*, Tyuou Keizai Sya, p.123-154.

Chung, S. (2015), "Localization of FamilyMart, a Japanese Convenience Store, in Taiwan," *Journal of Innovation Management*, The Research Institution for Innovation Management, No.12, p.133-155.

J. Dawson, J and M. Mukoyama (2003), *Global Strategies in Retailing: Asian and European Experiences*, Routledge.

FamilyMart official website (http://www.family.co.jp/).

Frasquet M., J. Dawson, J. and A. Mollá (2013) "Post-entry Internationalisation Activity of Retailers," *Management Decision*, vol. 51(7), p.1510-1527.

Teece, D.J., G. Pisano and A. Shuen (1997) "Dynamic Capabilities and Strategic Management," *Strategic Management Journal*, vol. 18(7), p.509-533.

Yahagi, T. (2007) *The Retail Internationalization Process*, Yuhikaku.

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CORPORATE ACCOUNTING MALFEASANCE: AN OVERVIEW

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ABSTRACT

Corporate malfeasance in the United States has increased significantly since the mid-1990s, resulting in a significant increase in the number of companies restating their previously issued financial statements. The U.S. Congress' passage of the Sarbanes-Oxley Act of 2002 (SOX) was a direct response to the accounting scandals and an attempt to reform the financial/business reporting process. This paper provides an overview of corporate accounting malfeasance, the state of corporate accounting malfeasance, reasons for its occurrence, comprehensive listings of the types of corporate accounting malfeasance activities, and its legislative results. The paper also theorizes that not only is corporate accounting malfeasance is here to stay, but it is an inherent part of the U.S. and global financial system, regardless of the policies implemented by the Securities and Exchange Commission (SEC), other regulatory bodies, or leading institutions of the accounting profession.

INTRODUCTION CORPORATE MALFEASANCE AND BUSINESS REPORTING

Corporate accounting malfeasance is defined as the use of false or misleading accounting information, or omission of these entries, in the financial reporting process (announcements, filings, etc.) that later requires a restatement. This approach, which considers restatements to include accounting errors, accounting misstatements, and/or any other accounting irregularity, is similar to the approach utilized by the United States General Accounting Office (GAO) in their restatement study (GAO, 2002). While the passage of SOX in 2002, the formation of the Enhanced Business Reporting Consortium (EBRC) in 2005, and the Dodd-Frank Wall Street Reform and Consumer Protection Act of 2010 are the most recent attempts to mitigate corporate malfeasance and empower the users of publicly reported information of companies, one important question remains: will these initiatives help to curb the volume and magnitude of corporate malfeasance? Section 2 provides an overview of malfeasance activity in the United States since the early 1990s, while section 3 provides some commonly cited reasons for malfeasance activities. Section 4 provides a comprehensive listing of the types of corporate malfeasance activities that result in restatements. Section 5 presents the consequences of corporate accounting malfeasance activities, and section 6 discusses the conclusions in this paper and areas for future research.

INCREASES IN CORPORATE MALFEASANCE IN THE UNITED STATES: PRE- AND POST-SOX (2002)

In the United States, the number companies that file restated financials, as well as the magnitude of the restatement amount in dollars, has significantly and steadily increased since the mid-1990s up until approximately 2006, as measured by the sheer number of restatements filed with the SEC as well as the number of restatements announced publicly. Recent evidence shows a different trend, i.e., that the number of restatements has leveled off from 2007 to 2012. Files (2012, Table 2) documents that the number of publicly announced restatements increased steadily each year, from 33 in 1997 to 407 in 2005, which is a 1,100% increase over an eight year period. The U.S. Government Accountability Office (GAO)'s 2002 study (GAO, (2002) also documented a similar increase in announced corporate restatements, with 92 announced restatements in 1997 and the 225 restatements in 2001, which is a 245% increase over a four

year period. Similarly, a Huron Consulting Study in 2003 found that the number of corporate restatements filed in 1997 was 116, while the number filed in 2002 was 330, which is a 285% increase. Over the mid-1990s until about 2006, the number of companies that are publicly registered with the SEC decreased, which suggests that restatements were more frequent within a set number of firms: The GAO study in 2002 noted that the average number of companies listed on New York Stock Exchange (NYSE), NASDAQ, and American Stock Exchange (AMEX) decreased annually from 9,275 in 1997 to 7,446 in 2002. The Huron study in 2003 also noted that over the period from 1997 to 2001, the number of public registrants decreased by 14%, while the number of restatements rose by 53%. The CPA Journal in 2003 further reiterated that the total number of registered companies decreased from over 10,500 in 1999 to around 9,000 in 2002, including all U.S. publicly traded companies. Although some of the decrease can be attributed to company delistings and bankruptcies related to corporate malfeasance, some of this trend is driven by a number of public companies that have chosen to become private (Grant Thornton, 2003). The results of these studies, and the sentiments expressed in a 1998 speech by Arthur Levitt of the SEC, demonstrate that the increase in corporate malfeasance existed even prior to the occurrence of the subsequent accounting scandals at Enron and WorldCom in late 2001.

Recent evidence shows a different trend, i.e., that the number of restatements has leveled off from 2007 to 2012. For example Scholz (2014, Figure 1) reports that the number of restatements announced peaked at 1,784 in 2006, shortly after the implementation of SOX's 404 internal control reporting requirements. After that, the number of restatements has declined to about 738 in 2012, which is a decrease of 141%. Given that the effect of SOX in 2002 on corporate malfeasance activity has been both mixed and inconclusive (taking a minimum of five years to have an effect on the declining number of restatements beginning in 2007), this prompts the following questions: What are the causes of corporate malfeasance activity? Since it is likely that legislation, such as SOX 2002, may have no effect on the incidence of corporate malfeasance, restatements may be a permanent fixture in companies traded in the U.S. stock market.

REASONS FOR CORPORATE MALFEASANCE ACTIVITY

Common reasons for corporate malfeasance include the following:

Meeting Earnings Expectations: A company's failure to meet earnings expectations can have a significant negative effect on the company's stock price, which can lead to lower profits, lower executive bonuses, and underwater stock options.

Income Smoothing: Volatile and erratic earnings patterns are considered to indicate high risk, which can potentially increase the required rate of return that investors demand from companies and can potentially lower the company's stock price. Since volatile earnings are considered undesirable, managers of companies may have incentives to engage in earnings management tactics to smooth revenues and profits, thereby showing continuous company improvement.

Myopic View: Many investors and managers view the short term as the critical time frame without regard to the long term, which may lead managers to engage in malfeasance behavior. Also, since there is the possibility that malfeasance activity will not be detected, some managers may have the mindset that, "I can get away with it!".

Unclear or Ambiguous Accounting Rules: Many individuals consider accounting rules to be vague, non-uniform, ad subjective (i.e. the definition of "materiality"), which may lead some managers to engage in manipulation of accounting reporting. Additionally, some accounting reporting requires individuals to make internal assumptions, which may be subjective or unreasonable.

Difficulty of Assessing Accountability: Assessing whether an individual's actions are intentional versus unintentional, or fraudulent versus non-fraudulent, is a difficult and sometime impossible task. As a result, only in very extreme cases like Enron or WorldCom is the evaluation of such actions clear cut. In the majority of cases, criminal and/or civil penalties are difficult to enforce. In general, the penalties of malfeasance are less than the overall cost, which presents a problem to discourage such behavior in financial reporting.

Lack of Internal Ethical Environment: Malfeasance activity is human in nature and may be caused by several things, such as the stresses of management to meet goals to the lack of personal ethical behavior. Additionally, internal ethical guidelines may be non-existent or not reinforced by management, which adds to the problem.

A COMPREHENSIVE LISTING OF CORPORATE MALFEASANCE ACTIVITIES

Revenue

Fictitious Revenue: Revenue created through fictitious sales transactions, or revenue created through cooperation/collusion with another company to increase both companies' financial profile.

> Round-tripping; sale of contract from company A to company B, and then from company B back to company A (there is at least one "round-trip", and there can be more) to increase revenues for each company.

> Back-to-back; sale of assets from company A to company B at a gain, and then from company B back to company A at a gain, to increase the income for each company. Round tripping is a form of "back-to-back" but usually with no gain.

> *Fraudulent sales:* Revenue created from fictitious sales transactions with or without sales' orders and/or shipping documents (customer names can be either legitimate or fictitious).

Revenue Timing – A valid sales transaction recognized as complete in a different accounting period than when the actual transaction was completed. This overstates revenue in one period and understates revenue in another.

> *Premature revenue recognition*: recognizing revenue on a valid sales transaction before the sales transaction is completed.

> *Backdating sales or software invoices/contracts*: a form of premature revenue recognition in which the date for a completed sale or software contract transaction is changed to an earlier accounting period than when the actual transaction was completed.

Revenue Misclassification and Other Improprieties: Recognition or misclassification of sales transactions that are not valid sales transaction due to terms being incomplete and/or other contingent information.

> *Improper classification/recognition of revenue*: recognition of revenue from sales that are not completed sales transactions – i.e. goods on consignment, overselling goods to distributorships, and/or other buy-back/return agreements.

> *Improper revenue disclosures*: Recognition of sales transaction (one-time revenue gain) without disclosing in footnotes that this was a one-time gain/transaction.

Reduction of inflated reserves: revenues created by reversing previously created expense reserves (cookie jar reserves – reserves that are created in good times to be used in bad times in order to increase income).

Revenue reduction: skimming revenue for regulatory rate increases.

Expense

Expense/Cost Classification – Misclassification, non-recognition, or unauthorized expenses of the period.

Compensation Abuses; Unauthorized pay and bonuses, excess/unauthorized use of company assets, and backdating of stock options.

Fraudulent capitalization of current expenses: capitalizing expenses as assets (to be written-off over a period of time), when those expenses should be included as costs in the current period.

Expense or Cost Misclassifications/Manipulation: recording expense(s) in a later period than the period incurred, or changing the amount of an expense in the current period.

Non-recognition of losses: Disregarding or erasing expenses of the period.
Fictitious or inflated expenses to boost regulatory rates.

Big Bang Theory: The process of recordings more costs and expense during an accounting period than normal when (1) a restatement resulting in lower income is required to be filed or (2) a significant loss has occurred for the reported period.

Restructuring Costs (Fraudulent or Misclassified): using a loss/restatement situation to create a reserve (asset) for future restructuring/reorganization of the business by expensing the dollars in the current period (as required by Generally Accepted Accounting Principles, or GAAP). As the restructuring occurs in the future, the charges will be written off against the reserve account. However, if the reserve is not needed, or if the reserve is overstated, then the unneeded dollars are added to income in the period for which it was determined the reserves were not needed.

Erroneous or Inaccurate reserves recorded: recording expenses in periods of high income to build "cookie-jar" reserves and/or to reduce income.

Write-downs; using a loss/restatement situation to write-down or write-off assets that will be used or sold at a later date. This will reduce the asset cost when sold in a later period thereby increasing income.

Income Inflation-Assets-Liabilities

Inflated Income: Income is inaccurate, but the specific revenue or expense impact or detail is not available. Only the income impact is provided.

Earnings inflation to meet analyst expectation; inappropriate use of reserves, false financial statements, etc.

Improper accounting to inflate income; bundling leases, insufficient disclosures, etc.

Fraudulent accounting schemes; Use of shell companies, erroneous reserves, etc.
Accounting errors; overstatement of perishable inventory, premature revenue recognition, etc.

Improper internal controls; internal controls that do not detect errors.

Assets overstated: Any situation where the specific revenue or expense detail is not available, but the resulting asset(s) detail or impact is provided:

Mark-to-market abuse; recognize gross revenues as profits, which results in accounts receivables being overstated.

Assets not properly written down; inventory is overstated, goodwill is overstated, etc.

Overstating reserves through restructuring; Creating excess reserves based on the big-bang theory (see expenses above) or cookie-jar reserves (see revenue above).

Disclosures and Understated Liabilities: Any situation in which the specific revenue or expense detail is not available, but the resulting liability detail or impact is provided.

Non-Disclosure or inadequate disclosure of liabilities; debt and guaranteed loans are not disclosed, liabilities are not included in the financial statements in the appropriate manner, etc.

Improper off-balance-sheet financing of assets; inappropriate synthetic leases, etc.

Fraudulent use of SPEs and inadequate disclosure of SPE accounting issues; inappropriate reclassification of debt related to special purpose entities (SPE), SPEs listed that do not meet the SPE criteria, unauthorized SPEs; transfer of bad debt and other items to SPE inappropriately.

Non-recognition of liability; liabilities are not disclosed that should have been disclosed or presented in financial statements.

Theft – Misappropriation

Inappropriate purchases/payments to/for employees/officers; Misuse of company assets by employees and officers.

Compensation and/or stock abuse by officers; granting of options or other stock payments to officers that are not included in the contract or does not meet company requirements for such actions.

Inadequate or no repayment of loan by officers/directors; loan repayments are dismissed, which result in a decrease in assets or earnings of the company.

Exogenous Factors

Insider trading; an employee trades his/her company's stock based on knowledge of an impending downturn or upturn in the company's financial position, which thereby increases the employee's financial position. Also, the employee's sharing of this information with others (e.g., family or friends), who then act upon the employee's privileged information.

Bribery/Influence Peddling; illegal payment by a company to a public official or private individual to gain favorable treatment for that company or the company's goods and services.

Conflicts of interest; Taking a fiduciary position in a situation or making a fiduciary decision on an issue where the individual is not considered to be "independent" (i.e., the person has a personal or business relationship, stock owner, etc.).

Abetment/Accessory to malfeasance of others; assisting others in misrepresenting financial information.

Loan guarantees for executive; Excessive or inappropriate loan guarantees for employees or board members.

Related party transactions; Transactions occurring with the approval of, or sanctioned by, individuals with a personal or business relationship with the individual, organization or company that requires approval.

RESULTING CONSEQUENCES OF ACCOUNTING MALFEASANCE ACTIVITIES

Corporate accounting malfeasance has led to a number of pieces of legislation and has increased the cost of doing business for publicly traded companies. Below is a summary of some of the effects:

Increased Legislation: As a result of the growing number of accounting restatements from 1997 to 2002, new laws and regulations have been enacted to help curb this epidemic. The Sarbanes–Oxley Act of 2002 was one of the most significant pieces of legislation. SOX has resulted in more requirements for internal compliance by corporations, materially increases in the cost of business expenses, and greater accountability. The Internal Auditing industry has been one beneficiary of SOX. However, whether accounting malfeasance has actually decreased since SOX is an open issue. Recent research such as Scholz (2014) reports that the number of restatements reported has decreased from 2007-2012, which coincides with SOX's 404 internal control requirement. However, whether this recent decline in reported activity is a direct effect of SOX is an open issue that researchers need to address.

Stock Price Declines: Companies engaged in malfeasance have experienced significant declines in stock price, and this downward trend continues over a longer time frame (compared to non-malfeasance companies). Investors tend to penalize these companies, and institutional investors shy away from these companies, until confidence in the company is restored.

The Move toward a Standardized Worldwide Accounting Reporting System: There has been a major shift around the world to standardize accounting reporting systems. By implementing such as system, the unclear, inconsistent and arbitrary accounting rules will move towards standardization. Effective in 2011, Canadian, Australian, and European publically traded companies are required to adhere to International Financial Reporting Standards (IFRS). Many believe that a single global set of accounting standards will minimize accounting malfeasance, while increasing comparability of diverse and global companies' financial statements. The SEC worked with the IFRS on special joint projects, with the ultimate goal of adapting IFRS by the end of 2014. However, in November 2014, the SEC's Chief Accountant James Schnurr had not made a formal announcement as to the SEC's adoption of IFRS. As of December 8, 2014, the SEC announced it will seek comments on a proposal for voluntary IFRS adoption.

SECTION 6: CONCLUSION

This paper gives an overview of corporate accounting malfeasance, explains some of its causes and the resulting legislative laws it has created. Additionally, a comprehensive listing is provided for the many different types of malfeasance activities, separated into the categories of income, expense, asset, theft-misappropriation and exogenous factors. Many questions remain, and further research should explore the following questions: 1. Has SOX 2002 helped to reduce the incidence of corporate malfeasance activity? 2. Does a standardized accounting system, such as International Financial Reporting Standards (IFRS),

decrease corporate malfeasance activity? 3. What are the malfeasance trends in Europe and Canada as well as other developed economies?   4. What impact does a financial burden on a company have on the likelihood of corporate malfeasance? 5. What should be the role of the external auditor in identifying accounting malfeasance? 6. Finally, what is the difference in malfeasance materiality and its resulting consequences between self-reported versus SEC imposed financial statement restatements? Although it is possible that the incidence of corporate accounting malfeasance can be reduced, due to its inherent nature, it is likely that corporate malfeasance will remain a permanent burden on the financial system.

REFERENCES

American Institute of Certified Public Accountants. 1994. Improving Business Reporting-A Customer Focus; Meeting the Information Needs of Investors and Creditors. The Comprehensive Report of the Special Committee on Financial Reporting

American Institute of Certified Public Accountants. 2006. Business Reporting, Assurance & Advisory Services. https://www.aicpa.org/innovation/scebr.htm

Association of Certified Fraud Examiners. 2002. Report to the Nation Occupational Fraud and Abuse. http://www.cfenet.com/publications/rttn.asp

Committee of Sponsoring Organizations of the Treadway Commission (COSO). 1999. Fraudulent Financial Reporting: 1987-1997, An Analysis of US Public Companies.

Files, R., 2012. SEC Enforcement: Does Forthright Disclosure and Cooperation Really Matter?. Journal of Accounting and Economics 53, 353-374.

Gerety, M. and K. Lehn. 1997. The Causes and Consequences of Accounting Fraud. Managerial and Decision Economics 18: 587-599.

Gillett, P. and N. Uddin. 2005. CFO Intentions of Fraudulent Financial Reporting. Auditing: A Journal of Practice & Theory 24: 55-75.

Heller, M., November 10, 2014. CFO.com, Chief SEC Accountant Revives IFRS Debate. http://ww2.cfo.com/gaap-ifrs/2014/11/chief-sec-accountant-revives-ifrs-debate/

Huron Consulting Group. 2003. An Analysis of Restatement Matters: Rules, Errors, Ethics, For the Five Years Ended December 31, 2002. (January)

Scholz, S., Center for Audit Quality, 2014. Financial Restatement Trends in the United States 2003-2012 http://www.thecaq.org/docs/reports-and-publications/financial-restatement-trends-in-the-united-states-2003-2012.pdf?sfvrsn=2

Tysiac, K. Journal of Accountancy, December 8, 2014. SEC Will Seek Comments on New Possibility for Voluntary IFRS Adoption.

http://journalofaccountancy.com/news/2014/dec/ifrs-voluntary-adoption-201411476.html

CONCURRENT IMPACT OF IFRS ADOPTION AND FDI INFLOWS ON ECONOMIC GROWTH: DOES REGION MATTER?

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ABSTRACT

For years the economic growth of countries has been a complex phenomenon constantly influenced by number of both macroeconomic and microeconomic factors. Clarification of these economic factors has brought into recent literature two streams of opinions. For instance, theorists of microeconomic factors have opined that, before the initiation of global move for International Financial Reporting Standards (IFRS) in 2001, both policy makers and academics were agitating for the development of a unified financial reporting system with the hope that a unitary system of financial reporting will not only become internationally recognized financial reporting language, but will redesign the reporting style of financial reports to produce harmonized and comparable financial reports across national borders (Epstein, 2009; Herbert and Tsegba, 2013). Using 26 and 22 sampled countries from Africa and European Union respectively, this paper examines the concurrent impact of IFRS adoption and FDI inflows on economic growth from the two regional perspectives. Employing panel data over the period 2002-2012, our empirical analysis in the preliminary regression revealed that from Africa's regional perspective, both IFRS and FDI inversely affect adopted countries' economic growth which was repeated in their subsequent concurrent regression analysis. This we accordingly ascribed to the fact that IFRS adoption in such countries was meant to protect foreign investors' interest instead of to have a direct positive impact on economic growth. Also high profit repatriation in such countries due to loss of confidence in the stability of such countries justifies the inverse relationship between the adopted countries' FDI and economic growth. Contrary, the positive relationships revealed between both IFRS, FDI and growth justify earlier confidence investors had in the EU's economy which possibly limited profit repatriation. Subsequently, the positive and negative association between IFRS, FDI and economic growth respectively in their concurrent analysis indicates that regardless of EU's IFRS adoption, if investors' earlier confidence in the Union's economy is tortured, the intended purpose of FDI would not be envisaged. Several policy implications could be deduced from these results. For instance, from African perspective policymakers should not only be interested in adopting IFRS since their adoption without putting measures in place to raise confidence level of foreign investors which is a good sign for cross- border investments and profit retention will in turn leads to high rate of profit repatriation which can have adverse effects on their economic development.

THE ROLE OF CAPITAL MARKETS IN POVERTY REDUCTION

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ABSTRACT

Of the prominent global challenges of the modern day not only for governments but also the poor themselves is the pursuit of a poverty free world or reducing poverty to its minimal level. The rapid increase in poverty levels and the failure to bring poverty levels down to the desired targets, undoubtedly calls for the need for new policies and strategies to be made and the need to exploit alternatives other than the traditionally used methods of fighting against poverty. The rapid growth and development of capital markets and the unique opportunities they provide makes capital markets a worthy consideration as an alternative in the fight against poverty. This article focuses on the unique benefits capital markets provide and the role they play in facilitating superior economic performance and fostering job creation and thus contribute to poverty reduction.

INTRODUCTION

Poverty is one of the most difficult challenges facing the human race in our modern day. The conceptualisation of poverty and the first systematic study of poverty can be dated back into the early 17th century. Of the various research and studies carried out through centuries up to date a common definition of poverty cannot be given because of the multifaceted nature of poverty. As a result a wide range of definitions have been given as to what poverty is or entails. Poverty can be defined as "pronounced deprivation in well being." The traditional view associates well-being primarily to command over commodities, so the poor are those who do not have enough income or consumption to put them above some adequate minimum threshold. This view considers poverty mainly in monetary terms (World Bank, 2001). The notion of poverty can also be broadened to include vulnerability and exposure to risk and voicelessness and powerlessness. All these forms of deprivation restrict the "capabilities that a person has, that is, the substantive freedoms he or she enjoys to lead the kind of life he or she values" (Sen, 1999).

A capital market refers to a market for securities (debt or equity), which makes it possible for institutions and governments to raise funds. By definition is a market that trades debt and equity instruments with maturities of more than a year **(**Saunders and Cornett 2012). The capital market today is a reality met in any modern economy. It is a market which is very dynamic, innovative and rapidly adapting not only to the economic environment but at the same time its influential factors. Development of capital markets has significant advantages for countries, of such advantages include providing a more diversified financial system which helps to reduce volatility and fight against the vulnerability to systemic risk. However, the development of capital markets needs to be effected in conjunction with improvements in the existing infrastructure, the implementation of credible laws and regulations, and the adoption of appropriate governance and supervisory structures (Iorgova and Ong, 2008).

In fighting against poverty, a myriad of initiatives and policies has over the years being used. Notable among such policies are structural adjustment programmes and poverty reduction strategies, Millennium Development Goals (MDGs), social protection and inclusion, pro-poor growth, building of capabilities, empowerment and anti-discrimination (Handley, Higgins, Sharma, Bird & Cammack, 2009). The problems associated with these policies and initiatives as well as their inability to achieve desired levels of poverty reduction especially in Sub-Saharan Africa where poverty is pervasive calls for the need to explore alternatives which traditionally are not considered as poverty reduction initiatives or tools. In this regard the unique opportunities capital markets provide in helping to enhance economic growth and thus help to reduce poverty levels makes it worthy of consideration. In this study, we first consider the various perspectives on how to use the capital market to reduce poverty and after that consider how capital markets enhance economic growth through the allocation of capital and risk. By enhancing economic growth through the allocation of capital and risk, capital markets contribute to job creation which helps to reduce poverty levels in the long run.

Perspectives on Using Capital Markets to Reduce Poverty

There are distinct opinions regarding how capital markets can be used in fighting against poverty. These distinct opinions are based on the underlying assumptions of capital market dynamics, usage of capital markets and targeted outcomes of capital markets (Lawr 2004). Hence there are two distinct views namely: the pro-market view (which is of the view that the market can be linked or expanded to the poor using the vehicles of micro-finance and ethical investment) and anti-market view (which emphasise on the direct use of market to alleviate poverty referred to as welfare capitalism and subverting the market).

Pro – Market View

Institutionists and Ethical Investor: The pro-market view believes poverty can be reduced by linking or expanding the market to the poor using the tools of micro-finance and ethical investments. This perspective of using micro-financial institutions and ethical investments has been upheld by prominent and powerful institutions such as the World Bank, United States International Agency for Development (USAID), Consultative Group to Assist the Poor (CGAP) and ACCION (Woller, M., Dunford and Woodworth, 1999). The institutionist approach focuses primarily on creating financial institutions to provide service to clients often not served or considered undeserved by the traditional financial system. The emphasis lies on achieving financial self-sufficiency by expanding services to the poor. The institutionists are of the view that the basic aim of microfinance institutions is to create a distinct system of "sustainable" financial intermediation specifically for the poor in society. The target is to have a large number of profit-seeking micro financial institutions that render high quality financial services largely to the poor a process referred to as "financial deepening". Institutionists renounce subsidies because of their view of financial self-sufficiency (Woller et al., 1999). Institutionists are of the view that accessing capital markets is vital and overwhelmingly positive because as compared to traditional donor sources only such an unlimited source of capital can exponentially expand micro-finance services and hence lesson poverty significantly (Woller et al., 1999). To further support this claim, the Consultative Group to Assist the Poor (CGAP) estimates the total demand for microcredit at $12.5 billion by 2005 and $90 billion by 2025 (Woller et al., 1999).

Anti-Market View

"Welfare Capitalism" and Subverting the Market: "Welfare capitalism" is more critical of the market but echoes the views of micro-finance practitioners and focuses on the direct use of the market to help fight against poverty. It is perceived as representing an area in between traditional dichotomies of markets and government in poverty policy: The distinction here lies in the motive of the usage of markets in that the existing, unequal economic market system is subverted as against the notion of either neutral or beneficial

market expansion. Through the application of welfare capitalism the advocates of the poor could exploit the processes and structures of capitalism to fight against poverty (Lawr, 2004).

A Different Market

There are also proponents of a different market other than capital markets in alleviating poverty. Although they are not directly opposed to the use of capital markets to address poverty, they are of the view that markets are political and value-laden choice as against being considered as a neutral entity. The market is viewed as systematically unequal, with ethical investing being considered as inherently problematic in that it participates in and thus reinforces the destructive market cycle based on speculation (Lawr, 2004).

Capital Markets and Economic Growth

Economic growth can be defined as the increase in the market value of goods and services produced by an economy (inflation-adjusted) over a period of time. Economic growth is traditionally measured as the percentage rate of increase in real gross domestic product (GDP) of an economy. Economic growth is a powerful instrument for reducing poverty and improving the quality of life in developing countries (World Bank, 1990). A myriad of cross-country research and country case studies provide compelling evidence of how rapid and sustained economic growth is vital to alleviating poverty. Ravallion and Chen by conducting a study using cross-country regressions based on samples from 62 developing countries proved that on the average, a 1 percent increase in per capita income led to a 3.1 percent reduction in the proportion of people living below the conventional $1 a day threshold. They also noted that while economic growth helps the poor in general, it is more beneficial to the extremely poor than the moderately poor (Ravallion and Chen, 1997). A similar conclusion was also reached by other studies using different methodological techniques and this include: Deininger and Squire (1996), Roemer and Gugerty (1997), Timmer (1997) and Gallup, Radelet and Warner (1998) (IPC, UNDP, 2004). Although a number of studies have found economic growth alone as insufficient for enhancing poverty reduction notable among them are: Kakwani (1993) and Osmani (2002), poverty largely tends to reduce when economic growth is on the rise hence the importance of economic growth in poverty reduction cannot be overlooked (Krongkaew, Chamnivickorn and Nitithanprapas, 2006).

A well functioning financial sector leads to an efficient channelling of scarce economic resources to more profitable investments. The positive role of finance in economic growth is admitted by the neo classical economists and the endogenous growth models. (Aghion, Comin and Howitt, 2006). Financial intermediation is viewed to play an important role in economic growth by improving productivity and technical change. Developments in the financial sector influences economic growth by generating and pooling funds; channelling of resources to their most productive uses; the provision of instruments for risk mitigation and reducing inequality (Acquah-Sam and Salami, 2014).

The financial sector pools funds from dispersed households and allocates them to dispersed entrepreneurs. In this way, an efficient financial sector makes it possible for households to diversify risk and maintain liquid investments normally in the form of bank deposits. Secondly, financial sectors gather information and selects investment projects through monitoring entrepreneurial activities. Such a task cannot be effectively carried out by individuals. Complex economic models stressing the growth-enhancing role of financial intermediation was developed by Greenwood and Jovanovic (1990), Bencivenga and Smith (1991) and St. Paul (1992). A comprehensive research done by King and Levine (1993), using cross-country regressions, found that all financial indicators have strong indicators have strong positive correlation with economic growth. Their analysis concluded that countries with higher indicators of financial development at a point in time subsequently had higher real GDP growth rates, especially in the next 10 to 30 years (King and Levine, 1993).

Although most of these empirical studies focus on the banking sector, stock markets which are probably the most widely used capital market institution also play an important role in economic growth. Atje and Jovanovic (1989) by comparing the impact of the level of stock market development and bank development on subsequent economic growth, they   concluded that a large effect of stock market development as measured by the value traded divided by GDP on subsequent development (Bekaert and Harvey, 1997). Caporale, Howells and Soliman (2004) in their research also suggest that stock markets can give a big boost to economic development. Causality between domestic credit and economic growth was found in Greece, Korea and Philippines through the use of trivariate tests (Caporale, Howells and Soliman, 2004). A positive correlation between stock market development and economic growth was also confirmed by Bekaert and Harvey (1997) by conducting research on eighteen countries during the 1986-92 periods (Bekaert and Harvey, 1997).

Stock Markets and Economic Growth

Although a number of economists suggest that the stock markets have little relevance to real economic activity (Stiglitz, 1989), other empirical research also shows a positive correlation between stock markets development and economic growth (Bekaert and Harvey, 1997). Stock markets lead to economic growth through: the diversification of portfolios, militating against moral hazard, managing change of ownership, contributing to innovation and ensuring liquidity in the system.

Diversification of Portfolios: An efficiently managed capital market allows investors to have an unlimited means to diversify their portfolios. With an efficiently managed capital market corporations can raise equity capital and venture into equity stakes because of the ability of capital markets to reduce the risk involved. Investment in firms becomes more attractive with the creation of stock markets due to the ability of individuals to diversify firm related risks. With a poorly functioning capital market, corporations may choose lower value- low risk projects to inefficiently diversify so as to attract investment capital. Although such projects may not even be within the realm of the corporations' special expertise, they serve the purpose of diversifying because of the inability of capital markets to provide the means for investors to efficiently diversify. Thus stock markets may play an important role in economic growth (Bekaert and Harvey, 1997).

Militating Against Moral Hazards: The stock market plays an understated but important role in militating against the moral hazard problem especially from a corporate finance perspective. Generally, moral hazard refers to the tendency of a party (an individual or institution) to take risks or act less carefully than otherwise, leaving another party to hold some responsibility for the consequences of those actions (IADI, 2013). Moral hazard in corporate finance often arises because managers gain from decisions affecting firm value only to the extent of the shares they hold. With managers' compensations linked to the extent of shares they hold in a firm, a manager has an incentive to take actions that maximizes his compensation in ways which might have little or nothing to do with maximizing the firm's value. In such instances, moral hazard can be reduced through debt holding. Debt holding decreases incentives for imprudent actions basically in two ways: increasing the fraction of equity ownership held by managers, and increasing the probability of bankruptcy after imprudent actions (Bekaert and Harvey, 1997).

Managing Change of Ownership: Stock markets apart from providing performance measures to be used in employment contracts also disciplines managers indirectly through change of ownership. In instances where managers are performing poorly, stock prices decline below the potential value of assets. Such firms are then takeover targets for investors who will increase the value of the shares by replacing the existing managers. Consequently, managers are enticed to refrain from productivity- decreasing actions due to the threat of takeovers (Bekaert and Harvey, 1997).

Contribution to Innovation: An efficient stock market contributes to economic growth by having a positive effect on entrepreneurs. Entrepreneurs do not only consider the profits generated from a new venture but also takes into consideration the possibility of a lump-sum gain through selling the venture to the public. Inefficient stock markets means public offering is less feasible as a result of high transaction costs or the uncertainty of getting a fair price in the stock market. Consequently this reduces the incentive to enter new venture and hence reduce the overall long- term productivity of an economy. An efficient stock market reduces the transaction costs of trading the ownership of physical assets and as a result open the way for the emergence of an optimal ownership structure (Bekaert and Harvey, 1997).

Role of Capital Market in Enhancing Economic Performance

The development of capital markets has brought about two main economic benefits namely: improving the allocation of capital and helping to distribute risk more efficiently (Dudley and Hubbard, 2004). Since the prices of corporate debt and equity respond quickly to changes in demand and supply, changes in the outlook for an industry are embodied in current assets. The signal created by such a price change either encourages of discourages capital inflows into the industry. Businesses with high returns are able to attract additional capital quickly and easily. Investors cut the flow of new capital to industries with low returns. The ability of companies to raise funds in the capital markets speeds the dissemination of new technologies throughout the economy. Moreover, by increasing the returns available from pursing new ideas, technologies or ways of doing business, the capital markets promote entrepreneurial and other risk taking activities (Dudley and Hubbard, 2004).

Empirical evidence from countries where capital markets are developed especially the United States and the United Kingdom supports the conclusion that capital markets ensure capital flows to its best uses and that riskier activities with higher payoffs are funded. This evidence is manifested through higher returns to capital, persistent large inflows of capital, stability of banking system and high rate of private equity investment and public equity offerings (Dudley and Hubbard, 2004). In terms of return to capital the returns to capital have been persistently much higher in the United Kingdom (UK) and the United States (US) than in the European Union and Japan with the gap in returns been particularly wide recently. In 2003 the return on capital in the US and UK was 11.1% and 12.6% respectively as compared to 11.0% and 6.5% for the European Union and Japan respectively. With UK and US investors earning higher returns, it strongly implies that capital market based economy results in more efficient allocation of capital (Dudley and Hubbard, 2004).

Through facilitating improved allocation of capital and risk sharing, capital markets contribute to superior economic performances. In countries where capital markets have become more developed, their economic performance has also improved correspondingly empirical evidence of this can be found in the UK and the US where their capital markets are developed. Moreover, the gap in the relative performance of countries with developed capital markets such as the US and UK compared to that of Europe and Japan has widened over time as capital markets have become dominant in the US and the UK (Dudley and Hubbard, 2004). Evidence of this superior economic performance can be found in five major aspects namely: greater employment opportunities, higher productivity, higher real wage growth, greater macroeconomic stability and greater homeownership. The improvements in these respects contribute significantly towards the reduction of poverty levels.

Greater Employment Opportunities: Unemployment and underemployment are major causes of poverty. Poor people can generally improve their well being through the use of labour. Hence the creation of productive employment opportunities is vital for achieving poverty reduction and sustainable economic and social development. Providing decent jobs that both secure income and empowerment for the poor especially women and younger people is vital. The creation of employment plays a key role in poverty reduction (UN, DESA 2011). There are many aspects of the nexus between employment and poverty. The

poor can escape poverty if there is: an increase in wage employment, an increase in self-employment and an increase in real wage. Poverty declines if the aggregate of all these effects is favourable for the poor (Khan, 2007). Given the importance of employment for poverty reduction, job-creation should occupy a central place in a country's poverty reduction strategy.

Strong capital markets have been shown to drive trade and economic ties between emerging economies. It also contributes more to growth in trade and economic interdependence between emerging markets. This is documented by Beine and Candelon (2007) for stock markets. Deepening capital markets contribute significantly to the emergence of influential regional economic blocs in the developing world which goes a long way to create jobs and thus help to reduce poverty (ACCA 2012). Job creation is strongest among small and mid-cap companies ("Emerging Growth Companies") which are or could be listed on stock exchanges. Emerging Growth Companies have a large proportion of the European Union (EU) economy and have a disproportionately vital share of job creation. A study by the ESSEC Business School and GE capital covering, Germany and France and the UK for the period of 2007 to 2010 depicted that, while these companies made up a small proportion of total companies they contribute about one third of private sector revenue and employ about a third of each country's workforce. The listing of such companies on the stock exchange therefore helps to contribute to job creation (EU IPO Report, 2015). A report by Oliver Wyman (2014) estimates that successful Small and Medium Scale Enterprises (SME) capital markets can generate up to 0.1-0.2% uplift to overall GDP each year, and create hundreds of thousands of new jobs globally (Oliver Wyman 2014).

Empirical evidence from the UK and the US where capital markets are developed shows that employment growth in these countries has generally been substantially higher than in the European Union and Japan. Moreover, the UK and the US have been able to operate at significantly lower unemployment rates as compared to the European Union due to superior productivity growth performance. Higher productivity growth lowers the non-accelerating inflation rate of unemployment (NAIRU) thus labour utilization is much higher in the US than Europe. For example, the overall employment rate in Europe among potential workers was just 81 percent of the US in the year 2003 (Dudley and Hubbard, 2004).

Higher Productivity: A research conducted by CSLS (2003) suggests that the relationship between productivity growth and poverty reduction especially in developing countries appears even stronger than that of between economic growth and poverty reduction. For the past decade the growth of labour productivity in the UK and the US where capital markets are developed has increased and the gap in performance relative to Europe and Japan has widened. Capital markets play a vital role in ensuring higher productivity through two main ways. Firstly, capital markets help to improve the allocation of capital and as a result contribute to raising the average return on capital. Secondly, capital markets facilitate the allocation of risk and help provide a mechanism by which start-up companies could raise capital (Dudley and Hubbard, 2004).

Higher Real Wage: Owing to the higher productivity growth workers are able to earn higher real wages. Evidence from the United States (US) and the United Kingdom (UK) where capital markets are relatively developed over the fourteen year period (from 1990 to 2004) using the real wage growth on a five year moving average basis depicts that real wage growth has improved over time. This growth has persistently tended to be higher in the UK and the US than in France, Germany or Japan (Dudley and Hubbard, 2004). Higher real wages earned by workers enables workers to spend more on education and skill formation of their children, hence raising the productive capacity of the future workforce. The process would in effect complete the virtuous circle of economic growth resulting in poverty reduction through growth of employment with rising productivity.(Islam 2004).

Greater Macroeconomic Stability: Capital markets also contribute to greater macroeconomic stability as can be seen in countries where capital markets are developed. Both the US and the UK economies have

become much less volatile recently. While in the US business cycles have shown greater durability especially the last expansion which ended in 2001 (the longest of the post World War II period), the UK experienced the longest economic expansion in the post World War II period which lasted for nearly 12 years (Dudley and Hubbard, 2004). Moreover in periods of recession, they have tended to be milder in the US and UK. In the UK for instance, the unemployment had not risen by more than 1 percentage point for more than a decade (Dudley and Hubbard, 2004). Capital markets contribute to greater macroeconomic stability in three ways. Firstly, because capital markets make use of mark-to-market accounting, it is more difficult for problems to be deferred. Secondly, capital markets through the provision of immediate feedback to policymakers have increased the benefits of following good policies and increased cost of following bad policies. Lastly, capital markets have helped make the housing market less volatile evidence of which can be seen in the United States. With the development of a secondary mortgage market and the elimination of interest rate ceilings on bank deposits, "credit crunches" is now a thing of the past. Capital markets ensure the supply of credit to qualified home buyers. This has helped to cut the volatility of activity in the economy's most interest sensitive sector virtually in half (Dudley and Hubbard, 2004).

Greater Home Ownership: Capital markets by ensuring stability in the mortgage sector have increased the ability of households to purchase their own homes. This is done through the reduction in closing costs associated with obtaining a residential mortgage and less stringent terms. Evidence of this can be seen in the US where the proportion of households that own homes has increased considerably reaching 69.3 percent during the second quarter of 2004 as compared to 63.7 percent at the end of the 1980s. Greater home ownership will go a long way to help improve the living standards of the poor especially the homeless thereby contributing to reduction in poverty (Dudley and Hubbard, 2004).

CONCLUSION

The rapid growth and development of capital markets and the unique opportunities they provide makes capital markets a worthy consideration as an alternative in the fight against poverty.. By enhancing economic growth through the allocation of capital and risk, capital markets contribute to job creation which helps to reduce poverty levels in the long run. This study shows that capital markets contribute to poverty reduction by enhancing economic growth through the allocation of capital and risk and enhancing economic performances of a country. By comparing the United Kingdom (UK) and the United States (US) where capital markets are developed to other European Union (EU) where capital markets are relatively undeveloped, this study suggests that capital markets have contributed to enhance economic performances in the UK and US. Evidence of this superior economic performance can be found in five major aspects namely: greater employment opportunities, higher productivity, higher real wage growth, greater macroeconomic stability and greater homeownership. The improvements in these respects contribute significantly towards the reduction of poverty levels. It should be noted that the development of capital markets needs to be effected in conjunction with improvements in the existing infrastructure, the implementation of credible laws and regulations, and the adoption of appropriate governance and supervisory structures.

REFERENCES

Acquah-Sam E., and Salami K., 2014: *Effect of Capital Market Development on Economic Growth in Ghana*. Economic Scientific Journal, March 2014 edition vol. 10, No.7.

Aghion P., Comin D., and Howitt P., 2006: *When Does Domestic Saving Matter For Economic Growth?*. National Bureau of Economic Research (NBER), Working Paper 12275.

Beine M., and Candelon B., 2007: *Liberalization and Stock Market Co-movement between Emerging Markets.* CESIFO Working Paper No. 2131, Category 6: Monetary Policy and International Finance, October 2007.

Bekaert G., and Harvey R. Campbell, 1997: Capital Markets: An Engine for Economic Growth. The Catalyst Institute.

Bencivenga R. Valerie and Smith D. Bruce, 1991: Financial Intermediation and Endogenous Growth. The Review of Economic Studies, Vol. 58, No.2, pp. 195-209.

Caporale M. Guglielmo, Howells G. A Peter, and Soliman M. Alaa, 2004: Stock Market Development and Economic Growth: The Casual Linkage. Journal of Economic Development Volume 29, Number 1, June 2004, pp.33-50.

Centre for the Study of Living Standards (CSLS), 2003: *Productivity Growth and Poverty Reduction in Developing Countries*. CSLS Research Report 2003-06.

Deininger, K. And Squire, L. 1996: *Measuring Income Inequality: A New Data-base*. World Bank Economic Review 10(3), pp. 565-591.

Dudley C. William and Hubbard Glenn R., 2004: *How Capital Markets Enhance Economic Performance and Facilitate Job Creation.* Global Market Institute November 2004.

European Union Initial Public Offering (IPO) Report, 2015: *Rebuilding IPOs in Europe. Creating Jobs and Growth in European Capital Markets*. 23rd March, 2015.

Goldsmith W. Raymond, 1969: *The Comparative Study of Economic Growth and Structure.* National Bureau of Economic Research (NBER), pp. 114-123.

Greenwood J., and Jovanovic B., 1990: *Financial Development, Growth and the Distribution of Income.* The Journal of Political Economy, Vol. 98, No. 5, pp. 1076-1107. The University of Chicago Press.

Hadley Geoff, Higgins Kate, Sharma Bhavna, Bird Kate and Cammack Diana, 2009: *Poverty and Poverty Reduction in Sub-Saharan Africa: An Overview of Key Issues.* Overseas Development Institute (ODI) Working Paper 299.

International Association of Deposit Insurers (IADI), 2013: *Enhanced Guidance for Effective Deposit Insurance Systems: Mitigating Moral Hazard*. Guidance Paper. May 2013.

International Poverty Centre (IPC), United Nations Development Programme (UNDP) 2004: *Economic Growth and Poverty Reduction: Initial Conditions Matter*. UNDP Working Paper No.2

Iorgova Silvia and Ong Li Lian, 2008: *The Capital Markets of Emerging Europe: Institutions, Instruments and Investor.* International Monetary Fund (IMF) Working Paper, WP/08/103.

Islam R., 2004: *The Nexus of Economic Growth, Employment and Poverty Reduction: An Empirical Analysis*. Recovery and Reconstruction Department, International Labour Office, Geneva, January 2004.

Khan R. Azizur, 2007: *Growth, Employment and Poverty: An Analysis of the Vital Nexus Based on Some Recent UNDP and ILO/SIDA studies.* United Nations, Department of Economic and Social Affairs (DESA) Working Paper No. 49 ST/ESA/2007/DWP/49.

King G. Robert and Levine Ross, 1993: *Finance, Entrepreneurship, and Growth. Theory and Evidence.* Journal of Monetary Economics, 32 (1993) pp.513-542. North-Holland.

Krongkaew M., Chamnivickorn S., and Nitithanprapas I., 2006: *Economic Growth, Employment, and Poverty Reduction Linkages: The Case of Thailand.* ISBN 92-2-118252-5.
Lawr Lisa, 2004: *The Market Solution: Using Capital Markets to Fight Poverty*. Economie et Solidarites, Vol. 35 No. 1-2.

McKinnon I. Ronald, 1973: *Money and Capital in Economic Development*. The American Political Science Review, Vol. 68, No. 4, pp.1822-1824.

Peterhoff D., Romeo J., and Calvey P., 2014: *Towards Better Capital Markets Solutions for SME Financing*. Oliver Wyman Financial Services.

Ravallion Martin and Chen Shaohua, 1997: *What Can New Survey Data Tell Us about Recent Changes in Distribution and Poverty?*. The World Bank Economic Review. Vol.11 (2): 357-382.

Saunders A. and Cornett M., 2012: *Financial Markets and Institutions, fifth edition.* Mc-Graw Hill Publications.

Sen Amartya, 1999: *Development as Freedom.* Anchor Books, New York.

Shaw, E. S., 1973: *Financial Deepening in Economic Development*. New York: Oxford University Press.
St. Paul Gilles, 1992: *Technological Choice, Financial Markets and Economic Development.* European Economics Review, 36 (1992) pp.763-781, North-Holland.

Stiglitz E. Joseph, 1989: Financial Markets and Development. Oxford Review of Economic Policy, Vol. 5, No. 4 pp.55-68.

The Association of Chartered Certified Accountants (ACCA), 2012: *The Rise of Capital Markets in Emerging and Frontier Economies.* March 2012.

Timmer, P. 1997: *Growth and Divergence in Manufacturing Performance in South and East Asia.*

Research Memorandum, No. GD-37, 1-38, Growth and Development Centre at University of Groningen.

United Nations, Department of Economic and Social Affairs (DESA), 2011: *The Twin Challenges of Reducing Poverty and Creating Employment.* United Nations, New York, 2013.

Woller, Gary M.; Dunford, Christopher; and Warner Woodworth, 1999: *Where to Microfinance.* International Journal of Economic Development, Vol. 1, No. 1, pp. 29-64.

World Bank, 1990: *World Development Report. Poverty.* Oxford University Press, New York.

World Bank, 2001: *World Development Report 2000/2001: Attacking Poverty.* Oxford University Press, New York.

BIOGRAPHY

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COMPLIANCE IN THE PROCESS OF EUROPEAN UNION OF FOREIGN DIRECT INVESTMENT EFFECTS OF TURKISH ECONOMY

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ABSTRACT

Direct foreign investment in the investee country's macro-economic variables is a very important role. To increase the amount of direct foreign investments in Turkey, to ensure political and social stability, privatization of KITs and to reduce inflation rate, ıt has been studied to reduce the budget deficit and been successful in it. After the acceleration of Turkey's accession process to the European Union foreign direct investment began to rise. In this case, Turkey's economic stability, has created positive effects on economic growth. Significant increases also occurred in Turkey's foreign trade. This article also describes the economic impact of these investments in the countries of the European Union process by considering the development of foreign direct investment in Turkey within the framework of the European Union.

JEL: E6, O1

KEYWORDS: Foreign Direct Investment, European Union, Economic Growth

INTRODUCTION

The relationship between the European Union and Turkey with the European Community, which was signed on the 12th September, 1963 and in the framework entered into force on the 1st December, 1964 at the Ankara Agreement (which forms the basis of the partnership regime), has evolved into a more concrete and formal way. In this context the ultimate goal of the preparation period, the transition period and the last period of the relationships which has continued its development towards full membership of Turkey. Turkey-European Union relations which was envisaged in the Ankara Agreement as a preparatory stage, has passed the transition and is now at the last stage. The preparation phase has passed through the preparatory work for compliance with the conditions in the EU between 1963-1970 and more., The Additional Protocol which was signed on November 23, 1970 and entered into force on 1 January 1973 constituted the transition period. This Additional Protocol established the creation of a customs union covering industrial products, made provision for mutual free movement of workers, the implementation of a preferential trade regime by expanding agricultural products as well as the approximation of laws between the European Community and designated areas in Turkey to help with the launch of the free movement process (Oner, 2009). The relationship between the European Union and Turkey with the European Community, which was signed on the 12th September, 1963 and in the framework entered into force on the 1st December, 1964 at the Ankara Agreement formed the basis. The partnership between Turkey and the European Union with Turkey, which is the ultimate goal, is to be realised through three stages of development envisaged towards full membership. These are the preparatory period, the transition period and the final period.

European Union Criteria and Direct Foreign Investment Entry

The first decision on the free movement of capital in the European Union came from directives issued by the Council in 1988. Integration based on the free movement of goods and services, people and capital

started as a movement and as in this direction today, especially the continued development of the single market program implementation in the years 1985-1992. In fact, the free movement of capital within the Union is regulated by Articles 67 and 73 of the Treaty of Rome. According to the aforementioned article of the Rome Treaty, "Member States shall, during the transitional period of the Common Market to the extent required for the proper functioning as a member with restrictions on capital movements of the person staying in the state, the parties to the restrictions on capital movements belong to the people, the nationality of the parties, a distinction relating to residence or investment site supervisor actions must be gradually removed ". Also communities, the movement of capital, influence member countries importance, they have a weighted value of the remaining countries, it was decided that the remaining countries of direct investment increase will only be retained from profits. Even though Turkey is not part of the EU, apart from the abundance of factors of production and wealth is located next to the Customs Union and can be part of the EU. Also as a result of the enactment of the International Arbitration at the end of 1999 there has been a great increase in our country towards capital outflows from the EU.

The Development of Foreign Capital Movements in the European Union

The definition of foreign direct investment can be made as follows: buying a company in one country, providing initial capital for a newly established company, existing companies and to companies in other countries by increasing its capital and technology with its own business knowledge and is an investment that brings with it control authority of the investor (Karluk, 2001).

Determinants of Direct Foreign Capital

There are a wide range of preferences as to how barriers to trade and foreign investment as well capital flows between countries can be removed , decreasing transport and communication costs and decisions taken by companies in terms of what to produce, how production must be done and who to sell produced goods. Thus, while international boundaries in the industry and company size are rapidly proliferating, on the other hand there is stiff competition in these markets. All the major firms increased international production by increasing investments abroad and investments, which did not only contribute to the expansion of the national market, but also in a larger scale regional and global markets.
Direct foreign capital flows serve as an integral element of globalization are among the factors that shape the global economy. Total gross domestic product of international mergers and acquisitions of direct and indirect foreign capital flows has driven the world economy in recent years with some important indicators, such as exports of goods and services recording much faster growth (karabulut, 2007).

Foreign Direct Investment in the European Union

The first decision on the free movement of capital within the EU was enacted in 1988. The free movement of goods and services, capital and people in the EU began as a movement towards integration and thus far, and in particular the single market has continued its development program since its implementation between the years 1985-1992. In fact, the free movement of capital within the Union is regulated by Articles 67 and 73 of the Treaty of Rome. According to this; "Member States shall, during the transitional period of the Common Market to the extent required for the proper functioning member with restrictions on capital movements of the person sitting in the state, the parties to the restrictions on capital movements belong to the people, the nationality of the parties, domicile or remove gradually discrimination supervisor transactions related to investment site" is defined. In addition, the community, the movement of capital, they have a weight of member countries importance, they have a weighted value of the remaining countries, it was decided that the remaining countries of direct investment increase will only be retained from profits (Ceken, 2002).

The Nature and Developments of Foreign Investment in Turkey

The history of foreign direct investment in Turkey dates back to the Ottoman Empire period. Private equity firms from foreign countries preferential trade agreements in line with the scope of capitalisation at that time showed more activity in the field of public services and the exploitation of natural resources (Bayraktar, 2003). Many countries are competing with each other to attract foreign capital. Turkey too is willing to bring foreign capital to the country, trying to make it attractive. Studies on this subject are described below and as such what factors are to be paid attention with regards to foreign investments are given in the following articles in the World Investment Report in 2002.

Just like the EU, the possibility of access to key markets such as NAFTA,

Competitive wages and a skilled workforce,

High-quality infrastructure and logistics capability to,

The heavy industrial zone,

A favourable position in terms of international production systems of the Company,

Paying attention to factors such as effective bureaucracy.

The number of countries that can fulfil all of these factors are not too much. To which Turkey due to the lack of high-quality infrastructure and logistics facilities is striving to make improvements in these areas so as to become an attractive country for foreign investors (Gokhan, 2010). Turkey is among the world's largest twenty emerging market. In terms of transport, energy, adequate technological infrastructure facilities and human resources has favourable conditions. There is also availability of both skilled and unskilled labour and dynamic entrepreneurial sector very. Labour cost and production factors are also relatively cheaper compared to other countries (Aydemir, 2012).

The Impacts of Foreign Direct Capital on the Turkish Economy

Foreign direct capital has various effects on the economy. These can be described below:

Impacts on Balance of Payment

Balance of payments is a table showing the payments made to foreign institutions in a systematic manner by the residents living in a country, company or keeps a register of transactions carried out with foreign countries with the income obtained from foreign countries within a particular period. In other words, a country's most important item is an indicator of economic relations with foreign countries that maintain trade and capital movements (Akar, 2010). Just like any other developing country Turkey is in the balance of payments deficit because domestic savings are not sufficient. The best option in order to close this gap is through direct foreign investment. In order to allow for import substitution for direct foreign capital investments, there is the need to reduce the burden of paying foreign exchange on import section of the balance of payments of the country, increase exports towards the external market which will in effect affect a country's balance of payment. Much discussed topic in Turkey in recent years and is the current account balance deficit. Increasing direct foreign investment by reducing imports and increasing exports in foreign trade if achieved would have a positive impact on closing the deficit in the current account balance of payments. Payments of foreign investment Kindleberger noted that the effect on balance payment equilibrium occur in two ways. The first is the increase in the country's foreign exchange reserves with foreign investment. The second is the gain derived from payments by replacing imports and exports

contribute to the stability it provides. Investors coming to the country to invest, in setting up the factory or during installation or operation phase of the operation will require many inputs. A large part of such input will be provided by the host country for foreign capital inflows, thus foreign exchange earnings will have an impact (Cinko, 2009).

Direct investments that have an impact on the balance of payments of the country, may also sometimes have negative contribution. From the moment the foreign company starts production, the raw materials or intermediate goods necessary for production is available from their own country and other countries. This results in an increase imports. Also apart from the production factors it can adversely affect the balance of payments. The presence of the a lot of foreign investors in a country could adversely affect a country's balance of payments in case they stop production or removes capital payments from the host country.

Impacts On Production: Foreign direct investment is extremely effective on employment and growth, as well as countries that have been supporting the development of technology and related industry due to the creation of knowledge transfer. Due to the fact that foreign direct investments are driven by a profit motive it negatively affects competition in the market, transfers and technological development leading to extremely low levels. In addition, it can also be said that domestic capital investment organisations take decisions to cause an increase in the activities of these organisations and to grow export (Cinko, 2009).

Impacts on Growth: There exists a mutual interaction between capital movements and macroeconomic structures and as such affects each other from different angles. For example, the underlying factors for high growth rate of the GDP and the continuous increase in private consumption are the increases in foreign financing and imported goods. National credit and the increase in the funds available for loan in the financial system have led to an increase in financial development and capital inflows which stimulate aggregate demand. Turkey's economic growth is closely related to the amount of capital inflow that is there is a positive relation between the economic growth and capital inflows.

Although Turkey posses a relatively young population as well as high economic growth potential, the scarcity of capital factors adversely affects the participation of the labour force in taking part in the production process. Moreover the deficiency in domestic savings and capital formation emerges as the biggest obstacle. In recent years, with poor economic growth linked to the downward trend in investment of domestic savings an increase in foreign savings investments would positively affect economic growth. Increases in capital inflows also lead to an increase in economic growth rate. However, in 1991 and 1994, when there was capital outflows there was a negative effect on economic growth. Contraction in production in 1998 led to a decline in the economic growth. In 2001-2009, with a 5 percent growth rate the worst economic growth rate in the last 50 years was experienced as result (Akbulut 2009).

Foreign direct investment has tended to increase since the eighties. Many countries are in various support enforcement efforts as well as tax incentives. The economic rational of foreign direct investment, is to allow for technology transfer to the country so as to increase the economic growth. by providing. By conducting case studies that examines macro perspective as well as the micro-economic level issues reveal a more pessimistic picture. Direct positive impact on the growth of foreign investments is evident with the contribution they make to micro-branding and export. Lack of sufficient savings and technological backwardness in developing countries are some of the reasons that there has been limited economic development (Cinko, 2009). A developing country faced with the problem of lack of resources can achieve economic growth by increasing by domestic investment, and savings as part of the positive expectations from foreign capital investments. However, countries with bad macroeconomic indicators, high debt ratios, and more short-term capital inflows cannot realize these positive expectations. In particular, short-term foreign funds which are formed due to the high volatility of speculation in the longer term could have negative repercussions country and can emerge rapidly as a factor leading to economic crisis. In this case, therefore, economic growth and development is adversely affected (Kar and Tatlısoz, 2008).

Impacts On Employment: The proponents of foreign capital inflows have made emphasis on its ability to increase in employment. According to them, it brings about new investment opportunities and enhances the employment capacity through the use of new technological developments both quantitatively and qualitatively. Increased foreign direct investment reveals leads to the increased demand for labour in the national labour market (Cinko,2009). With Turkey's increasing population and growing local market and the structure of a free market economy, it is a country with a considerable amount of potential for attracting foreign direct investment. In fact after the year 2000, foreign direct investment has significantly increased compared to the prior years and the increases in foreign direct investment growth figures were also accompanied by economic growth. However, despite these developments, unemployment has remained high. According to research, foreign direct investments do not appear to have a significant impact on employment in Turkey. Empirical studies on Turkey revealed that a significant employment generator effect of foreign direct investment flows to Turkey is usually limited to the service sub-sectors (finance, communication-transportation).The results found in similar studies also revealed that foreign direct investment do not influence employment. In this context, the results indicate two different points. Firstly, Turkey's potential for attracting foreign direct investment, requires to be shifted to other areas, such as tourism or mining appears as a more appropriate option. Secondly, technology transfer rather than direct employment of foreign investments, with exports and prices being at the forefront could be considered as an alternative policy tool.

CONCLUSION

To promote the development of many countries in the world, to improve the welfare of the country, as well as developing advanced technology countries should take advantage of foreign capital. Developing countries with insufficient capital resources need to attract foreign capital into the country to aid development. Financial globalization which has aided the ease foreign investment capital flows as well as changing foreign markets has began to have different effects on a country's economy. Capital movements within the European Union are also subject to change. Investors may not find it to be beneficial to invest in countries with limited natural resources. Besides, it is a fact that of foreign capital contributes to the income tax revenue of a country. For Turkey foreign direct investment can be beneficial in combating the current account deficit and improve competitiveness with other countries. In conclusion, the increase of direct foreign investments has started to gain importance in Turkey especially in the banking sector and the financial services sector with diversity provided primarily with information and communication technologies being at the forefront. In addition, there are positive effects on economic growth with an increase of foreign capital. Furthermore, foreign capital into the country of has also had positive effects on the current account deficit. However they do not have any direct effect on the employment.

REFERENCES

Akbulut Mustafa, 2009: *Dogrudan Sermaye Yatirimlari: Buyume ve Istihdam Iliskisi*, K. M. U. Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi, s.29.

Akar Gokhan, 2010: *Dolaysiz Yabanci Sermaye Yatirimlarinin Sektorel Kompozisyonunun Ekonomik Buyumeye Etkisi*, K. M. U. Sosyal Bilimler Enstitüsü Yüksek Lisans Tezi, s.4.

Aydemir Cahid v.d., 2012: Dogrudan Yabanci Yatirimlarin Dunya'daki ve Turkiye'deki Gelisimi", *Kocaeli Universitesi Sosyal Bilimler Enstitüsü Dergisi* 23, 69 – 104.

Bayraktar Fulya, 2003: *Dunyada ve Turkiye de Dogrudan Yabancı Sermaye Yatırımları*" Turkiye Kalkinma Bankasi AŞ. Genel Arastirmalar Yayıni, s. 6

Çeken Hüseyin, 2002: *Avrupa Birliginde Dogrudan Yabanci Sermaye Hareketleri ve Turkiye*, Balikesir Universitesi Sosyal Bilimler Enstitusu Dergisi, Cilt:5 Sayı:8, s.21-37.

Cinko Levent, 2009: *Dogrudan Yabanci Sermaye Hareketlerinin Makroekonomik Etkileri*, Marmara Universitesi IIBF Dergisi, Cilt:26, Sayı:1., s.117-131.

Devlet Planlama Teskilatı Mustesarligi, 2004: *Türkiye'nin Uyeliginin AB' ye Muhtemel Etkileri*.
Isayev Elmin, 2013: *Bolgesel Entegrasyonlarin Basarı Durumu Yonunden AB` nin Degerlendirilmesi* Avrasya Strateji Dergisi, Cilt: 2, Sayı: 2, s. 193-222.

Kar Muhsin and Tatlisoz Fatma, 2008: *Turkiye'de Dogrudan Yabanci Sermaye Hareketlerini Belirleyen Faktorlerin Ekonomik Analizi*, *KMU İİBF Dergisi* Yıl:10 Sayı:14, s. 6-23.
Karatas Muhammed, 2007: *Turkiye ve Avrupa Birligi Ulkelerinde Devlet Yardimlari*", Anadolu Universitesi Sosyal Bilimler Dergisi, Sayı:1, s.367-390.

Karluk Ridvan, 2001: *Turkiye'de Yabanci Sermaye Yatirimlarinin Ekonomik Buyumeye Katkisi*, TCMB Yayıni, s. 100.

Koyuncu Fatma Turan, 2010: *Turkiye'de Secilmis Makroekonomik Degiskenlerin Dogrudan Yabanci Yatirimlar Uzerindeki Etkisinin Yapisal Var Analizi 1990-2009 Donemi*, Ekonomi Bilimleri Dergisi, Cilt 2, Sayı 1, s. 117-131.
Kutlu Erol and Hacikoylu Canatay, 2007: *Avrupa Birligi'ne Tam Uyelik Surecinde Turkiye ve Avrupa Birligi Ulkelerinde Devlet Yardimlari*", *Anadolu Universitesi Sosyal Bilimler Dergisi*, Sayı:1, s.367-390.

Saray M. Ozan, 2011: *Dogrudan yabanci yatirimlar Istihdam Iliskisi: Turkiye Ornegi*, *Maliye Dergisi*, Sayı:161, s. 381-403

Turan Zubeyir, 2010: *Dogrudan Yabanci Yatirimlarin Ulkemiz Ekonomisine Etkileri ve Katkıları*, Mevzuat Dergisi, Vol: 149.

Mor Hasan, 2010: *Avrupa Birligi Butunlesme Sureci ve Sorunlari*, Gazi Universitesi Hukuk Fakültesi Dergisi Cilt: XIV, Y.,s.499-541.

ONER Akif, 2009: Avrupa Birligine Tam Üyeliğin Eşiğinde Türkiye, *Yönetim ve Ekonomi Dergisi*, Cilt: 16, Sayı: 1, s.89-105.

Turkiye Odalar ve Borsalar Birligi, 2012: *Avrupa Birligi ve Turkiye-Avrupa Birligi Iliskileri*, s. 4.

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OPEN RESEARCH AND DEVELOPMENT IN HIGHER EDUCATION

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ABSTRACT

This study presents the taxonomy of innovation types based on the actor and the learning types. The activities of inventors have today been extended to collaborative and networked innovation. This study extends them to crowd innovation, which is a new term based on crowdsourcing. The study illustrates open innovation alliances and communities in higher education. The study also presents empirical evidence on the European strategic innovation alliance and a Finnish innovation community that has an electronic platform that presents and evaluates ideas and then forward them for practice

JEL: 034

KEYWORDS: Innovation Alliances, Innovation Communities, Crowdsourcing, Research and Development, Learning, Higher Education

INTRODUCTION

The importance of inventors has been reduced because today's complex structures of e business organizations and society have taught people to innovate. Innovation is too important to be left only in the hands of inventors. Higher education institutions have started to follow the lead of business companies, where many new formats such as innovation alliances and communities have become popular. Single scholars in research universities generate new ideas and publish their results in journals. Typically doctoral dissertations and many articles are written alone. It is important for these research scholars that they are the first presenter of their new knowledge. The traditional process takes time, however, and is inefficient, because only few people outside the institution will read the articles and utilize the research results. The closed process of research and development in higher education institutions is simply now too slow to produce competitive advantage for business companies. The traditional approach of innovation, however, can be improved by using open innovation alliances and communities in higher education.

LITERATURE REVIEW

Open Innovations

Collaborative value creation where the ideas and innovative efforts flow inside-out and outside-in is called "open innovation" (Chesbrough, 2003). This open innovation process generally includes inbound and outbound knowledge flows and combined processes (Gianiodis et al., 2010, and Lichtenthaler, 2011). This open networked co-innovation is a form of adding external actor involvement to innovation, where actors from a diverse backgrounds collectively solve complex problems using a virtual network (von Raesfeld et al., 2012, and Song et al., 2013). The open innovation process is a value chain, using an innovation ecosystem where various partners combine their contributions into value creating solutions. Collaboration is not restricted just to higher education institutions; it also reaches research institutes, business companies, and the public sector. The project connects solution seekers with collaborating solution providers. Nobody knows everything about a collaborative research and development project, but everyone can contribute to the project in different ways.

Open Innovation Alliances

Open innovation alliances are coalitions constructed between two or more parties to promote innovations. Open innovation alliances have a number of benefits, including 1) pooling complementary skills, 2) accessing external knowledge, 3) accelerating product development (Pittaway et al., 2004), and 4) offering early and closer customer interaction in product development (Corso et al., 2001). There is extensive literature available on the positive contribution networks can make to innovation and returns (Burt, 2005, Faems et al., 2005, Perks and Jeffery, 2006, and Reuer and Koza, 2000).

Innovation pedagogy was developed for higher education institutions and their networks, so that lecture-based education could be extended to collaborative and networked learning (Kettunen, 2011, Kantola and Kettunen, 2012, and Kettunen et al., 2013). Typically multidisciplinary research and development projects respond to the development needs of the environment. These projects are integrated into education to create more and better capabilities for students and staff to create collaborative and networked innovations for companies and the public sector. Innovation pedagogy is extended in this study so as to create crowd innovations based on the concept of crowdsourcing with the larger public.

Open Innovation Communities

Innovation communities are nodes that consist of firms that are interconnected by information transfer links. These links may involve face-to-face, electronic, or other types of communication (von Hippel, 2005). Innovation communities have users as customers and/or contributors. Typically, users join together on a web-based platform and this joining increases the speed and effectiveness with which users and other contributors can present, evaluate, and diffuse their innovations. Crowdsourcing attracts interested and motivated people to produce solutions that are superior to the ideas offered by individual genius.

Under the right circumstances, a crowd is able to present a solution that is better than the ideas of a single scientific researcher. The wisdom of crowds is not derived from averaging their solutions, but rather a user of crowdsourcing must find and identify those situations where mediocrity is excellence and the offered solutions can be aggregated in the same way that markets and intelligent voting systems aggregate them. The conditions needed for collective wisdom are 1) diversity of opinion, 2) independence, 3) decentralization, and 4) aggregation of the crowd (Surowiecki, 2004). Crowdsourcing is a distributed problem-solving model that is not necessarily an open-source practice in all business companies. Higher education institutions are more open to the concept because they primarily publish the results of research and development of their members.

Types of Innovations

Innovation types can be classified according to actor and learning type. Individual learning in lecture halls, collaborative learning in teams within an institution, and networked learning outside the institute in domestic and international networks are the learning types for innovation pedagogy. They can all be used jointly to interconnect in a suitable situation. Crowd innovation is a new term, and it is based on the concept of crowdsourcing wherein innovations are obtained from an open innovation community. Such innovation has evolved from individual inventors to produce collaborative and networked innovations and finally crowd innovations. The crowd wisdom can be implemented in the web, which is the necessary technology for decentralized individuals to communicate on a single platform.

DATA AND METHODOLOGY

The Consortium on Applied Research and Professional Education (CARPE) is an example of innovation alliances (Kettunen, 2015). It includes the following institutions: 1) HU University of Applied Sciences

Utrecht (Hogeschool Utrecht), 2) Turku University of Applied Sciences (Turun ammattikorkeakoulu), 3) Polytechnic University of Valencia (Universitat Politècnica de València), 4) Hamburg University of Applied Sciences (Hochschule für Angewandte Wissenschaften Hamburg), and Manchester Metropolitan University. The Innopankki platform is an example of an innovation community in South Savo in Finland. This platform is an interesting example, as ideas are collected from a wide crowd, including users and customers, to meet their needs and views of development. Educational institutions created this platform to search and evaluate ideas to create innovations. The research questions and theoretical concepts here in are connected with the empirical data by using qualitative research methodology as outlined by Bryman and Bell (2011) and Punch (2005). The study uses an interpretative approach to a case study (Yin, 2003). The study also enlightens the reader on the details of institutional management that are commonly omitted in quantitative studies (Mason, 2002).

RESULTS AND DISCUSSION

The innovation alliance of higher education institutions is an open network. Other institutions and partners can join the research and development projects whenever deemed necessary. The strategic alliance is also open to student and staff exchanges from other institutions outside the strategic alliance. CARPE is an innovation alliance that provides opportunities for other active institutions to become associate members and finally become full members. The innovation process of the web-based innovation community involves three phases: 1) presenting an idea, 2) evaluating and improving the idea, and 3) implementing it. The idea is usually based on an existing problem that needs a solution. The idea is improved in the second stage by other users. It is also important to reject the idea if it cannot produce any benefits. The selected idea is then forwarded to the partners in the community for development and implementation in the final stage.

CONCLUDING COMMENTS

The traditional inventions of investors and the research of a single scholar have today extended to collaborative and networked innovation. This study presents a new innovation type called "crowd innovation" which is based on crowdsourcing. It is not reasonable to limit innovations to a specific type, but all types of innovations can be used in suitable situations. The study recommends that higher education institutions should create strategic innovation alliances to promote more research and development, support student and staff exchanges, and provide opportunities for institutions and other partners to collaborate. This study also recommends that higher education institutions use crowdsourcing to encourage the greater public to present and evaluate new ideas for further development and innovation use.

REFERENCES

Bryman, A. and E. Bell (2011) Business Research Methods. Oxford, Oxford University Press.

Burt, S.S. (2005) Brokerage and Closure: An Introduction to Social Capital. New York, NY, Oxford University Press.

Chesbrough, H. (2003). Open Innovation: The New Imperative for Creating and Profiting from Technology, Boston, MA, Harvard Business School Press.

Corso, M., A. Martini, E. Paolucci and L. Pellegrini (2001) "Knowledge Management in Product Innovation: An Interpretative Review," *International Journal of Management Reviews*, vol. 3(2, June), p. 341-352.

Faems, D., B. van Looy and K. Debackere (2005) "Interorganizational Collaboration and Innovation: Toward a Portfolio Approach," *Journal of Product Innovation Management*, vol. 22(3, May), p. 238-250.

Gianiodis, P.T., S.C. Ellis and E. Secchi (2010) "Advancing a Typology of Open Innovation," *International Journal of Innovation Management*, vol. 14(4, August), p. 531-572.

von Hippel, E. (2005) Democratizing Innovation. Cambridge, MA, The MIT Press.

Kantola, M. and J. Kettunen (2012) "Integration of Education with Research and Development and the Export of Higher Education," *On the Horizon*, vol. 20(1), p. 7-16.

Kettunen, J. (2011) "Innovation Pedagogy for Universities of Applied Sciences," *Creative Education*, 2(1, March), p. 56-62.

Kettunen, J. (2015) Strategic Networks of Higher Education Institutions: Evidence from Europe, Business *Education & Accreditation*, vol. 7(1), p. 87-95. Retrieved September 24, 2015 from: http://www.theibfr.com/ARCHIVE/BEA-V7N1-2015.pdf

Kettunen, J., L. Kairisto-Mertanen and T. Penttilä (2013) Innovation Pedagogy and Desired Learning Outcomes in Higher Education, *On the Horizon*, vol. 21(4), p. 333-342.

Lichtenthaler, U. (2011) "Open Innovation: Past Research, Current Debates, and Future Directions," *Academy of Management Perspectives*, vol. 25(1, February), p. 75-93.

Mason, J. (2002) Qualitative Researching. London, Sage Publications.

Perks, H. and R. Jeffery (2006) "Global Network Configuration for Innovation: A Study of International Fibre Innovation," *R&D Management*, vol. 36(1), p. 67-83.

Pittaway, L., M. Robertson, K., Munir, D., Denyer and A. Neely (2004) "Networking and Innovation: A Systematic Review of the Evidence," *International Journal of Management Reviews*, vol. 5/6(3-4, September), p. 137-168.

Punch, K., (2005) Introduction to Social Research: Quantitative and Qualitative Approaches, London, Sage Publications.

von Raesfeld, A., P. Geurts and M. Jansen (2012) "When Is a Network a Nexus for Innovation? A Study of Public Nanotechnology R&D Projects in the Netherlands," *Industrial Marketing Management*, vol. 41(5, July), p. 752-758.

Reuer, J.J. and M.P. Koza (2000) "Asymmetric Information and Joint Venture Performance: Theory and Evidence for Domestic and International Joint Ventures," *Strategic Management Journal*, vol. 21(1, January), p. 81-88.

Song, W., X. Ming and P. Wang (2013) "Collaborative Product Innovation Network: Status Review, Framework, and Technology Solutions," *Concurrent Engineering*, 21(1, March), p. 55-64.

Yin, R. (2003) Case Study Research: Design and Methods. Thousand Oaks, CA, Sage Publications.

STRATEGY INNOVATION, COLLABORATION AND COMPETITION IN MEXICO

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ABSTRACT

This study attempts to identify and generate empirical evidence about the characteristics and the strategies of innovation in the industry in Mexico The fist stage of the investigation is developed in a conceptual frame of technological and organizational innovation. A random simple of exporters enterprises located in Mexico was designed using the parameters of Probability. In this town surveys were applied to know the structural characteristics, technological behavior and competitive development (growth in sales, employment, exports, and public support) in the firm. The quantitative methods employed were discriminant analysis and logistic regression; both will classify the inquired firms in innovating and non-innovating. In other terms, a classifying model is developed in order to rank companies according to its innovative character, applying the two tools of multivariate analysis mentioned above. It will be proved that the concept of innovation is not valued by the firms; many firms with innovating behavior do not believe they perform activities of innovation. This is innovating-firms underestimate themselves. It is sustained that innovative firms stand out because they formalize their engineering or research and development activities, they make changes to the labor organization, and development activities. The research will explain how the particular relation between innovation and R&D activities is established. The main conclusion will be that the percentage of sales devoted to R&D activities as well as the purchase of machinery and equipment abroad are key factors to be considered an innovating firm.

KEYWORDS: Strategy Innovation, Small Firms

INNOVATION STRATEGY, COLLABORATION AND COMPETITION IN MEXICO

INTRODUCTION

Innovation and technology diffusion are considered the engine of economic growth; simultaneously these two factors allow acquiring competitive advantages to countries and enterprises [11] There is empirical evidence in macroeconomics that the differences on the innovating capability of the countries are reflected in the export performance. It is important to emphasize that innovation is a measure of international competitiveness in the actual globalized world.[13] Innovation in the firm is associated with a set of strategies, activities and attitudes that constitutes a higher performance that reflects in the growth rate, participation in foreign markets and generation of profits. [1] To achieve development among regions it would be important to make public policies focused on the generation of innovating firms and the creation of an environment convenient to develop this kind of firms. The characteristics that identify innovating firm are not self-evident because they derive from several domains, such as: diversification in products and markets, research and development activities (R&D), design engineering and the acquisition of machinery and equipment, creation of new products and processes, including commercial strategies too. The nature of innovation in a region that specializes in some economic activities is determined by structural factors like industrial concentration, the size of the local market and the cooperation between enterprises. Other important factors are institutional like: financials sources, entrepreneur spirit, scientific and technological infrastructure, systems of industrial protection and the level of education. [3]

On economic literature innovation refers to the introduction of the new products, diffusion of the new methods of production, new markets, discovery of alternative sources of supply and changes in organization

or management. [12] In synthesis, innovation is a process constituted by different activities that result in a new product, expansion of a process, a new service in a specific market with local, national or international scope. There is not only one kind of innovating firm; so the definition must be open and including, it has to group all the specifics with a wide criteria. Therefore, a good approach is multivariant models. Empirical studies on innovating firms are based on surveys where definition of innovation is: a process that includes a set of scientific, technological, organizational, financial and commercial activities. These activities are supposed to create new products or improve them in technological terms; or use new technology or make an improvement in the production process. [10] As it can be inferred this definition rules out non-innovating firm but it does not look for significative differences among these two groups.

Research on innovating behavior favors the differences in the group of innovating firms considering structural, technological, strategic and competitive variables [2]. Other analysis finds the differences based on subjective qualifications or the intensity in the use of techno-productive factors. [6]   In this research the definition of innovation, related to activities and resources within the firm and its ordinary operation, is tested. Consequently discrepancies between subjective judgments and facts will emerge. A variable that validates the innovating behavior was made considering activities in R&D and the acquisition of advanced machinery and equipment (software, robots, automatic production), the main evidence of these activities are patents and income for other services. [2]   This research also include a question about the subjective appreciation of the entrepreneur: Do you think the firm makes activities of innovation? This is ambiguous because entrepreneurs do not perceive the technological sphere clearly when they evaluate a product; furthermore entrepreneurs are tempted to confuse technology with fashion or aesthetics. In order to establish the difference between the definition of innovation and the one of entrepreneurs, considered accurate in this research, two models are proposed; these models allow evaluating which of them offer a better classification of the innovating behavior of the companies. Likewise other attributes that better describe the differences between innovating and non-innovating companies, are also reviewed, the purpose is trying to relate the characteristics, the activities and the results using the methodology proposals of industrial economics and the economy of the company. Some of the variables considered in this study are the following ones:

The structural characteristics of the companies (size, sector, age) The technological behavior (expenditure in R&D, purchase of machinery and equipment, organizational change...) and The competitive performance (public aid, growth in sales, employment and exports).

As a complementary technique to the discriminative analysis, the logistic regression is used, expecting that this regression will help to validate the previous results and will offer greater information. Using these methods, the information will be detailed but without being redundant. Because the proposed model will be the most complete and will allow differentiating between innovating companies from which are not.

METHODOLOGY

The database used in this analysis is the Survey on Research and Development, Technology, Linking and Innovation in Mexico, made by the Consejo de Ciencia y Tecnologia of Mexico (CONACYT) and the Instituto Nacional de Estadistica, Geografia e Informatica (INEGI). The objective of this survey was to collect data of the resources, the activities, the attitudes and the results associated with the generation, the acquisition and the development of technology in Mexico. The inquired population was constituted by the establishments and the institutions of the public administration sectors, superior education, organizations without profit aims and the productive sector, in particular the manufacturing one, due to the fact that this sector is the most dynamic in technology incorporation within the machinery and the equipment.

The statistic formulation of the sampling is probabilistic so that the data can be extended to the population. The population was obtained from lists of the Economic Census of 2010, directories of firms affiliated to entrepreneurial organizations such as Camara de la Industria de la Transformacion (CANACINTRA),

CONACYT and the Secretary of Economic Development in Mexico. A simple stratified sampling was made by size of company and sector of economic activity. The sample was selected independently for each sector. The establishments entered with certainty were the ones with 250 employees or who had received allowance from CONACYT in Mexico for research projects in cooperation with some university or public investigation center. The multipurpose orientation of the survey forces to make a sampling sufficiently big to calculate all the variables of interest, so that the size was calculated based in the main variable: the spending in R&D.

The calculated size differs in the cases of establishments that during the data collection were not situated, they were in strike or were broken or suspended its operations. With an answer rate of 90,3%   398 questionnaires were answered. The sector distribution of the sample is represented in Table 1. The data were collected from June to September of 2010. First the questionnaires were delivered to the establishments for their answer, the also received a guide with instructions. In a second visit the questionnaires were collected and, just in case, the informers were helped to answer it correctly. The capture and tabulation of the data was made by the INEGI, this institution gave an analyzed database to the CONACYT. The information was processed with the statistic software SPSS 10/12.0. For the managing of the data the following models were established:

Discriminative Analysis to examine the characteristics that differentiate an innovating company from a non-innovating one and
Analysis of logistic regression, to support the previous one.

RESULTS

Descriptive Analisis

When using the subjective definition of innovating behavior, 26,6% of the companies described themselves like innovators; whereas with the objective definition the percentage happens to be 55.3%. These numbers show that firms underestimate their activities associated with innovating behavior. Discriminative Analysis is a multivariable quantitative method, which takes a qualitative variable as dependent; and one or more quantitative variables as independent ones. The results are lineal functions called discriminants, which allow classifying the individuals in one of the categories established by the values of the dependent variable. In this case, from a set of variables that tries to gather the characteristics of the company (structure, behavior and performance) the companies are classified in innovating and non-innovating companies. Two discriminating analysis were made, one takes the innovative behavior as the dependent variable according to the subjective answer of the surveyed company and another that defines the groups based on proposed objective criteria. The rate of classification found with the first criteria (subjective nature) was 75.4%, while with the second criteria (objective nature), was 77.1%. These results confirm that the innovative behavior objectively defined improves the empiric classification, this is, increases the rate of correct answers when the desire is to distinguish an innovative company from other that is not. The quantitative variables with major discriminative power are both the percentage of sales dedicated to machinery purchase, as well as, the percentage of technology acquired abroad.   The proposed discriminant model is:

$$D = 0.035 \ (OCDE) - 0.26 \ (Maq99) - 0.12 \ (Tec\_Ex99) + 0.658 \ (Camb\_Org) + 1159 \ (ID\_Ing) + 0.728 \ (Apoyopub) - 3918$$

When this equation is applied to the centroids of the groups several negative values are obtained for the innovative companies and positives for the non innovative companies. So, the negatives quantitative variables are associated with the innovative behavior. By means of this discriminative equation it is observed that for each unit that increases the percentage of sales dedicated to the purchase of machinery and equipment, the discriminative function (equation) decreases 0.26. When the percentage of the

technology purchased abroad modifies by a unit, the discriminative function will do it negatively in 0.12. So, the bigger the effort to acquire technology of a company and as the firm increases its technological stock from abroad, there will be more probability the company is in fact innovative.

With regard to the rest of the variables (Camb_Org, ID_Ing and Apoyopub), the bigger values they take, the more possible will be that the company is in fact non innovative. It is worth saying that the way the codification was made, influences the interpretation. The value of "one" was assigned to the presence of the attribute and the value of "two" was assigned to the absence. So, the top values refer to the absence of the attribute: lack of organizational change, lack of formal units of R&D and engineering, lack of government aid. The absence of this attributes is associated with the non innovation. The activity sector (OCDE) is a nominal variable with values that do not have an ordinal logic, so is not useful in the equation to get the truly membership to a group. This variable, along with others of qualitative type, will be also explored in the logistical analysis to prove its influence. These results allow rejecting a group of variables that were though that could have any discriminative power among the studied companies; between them the following ones are emphasized: Of structural type:

Size (sales as well as employees)
Foreign participation in the equity of the firm.
Participation in foreign markets.
Grade of specialization in its products, and
Age of the company.

Of technology behavior:

Number of engineers working in the company.
Years of Experience in the engineering department.

Of competitive performance:

Growth Rate of sales.
Growth Rate of hiring
.
With this analysis is possible to classify 77.1% of the total number of companies, of which 75.5% are innovative and 79.2% are not. In the Table 2, it is also shown the results of the classification made with the technical of cross validation, this is, one case is left outside and every case is classified using the discriminative functions derived from all of the other cases.

Logistic Regression

The logistic regression is a multivariable technique with the objective of classifying the individuals in one of the two groups established by the dependent variable. Once it is known the model, an individual might be classified, in a probabilistic form, in one of the answer groups when the value of the explicative variables is known, but not the kind of them. In this case, according to the logistic regression the variables associated with the innovative behavior are, by associative power:

Acquisition of machinery.
The existence of a formal unit of engineering or development.
The possibility of public aid.
The introduction of changes in the organization of work.
The acquisition of machinery and equipment abroad.
The subsidiary nature of the company.

Y= 0.089 + 5837 (Adquima) + 4356 (ID_Ing) + 2428 (Apoyopub) + 2291 (Camb_Org) + 1959 (TIAE) + 2.76 (Subsidia)

Where:

Adquima is the condition of having acquired or not machinery and equipment between 1999 and 2002. Camb_Org is the condition of having done an organizational change.

ID_Ing is the condition of having a formal unit of investigation and development or engineering. Apoyopub is the condition of having received any public aid.

TIAE is the condition of having acquired technology in machinery or equipment abroad. Subsidia is the condition of been or not a subsidiary company.

The previous equation can be interpreted using an example. If two companies with similar characteristics, practically equal, in its position with respect to the purchase of machinery, organizational change and public support, the fact that one had a department to the investigation and the development or enginery and other no, multiply by 4 356 the probability that the first company was innovative. Then the fact that a company has these attributes increases the probability of which it presents an innovating behavior. On the other hand, the variables that cannot be used as a criteria to explain the innovating behavior between the studied companies are localization, the economic activity sector, the size, the foreign capital, the diversification of the product portfolio, the rank of the amount of sales, the technological level of the economical sector, the use of e-mail, the source of the machinery and equipment supplier (intra-enterprise and national), and the origin of the source of provision of unreal goods and the expansion of the employment and the sales.

CONCLUSIONS

From the analyzed models and variables of the production system in Mexico, it is concluded that firms tend to underestimate the activities and the results that can be associated to an innovating behavior. In particular, the condition of having and employing complex machinery and equipment is not valued; as a result an infra-valuation emerges.   Neither the structural characteristics nor the competitive performance help to explain the innovating behavior of the studied companies. Evidently, the innovators distinguish themselves for having formalized their activities of engineering or R&D, having conducted changes in work organization during period 2008-2010 and having obtained some governmental support. The previous claim had been verified empirically with two tools of multivariant analysis. The main activity associated to innovation is R&D. As many authors [9] have suggested, this is not the only source of innovation, but this relationship seems irreplaceable due to the necessity of new technology incorporation.[5] On the other hand, the technological learning has been associated to the production routine [7] that is why to have formalized the activity of engineering facilitates the codification of the knowledge; when providing an organizational support to the accumulation of technological capital in the companies. This favors the incorporation of new knowledge and solutions, generated in the solution of problems derived from the productive task and the development of technical abilities that reduce the difficulties attaché to the transference, adoption and adaptation of new technology.

The exigencies of the new competitive environment, in particular the implantation of transnational companies in the national markets and the necessity to participate direct or indirectly in networks of global production have pressured intensively. In response the companies have carried out organizational changes that allow them increase the quality and the quantity of their production, as to adopt shorter delivery times. This condition of fast adaptation to changes in turbulent surroundings has been called adjustment or fitness.[8] Then, since the companies that had made organizational changes have, more probability of being

innovating, we can say that those that present capacity from adjustment to the surroundings can be grouped in the group of the innovators.

In the survey, there are not indicators that measures techno-productive and social relations in the companies. Nevertheless, the public aid can indirectly reflect the capacity of the companies to adapt to the surroundings by means of obtaining technical attendance and financial supports for technological modernization; the incursion in outer markets; the fulfillment of ecological, metrological and quality standards and norms; the access to technical information and funds for projects of investigation in collaboration with universities and research centers. So, it can be speculated that the ability to obtain public aid is because the innovating companies have better management of their social capital that the non-innovating ones. Another result of empirical evidence is the fact that purchasing machinery and equipment is important to discriminate between both types of company. Nevertheless, it is relevant to mention that the amount of resources destined to these purchases makes a difference. Furthermore, the fact that most part of technology is acquired abroad. Belonging to an industrial group increases the probability of having an innovating behavior, since the empirical evidence seems to indicate that the independent companies have an isolated behavior that makes difficult the incorporation of flows of foreign technology.

REFERENCES

Balwin J. R. y Johnson J. *Business Strategies in more and less innovative firms in Canada* Research Policy vol. 25, august 1996.

Buesa M. y Molero J. *Patrones del cambio tecnologico y politica industrial. Un estudio de las empresas innovadoras madrilenas* Civitas IMADE Madrid 1992

Cooke P. y Morgan K (eds.), *The Associational Eonomy: Firms, Regions and Innovation*, Oxford University Press, 1999

Corona L. (coord.) *Cien empresas innovadoras en Mexico*, Porrua-UNAM, Mexico, 1997

Fagerberg J. y Verspagen *Technology gaps Innovation diffusion and transformation : An evolutionary Interpretation* Research Policy , vol. 31, December 2002

Gellatly G. *Differences in Innovator and non innovator profiles: Small Establishments in Business,* 11f0019MPE, num.143 Micro Economic Analysis Division, Statistic Canada 1999

Lundvall B. *National System of innovation* Pinter Londres 1992

Metcalfe J. *Evolutionary Economics and Creative Destruction* Routledge Reading, 1997

Napolitano G. *Industrial Research and sources of innovation: A Cross Industry Analysis of Italian Manufacturing firms,* Research Policy , vol. 31. December 2002 .

OCDE, *Proposed Guidelines for Collecting and Interpreting Technological Innovation Data* (Oslo Manual) Paris,1997

Porter M. *Competitive Advantage of nations*, Javier Vergara Mexico 1990

Schumpeter J. A. *Teoria del desenvolvimiento economico*, FCE, Mexico 1994

Wakelin K. *Trade and innovation Theory and evidence*, Adershot Elgar, 1997;

Table 4: Variables in the Equation

Step		B	ET	Wald	GI	Sig	IC 95%forExp(B) Exp(B)	Inferior	Superior
1st	AdquiMa(1)	2665	0.318	74332	1	0	14344	7794	26065
	constant	-1770	0.273	37652	1	0	0.188		
Step 2nd	AdquiMa(1)	2383	0.346	58096	1	0	11981	6326	22690
	ID Ing(1)	1768	0.328	3160	1	0	5990	3206	11153
	constant	-2077	0.307	47265	1	0	0.125		
Step 3rd	AdquiMa(1)	2206	0.351	51237	1	0	10674	5586	20438
	ID Ing(1)	15840	0.366	23509	1	0	4869	2565	9207
	Apoyopub	1023	0.357	8866	1	0.003	2736	1409	5274
	constant	-2187	0.36	49768	1	0	0.112		
Step 4th	AdquiMa(1)	2225	0.367	37438	1	0	8376	4240	14672
	cambio_org			7067	2	0.029			
	cambio_org(1)	0.841	0.967	0.716	1	0.397	2258	0.344	14672
	cambio_org(2)	0.776	0.299	6750	1	0.009	2162	1207	3835
	ID Ing(1)	1455	0.338	19348	1	0	4282	2240	8187
	Apoyopub	0.926	0.347	7204	1	0.007	2499	1280	4878
	constant	-2308	0.326	51591	1	0	0.099		
Step 5th	AdquiMa(1)	1762	0.394	20995	1	0	5811	2735	12344
	TIAE(1)	0.696	0.331	4632	1	0.031	1994	1064	3737
	cambio_org			7061	2	0.029			
	cambio_org(1)	0.674	0.966	0.471	1	0.493	1964	0.288	13239
	cambio_org(2)	0.794	0.279	6896	1	0.009	2192	1220	3935
	ID Ing(1)	437	0.338	18606	1	0	4204	2189	8074
	Apoyopub(1)	0.986	0.336	6654	1	0	2426	1237	4757
	constant	-2294	0.326	51240	1	0	0.101		
Step 6th	Subsidia(1)	0.952	0.479	3876	1	0.049	2566	1004	6555
	AdquiMa(1)	1776	0.387	21066	1	0	5917	2769	12642
	TIAE(1)	0.662	0.339	4178	1	0.041	1946	1028	3648
	Cambio_org			8322	2	0.016			
	cambio_org(1)	0.745	0.999	0.588	1	0.443	2250	0.304	15206
	cambio_org(2)	0.853	0.306	8120	1	0.004	2617	1319	4294
	ID Ing(1)	1452	345	18496	1	0	4227	2192	8155
	Apoyopub(1)	0.964	0.367	7089	1	0.008	26019	1276	4973
	constant	-2443	0.356	52978	1	0	0.087		

a. introduced variables in step 1 Adqui_Ma
b. introduced variables in step 2 ID_Ing.
c. introduced variables in step 3 Apoyopub
d. introduced variables in step 4 Camb_org
e. introduced variables in step 5 TIAE
f. introduced variables in step 6 Subsidia

SOCIAL CONSCIOUSNESS, GOALS SETTING, AND ACCOUNTING PROFESSIONAL EDUCATION

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ABSTRACT

In this study, we examine the effect of social consciousness on American undergraduate and graduate students' goal of studying accounting. Building on this research, we submit that social consciousness influences the students' goal to learn accounting. From this empirical analysis, we find that the differences in students' social consciousness and their awareness of it help determine the students' goal of studying accounting and that the relationship between awareness of social consciousness and gender and years of study influences the goal of studying accounting. We summarize those findings as follows: First, students' social consciousness affects their goal to learn accounting. Second, students' acknowledgement of social consciousness is associated with higher tendencies to set a goal for studying accounting. Third, in the relationship between students' goal of studying accounting and students' acknowledgement of social consciousness, gender and years of study are positive influences.

KEYWORDS: Social Consciousness, Ethical Thinking, Professionals, Career Building, Accounting Education

JEL: M41, M49

PRIOR RESEARCH

Evolution of Accounting Education

Accounting education needs to be of high quality in order to prevent, identify, and explain these increasingly too frequent frauds worldwide. Throughout the world, we have to make an effort to instill younger people with higher ethics and better knowledge of accounting to secure reliable global financial reporting and to combat global frauds. Accordingly, the social role of the accounting professionals has become more important. In order to attain transparency in financial reporting, accounting professionals have to acquire higher levels of competency in accounting as well as competencies in economic, finance, and other related subjects. In addition, those current and future professionals have to battle old and new types of accounting frauds and to identify all sorts of accounting criminals. After all, a report pointed out that perpetrators of accounting frauds have higher educational level and that a large number of fraud perpetrators work in an accounting department (ACFE 2014: 50-51). In addition, many corporate frauds are devised by owners or executives who have been educated in institutions of higher education instead of being perpetrated by those corporations' employees (Hamada 2015). Consequently, we need to reconsider the mission of accounting education for a global market, aiming at the very least for reliable and transparent global financial reporting. At this point, universities, in their undergraduate and graduate programs, need to improve their educational methods and materials and share them with the rest of the academic and professional world. The goal is to improve accounting education and to infuse students with sophisticated knowledge and experiences. Among the possible educational activities, we can learn from the suggestions of the Pathway Commission of American Accounting Association in the United States and expand these suggestions to all the organization in the world. The International Education Standards (IESs) present typical outcomes that could be adopted jointly by many different countries. Those standards represents criteria for judging the value of global accounting education and training in different cultures, languages, and social, educational, and legal systems (McPeak et al. 2012).

Students' Acknowledgement of Normative Consciousness

Berman (1990:76) emphasizes the importance of cultivating this social awareness in students. In particular, he states that teachers have to help students understand the global interdependence, foster the experience of community, encourage them to develop basic social skills, provide them with opportunities to make contributions to others, strengthen their group problem-solving and organizational skills, and encourage them to explore the real political world. We are convinced that good accounting education can foster people's ethical thinking. Ethical thinking and ethical judgments can protect the global market from frauds and from inappropriate procedures in financial statements. Thomas (2012: 399) empirically verified the significance of a university accounting education for first-year business students in making decisions. Indeed, the work of accounting professionals often depends on those professionals' higher education knowledge of accounting. But it appears that the work of these professionals also depends on their *normative consciousness*. Accounting professionals have for mission the maintenance of the fairness of the accounting information disclosed by firms. Normative consciousness is a kind of social sense including issues of morality, solidarity, belonging, equality, politeness, rescue, or activeness.

Consciousness is essential to achieve goals (Shirahama et al. 2013) and is significantly related to workplace performance among managers and workers (Chaturvedi et al. 2013). For undergraduate or graduate students, their university diploma is the final step before getting a job. This motivates students (Pintrich & Schunk 2002). Basically, their graduation should be connected to a job. In spite of that, most students, particularly in their first or second year of study, have a short-term outlook and don't imagine their future yet. Of course, they don't know how they will contribute to the society. However, students who strongly acknowledge their role in their community and in society tend to learn more actively. We suppose that this awareness of society or their post-graduation target might influence their motivation to learn accounting. Understanding the relationship between students' acknowledgment of normative consciousness and their willingness to learn can help us refine our teaching methods, materials, and case studies for better ethical thinking skills.

Women Equality

Accounting education can contribute to women's empowerment. Education should be equally accessible to all; there should be no gap between male and female students. Essentially, men and women should have equal right to education under the law. However, in reality, inequality between men and women has existed and still exists in some countries, religions, positions, and social roles. This is a gender problem. Historically, much efforts have been exerted to reach gender equality; however, inequality remains a global issue. Several reports clearly show this gap. For example, the United Nations (2015a) has just set a target for women to get half of the leadership position by 2030 (par.13). This indicates that inequality still exists. However, in Figure 3, we can see that the education index is much more equal than the other indexes. Obviously, the inequality in education between men and women is disappearing (WEF 2013) and the educational opportunities for women are expanding, particularly in developing countries.

Nonetheless, despite greater access to higher education, women may still have a more difficult time getting a job. When women graduate, they realize the difficulties inherent to building a career. In fact, statistics for employment shows a lower gain for women than for men (UN 2015b: 20). Though women may have the same job opportunities than men, the "opting out" phenomenon, where professional women leave their careers to become full time mothers, causes problems even in the United States where the ratio of women participation in society is higher than in any other countries. Stones (2008), through a series of interviews for women, proposed the redesign of the workplace for highly educated women and men. We believe that the completion of accounting education in higher institutions is helpful to promote active employment and

empowerment for women and also to build their career in leadership positions. The job equality of women as accounting professionals could change the world.

Theoretical Development

Hypotheses

In prior researches, we compared the motivation of students to learn accounting in several countries: USA, Japan, and Indonesia. We found that the mastery, performance, and social goals were associated with the students' motivation and found cultural motivational differences as well. In addition, we found that the closer the students were to the end of their programs, the less likely they were to lose their motivation for studying accounting. One of the reasons was that, as they approached the end of their study, they would acknowledge the reality of their graduation and the reality of their impending career. However, these previous researches are not enough to verify the association between gender and goals. If men and women have the same willingness to become accounting professionals, there should be no difference in their goals to learn accounting, providing that they are capable to do the job and want to do it. In accounting education, graduate students are nearer to a career as professionals than undergraduate students. Such a feeling for their roles in society might make them more eager to set some goals for learning accounting and to try to master the concepts and succeed in their classes. In particular, social goals are directly related with students' awareness of their lives as members of their communities.

Through this theoretical background, we suppose that students who have already experienced thinking about themselves as members of their communities could be more motivated than other students, when they study accounting. They might imagine what the role of their work is likely to be and what they can do for their companies as employees. This identification to the society is more likely to foster ethical judgements. Meanwhile, getting rid of gender inequality is an outcome likely to contribute to the society. Thus, we believe that the analysis of the factors influencing the motivation to study accounting in association with several social goals will allow us to encourage students to adopt some ethical thinking in global accounting education. In this paper, we propose the following hypotheses based on the theoretical model developed by Berman (1990) and Schunk (1995). The data set used comes from our prior research. As the Figure 1 shows, we submit the following seven hypotheses based on the theoretical model. We use a sample data of 290 accounting students in the United States. The data consists of 166 male and 174 female students.

H1: A consciousness of belonging to a society positively influences the students' goals of learning accounting.

H2: A consciousness of respect of others positively influences the students' goals of learning accounting.

H3: A consciousness of leadership in the organization positively influences the students' goals of learning accounting.

H4: Goals of learning accounting are different between male and female students.
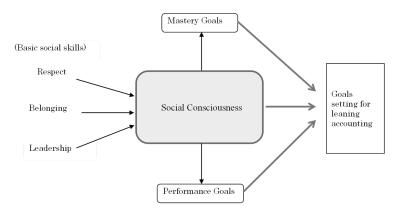
H5: Goals of learning accounting differ between students' years of study.

H6: Students' acknowledgement of social consciousness is associated with a higher tendency to set a goal to learn accounting.

H7: The relationship between students' acknowledgement of social consciousness and gender or years of study has a positive effect on the goal to learn accounting.

Figure 1: The Theoretical Model

Variables

We use the following variables to analyze the theoretical proposal. The dependent variable is *goals*. These are goals to learn accounting and consist of mastery goals, performance goals, and social goals, orient students' study. The mastery goal represents the students' desires to become knowledgeable on a specific topic. Students try to do well, to master a subject matter. The performance goal represents the students' desires to reach a specific external indicator of achievement. Performance goals can motivate students, or they can spoil the students' motivation. Social goal represents students' motivation for learning accounting because students tend to imagine their accomplishments in their social environments after graduating from their undergraduate or graduate programs. Thus, we suppose that the students' acknowledgement of their goals to learn accounting would be associated with their desire to belong in their society after their graduation. In other words, this represents the students' expectations for their careers. The independent variables as a measure of the students' social consciousness are *belonging, respect,* and *leadership*. Belonging is an integrated variable that represents a kind of feeling of identification such as membership or cooperativeness. Respect is defined as the students' belief that they want to rescue others or take good care of them, and to show solidarity in a region, organization, or society. Leadership represents how students want to be in leading roles in society or want to compete with others. We also added the variables of *gender* and *grade*. Gender is a dummy indicator to distinguish between male or female students, using 1 for male students and 2 for female students. Grade shows the students' year of study. We set the variable as follows: 1 for the first year of undergraduate study, 2 for the second, 3 for the third, 4 for the fourth, and 5 for the graduate students. We expect some differences between genders in terms of wanting to learn accounting. In addition, we propose that how far students have progressed in their degree program will influence their goals to study accounting. All of the above independent variables, except for nationality and gender, are measured on a five-level Likert scale (1: strongly disagree, 5: strongly agree).

Research Design

We developed two steps to examine the above hypotheses. First, to measure the students' acknowledgement of social goals, we developed multiple regression models with the five independent variables (respect, belonging, leadership, gender, and year). To eliminate the problem of collinearity among variables, we checked the variance inflation factors (VIF), which is a simple approach to identify collinearity among explanatory variables. Second, we used a principal component analysis (PCA) regression to avoid the VIF, to check for the impact of students' acknowledgement of social goals on students' motivation to learn accounting.

Model A: The Impact of Goals

$$GOALS = \beta 0 + \beta 1 BEL + \beta 2 RES + \beta 3 LEAD + \beta 4 GENDER + \beta 5 GRADE + \varepsilon$$

GOALS= Goals for learning accounting (mastery goals, performance goals, and social goals)

BEL   =Belonging (sum of consciousness for membership, cooperativeness, solidarity)

RES   = Respect (sum of consciousness for rescue and politeness)

LEAD   = Leadership (sum of consciousness for position

GENDER = Gender (1: male, 2: female)

GRADE= Year of study (1: first year of undergraduate study, 2: second, 3: third, 4: fourth, 5: graduate study)

Model B: The Relationship between Social Consciousness and Goals

$$GOALS = \beta 0 + \beta 1 COO + \beta 2 PRE + \beta 3 SOL + \beta 4 RESC + \beta 5 POL + \beta 6 GENDER + \beta 7 GRADE + \varepsilon$$

GOALS= Goals for learning accounting (sum of mastery goals, performance goals, and social goals)

COO   =   Cooperativeness
PRE   =   Presentation
SOL   =   Solidarity
RESC   =   Rescue
POL   =   Politeness
GENDER =   Gender
GRADE   =   Year of study

Discussions

In this section, we describe the findings from the multiple regression models. The Cronbach's alpha coefficient is 0.824, which means that the instrument is reliable. We got 348 effective answers from 261 undergraduate and 87 graduate students of the University of North Texas. As shown in Table 1 below, validity is computed using Pearson correlations. It shows the correlations among variables. Each of the Tables gives us the correlation coefficients for each dimension. The correlations indicate that the dimensions are valid with a significance at the 0.001 level (2-tailed) and a high score ($p > 0.05$), except for one item of year of study. For the first three hypotheses, we examined the multi regression and the principal components analysis, using the SPSS version 21. First, this regression model shows a significantly good fit ($F = 163.659$, $p < 0.0001$) by the ANOVA test, and the adjusted R square is 0. 701. We do not discuss the potential for a VIF problem in this model because all of the collinearity statistics of the VIF are between 1 and 2.23 (VIF < 5). In the first hypothesis, we propose that a sense of politeness has a positive influence on the students' goal to learn accounting. Hypothesis 1, which proposes the effect of a sense of belonging, membership, cooperativeness, and solidarity, is also supported with a t value of 7.751 ($p < 0.0001$). Belonging, with a standardized coefficient of 0.299, has a higher impact than politeness. The second hypothesis is supported and significant (t value of 13.234 at $p < 0.000$). It means that the stronger the students' sense of politeness, the stronger their goals of learning accounting. Finally, the third hypothesis shows a positive impact on students' social goal for learning accounting (t value of 9.626 at $p < 0.0001$). As for hypotheses 4 and 5, the outcome is as follows. For gender, we don't see a difference between men and women. Likewise, we don't find the evidence that the years of study affect the students' goals to study

accounting. At least, we don't say that the willingness between men and women for goal setting of studying accounting is same or different. So, the positive empowerment of women as accounting professionals might be expected to contribute to solve the inequality between genders. As for the effect of consciousness of goals on learning accounting, we can see a positive effect of students' acknowledgement or awareness of social requirements, i.e., identification, belonging, and leadership; the hypotheses 6 is significantly supported ($p < 0.0001$) as shown by the fitness of BEL, RES, and LEAD. Those results indicate that students can clearly set a goal of learning accounting when they get conscious of themselves in their groups, organizations, and societies. In other words, the social consciousness, (belonging, respect, and leadership) is related to the students' goal to study accounting. At the very least, to effectively build a career after graduation, some students understand the usefulness of learning accounting. Others consider accounting as a membership requirement of their future organization or as a membership requirement for the leadership positions that they might seek in society. In other words, students who consider the goal to belong to a group, a firm, a community, or a society, are more likely to be motivated to study accounting because doing so is likely to contribute to their future career

As shown in Table 2, we also found other empirical evidences. For the hypotheses 6 and 7 in Model B, the fitness is significantly supported, as shown by the adjusted R square is 0.701 and F value is 89.378 ($p < 0.0001$). All the independent variables, COO, PRE, SOL, RESC, POL, YEAR, and GENDER, are significantly supported ($p < 0.0001$ or 0.001). It means that the higher the students' level of social consciousness, the more likely they are to set a goal of studying accounting. The good fitness of GRADE (t value = 4.721, $p < 0.0001$) and GENDER (t value = 5.899, $p < 0.0001$) shows that there are differences of social consciousness among the students' year of study and between male and female students. The closer the students are to the end of their program, the more likely they are to study accounting. In addition, female students appear to be more motivated to study accounting than male students. These evidences tell us that social consciousness helps students set a goal for learning accounting. Female students, who tend to acknowledge their social consciousness more than male students, are more likely to determine their own target for learning accounting. The nearer to graduation the students are, the stronger their goals for leaning accounting. Being close to graduation makes students aware of what they should do to build their own career.

Table 1: Correlation Analysis (1) Respects, Belonging, and Leadership

	GOAL	RES	BEL	LEAD	GENDER	YEAR
GOAL	1.000	.674***	.676***	.614***	.335***	.057
BEL	.676***	.439***	1.000	.529***	.420***	-.041
RES	.647***	1.000	.439***	.224***	.169***	.463
LEAD	.614***	.224***	.529***	1.000	.469***	.020
GENDER	-.335***	.169**	.420***	.469***	1.000	-.550***
YEAR	.057	.056	-.041	-.005	-.550***	1.000

*****. Correlation is significant at the 0.001 level (2-tailed). **. Correlation is significant at the 0.01 level (2-tailed). *. Correlation is significant at the 0.05 level (2-tailed).*

(2) Social Factors for Goals

	GOAL	COO	PRE	SOL	RESC	POL
GOAL	1	.553**	.553**	.482**	.610**	.588**
COO	.553**	1	.383**	.473**	.382**	.354**
PRE	.553**	.383**	1	.311**	.377**	.313**
SOL	.482**	.473**	.311**	1	.394**	.310**
RESC	.610**	.382**	.377**	.394**	1	.648**
POL	.588**	.354**	.313**	.310**	.648**	1

**. Correlation is significant at the 0.01 level (2-tailed).

Table 2: Regression Result in Developed Model

(1) Model summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805[a]	.648	.641	.29135

a. Predictors: (Constant), RES, BEL, LEAD

(2) ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	53.107	7	7.587	89.378	.000[b]
	Residual	28.860	340	.085		
	Total	81.967	347			

a. Dependent Variable: GOAL

b. Predictors: (Constant), COO, PRE, SOL, RESC, POL, GRADE, GENDER

(3) Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.473	.115		12.831	.000		
	COO	.080	.019	.172	4.322	.000	.656	1.525
	PRE	.102	.015	.247	6.743	.000	.770	1.298
	SOL	.066	.019	.132	3.479	.001	.714	1.400
	RESC	.120	.026	.212	4.713	.000	.514	1.945
	POL	.121	.023	.223	5.185	.000	.560	1.787
	GRADE	.089	.019	.186	4.721	.000	.668	1.496
	GENDER	.093	.016	.244	5.899	.000	.606	1.650

a. Dependent Variable: GOAL

CONCLUSION

In this study, we examined the effect of social consciousness on the American students' goals for learning accounting. We supposed that a difference in social consciousness would help students determine their goal toward studying accounting and that this social consciousness would vary with years of study and gender. From past research, we know the implications of the goal setting on students' motivation: the higher the students set their goals, the more motivated they are to study accounting. Those goals are mastery, performance, and social. So, in this paper, we tried to go further and observe the impact of social consciousness on students' goal of learning accounting. We found some interesting findings. First, students' social consciousness affects their tendencies to learn accounting. Students positively set a target to study accounting when students better identify their social consciousness for learning accounting. Specifically, the higher respect students have, the more they tend to set a goal to learn accounting. In addition, we tested the association between the factors of social consciousness and the students' goal of studying accounting. The analysis shows that students who identify with a higher level consciousness, set goals to learn accounting more so than other students. For gender, even in the United States, female students have already acknowledged the gender gap in employment, and others would be gradually likely to do that. This research offers valuable insights to accounting educators, but it has some limitations. The sample data contains undergraduate and graduate students from only one university in the United States. Therefore, we will need to expand this study to other countries and universities. We believe that we can contribute to the development of global accounting education with better gender equality in employment and better quality of accounting professionals.

REFERENCES

ACFE (Association of Certified Fraud Examiners, Inc.). 2014. *Report to the Nations on Occupational Fraud and Abuse: 2014 Global Fraud Study*.

Armstrong, M. 1993. "Ethics and Professionalism in Accounting Education: A Sample Course," *Journal of Accounting Education*, 11: 77-92.

Berman, S. 1990. "Educators for Social Responsibility," Educational Leadership, by the Association for Supervision and Curriculum Development, 48(3) (November): 75-80.

http://www.ascd.org/ASCD/pdf/journals/ed_lead/el_199011_berman.pdf (Retrieved on September 20, 2015).

Chaturvedi, D. K. & Arya, M. K. 2013. "A Study on Correlation between Consciousness Level and Performance of the Worker," Industrial Engineering Journal, 6(8): 40-3. http://works.bepress.com/manish_arya/1 (Retrieved on September 18, 2015).

Hamada, M. 2015. "Anti−Fraud Education Partnership at Graduate School of Accounting," *Journal of Japan Society for Business Ethics Study*, (22): 255-262.

McPeak, D., Pincus, V. K., &, Sundem L. G. 2012. "The International Accounting Education Standards Board: Influencing Global Accounting Education," *Issues in Accounting Education*, (27-3): 743-750.

Pintrich, P. R., & Schunk, D. H. 2002. *Motivation in Education: Theory, Research, and Application* (3rd ed.). Prentice Hall.

Schunk, D. H. 1995. "Self-efficacy, Motivation, and Performance," *Journal of Applied Sport Psychology*, 7(2): 112-137. http://libres.uncg.edu/ir/uncg/f/D_Schunk_Self_1995.pdf (Retrieved on July 7, 2014).

Shirahama, N., Uchimiya, R. Watanabe, S., & Yanaru, T. 2013. "Proposal of the Mathematical Model of Consciousness and its Application to Educational Support System," *the 26th Biomedical Fuzzy Systems Association (BMFSA)*, (26): 13-14 (October 12).

Stones, P. 2008. *Opting Out?: Why Women Really Quit Careers And Head Home*, University of California Press.

Thomas, S. 2012. "Ethics and Accounting Education," *Issues in Accounting Education*, 27(2): 399-418. United Nations, Entity for Gender Equality and the Empowerment of Women (UN Women). 2015a.

"Political Declaration on the Occasion of the Twentieth Anniversary of the Fourth World Conference on Women," at the fifty-ninth session of the Commission on the Status of Women (CSW) on March 9-20, 2015 in New York. http://www.un.org/ga/search/view_doc.asp?symbol=E/CN.6/2015/L.1 (Retrieved on August 27, 2015).

United Nations, Entity for Gender Equality and the Empowerment of Women (UN Women) 2015b. "Progress of the World's Women 2015-2016 Summary: Transforming Economies, Realizing Rights," http://progress.unwomen.org/en/2015/pdf/SUMMARY.pdf (Retrieved on August 30, 2015).

World Economic Forum (WEF) 2013. "The Global Gender Gap Report 2013." http://www3.weforum.org/docs/WEF_GenderGap_Report_2013.pdf (Retrieved on September 4, 2015).

SOUTH STREAM: EUROPEAN NATION STATE BUILDING IN THE BALKANS IN THE PUTIN AND POST-PUTIN ERA

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ABSTRACT

Bulgarian nationalism as a political force for state political reform faces formidable challenges due to the Bulgarian state's dependent development under Communism. Nationalist communism was a comparatively effective component of the legitimation strategy for the Communist regime. In neighboring Serbia, the Titoist regime suppressed ethnic nationalism. As the largest nationalist challenge to the Communist Yugoslav state, the Serb national community was partitioned. One-third of ethnic Serbs were placed outside of the Serb republic, and Kosovo and Vojvodina were officially subunits of Serbia but were Yugoslav federal constituent republics in all but name. Russian exploitation of opportunities for influence expansion in Serbia and Bulgaria exist but differ, reflecting this conflicting legacy of Communism in both states. Serb rejection of Communism included advocacy of Serb irredentism, which the post-Soviet/Russian nationalist regime under Vladimir Putin seeks to exploit. Bulgarian nationalist Communism associated itself closely with the USSR until the rise of Mikhail Gorbachev and his reforms in the USSR in the mid-1980s. Bulgarian militant nationalism lacks societal consensus on the basic principles that constitute it. NATO-Russian competition for influence implies European Union deepening and widening occurs in opposition to post-Soviet Russian state influence. Europeanization implies reducing Russian bargaining leverage within the Bulgarian polity.

JEL: F5, K4, P3, Y8

KEYWORDS: European Union, Russia, South Stream

INTRODUCTION
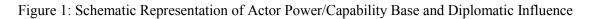
Europeanization in relation to national polities is a prominent focus in the European Union literature, with a focus on top-down and bottom-up Europeanization (Borzel & Panke, 2013). Top-down Europeanization for Bulgaria means reducing Russian bargaining leverage over the Bulgarian government. It focuses on reducing the influence of Russian hard and soft power influence within the Bulgarian polity deriving from economic assets and traditional pro-Russian identity sympathies. Europeanization in Bulgaria means the strengthening of the autonomy of the Bulgarian state to alleviate its neo-colonial relationship to Russian influence. It implies the strengthening of the judicial branch of the Bulgarian government and the professionalization of the civil service. The Europeanization of Bulgaria interacts with the creation of a European area of freedom, justice and security. It aims towards the institutionalization of the rule of law in international relations in the European regional context and into the broader world (Carrapico, 2013: 461; Giumelli, 2013: 396). European international relations become progressively a matter of opposition to crime and corruption, increasingly equated with Russian influence (Blank, 2011). For the foreseeable future, it is likely to require centralization of Bulgarian public administration implementation authority at the national level. Decentralization, either to geographic administrative regions or to policy actor networks, or to some combination of both is unlikely and undesirable. The general tendency in much of the European Union is towards multilevel governance (Piattoni, 2012). Europeanization increases possibilities for greater diversity in the creation of advocacy coalitions within subnational, national and European levels of public policy making (Weible et al. 2011). Yet, such a public administration trend is likely to make Bulgaria too sensitive and vulnerable to Russian formal and informal actor influence. Nevertheless, by allying with Bulgarian

nationalism as a liberal actor, the EU promotes the top-down Europeanization of Bulgaria. It stands in contrast, however, to Serb irredentist nationalism that has been frustrated by Euro-Atlantic structures ("The Balkan Crisis," 1997; Gow, 2003: 5). Serbia, therefore, is likely to remain more amenable to Russian influence than Bulgaria.
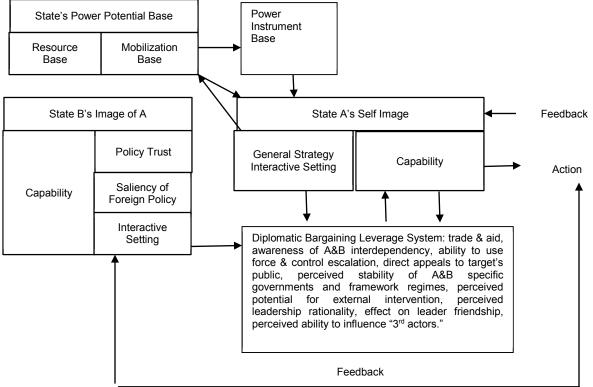
<u>South Stream, Nationalism and Conflict in the Balkans</u>

Russian President Vladimir Putin warned in assertive statements against the 2008 formal secession of Kosovo from Serbia. He argued that it will set a precedent for international resolution of other secessionist disputes, such as in Cyprus and in Georgia ("Putin's annual news conference," 2006). Yet, Russia in 2003 withdrew all of its forces from the Balkans with the exception of Moldova (Financial Times, 2004). In fact, Russia (and China) has at times indicated that it will acquiesce to the separation of Kosovo from Serbia, albeit it expected an appropriate trade-off for accepting this outcome (Dinmore & Dombey, 2006). The authorities in Republika Srpska, one of the two entities in Bosnia and Herzegovina, hoped to link to South Stream at the contested city of Brcko (International Crisis Group 2011, 4).

The EU plays an important role in post-Milosevic efforts to engage in state building in Southeast Europe in that weak states generate corruption, strife, poverty and terrorism (Solana, 2003: 6). It thereby serves to reinforce the stabilization strategy of the international community to the national peoples of the former Yugoslavia. The prospect of the relative individual and group opportunities for utilitarian gain from European integration are an influential factor. They induce cooperation among actors in Bosnia-Herzegovina, who would rather not cooperate, to do so (Judah, 2005; International Crisis Group, 2006). Belgrade and Zagreb are currently unwilling actively to encourage their Bosnian ethno-sectarian compatriots to aspire towards unification with their respective patron states. It is a critical factor supporting this cooperation (Dombey & McDonald, 2006). In the event of the collapse of this cooperation, then an upsurge in the nationalist components of Muslim Bosniak identity should be more likely, i.e. an increase in pan-Islamic appeals (BBC Monitoring 2008). Parallels here might be found in the intensely violent conflict in Chechnya, with Chechen nationalism having acquired an Islamist element. It is partly as a consequence of a Chechen search for support to counteract the Russian comparative power advantage (Buckley 2006; "Rebel Chechen minister," 2006). In this context, despite its Cold War history, Bulgaria remains a model of peaceful Balkan political development.

The romantic appeal of the social justice ideals of socialism in Bulgaria have become greater along with the passage of time away from the actual reality that ended in 1989 (Genov, 2010: 41). One social mobility incentive that Russian interests competitively offer is the $500 million that it claims would come to Bulgaria from South Stream pipeline annual transit fees (Roth 2014). Bulgaria is clearly the poorest EU member state ("GDP per capita," 2014). The US government views the South Stream project as about increasing Russian influence in Europe more than making money ("Results of Vladimir Putin's Visit to Serbia," 2014; Nichol, 2014: 37, 46, 66). U.S. media reports Russian financial support behind "anti-fracking" protests expressing environmental protection concerns in Bulgaria and throughout Eastern Europe (Higgins, 2014). These reports reflect a concern in Germany about general Russian efforts to increase its influence in Eastern Europe (Wagstyl, 2014). Some observers have noted a particular focus on the Western Balkans, i.e. Russia's traditional regional ally, Serbian nationalism (Spasovska, 2014). Despite announcement of cancellation of the project, particular Bulgarian and Russian decision makers continue to discuss how to continue with the project ("Russia Asks Bulgaria," 2014). Alliance with Russia is necessary to rectify power imbalances that currently prevent Serb acquisition of self-perceived national rights ("Putin guest of honor," 2014). Such an alliance with Russia increases Serb bargaining leverage towards Brussels regarding Serb claims on Kosovo and Bosnia and Herzegovina. A primary source of Brussels' bargaining leverage lies in the economic field. Ensuring the cancellation of the South Stream gas pipeline project reduces Serb economic options and strengthens Brussels' bargaining leverage towards Belgrade. Russian economic leverage towards Serbia and Bulgaria has heavily emphasized the economic benefits oil and gas pipeline cooperation ("Results,"

2014). Following the cancellation of South Stream in December 2014, the Russian government proposed Turkish Stream as an alternative (Stern et al. 2015: 5-13).

Figure 1: Schematic Representation of Actor Power/Capability Base and Diplomatic Influence

The power potential base (including resource base and mobilization base), the power instrument base (the governmental and military programs for generating influence abroad), and the bargaining base (the target government's perception of the capabilities of the agent government, which the agent government may or may not be using) collectively comprise the capability base of a state. The capability base translates into the bargaining leverage system: the level of diplomatic interaction. Collective as well as individual decision maker perceptions/misperceptions of power capabilities and ultimate intentions of confronting states reflect a community's historical experiences (Cottam & Galluci, 1978: 9).

CONCLUSION: THE ON-GOING BALKAN TRANSITION

Acquiescence to the European Union's directives is likely to continue in Bulgaria, a community whose state generally encompasses the Bulgarian nation. Yugoslavia's disintegration set the stage for the emergence of nationalist irredentist demands. The subsequent recovery of post-Soviet Russia has created perceived opportunities for Serb nationalism to seek support from its reinvigorated Russian patron. South Stream can be seen as an attempt at reconstituting Russian bargaining leverage in Southeast Europe among national peoples still seeking patrons.

REFERENCES

"The Balkan Crisis" (1997), CNN. Retrieved December 29, 2194, from
http://www.cnn.com/SPECIALS/1997/bosnia/history/

BBC Monitoring (2008) "EU's Frattini on Kosovo mission, spread of Islamic fundamentalism in Balkans," London. Retrieved December 29, 2014, from ProQuest.

Blank, S (2011) "Russian Energy and Russian Security", The Whitehead Journal of Diplomacy and International Relations, vol. 12(1), p. 173-188

Borzel, T & D Panke (2013) "Europeanization" in European Union Politics eds M Cini & N Perez-Solorzano Borragan, Oxford University Press, Oxford, p. 115-25

Buckley, Neil (2006) "Russian troops kill Chechen rebel leader," *Financial Times*, 19 June.

Carrapico, Helena (2013) "The External Dimension of the EU's Fight against Organized Crime: the Search for Coherence between Rhetoric and Practice," *Journal of Contemporary European Research*, vol. 9(3), p. 460-76

Cottam, RW & G. Galluci (1978) The Rehabilitation of Power in International Relations: A Working Paper, University Center for International Studies, University of Pittsburgh, Pittsburgh

Dinmore, G & D Dombey (2006) "Russia and China give assurance they will not stand in way of Kosovo independence," Financial Times, 15 March

Dombey D & N MacDonald (2006) "Tensions with Serbs raise fears over links with EU," Financial Times, 19 June

Financial Times (2004) "The bear growls: Russia is restive over Nato's advance to the east" 11 February

"GDP per capita in PPS: Index (EU28=100): Data from 1st of December 2014" (2014) *Eurostat* Retrieved December 20, 2014 from http://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tec00114&plugin=1

Genov, N (2010) "Radical Nationalism in Contemporary Bulgaria," *Review of European Studies*, vol. 2(2), p. 35-53

Giumelli, Francesco (2013) "Empowering Brussels-based Actors in EU Security Governance: The Case of Restrictive Measures." *Journal of Contemporary European Research*, vol. 9(3), p. 390-405

Gow, J (2003) *The Serbian Project and Its Adversaries: A Strategy of War Crimes*, McGill-Queen's University Press, Montreal

Higgins, Andrew (2014) "Russian Money Suspected Behind Fracking Protests" *New York Times*, 1 December

International Crisis Group (2011) "Brčko Unsupervised," Europe Briefing N°66 8 December. Retrieved October 22, 2015 from http://www.crisisgroup.org/

International Crisis Group (2006) "Macedonia: Wobbling Towards Europe," Europe Briefing N°41, 12 January. Retrieved December 27 from www.crisisgroup.org

Judah, T (2005) "The Waiting Game in the Balkans," *The New York Review of Books*, vol. 52(13) 11 August

Nichol, J (2014) "Russian Political, Economic, and Security Issues and U.S. Interests" March 31. Congressional Research Service. Retrieved November 14, 2015 from https://www.fas.org/sgp/crs/row/RL33407.pdf

Piattoni, Simona (2012) "Multilevel Governance and Public Administration," in *The Sage Handbook of Public Administration*, eds B. Guy Peters and Jon Pierre. Sage, Washington, DC, p. 764-77

 "Putin guest of honour at Serbia military parade" (2014) BBC 16 October

"Putin's annual news conference for international journalists - full text" (2006) BBC Monitoring Service, February 1, Source: RTR Russia TV, Moscow, in Russian 0900 gmt 31 Jan 06. Retrieved from February 20, 2006 from http://search.ft.com/search/articles.html

"Rebel Chechen minister argues against democracy" (2006) BBC Monitoring, 31 January. Kavkaz-Tsentr news agency website, in Russian 8 Jan 06. Retrieved February 1, 2006 from ProQuest

"Results of Vladimir Putin's visit to Serbia" (2014) TASS-Russian News Agency, 16 October. Retrieved December 7, 2014 from http://itar-tass.com/en/economy/754813

Roth, A (2014) "Putin, in Defeat, Diverts Pipeline." *New York Times*, December 2

"Russia Asks Bulgaria to Issue South Stream Construction Permits" (2014) Sofia News Agency, December 19. Retrieved December 19, 2014 from www.novinite.com

Solana, Javier (2003) "A Secure Europe in a Better World: European Security Strategy," 12 December. Retrieved December 27, 2014 from http://www.consilium.europa.eu/uedocs/cmsUpload/78367.pdf

Spasovska, V (2014) "Opinion: Russian advances in the Balkans a cause for concern." *DW*, 11 November. Retrieved November 11, 2014 from http://dw.de/p/1DpB1

Stern, J, S Pirani, & K Yafimava (2015) "Does the cancellation of South Stream signal a fundamental reorientation of Russian gas export policy?" January, Oxford Energy Comment, Oxford Institute for Energy Studies, Oxford University

Wagstyl, Stefan (2014) "Germany acts to counter Russia's Balkan designs." Financial Times, 27 November

Weible, CM , PA Sabatier, HC. Jenkins-Smith, D Nohrstedt, AD Henry and P deLeon, (2011) "A Quarter Century of the Advocacy Coalition Framework: An Introduction to the Special Issue" *PSJ: Policy Studies Journal*, vol. 39(3) August, p. 349–360

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BIOGRAPHY

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OBVIATING THE MORAL HAZARDS THAT CAUSED THE RECENT BANKING CRISIS AND FUTURE DISLOCATIONS WITH THE IMPOSITION OF REGULATIONS, RESERVE REQUIREMENTS, REVENUE/RISK ADJUSTED PAYOUTS

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Donald Crooks, Wagner College, Staten Island
Cathyann Tully, Wagner College, Staten Island
Edward Strafaci, Wagner College, Staten Island

ABSTRACT

This paper will examine the critical aspects of the Glass-Steagall Act of 1933 including a detailed analysis of the objective of the act on the banks and the economy. A further review will explore the atmosphere and psychology of the various banking practices that were implemented during the 1980's and 1990's. A chronology of pivotal events will prove that the current environment of deregulation and erosion of the distinct line between commercial and investment banks is actually attributed to monetary policies dating back to Alan Greenspan and the Federal Reserve Board actions of the 1990's. The start of the 21st century saw the rapid growth of derivative instruments that were not regulated, prompting the moral hazard which caused the mortgage banking industry collapse. A further analysis of the reckless practices will show how these lending practices caused financial chaos. The companies that failed did so because of overleveraging and failure to control risk effectively while rewarding themselves without establishing adequate reserves. The paper will conclude with an analysis of the present arguments to strengthen the core requirements for both the investment and commercial banking.

Glass –Steagall Act, also known as the Banking Act of 1933(48 Sat.162) was passed in 1933 and forbade commercial banks from engaging in the investment banking business. The enactment was an emergency response to the failure of nearly 5,000 banks during the Great Depression. It was originally a section of President Franklin D. Roosevelt's New Deal program and became a permanent measure in 1945. Some of the more important features included tighter regulations for national banks in the Federal Reserve System, prohibited banks from the sale of securities and created the Federal Deposit Insurance Corporation (FDIC), which insures bank deposits with a pool of money appropriated from banks. Beginning in the 1900's commercial banks established security affiliates that floated bond issues and underwrote corporate stock issues. The expansion of commercial banks into securities underwriting was substantial until the 1929 stock market crash and the subsequent Depression. In 1930, the Bank of the United States failed, reportedly because of activities of its security affiliates that created artificial conditions in the market. In 1933 all banks were required to close for a four day "Bank Holiday" and 4,000 closed permanently.

Bank closings coupled with an already devastated economy pushed public confidence in the U.S. financial structure to new lows. In an attempt to reverse this spiral and restore the public's confidence that bank's would follow reasonable banking practices Congress created the Glass-Steagall Act. The Act forced a separation of commercial and investment banks by preventing commercial banks from underwriting securities, with the exception of U.S Treasuries and federal agency securities and municipal and state general obligation securities. Conversely investment banks were not allowed to receive banking deposits. Investment banking consists mostly of underwriting securities and related activities, making secondary markets in those securities and setting up merger and acquisition activities, restructuring and overall

business advisement.   The Glass- Steagall Act helped restore confidence in the banking industry during and after the Depression. Many historians however gesticulate that the practices of the commercial banks of the time had little actual effect on the already devastated economy and were not a major contributor to the crisis environment. Over the years legislators, economists and businessmen have argued that Glass-Steagall was outdated, created an atmosphere of uneven playing field between domestic institutions and those globally who were not constrained by such restrictions. There was also a strong feeling of government overreaction to a crisis in attempt to insure against repeat economic distress. The world economy became more dynamic with the emergence of the strong Japanese economy and the geopolitical impact of the Middle Eastern states buttressed with growing oil revenues.

In 1994 the Government proposed letting the banks enter new fields of business, including allowing big banks selling real estate, computer services and possibly even securities. The new rules would allow banks to set up subsidiaries that could undertake any activity "incidental to or within the business of banking" Until now, subsidiaries of federally chartered banks have been limited almost exclusively to banking. Critics of big banks were quick to warn that new regulations could undermine Glass-Steagall which is murkily written and open to interpretation "said Diane Casey, executive director of the Independent Bankers of America, a Washington based trade group that represents small banks. While the Treasury was not actively involved in drafting regulations the proposals were consistent with the Clinton administration's general position that banks should be allowed to diversify into other industries.

The first breach in the Glass-Steagall Act occurred in 1989 when some big banks were granted permission from the Federal Reserve to set up separate subsidiaries for trading securities and J.P. Morgan was the first obtaining the right to trade corporate debt and stocks in 1990. These holding companies were legally separate from the banks and were limited to trading securities and could not engage in activities like real estate brokerage and data processing.   The Financial Services Modernization Act of 1999 was passed by Congress after 12 attempts in 25 years. Congress finally repealed Glass-Steagall, rewarding financial companies after 20 years and $300,000,000 of lobbying efforts. The key element of the repeal of Glass-Steagall was the proposed merger of Citicorp and Travelers Insurance. The merger was granted temporary approval by Alan Greenspan's Federal Reserve. The official stance of the White House was that the Financial Modernization Act was tearing down the antiquated laws and granting banks significant new authority. The signing of the Gramm-Leach-Bliley Act in late 1999 repealed Glass-Steagall once and for all paving the way for both consolidation and expansion in the banking/investment banking industry.

It must be remembered that deregulation and consolidation in the banking and investment banking area had been in place and growing over the past three decades. In fact there were more bank mergers and acquisitions from 1988-1998 sixty-nine in total than from 1998 to 2012, fifty-nine. It also could be argued that an overly accommodating monetary policy by the Federal Reserve since before the dot.com bust and post 9/11 was the fuel that propelled asset backed price appreciation. Alan Greenspan, in an effort to move the stalled economy post 9/11 kept interest rate at historically low levels as the stock market and economy struggled. Investment money flowed unabatedly into real estate as a safe haven. This accommodative policy along with a relaxation of regulations led to an environment of ever increasing laxity when it came to policing risk and its potential consequences.

The Glass –Steagall repeal did not lead to a tremendous consolidation of banks and mergers or takeover of brokerage firms on a large scale. It is not often mentioned that there existed and still does exist tremendous differences in culture of the two types of institutions. The genetic makeup of those who work in investment banks is drawn from the universe of alpha males and females as opposed to the more staid personalities in the commercial bank sector. In fact of all the firms those failed or were in danger of failing only one was the real benefactor of the repeal. The institution was the very one that hastened and lobbied for the repeal of Glass-Steagall, Citigroup. Citigroup was the combination of Citicorp and Travelers Insurance and its subsidiary of Salomon Brothers-Smith Barney that was allowed by the adoption of Financial Modernization

Act mentioned earlier. In studying the other firms that fell victim to the Great Recession in the banking and investment industry all others were either banks or brokerage firms.
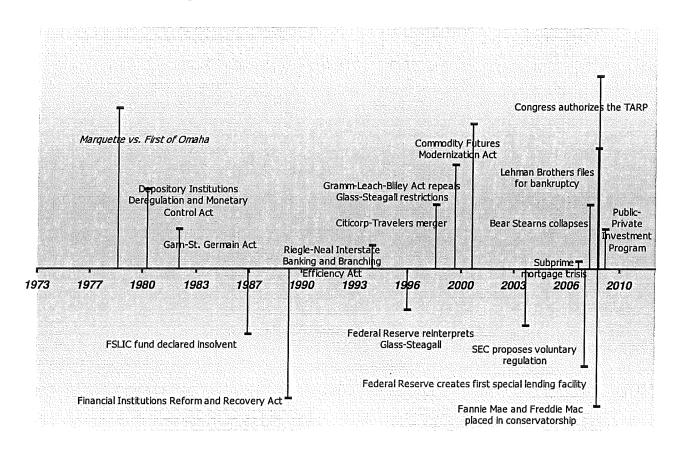
Brokerage Firms
Lehman brothers – unable to find a buyer and fell into bankruptcy
Merrill Lynch----bought by BankAmerica during the crisis
Bear Stearns—bought by J.P. Morgan also during the crisis and both acquisitions orchestrated to some extend by the Federal Reserve and Treasury
Banks.
Wachovia
Washington Mutual

A number of Savings and Loan Companies along with Mortgage granting institutions also failed, the most prominent being Countrywide Credit which was acquired by BankAmerica. Glass Steagall in and of itself did not directly cause bank and or investment bank failures, it was a component of a string of ongoing deregulation and lax regulation that added fodder to the fire. One must look at some of the other factors that allowed, indeed provided impetus for the failures. Deregulation in its broad stroke should spur competition as long as the remaining regulations are upheld and enforced. The first line of defense in any organization is regulating itself as a means of survival and the ability to prosper and thrive. Given an atmosphere of relaxed regulatory involvement the risk appetite will rise to meet the appetite and intestinal fortitude levels of your rivals. This is exactly what transpired during the melt down and the Great Recession. It would be wise to look at some of the more pertinent and elusive descriptions of Glass Steagall and what are indeed factual.

Glass Steagall in fact was never repealed. It is still applicable to insured banks and forbids them from underwriting or dealing in securities. What was repealed in 1999 were the sections that prohibited insured banks from being affiliated with firms commonly called investment banks, those that are engaged in underwriting and dealing in securities. Repeal allowed banks to use taxpayer insured funds for risky trading, this is also not factual. Portions of Glass Steagall that remained after 1999 prohibited insured banks from underwriting or dealing in securities. Before and after repeal the banks were allowed to trade [buy or sell] bonds and other fixed income securities for their own account. Banks have always been allowed to trade securities they can invest in. Banks did not get into trouble 'trading' risky mortgage back securities they ran afoul by holding these instruments in their portfolios. This is basically the same thing as granting loans that defaulted during the meltdown.   The repeal of Glass Steagall did not allow the Investment bank subsidiary to have access to insured deposits so unless they fraudulently comingled or poached funds this would not be possible. The banks failed by making bad loans. The investment banks that failed Bear Stearns. Merrill Lynch and Lehman were not affiliated with insured banks. These institutions by and large became insolvent because of over leveraging, something this paper will address in ensuing pages.

Two of the biggest banks that failed, Wachovia and Washington Mutual got into trouble mainly by making risky loans to homeowners. Two large banks with investment banking arms, JP Morgan and Wells Fargo, resisted taking government money and arguably could have weathered the storm without it. BankAmerica nearly met the same fate of Wachovia and Washington Mutual but not because they bought Merrill Lynch but for their large investment in Countrywide Mortgage a plain vanilla mortgage company. It would be better to focus our research on some of the reasons that these failures happened at all. Deregulation has had strong government backing since and before even the Reagan Administration. We will look at the most current governmental easing starting with the Riegle-Neal Interstate Banking and Branching Efficiency Act of 1994. This bill eliminated previous restrictions on interstate banking and branching. This was the first link in the foundation of allowing big regional banks to merge and acquire other banks while moving to a national platform.

Timeline of Key Events

Congress authorizes the TARP

Marquette vs. First of Omaha

Commodity Futures Modernization Act

Lehman Brothers files for bankruptcy

Depository Institutions Deregulation and Monetary Control Act

Gramm-Leach-Bliley Act repeals Glass-Steagall restrictions

Public-Private Investment Program

Garn-St. Germain Act

Citicorp-Travelers merger

Bear Stearns collapses

Riegle-Neal Interstate Banking and Branching Efficiency Act

Subprime mortgage crisis

1973 1977 1980 1983 1987 1990 1993 1996 2000 2003 2006 2010

FSLIC fund declared insolvent

Federal Reserve reinterprets Glass-Steagall

SEC proposes voluntary regulation

Federal Reserve creates first special lending facility

Financial Institutions Reform and Recovery Act

Fannie Mae and Freddie Mac placed in conservatorship

Sherman, Matthew. "Short History of Financial Deregulation in the U.S., Center for Economic Policy and Research," July 2009, [p.1.]

1996 - Fed Reinterprets Glass-Steagall. After several revisions bank holding companies were allowed to earn up to 25% of their revenues in Investment banking. 1998 – Citicorp-Travelers Merger, creates Citigroup, Inc. merges a commercial bank with an insurance company [Travelers owned Salomon, Smith Barney investment banks] to form the world's largest financial services company. 1999 – Gramm-Leach-Bliley Act—with support from Alan Greenspan, Federal Reserve Chairman, Treasury Secretary Rubin and his successor Lawrence Summer, repeals Glass-Steagall. 2000 – Commodities Futures Modernization Act-Passed with support from the Clinton Administration, including Treasury Secretary Lawrence Summers and bi partisan support in Congress. This bill prevented the Commodity Futures Trading Commission from regulating most over-the-counter- [non Listed instruments] derivative contracts, including credit default swaps [CDO's]. 2004 – Voluntary Regulation- the SEC proposes a system of voluntary regulation under the Consolidated Supervised Entities program, allowing investment banks to hold less capital in reserve and increase leverage. A pattern was emerging that eventually led to bank and investment bank failures. Investment banks were policing themselves more and more with less oversight by the SEC and Federal Reserve. This atmosphere allowed investment banks to increase leverage from 12-1 to 33-1, this leveraging works wonders in a rising asset environment but downward spiraling of asset values leads to dire consequences very quickly.

Financial Services Leverage

Kwak, James. "What Did the SEC Really Do in 2004?" www.baselinescenario.com /2012/01/30

Hands off Regulation

A rapid growth in the new types of derivatives instrument posed a major problem to regulatory agencies and removed any transparency that had here- to- fore existed. The financial industry developed a wide range of derivative instruments in the 1990's, most of which were not regulated, this growth continued unabated and accelerated in the first decade of the 21st century. The most important of these derivatives were credit default swaps [CDS] which were effectively a form of bond insurance, where the insurer would bear the risk in the event of a bond default. In a completely unregulated market, derivative trading ballooned from a total outstanding nominal value of $106 trillion in 2001, to a value of $531 trillion in 2008. Capital requirements were allowed to drift significantly lowe as result of S.E.C. actions in 2004 as reported in an article published by a former S.E.C official. SEC rule 15c3-1 allowed some financial firms to hold less capital and dramatically increase their leverage from 12-1 to 33-1. This move was in response to the existing regulatory ratio guidelines followed in Europe and was intended to help the 5 largest US investment banks remain competitive on a global basis. Before the rule change the broker-dealer was limited in the amount of debt it could incur, to about 12 times its net capital, though various reasons broker-dealers operated at significantly lower ratio. If, however , Bear Stearns and other large broker-dealers had been subject to the "typical haircuts on their securities positions" and aggregate indebtedness restriction, and other provisions for determining required net capital under the traditional standards, they would have not been able to incur their high debt leverage without substantially increasing their capital base.

Growing Tsunami

Comparative Financial Leverage

	Economy-Wide		Non-Financial Corporate Sector		Financial Sector		Households & Small Business	
	EA	US	EA	US	EA	US	EA	US
1999	3.51	2.66	0.67	0.46	1.61	0.79	0.48	0.88
2007	4.54	3.47	0.92	0.49	2.32	1.17	0.61	1.28
2008	4.73	3.46	0.97	0.49	2.42	1.17	0.61	1.24
Change in 1999-2007	1.03	0.81	0.25	0.03	0.71	0.38	0.13	0.4

"The Global Financial Crisis: Causes and Cures," Journal of Common Market Studies, 2009. Vol. 47, No.5, [p.982]

An atmosphere of accommodative monetary policy, friendly bipartisan support for deregulation spanning two decades and an easing of regulatory oversight led to an appetite for increased leverage. This increased leveraging was in somewhat a response to the cries of shareholders for greater returns and a leveling of the playing field with European banks that routinely had leverage ratios even exceeding 40-1. The 2004 rule allowed the Investment banks to pile up debt at an unprecedented rate while at the same time weakening regulatory oversight. It allowed, for the first time the S.E.C. to have a window on the bank's risky investments in mortgage related securities; unfortunately the agency never took true advantage of that part of the bargain. Christopher Cox who became the new Chairman of the S.E.C. a year later never considered this a high priority. The commission assigned seven people to examine parent companies—which in 2007 controlled financial empires with combined assets of more than \$4 trillion [at the time of the article in October 2008 not a single inspection had been made since the division was reshuffled]. The 2004 decision reflected a faith that Wall Street's financial interests coincided with Washington's regulatory interests." In retrospect, the tragedy is that the 2004 rule making gave us the ability to get information that would have been critical to sensible monitoring, and yet the S.E.C. didn't oversee well enough" Mr. Goldschmid an S.E.C Commissioner and authority on securities law from Columbia University, said in an interview.

Moral Hazard

Both commercial and investment banks are awarded government protection, without consideration for their risk taking via liberal lending practices and use of derivative instruments. The safety net provided to banks by the federal government actually protected commercial banks from suffering severe financial consequences when the mortgage market began to collapse. Making the country's exposure worse, was the activity which took place outside the traditional banking system, whereby private financial markets had willingly financed unprecedented amounts of leverage in more loosely supervised firms such as Bear Sterns, Lehman and AIG. In fact moral hazard became a global issue as the European Central Banks provided liquidity to the banks in Britain. "Never in the field of financial endeavor has so much money been owed by so few to so many. And one might add so far with little real reform." Mervyn King, Governor of the Bank of England, October 20, 2009
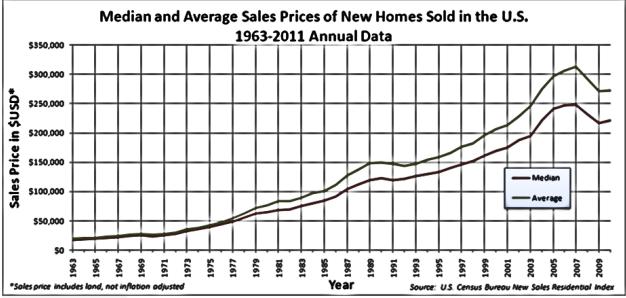
The Effect of Diminished Reserve Requirements and Declining Real Estate Prices on U.S. Banks

A drive for increased revenue combined with relaxed regulation and lower reserve requirements were major contributors to the banking crisis. The seeds of the Great Recession of 2008 were sewn with the advent of investment banks going from private to public partnerships in the late 1990's. The availability of public capital as opposed to the traditional partnership structure created the incentive for banks to take on ever-increasing risk. Striving to compete in a more aggressive global landscape they embraced the more relaxed reserve requirements. This, combined with the technology that allowed Quantitative Analysts, or Quants, the means to create new derivative structures, forged a path that ultimately led to a banking calamity.

Global competitors, such as Deutsche Bank and Union Bank of Switzerland were using depositors' commodities-based wealth to strengthen their balance sheets. Concurrent with relatively relaxed regulations, made foreign banks more competitive thus giving them a business advantage and allowed them to attract valuable domestic talent. At the same time, the burgeoning hedge fund industry (who was also significant political donors) was demanding greater leverage from these U.S. Banks. The proprietary desks at these banks offered that leverage and mimicked those trades. New regulations allowed these banks to take on increased leverage, in some cases, approaching approximately thirty to one.

These banks relied on faulty statistical analysis to justify greater leverage. Housing prices had consistently increased in value without any dramatic retracement (see chart). This was mostly due to the fact that housing

values have never experienced a significant downward trend in over fifty years. Value at Risk measurements that rely on standard distribution models, severely understated the probability of the significant decrease in housing stock assets. This risk was exacerbated by more accommodative lending standards in the mortgage industry. In the past, the traditional lending models more accurately assessed collateral. Banks, now funded with public money and relaxed reserve requirements, were more eager to offer mortgages to less credit worthy borrowers.

Median and Average Sales Prices of New Homes Sold in the U.S. 1963-2011 Annual Data

Sales price includes land, not inflation adjusted

Source: U.S. Census Bureau New Sales Residential Index

United States Census Bureau

Quantitative modeling was employed to create a derivative structure that would enhance the offering of Collateralized Debt Obligations (CDO's). These CDO simulations used pools of mortgages that were assigned to different tranches according to their risk parameters. Using public money, the banks are able to generate significant commission revenue by packaging and selling these securities with buyers both domestically and offshore. Using enhanced leverage requirements, they purchased these securities for their own account trying to drive their revenue base higher, allowing them to be more globally competitive. These derivatives were mostly accounted for off balance sheet which further camouflaged the extent of the risk to the banking sector. Increase leverage allowed the banks proprietary desks to act like the hedge funds they serviced. The use of this leverage ultimately worked to their disadvantage. In comparison to the Long Term Capital debacle of the 1980's, the use of leverage proved ruinous. The rapid decline of housing prices tested a foreclosure system that was here to fore never stressed on a national or global scale. This created a system where the collateral backing these securities could not be judicially seized, creating more destruction. Ultimately, Investment Banks looking to increase their revenues in order to increase compensation levels, and to attract talent, employed ever increasing credit relying on mispriced VAR models and lenient reserve requirements and regulations. Credit rating agencies only magnified the problem by overstating their ratings on these CDO's. Finally, the system for monetizing these bad real estate-based investments failed. This confluence of events, embodied by the need to create revenues to satisfy the public investor, set the stage for the debacle of 2008.

In the final analysis, it was the relaxation of reserve requirements that led to the Great Recession. Allowing banks to increase leverage, in some cases up to 33 to 1, a very small negative movement in the price of an underlying security would lead to the catastrophic losses experienced by the major bulge bracket firms. This leveraging, allowed by the 2004 relaxation, provided steroidal stimulus to investment banks dealing with investor expectation and overseas competition, where leverage of 40 to 1 had become the norm.

Derivative trading exploded and oversight diminished and this allowed for an overabundance of leveraged induced profits. As long as the markets kept advancing the Investment banks were witnessing huge increases in profits but this turned into an incredible and insurmountable burden when markets began to unwind. None of the firms adequately established reserves that could reflect the possible adverse outcome that was about to unfold. This 'Black Swan' began to spread its wings and the leverage, which had provided the profits, came home to roost with a vengeance. If indeed, even with the 33 to 1 ratios, there would have been little ripple effect if the Investment banks had set up the proper reserves to reflect the VAR. If these safeguards were established then the compensation level would have been in line with historical norms and not hysterical levels. The revenues were paid out as bonuses as they were recorded on the books instead have held in abeyance until the contracts came due or the risk abated significantly. Glass Steagall had less to do with these phenomena then was popularly assumed but was clearly the step child of the reason mentioned previously, Not just deregulation, which should be a boon to competition and aid the end user, but regulation that was not sufficiently enforced Leveraging that would lead to disastrous conclusions, this had been established as a fait acompli of irresponsibility during the Long Term Capital debacle, so it was not an unexpected or new paradigm.

Establishing payouts based upon recording of business as opposed to completion and closure of the transactions.

Not setting up reserves to counteract even the most damaging occurrences

Commercial paper rates resulting from the downgrades that made it impossible for some firms to survive, indeed some firms were not able to issue Commercial paper at any rate.

These losses were particularly acute at Lehman Brothers and Bear Stearns and led to their failures. Ultimately, the required reserves were not sufficient enough to protect these banks in the event of declining asset prices. At the same time, employees at these banks were still being compensated based on profitability and not risk aversion, this was a lethal combination.

CONCLUDING REMARKS

As evidenced in this paper, numerous warning signals were evident prior to the 2008 financial crisis. The twenty year period of erosion of the Glass-Steagall Act contributed to the financial crisis by providing an opportunity for the explosion of the sub-prime mortgage market and creation of derivative instruments which fell outside the banking authority's realm of responsibility. Had Federal Reserve oversight been more stringent, perhaps excessive lending to largely financially unqualified American consumers could have been minimized, preventing the five largest investment banks from overleveraging to the point of disaster. The authors provide a clear case in support of strengthening the core requirements for both investment and commercial banks.

REFERENCES

Agency '04 Rule "Let Banks Pile up New Debt," New York Times, October 2, 2008.

Andrew, Lo. "Reading About the Financial Crisis: a Twenty one Book Review," Journal of Economic Review 151. March 2012

Binger, Jon. "How Congress Helped Create the Subprime Mess," Fortune January 31, 2008
Blinder, Alan S. "After the Music Stopped," New York: Penguin Books, 2013[p. 268]

Bradsher, Keith. [November 29, 1994], "U.S. Proposes Letting Banks Enter New Fields," New York Times

Carmassi, Jacopo, Gros, Daniel. Micossi, Stefano. "Global Financial Crisis, Journal of Common Market Studies," 2009, Vol. 47. No. 5. [p.983]

Financial Crisis Inquiry Commission. "The Financial Inquiry Report: Final Report to the National Commission on the Causes of
the Financial and Economic Crisis in the United States," Washington, D.C. US Printing Office, 2011 [p. 45]

"Glass-Steagall Act," [1933], Topics, New York Times.com/topics/reference/timestopics
"Is Deregulation to Blame for the Financial Crisis," www.Newsandinsight/Thomasreuters.com/Securities Insight 2012

Kwak, James. "What Did the SEC Really Do in 2004?" www.baselinescenario.com /2012/01/30
Pearstein, Steven. "Shattering the Glass-Steagall Myth," www.washingtonpost.com/letsshatterthemyth.

Sandy Weill: "The Banker Who Bought Bill Clinton and Shattered Glass-Steagall,"
www.softpanorama.org/skeptical/financial.
[p.1.]

Sherman, Matthew. "Short History of Financial Deregulation in the U.S., Center for Economic Policy and Research," July 2009,
[p.1.]

"The Global Financial Crisis: Causes and Cures," Journal of Common Market Studies, 2009. Vol. 47, No.5, [p.992]

Timothy F. Geithner. "Stress Test: Reflections on Financial Crises," (New York: Crown Publishers, 2014) [p.392]

Wilson.Peter. "Five Myths about Glass-Steagall," The American Magazine.
www.america.com/archive/2012.

AN EMPIRICAL LOOK INTO THE PERCEPTION OF PODCASTING AS VIEWED BY ONLINE BUSINESS FACULTY AND STUDENTS: DOES PODCASTING PROVIDE AN EFFICIENCY THAT SHOULD BE FUNDED, OR IS IT A WASTE OF RESOURCES? CAN PODCASTING PROVIDE AN ALTERNATIVE TO EXPENSIVE TEXTBOOKS?

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ABSTRACT

Colleges and Universities are looking for ways to reduce student costs and improve student learning retention. Podcasting has been in play for ten years now, giving time for a broader audience to use this technology. This paper presents the findings of a study which looks at use and felt effectiveness of podcasting in online courses by both faculty and students. The survey looks at how podcasting may aid in improving focused student learning. How willing faculty is to use podcasting in place of costly textbooks is answered. The frames of this survey include: awareness, utility, effectiveness, learning styles, technology, and cost. In 2015, a survey given to online graduate and undergraduate Business students and faculty at four higher education U.S. institutions. Results suggest that faculty should consider using podcasting in online courses to place focus on providing further explanation of stated learning objectives in order to meet the expectations and needs of today's student population.

JEL: A2

KEYWORDS: Awareness, Utility, Effectiveness, Learning Styles, Technology, and Cost

INTRODUCTION

Student use of social networking technologies has grown in recent years, producing an expectation of further use in education. Much research collected over the last 10 years measures opinion and use of podcasting in higher education. This study looks at how podcasts have infiltrated higher education learning. Student and faculty perception of podcast effectiveness in aiding multiple learning styles to achieving learning outcomes is shown. The possibility of using podcasts as a focused response to rising textbook costs is examined.

LITERATURE REVIEW

Podcasting awareness and use is continuing to see an upward trend, although slowing. An Edison Media survey found that 49% of Americans feel that they are familiar with the term "podcasting", up from 22% in 2006 (Webster, 2015). Students still want traditional methods of teaching and learning, but in addition are showing signs of acceptance of new methods that they feel increase student learning, such as podcasts (Robson & Greensmith, 2010). Students seek out ways to improve learning, including through text messaging, RSS feeds, podcasts, and social networks (Cassidy, Britsch, Griffin, Manolovitz, Shen, & Turney, 2011). Practical uses for podcasting could aid in improving attention and facilitate note-taking, by allowing for repeated viewing (Khechine, Lakhal, & Pascot, 2013; Evans, 2008). The study also showed that some disadvantages include the lack of interaction and visual contact (Khechine et.al, 2013). In a study by Berger (2007), students noted a favorable response to podcasting use in explanation of problem solving.

Faculty looks for ways to encourage student interaction in online education. Using video podcasts including: instructor announcements, weekly or chapter attention grabbers, or discussion starters can be a way to promote student engagement. Allowing students to get address one another via podcast is another way of making the lessons more personal and interactive. Getting students to create and present their own podcasts is an active way to reach course goals where oral presentation assigned (Carnegie Mellon, 2007). Instructional designers expect to see an increase in information "chunking" (Donnelly & Berg, 2006). Chunking of information allows students to learn targeted information quickly. McCoog addresses each multiple intelligence learner through activities using technology (McCoog, 2007). Although McCoog proposes using the Internet, he does not mention podcasting and how it can address each learner preference. As technology has become more common education has heeded the call with an updated approach to the widely used Bloom's Taxonomy. All levels of Bloom's may be reached through a combination of podcasts and classroom response systems, known as "clickers" (Graver & Roberts, 2013). Graver and Robert's (2013) reference to using "clickers" to achieve the "do" and "evaluate" concepts, while using podcasts to cover lecture material.

Mayer's Cognitive Theory of Multichannel Learning states that students need both words and images to ensure learning (Mayer, 2003). The theory is based on three theoretical assumptions. Dual channel assumption notes that learning needs to meet two different channels, using both visual images and verbal sounds for full processing to occur (Clark & Paivio, 1991). The limited capacity assumption states that how much people can process is limited, potential is there for information overload (Clark & Paivio, 1991). Dual channel, limited capacity, and active learning could all be addressed through short video and audio podcasts that are focused on important topics, chunks. It is recommended that podcasts should be kept short, 15 minutes for maximum effectiveness (Garver and Roberts, 2013).

Students will not find podcasts effective if used without supporting material. Using audio podcasts alone could lead to a failure to meet the needs of other types of learners, besides auditory learners (Mayer, 1997; Lister, 2006). Combining pictures with words in lessons helps to increase learning and memory (Mayer & Moreno, 2003). Mayer & Moreno's research shows that multimedia can be used to stimulate two of the five senses, hearing and seeing (2013). Podcasts used in conjunction with other learning methods can function to aid in success. In a 2009 Aston University study, researchers found that students did indeed feel that video and voice podcasts noticeably benefit learning, when used with lecturers' slides (Parson, Reddy, Wood, & Senior, 2009). Students perceived that learning improved when podcasts were used for reviewing course materials (Robson & Greensmith, 2009; Graver & Roberts, 2013). Evans (2008) added that students preferred podcasts over their textbooks and notes taken. Robson & Greensmith (2010) concluded that faculty should recognize the usefulness of podcasting as a means to engage students learning. Robson and Greensmith (2009) found that students who had experience with using podcasts before the course perceived podcasts to be more valuable. Those students tended to utilize the course podcasts more (Robson & Greensmith, 2009). This study also found that students used podcasts to listen to and watch introductions, activities, and as review (Robson & Greensmith, 2009).

(Robson & Greensmith, 2009) concluded that faculty's lack of familiarity, training, time availability may hinder acceptance and may make them reluctant to create and use podcasts. From this study, faculty indicated that they may have not created their own podcasts for courses (Robson & Greensmith, 2009). Faculty did use podcasts themselves indicating that they see value (Robson & Greensmith, 2009). In order to reach maximum effectiveness from a podcast, use must be aligned with assignments (Garver and Roberts, 2013). Students find it important to know the benefits, purpose, and the connection to the lesson that the podcast brings in order to have buy in of it use (Garver & Roberts, 2013). Podcasting, in its infancy, was characterized by RSS (really simple syndication) subscription and its push feeds that connected the listener to a recorded series of conversations (Anzai & Gakuin, 2007; Carnegie Mellon; Fizz, 2013). Over time, the process evolved to include more options, such as both video and audio, and flexibility of distribution, which encouraged more widespread use and a broader audience (Brown & Green, 2007; Webster, 2014).

Podcasting, in this study, is defined as a digital audio or video file made available as a link, for downloading to a computer or portable media player, typically available as a series, but could be used separately for topic/lecture information within the learning management systems (LMS) of online courses, or courses that utilize these LMS. Podcasting is a low cost way of providing focused information to student users (Zeng, 2009). The largest cost of producing a podcast is time and labor (Carnegie Mellon, 2007). The ability of the faculty member to create podcasts might impact the desire to produce. The person producing the podcast must have knowledge of how to generate an RSS feed in order to list the location of podcast episodes (Carnegie Mellon, 2007). Production requires recording hardware, like digital microphones and digital cameras, and software for editing audio and/or video segments (Carnegie Mellon, 2007). Common podcasting economic business models include sponsorships, advertising, and donations. Having a College or University sponsor the faculty made podcast would be a way for the message to target current and potential students.

Higher Education institutions could also explore outside sponsorship in order to gain financial support. "Sponsorship is seen as being less intrusive in comparison to advertising, making it more acceptable to users."(Crofts, Diley, Fox, Retsema & Williams, 2005). Sponsorships would work well for institutions that are large and/or offering podcasts for a broader audience. Reaching a broader audience would help to attract sponsors. Listener donations are given in the form of "tips" whereby the listener shows appreciation and support for the podcast by leaving a monetary donation. In education, tips are not an accepted exchange between students and faculty, but donations to institutions in general may be seen as more welcome. Student and faculty have shown concern about growing tuition and fees, including the costs of textbooks (Silver, Stevens, & Clow, 2012). The rate of inflation for the price of higher education textbooks has risen by 80% from 2002-2012 (GAO, 2013). The U.S. Government's aim of providing financial aid to students, helping to ensure accessibility and affordability of higher education, has spurred an investigation into costs associated with obtaining a degree. A possible way to reduce costs associated with course materials is to include teacher led podcasting.

DATA AND METHODOLOGY

A total of 508 (91%) out of 557 students completed the student questionnaire. Of the 508 respondents, 32 (6%) students responded that they have no experience in watching or listening to podcasts. The survey was divided into four sections. The first, completed by all 508 students, was demographic information such as College/University attending; as well as the level of current standing, undergraduate and graduate. The second, experience, identified if the student had ever used podcasts, which types were used, and how are podcasts that are listened to or watched selected. The third, effectiveness, collected information on student perception of learning styles and perception of value of podcasts. The fourth, use, questioned self use, if their instructors have ever used podcasts in courses, whether or not they have utilized a podcast multiple times for further learning, and whether using instructor selected podcasts to focus on course learning objectives in place of a required textbook is acceptable. A hypothesis was drawn:

H_0 Having experience with podcasts has no effect on students' acceptance of replacing required textbooks with instructor selected learning outcome focused podcasts.

H_a Having experience with podcasts has a positive effect on students' acceptance of replacing required textbooks with instructor selected learning outcome focused podcasts.

In order to validate the research question, a pilot study was conducted. Data was collected by surveying online undergraduate Business students and faculty in one higher education institution. This set a base understanding in order to benchmark how well students understood and used podcasting. In the pilot study, students were asked to define podcasting. Descriptions of podcasting given included: subscription, posted,

link, video, audio, and short message. This gave the author reason to believe that understanding of the definition of podcasting has expanded beyond the traditional scope of the push feed RSS subscription as it was originally designed. The author defined podcasting to include links that may be posted to the LMS being used at the surveyed institution. This definition was provided to participants prior to completing the survey. Two surveys were distributed, one to undergraduate and graduate MBA Business students from four higher education institutions and the other to faculty of Business courses at both the graduate and undergraduate levels at the same four institutions. The surveys were distributed in week nine of the program, in both spring and fall, following midterm exams. The student survey was administered through an external party, by providing an invitation and link in the course learning management systems: Moodle, Blackboard, and Canvas. The faculty was invited to participate in the survey through an emailed invitation that included the external party's survey link. This was done in order to control the respondent's invitations and responses received. Responses from faculty who teach both online and on-campus were recorded. Completion of the surveys was voluntary for both groups and students understood that data received would be assigned random numbers with associated indicator variable for program level and college.

The response rate may normally be noted as impacted by the method of survey, online versus hard print copy however; in this case measuring the perception of online students via an online method makes sense. These students, who do not normally meet on campus, already are prepared to receive all of their learning materials and direction online. In order to reach online faculty, who like their students, are in various states, an emailed invitation is the most efficient manner to make contact. Students surveyed took courses that included weekly modules consisting of: written lecture included as notes on the PowerPoint slides, discussion forums, quiz, case-studies that included equations to use in solving problems.

RESULTS AND DISCUSSIONS

In a pilot study, students were asked to define podcasting. Descriptions given were subscription, posted, link, video, audio, and short message. This gave the author reason to believe that understanding of the definition of podcasting has expanded beyond the traditional scope of the push feed subscription as it was originally designed. This information led to the author defining podcasting to include links that may be posted to the LMS being used at the surveyed institution. Students use podcasts more for educational purposes and entertainment than for hobbies or as a news source. Of the students who have utilized podcasts, either video or audio, 74% noted using podcasts for educational purposes, 58% use podcasts for entertainment, and 39% for hobbies. Students already accept podcasts as an education medium, as long as the podcasts present information they are trying to obtain.

When students were asked to share how they learn best, the majority (71%) indicated that they prefer multiple learning style methods. Looking further, the results show that 58% want to receive course information in chunks, whereas none of the students indicated a preference for longer lectures that included complete lesson materials. Students noted long complete lectures, not chunked, covering a broader group of objectives, as being the least effective and valued format for learning. This gives credence to the idea that focused learning and depth is more sought after by students than a broader view. 68% of students indicated that they retain what they learn when learning objectives are presented in a manner that may be reviewed multiple times. Only 9% of students saw discussions as being an important tool in reaching learning objectives. Students showed preference for videos (48%) over an audio only option (29%) as a preferred learning mode. This is consistent with Mayer's (2003) Theory of Multichannel Learning, which states the need of including both words and images.

Faculty was also surveyed to determine how they felt students learned best. The results of the faculty survey showed that faculty and students agree that students learn best when multiple learning styles are addressed. 82% of faculty noted that lessons presented in multiple learning styles reach student needs the best. Faculty identified the need to present materials in chunks (67%) over providing information in long

lectures (4%), which was consistent with student perception. 38% of faculty perceived discussions to be a more important means of reaching learning objectives than students. Faculty too chose video representation (26%) over an audio format as a preferred learning mode, reflecting that of students. This points to the need to deliver information in a shortened, more manageable format, which is consistent with the finding of Donnelly & Berg (2006) in order to reach students as they perceived that they learn best. This also shows that faculty is in agreement with this need and should look for ways to meet this need. Podcasting would be a means for meeting these goals as its general principle is to offer video and/or audio delivery of information in a short focused format that may be downloaded and viewed multiple times in order to meet multiple learning styles. Utilizing discussions to reach learning objectives were seen as far more important by faculty (38%) than by students (9%).

Students indicated that they desire the ability to review course learning objective material multiple times. Survey results showed that 65% of students who have watched or listened to podcasts in the past have done so multiple times in order to gain a better grasp of the subject matter. This is consistent with previous studies performed by Robson & Greensmith (2009) and Graver & Roberts (2013), noting that students feel that podcasts used for reviewing course materials improves learning. Faculty in this survey agreed with students and previous student studies when 54% recognized that online students learn best and retain what they learn when learning objectives are presented in a manner that may be reviewed multiple times. Faculty should consider including podcasts that focus on course learning objectives as a review in order to meet students study needs.

Although 29% of students stated that they are likely to read the entire textbook chapter from beginning to end when learning about identified course objectives, 65% indicated that they are more likely to search for the answer by looking for important points in the chapter, skipping what seems to not answer the question. The remaining 6% of the students surveyed indicated that they seek out topic videos. These findings fall in line with how faculty saw student study methods to be true. However, faculty noted an even higher rate of direct searches, citing students to be three times more likely to search for answers by skimming the textbook than to read the chapter from start to finish. This points to the need for faculty to chunk information and include video to support lesson learning objectives, both of these needs may be addressed through the use of video podcasts. Chunking can allow podcasts, to meet the student's instructional needs no provided by text books by allowing them to "skim" across video podcast to find the desired instructional material.

In ranking the level of importance for the use of podcasts in courses, students emphatically identified video podcasts that contain information on how to solve equations or problems top on the list (69%). 34% of students surveyed felt that podcasts were also helpful in providing an explanation in practical use to Business course topics. The students did not perceive podcasts to be nearly as useful for other areas such as explaining a historical perspective, for course announcements (1%), anticipatory set attention grabbers (3%), or explanation of theory (1%). The faculty survey results show disconnect from where faculty see it is important to use podcasts in courses and where students perceive podcasts to be of the most service. Faculty note using podcasts to show how to solve equations to be of the least important, which is concerning since students value it the most. Faculty rank using podcasts to explain the historical perspectives, and discussion starters as being the most important (53%), followed by giving an explanation of practical use (48%), using them for attention grabber anticipatory sets (41%), and announcements (35%). These results point to the need for faculty to integrate podcasts into the lesson in areas that students find useful in order to encourage students to utilize the technology in the learning process. Although all students surveyed are part of courses which utilize podcasts, in addition to chapter readings, and other materials, students did not necessarily make use of the podcasts or notice who authored the podcast. Only 32% of students surveyed noted the podcasts used by their instructors in course presentations were made by their own instructors, whereas, 3% were made from other sources.   Students noted (26%) that no podcasts had been made available in the course. Students who noted instructor made podcasts were being used were 89% more

likely to view the podcast. This suggests that faculty made podcasts, which are identified as such, would increase the use and awareness of availability of podcasts in courses. Students perceive faculty made resources as more valuable than outside sources.

A reason for the difference between the number of courses actually utilizing podcasts and the number of students who noticed podcasts being offered could be that students do not realize that the links offered are podcasts, links are not differentiated from text or websites. An area of further research should look into whether or not if podcasts links that include an explanation indicating content, use and format will increase student observation and thereby increase use of podcasts being offered in courses. The results show that students perceive instructor selected, learning objective focused podcasts as a viable option to be used in the place of textbooks. The majority, 71%, of students noted yes; podcasts would be acceptable in the place of textbooks, while 14% of students noted that required textbooks are absolutely necessary in courses. Another 15% of students were not sure, stating that podcast use in the place of required textbooks could be acceptable.

The survey results indicate those students who have never listened to or watched a podcast before would be more reluctant to choose podcasts over a required textbook in courses. Upon further review, of those with no experience with podcasts, half noted that they would not desire podcasts in place of textbooks. The other half noted that they would welcome faculty selected podcasts that focus on course learning objectives in place of a required textbook. Faculty were asked if they would consider using podcasts to focus on course learning objectives in the pace of a required textbook. While some faculty (9%) showed that they are in fact currently utilizing podcasts in the place of a required textbook, 29% are against replacing textbooks with podcasts. 25% of faculty indicated that they would indeed consider using podcasts instead of textbooks and other 44% noted that they may consider this as an option.

CONCLUDING COMMENTS

A hypothesis was drawn: H_0 Having experience with podcasts has no effect on students' acceptance of replacing required textbooks with instructor selected learning outcome focused podcasts. H_a. Having experience with podcasts has a positive effect on students' acceptance of replacing required textbooks with instructor selected learning outcome focused podcasts. This study shows students' experience with different information delivery formats has informed their preferences. Podcasting is deemed useful by students when the information meets student needs. Where faculty do not perceive one area of focus for the use of podcasts, students emphatically point to podcasts that include explaining how to solve specific problems and provide specific information. Students learn best by having information provided in chunks, which allow skimming for knowledge. This is analogous to skimming a text for answers. Student also noted that chunking improved understanding and retention. Students acknowledged in the survey that they are reading in a searching pattern in order to answer specific questions, rather than reading the entire chapter from beginning to end. The research does not show that textbooks should be thrown out altogether, but it does show that faculty should start including podcasts, whether self-produced or gathered, that are learning objective specific in their lesson plans. The survey indicates that many podcasts could improve use by tailoring podcasts to students use preference which indicates a focus on answering questions. This may lead to preference for chunking and indexed podcasts that are easily searchable. By doing this the faculty will be able to target specific learning outcomes and gain the attention of students, in turn increasing student learning and retention.

REFERENCES

Anzai, Y. (2007). Empowering English Learning Utilizing Podcasts. In T. Bastiaens & S. Carliner, Proceedings of E-Learn: World Conference on E-Learning in Corporate, Government, Healthcare, and

Higher Education 2007 (pp. 10-15). Chesapeake, VA: *Association for the Advancement of Computing in Education* (AACE). Retrieved November 8, 2015 from http://www.editlib.org/p/26289.

Berger, E. (2007). Podcasting in Engineering Education: A Preliminary Study of Content, Student Attitudes, and Impact. *Innovate: Journal of Online Education*, *4*(1),

Brown, A., & Green, T. D. (2007). Video Podcasting in Perspective: The History, Technology, Aesthetics, and Instructional Uses of a New Medium. *Journal of Educational Technology Systems*, *36*(1), 3-17.

Carnegie Mellon. (2007). A teaching with technology white paper: Podcasting [White paper] Retrieved from
http://www.cmu.edu/teaching/resources/PublicationsArchives/StudiesWhitepapers/Podcasting_Jun07.pdf

Cassidy, E. D., Britsch, J., Griffin, G., Manolovitz, T., Shen, L., & Turney, L. (2011). Higher Education and Emerging Technologies: Student Usage, Preferences, and Lessons for Library Services. *Reference & User Services Quarterly*, 50(4), 380-391.

Clark, J. M., & Paivio, A. (1991). Dual coding theory and education. *Educational Psychology Review, 3*, 149–210

Crofts, S., Diley, K., Fox, M., Retsema, A., & Williams, B. (2005). Podcasting: A new technology in search of viable business models. *First Monday*. 10(9), Retrieved October 21, 2015.
http://journals.uic.edu/ojs/index.php/fm/article/view/1273/1193

Donnelly, K. M., & Berge, Z. L. (2006). Podcasting: Co-opting MP3 players for education and training purposes. *Online Journal of Distance Learning Administration*, IX (III). Retrieved October 27, 2015, from
http://www.westga.edu/~distance/ojdla/fall2006/donnelly93.htm

Evans, C. (2008). The effectiveness of m-learning in the form of podcast revision lectures in higher education. *Computers & Education, 50*(2), 491-498.

Fizz, R. (2013). Podcasting 101: A guide to getting started. *MIT News*. Retrieved October 20, 2015, http://news.mit.edu/2013/podcasting-101-a-guide-to-getting-started

Garver, M., & Roberts, B. (2013). Flipping & clicking your way to high-order learning. *Marketing Education Review, 33*(1), 17-21.

Government Accountability Office. (2013). College *Textbooks: Students Have Greater Access to Textbook Information.* GAO-05-806. Washington, DC: United States Government Accountability Office.

Khechine, H., Lakhal, S., & Pascot, D. (2013). University Students' Perception of the Pedagogical Use of Podcasts: A Case Study of an Online Information System Course. *Journal of Education and Training Studies*, *1*(2), 136-151. EBSCOHost.

Mayer, R. E. (1997). Multimedia learning: Are we asking the right questions? Educational Psychologist, 32, 1-19.

Mayer, R. E. (2003). The promise of multimedia learning: using the same instructional design methods across different media. *Learning and Instruction*. Elsevier Science. 13. 125-139.

McCoog, I. J. (2007). Integrated Instruction: Multiple Intelligences and Technology. *Clearing House: A Journal of Educational Strategies, Issues and Ideas*, *81*(1), 25-28.

Parson, V., Reddy, P., Wood, J., & Senior, C. (2009). Educating an "iPod" Generation: Undergraduate Attitudes, Experiences and Understanding of Vodcast and Podcast Use. *Learning, Media and Technology*, *34*(3), 215-228. Eric.

Robson, N. and Greensmith, J. (2010). Educational podcasts: Some early evidence and thoughts. *International Journal of Management Education* 8(3), 107–17.

Silver, L. S., Stevens, R. E., & Clow, K. E. (2012). Marketing Professors' Perspectives on the Cost of College Textbooks: A Pilot Study. *Journal of Education for Business*, 87(1), 1-6.

Webster, T. (2014). The Infinite Dial 2014 - Edison Research (Edison Research) Retrieved September 23, 2015, from: http://www.edisonresearch.com/the-infinite-dial-2014/

Webster, T. (2015). New podcasting statistics – Is the glass half-full, or half-empty? Edison Media Research. Retrieved October 13, 2015, from: http://www.edisonresearch.com/2007_podcast_statistics_analysis/

Zeng, L. (2009). Perceived values of podcasting: Predicting the adoption of podcasting among non-adopters. *Business Research Yearbook: Global Business Perspectives*, XVI (1), 101-106.

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COMBINED USE OF DATA ENVELOPMENT ANALYSIS AND FINANCIAL MEASURES FOR CORPORATE VALUE ASSESSMENT

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ABSTRACT

This study proposes a new procedure for using a combination of data envelopment analysis (DEA) and financial measures for corporate value assessment. DEA is a holistic method for evaluating corporate operational efficiency based on inputs and outputs of the firm's production activities. Financial measures, on the other hand, evaluate corporate financial outcomes, such as return on assets (ROA) and return on equity (ROE), which are calculated from information in the firm's financial statements. DEA operational efficiency, ROA, and ROE are linked in that they all assess the firm's activity, but they are not necessarily consistent with one other. By definition, DEA emphasizes production activities, while ROA and ROE emphasize financial performance. In order to assess how each of these important aspects affects corporate values, the regression analyses are applied in this study.

JEL: L94, M21

KEYWORDS: Data Envelopment Analysis (DEA), Corporate Value, Operational Efficiency, Financial Performance, Electricity

INTRODUCTION

The value of a corporation is often measured by the firm's market capitalization, which is stock price multiplied by the number of shares outstanding. According to modern finance theory, capital markets are informationally efficient and stock prices fully and correctly reflect the available information to the values of stocks, which thus exhibit perfect foresight regarding the firm's future cash flows. However, many finance studies have suggested that changes in stock prices are too volatile to be accounted for solely by changes in information about economic fundamentals. For example, concerns about the efficient market hypothesis were argued by Shiller (1981) and LeRoy and Porter (1981). A central objective of this study is to measure the discrepancy between actual and estimated corporate values, in which the estimated corporate values are based on the firms' operational efficiency and financial performance. Further, this study discusses the factors that influence the discrepancy between actual and estimated corporate values. Based on the results of these analyses, a new procedure for examining the relationship between corporate value and financial performance and operational performance, estimated by use of data envelopment analysis (DEA), is proposed in this study. The remainder of this paper is organized as follows: The next section is a review of previous, relevant DEA studies. The following section explains the basic idea behind the proposed method, although empirical study is left for future work. The final section of this paper consists of a summary of this study and remarks regarding the plan for future research, which will include empirical analysis of electric utility companies.

LITERATURE REVIEW

Sueyoshi et al. (2009) examined a synergy effect between electricity services and gas services in the U.S. electric utility industry. They compared electricity-specialized firms with diversified utility firms, based on their financial performance (measured by the Altman Z-score) and corporate value (measured by Tobin's q ratio). Then, they confirmed the existence of the synergy effect in the two (electricity and gas) services

because the diversified firms outperformed the electricity specialized firms. Unfortunately, in their study they did not empirically measure the firms' operational performance. In addition, they did not measure the causal relationships among operational performance, financial performance, and corporate value. As an extension of Sueyoshi et al. (2009), Sueyoshi and Goto (2011) fully utilized DEA in their investigation of the operational performance of 104 U.S. electric utility firms during 1990–2004. The Sueyoshi and Goto (2011) study, by analyzing causal relationships among the various performance measures, provided evidence of an operational synergy effect between electricity and gas in the U.S. electric utility industry. As a natural extension of those two studies, this study examines the three types of measures: operational performance, financial performance, and corporate value, and applies them to regression analyses to estimate corporate value in an integrated framework. Sueyoshi and Goto (2011) used the three types of measures in a step-by-step manner, from DEA operational efficiency to corporate value, in order to classify samples into groups. In contrast, in this study regression analysis of the three types of measures is used in order to examine mutual relationships among them.

METHODOLOGY

This study proposes the use of a combination of DEA and financial measures in order to assess corporate value, as depicted in Figure 1.

Figure 1: Structure of this Study's Analysis vs. Sueyoshi and Goto's (2011) Analysis

Sueyoshi and Goto (2011)

This study examines the relationship among corporate value, financial performance, and operational efficiency

As shown in Figure 1, Sueyoshi and Goto (2011) first used DEA to calculate operational efficiency and then classified the sample data by that efficiency. Second, they calculated measures of financial performance and then classified the sample data by those measures. Third, they calculated corporate value and then classified the sample data by those corporate values. Finally, they used a non-parametric statistical method in order to examine mutual relationships among the three performance measures. This study also calculates each performance measure, but the final objective is to estimate corporate value as a dependent variable based on the other two performance measures as independent variables, as described in equation (1) below.

$$V_{it} = f(OE_{it}, FP_{it}, Z_{it}) + e_{it} \tag{1}$$

in which V is corporate value as measured by Tobin's q ratio, OE is operational efficiency as measured by a DEA model, FP is financial performance, measured by return on assets (ROA), return on equity (ROE),

and other financial measures, and Z consists of variables that represent firms' various other activities, such as environmental protection. The subscripts i indicates a firm (i=1,…,I) and t indicates a period (t=1,…,T). e is an error term. Operational efficiency as measured by DEA represents the firm's productive efficiency that is associated with a firm's production technology. Financial performance measures represent the firm's activity from the perspective of financial outcomes. These two types of measures are important factors in explaining corporate value. Z represents various non-financial factors that influence corporate value, such as the firm's efforts in environmental protection and corporate social responsibility and overall economic or market conditions.

APPLICATION

In this study, the proposed procedure is applied to a data set consisting of electric utility companies operating in developed countries in North America, Europe, and Asia. Firms' inputs and outputs are used in measuring DEA operational efficiency. Inputs for each firm are the total number of employees, total assets, and the total cost of production. Output for each firm is measured as total sales. The DEA model used in this study is a non-radial DEA model, which can incorporate the influence of slack in production factors on the measure of efficiency. The financial measures in this study are ROA, ROE, and Earnings Before Interest, Taxes, Depreciation, and Amortization (EBITDA) margin, which represents the firm's profitability; the ratio of stockholders' equity to total assets, which represents the firm's capital structure; and free cash flow, which represents the firms' operational flexibility. Equation (1) is estimated by use of panel estimation and dynamic panel estimation.

SUMMARY

This study proposes a new procedure for assessing corporate value based on measures of operational performance and financial performance and accounting for the discrepancy between actual and estimated corporate value. Applying this method to a data set of electric utility companies may demonstrate its practicality as a tool for analyzing corporate value and the relationships among corporate value, operational performance, and financial performance. That application is a future task for this research.

REFERENCES

Sueyoshi, T., M. Goto, J. Shang, 2009. Core business concentration vs. corporate diversification in the US electric utility industry: synergy and deregulation effects. *Energy Policy* Vol. 37, pp. 4583–4594.

Sueyoshi, T., M. Goto, 2011. Operational synergy in the US electric utility industry under an influence of deregulation policy: A linkage to financial performance and corporate value. *Energy Policy* Vol. 39, pp. 699-713.

Shiller, R.J., 1981. The use of volatility measures in assessing market efficiency. *The Journal of Finance,* Vol. 36(2), pp. 291-304.

LeRoy, S.F. and R.D. Porter (1981). The present-value relation: tests based on implied variance bounds. *Econometrica*, 49, 555-574.

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DETERMINING MEXICO´S LOGISTICS SYSTEM PLATFORMS BY CLUSTER ANALYSIS

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ABSTRACT

Due to its strategic geographical location, its network of trade agreements, to the potential entry into force of the Trans-Pacific Partnership and the saturation of the ports of Long Beach and Los Angeles, it is clear that Mexico must have a system of logistics platforms distributed in such a way that it can meet both internal logistical needs as well as the opportunities that the international trade demands for the country to become a continental logistics platform. The Inter-American Development Bank and the Mexican Government, published in 2013 a study entitled National Logistics Platforms System of Mexico (NLPS), identifying 85 strategic logistics nodes which suggested these made up the NLPS. This article defines the key aspects that logistical platforms should have and propose as future actions a methodology to assess such aspects, to determine which of the main nodes qualified to be a logistics platform and once identified associate them the remaining nodes through cluster analysis technique to establish the proposed mapping NLPS.

KEY WORDS: Logistics Platform, Logistics Cluster, Elements of a Logistics Cluster

JEL: F63, C100

INTRODUCTION

An economy that wants to compete globally needs to have an infrastructure to facilitate the flow of goods, services and the movement of people in a quick, efficient at low cost. Adequate infrastructure potentiates the country's productive capacity and opens up new development opportunities for the population (Plan Nacional de Desarrollo, 2013). Mexico as an emerging economy, has built much of its development in its capacity and ability to insert in the process of globalized trade. In the decades following the start of trade liberalization, particularly after the signing of the North America Free Trade Agreement (NAFTA), the Mexican economy has undergone a transformation of the first order (Consejo Mexicano del Transporte, 2012). In addition, it is a cornerstone for consolidating stability and prosperity in the region, with its network of trade agreements, the country has the opportunity to serve as logistics and business platform between the north and south of the American continent (Plan Nacional de Desarrollo, 2013).

One misconception that prevails in Mexico is to look only to the Asian market as a competitor to enter in the United States market. The potential entry into force of the Trans-Pacific Partnership (TPP) is a momentous opportunity for Mexico and it must not allow other countries to achieve better market access with its main partner but rather serve as a bridge between these nations and the United States (Consejo Mexicano del Transporte, 2012). Moreover, Alfredo Millan Alarid (February 2013) Rector of the Asia Pacific University in Sinaloa, Mexico, warned about the saturation on ports of Long Beach and Los Angeles and he also mentioned the opportunity for the country to develop new nodes for transporting goods from Asia-Pacific. The saturation occurs because of the large volume growth from the Asian market, 90% of goods coming through these ports are of Asian origin and the delay ranges between 6 and 21 days, implying severe commercial damage, due to losses in: the right of use of port infrastructure, insurance, stay ship and the impact on the supply chains involved. It is clear that Mexico must have a system of logistics platforms

distributed so that the internal logistical needs are met, and the opportunities that the international trade demands enable the country to become a continental logistics platform.

LITERATURE REVIEW

Considering that the research topic has been poorly studied, the literature that addresses this issue is about theoretical concepts of logistics clusters, presentations by experts on the subject, research from national and international organizations as well as government agencies and some academic articles. There are several cases known of successful industrial clusters, which are defined as a geographic concentration of interconnected companies and institutions in a particular sector; they bring together a wide range of related industries and other entities important to competition (Porter, 1998).

Transportation technology, instead of going directly from source to destination promotes the movement of goods through central facilities consolidation. Due to the flow of goods through these centers, many other related logistics services including warehousing and distribution, migrate to these centers, promoting their development, and in many cases, making them clusters or logistics platforms well established. There are thousands of logistics clusters worldwide. They are known as "Logistics Villas" in Germany, "Logistics Parks" in Japan," Logistics Platforms" in Spain and several other names worldwide (Sheffi, 2012). The best examples are the logistics cluster of Zaragoza in Europe and Singapore in Asia.

Sheffi (2012) highlights the importance of having a logistics platform in Latin America and the Caribbean (LAC), claiming that the logistics efficiency is one factor that is stopping part of the immense potential of the LAC. He also considers that the right investments in infrastructure, training, education and government policies can unlock this potential. One of the most important logistics investments in the world is taking place in LAC with the Panama Canal expansion. However, according to a presentation by Rector Alfredo Millán, even when this project is completed it will still exist a bottleneck in the flow of goods coming from Asia to America as well as those crossing to Europe.

It is clear that Mexico has many conditions to become the logistics platform of America: the privileged geographical position for its proximity to the United States, good weather almost all year round and its geography that connects the Pacific Ocean with the Atlantic. Nonetheless, it has several improvement opportunities to be considered as a destination with strength to move goods quickly and cheaply. The country must articulate a system of logistics platforms and improve transport infrastructure road, rail, air and port to allow the transfer of cargo safely, efficiently and at competitive costs (Consejo Mexicano del Transporte, 2012). Also, Rodriguez et al (2014) conducted a type of SWOT analysis that compares Mexico and Panama, where they conclude that Mexico has greater geostrategic advantage over Panama for being in a privileged geographical location, Mexico has two oceans in their coasts, it similarly has geographical connectivity with sub-continents of America and shares 3,000 km of land border with the first potency of the world. It also has a wide network of road, sea and air and 11 multimodal corridors.

The Inter-American Development Bank (BID) in joint venture with the Ministry of Economy (SE) and Ministry of Communications and Transport (SCT) of Mexico, published in 2013 a study entitled National Logistics Platforms System of Mexico (NLPS), whose objective was to strengthen the role of competitive export supply in Mexico and optimize the efficiency of domestic distribution processes, ensuring their correct articulation with the territory and its connectivity to transport networks and nodes of foreign trade. Through a socioeconomic, productive, infrastructure, logistics and trade analysis, the BID identifies 85 strategic logistics nodes (of which 16 are principals) and proposes that these make up the NLPS.

METHODOLOGY

Whereas in the cities where the top 16 nodes identified by the BID are located, according to the literature, not all of them qualify for logistics platforms, the first phase of this research is to identify and represent schematically the key aspects that a major node must have to be considered candidate as a logistics platform. These aspects are proposed by different references of the literature reviewed Sheffi (2013), Southwest Corridor Organization (2014), Desarrollo Económico de San Luis Potosí (2009-2015) & Garaviz (2009), and are represented in Figure 1.
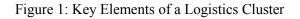
<u>Future Actions</u>
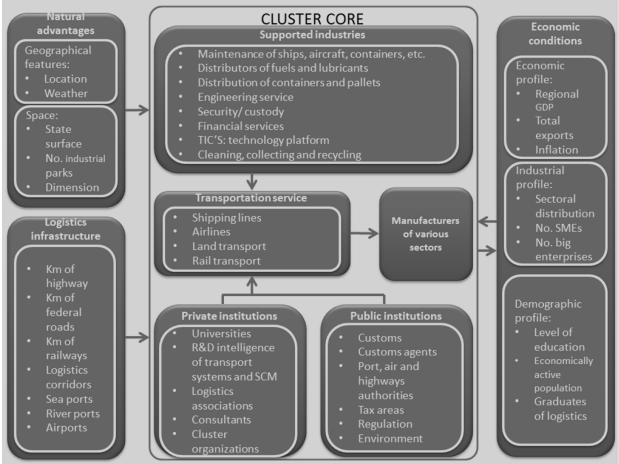
Subsequently, it will be held a qualitative comparative analysis of the 16 main nodes against key aspects, then the nodes that best meet the elements; its geographic location will be evaluated to select those that are strategically distributed. Once selected the nodes with potential to become logistics platforms, analysis cluster technique will be applied using SPSS software, whose main purpose is to group objects based on their characteristics, so as each object is very similar to the ones in the conglomerate according to some variables selected by default (Hair, 1999). In this case, two strategic variables which are the population and the coordinates of the remaining nodes will be used to associate them with logistics platforms chosen in the qualitative analysis.

Finally, with the result obtained from the statistical analysis, this will be interpreted for mapping logistics platforms distributed throughout the country and its associated nodes; this will render the proposed NLPS.

CONCLUSIONS

Taking up the mechanisms of a cluster model and understanding that can be applied to the logistics sector to add value, the proper functioning of logistics platforms and cohesion of the members involved will be enhanced. Experts and studies agree that Mexico is destined to be America logistics platform for various geographical, strategic and commercial basis, which represents a great opportunity for the country. It is considered that this research can give a close idea of how to integrate the system of logistics platforms in Mexico, as the study by the BID lacks an informed methodology to determine the selection and operation of a system of logistics platforms. Finally, it is important to note that the investment and the economic impact that a system of logistics platforms promises, attracting private sector investment, creating business connections and sources of employment, it will increase the socioeconomic status of the various regions and the logistical, economic and competitive level of the country.

Figure 1: Key Elements of a Logistics Cluster

Source: Author

REFERENCES

Admin. (24 de Marzo de 2014). Soutweast Corrior Northwest Passage. Recuperado el 2 de Julio de 2015, de Analyzing the development of a logistics hub:
http://southwestcorridornorthwestpassage.org/analyzing-development-of-logistics-hub/

BID. (2013). Sistema Nacional de Plataformas Logísticas de México. México: Banco Interamericano de Desarrollo.

CMT. (2012). México Plataforma Logística de América, Agenda de Desarrollo en el Sector Transportes. México: Consejo Mexicano del Transporte.

Garaviz, E. M. (2009). Propuesta para el Desarrollo de un Clúster Logístico para un Corredor Logístico para un Corredor Logístico Nacional e Internacional Competitivo en Colombia.

Hair, J. (1999). Análisis Multivariante. España: Pearson Education.

Millán, A. (13 de Febrero de 2013). Un académico alertó sobre la saturación de los puertos y la oportunidad de nuevos nodos para el transporte de mercancías provenientes de Asia Pacífico. Recuperado el 02 de Julio de 2015, de http://www.impulsobaires.com.ar/nota.php?id=41959

PND. (2013). Plan Nacional de Desarrollo (2013-2018). México: Gobierno de la República Mexicana.

Porter, M. (1998). Clusters and the New Economics of Competition. Harvard Business Review.

Rodríguez, A., & et al. (2014). Diagnóstico de la viabilidad geoestratégica de México y Panamá para la instalación de la plataforma logística de América en base a un estudio comparativo de factores ponderados. Puebla: Universidad Popular Autónoma del Estado de Puebla.

SDE. (2009-2015). Secretaría de Desarrollo Económico. San Luis Potosí.

Sheffi, Y. (2012). Clústeres Logísticos: brindando valor e impulsando el crecimiento. Cambridge: Massachusetts Institute of Technology.

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FAMILY BUSINESS PROTOCOL: CURRENT STATE OF KNOWLEDGE

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ABSTRACT

The present study examines the current state of knowledge for Family Business Protocol. The objective of this research is to construct a theoretical framework and outline the trends of Family Business Protocol literature. Towards this aim, this investigation analyses the content of the articles focused on family business protocol published from 1990, when the term protocol appeared in the business family literature, to 2015 in any journal of the following categories: business, family business and management. The articles were selected by a systematic review criteria in the most relevant databases for social sciences research, such as Social Science Citation Index and Latindex. This research was conducted by bibliometric methods used to provide a quantitative analysis of the literature for instance the growth of publication activity, the most representative contributors, among others. Similarly, a qualitative analysis of the content of the articles was completed to identify the main themes researched. The results showed a need to continue studying the family business protocol from an empirical standpoint and the requirement for a family business protocol definition and its implications. This study identified possible venues for future research that could be significant to advance in the consolidation of this field of study.

JEL: M1,M10,M100

KEYWORDS: Family Business, Protocol And Literature Review

INTRODUCTION

In recent years, interest in studying family businesses (EF) has grown substantially Largely by its dominant presence in the economies of most countries. It is estimated that in the world most of the companies are EF, between 65% and 85% of companies in developed countries are familiar (Bigné, 1999) and although there is no accurate estimate for Latin America, it is estimated that between 90 and 95% of the companies are family own/operated (Belausteguigoitia, 2003).Family businesses generate approximately between 70% and 90% of gross domestic product globally each year (Family Firm Institute, 2014) and employ half the workforce in the world (Morck and Yeung, 2003), which It is leading to a growing concern given its role as a source of jobs and economic development (Ibrahim, Parsa and Angelidis, 2008). Nevertheless, family businesses face a high mortality rate, only 30% of family businesses survive into the second generation and only 13% to the third (Ward, 1994). The average life expectancy of a family business in Mexico is 25 years, while institutionally managed live on average 50 years (KPMG, 2013). Most family businesses arise in order to satisfy basic needs of the family and not with a vision of development and competitiveness, so that these companies have no plans for growth in the medium and long term (Anzola, 2002).

The lack of a business plan, a control structure and management aligned with the strategy of the company are almost always the explanation for the high mortality of family businesses; only 13% of companies have a succession plan outlined (KPMG, 2013), this is a scenario that threatens the fate of the family business to the permanence of the founder. The conflicts that arise in family businesses are mostly related to the lack of family protocol (Arenas and Rico, 2014). Research in the field of family business have identified many problems that affect them, but the most challenging is to ensure its continued survival and succession. One of the mechanisms that can help resolve this situation is the establishment of a family protocol (Barbeito, Crespo Martinez and Guillen, 2008). In some countries it has even acknowledged that the culture of the

family protocol, is considered an additional guarantee for third party investors and creditors, in addition to the partners themselves, to provide predictability generational change in society (BOE, 2007). Research has become apparent that these organizations have a uniqueness and own face challenges resulting from the company-family interaction: the selection and preparation of a successor, training and promotion of the family in the company, incorporation or no political family business (Palacios, Linares and Iglesias, 2012). As the family business grows, the tendency to disperse ownership increases, so the succession and management process is critical to continue maintaining family ties and control of the company. The continuity of the business may be a problem, especially when the founder dies, and has no time to delegate to his heirs, or when there are marital breakdown and the company is in marital regime (Saiz -Alvarez, 2012).

The term Family Protocol was first introduced in the nineties (Ward and Gallo, 1992), when family businesses recognize that relations between family and business should be regulated through a set of norms and standards of operation. Studies conducted on strategic planning in family business during this time were the base of its conception. Most recently the family protocol concept is included in research on corporate governance in family businesses (Poutziouris, Smyrnios and Klein, 2006).

The family protocol is commonly regarded by academics and family business advisors as an extremely valuable tool that serves not only to govern the relationship between the family and the family business, but also as a facilitator of coexistence in the family. As a result, the family protocol has the purpose of maintaining and strengthening through the generations, family unity and commitment to business success. (Gallo and Tomaselli, 2006). In drafting the family protocol, the family should attempt to identify and make explicit and transferable to future generations, the sense and purpose of the business, its traditions, vision, mission and values that inspired it and its philosophy (Tapeis, 2011).

Although, there is no consent in how to define the family protocol, some experts describe it as a set of objectives for the family and the business, rules governing the relationship between people. In view of the known model of the three circle (family, property and business) an its subsystems that coexist in a family business (owners, executives, managers and family members and not members). The essence of the family protocol is an agreement on the goals and rules, combined with the commitment to implement them. The ultimate goal of the protocol is successful survival of the family business in the long term (Gallo, 2000). The establishment of a family protocol should be aimed to family and non-family members within the organization and it is necessary to allocate positions according to the merits and not just relations. It should include the development of strategic business planning and designing career plans for family and non-family executives. This process of institutionalization in the family business aims to ensure its continuity, making it stronger and more profitable and less vulnerable to family events (KPMG, 2013).

REFERENCES

Anzola , S. (2002). Administración de Pequeñas Empresas. Mc Graw Hill. México, D.F.

Belausteguigoitia, I. (2010). El campo de las empresas familiares en Latinoamérica: nuevas perspectivas. Gestión & Sociedad, 3(1), 13-25.

BOE (2007). Nº 65 : Real Decreto 171/2007, 16 Marzo de 2007, pp. 11254-11257.

Family Firm Institute (2014). Global data points. Recuperado de: http://www.ffi.org/?page=Gl
Gallo, M.A. and Tomaselli, S. (2006). Protocolo familiar: sus resultados. Family Business Consulting Group Españam Fundación Rafael Escolá: España.

Gilding,M., Gregory, S. and Cosson, B. (2013). Motives and Outcomes in Family Business Succession Planning. Research Center for Entrepreneurship and Innovation Accountancy & Finance. Retrieved from: http://hdl.handle.net/1942/13822

Ibrahim, N.A., Angelidis, J.P. y Parsa, F. (2008). Strategic management of family businesses: Current findings and directions for future research. International Journal of Management, 25 (1), 95-110.

Joshi, M. and Srivastava, A. (2013). Connecting Family Business & Generations: A Case of Hafizia Art & Crafts Pvt. Ltd. Retrieved from: http://papers.ssrn.com/sol3/papers. cfm?abstract_id=2184614

KPMG (2013). Empresas familiares en México: el desafío de crecer, madurar y permanecer. Recuperado de: http://www.kpmg.com/mx/es/issuesandinsights/articlespublications/pag inas/de-empresas-familiares.aspx

Saiz-Álvarez, J. (2012). Capital intelectual, protocolo y empresa familiar. Anuario Jurídico y Económico Escurialense, (42), 377-388.

Poutziouris, P.X., Smyrnios, K.X. and Klein, S.B. (2006). Handbook of research on family business. Cheltenham, Reino Unido, Edwar Elgar.

Tagiuri, R. y Davis, J. (1996). Bivalent attributes of the family firm. Family Business Review, IX (2): 199-208.

Tapies, J. (2011). El protocolo familiar: ¿solo un documento o un proceso de mejora?. IESE Business School.

Ward, J.L. and Gallo, M.A. (1992). Protocolo familiar. IESE Business School-Universidad de Navarra

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INNOVATION PERFORMANCE AND MANAGEMENT ETHICS AN INTERRELATED PHENOMENON?

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ABSTRACT

One primary challenge for many Western European companies is to innovate and stay competitively advanced continuously, while at the same time organizations are increasingly expected by the public to contribute to society and the environment. Therefore, it is the purpose of this paper to show the benefits of ethical and socially responsible management with regard to innovation performance. The approach shown in this paper is a thorough literature review and analysis of recent research. The paper reveals a very strong linkage between creating value for the company and for other stakeholders in terms of innovations. One of the limitations is that it does not include empirical research yet, though. Rather it makes an original approach to build a strong conceptual fundament for the development of specific research questions and hypotheses that are recommended for future scientific research.

JEL: F61, L22, M00, M10, M14, O30, O31, O35

KEYWORDS: Management Ethics, Corporate Social Responsibility, Sustainability, Innovation

INTRODUCTION

With markets that are mostly saturated, innovation has been a topic of relevance for politicians, economists, scholars and managers in industrialized countries for a long time. Especially in countries relatively poor in natural resources, enhanced innovation will provide the decisive basis for growth, new jobs and prosperity (Federal Ministry of Education and Research, 2009, p. 4) - advantage must come from the capability to design and then commercialize new products and processes. Innovation is considered to be a fundamental element of long-term success (Davila, Epstein, & Shelton, 2006, p. 16) for organizations and also to matter increasingly as the origin for national economic growth (Tidd & Bessant, 2009, p. 5). It is reflected to be a characteristic of healthy organizations and enables companies to change according to market needs and therefore stay competitively advanced (Delbecq & Mills, 1985, p. 24).

However, on the Global Innovation Index 2014, Austria ranked only 20th and was overtaken by much smaller economies such as Iceland (19th), but also Hong Kong or Singapore (10th and 7th) (Cornell University, INSEAD, & WIPO, 2014, p. XXIV). In 2013, over 40% of Austrian enterprises stated to innovate in products and / or processes. Improving the quality of goods and services, increasing the range of those, and entering new markets were stated to be the main objectives for innovations in Austria (Eurostat - European Commission, 2013, pp. 68–78). Overall, product innovations can be seen as being tightly linked to the primary activity of the company (Naranjo-Valencia, Valle, & Jiménez, 2010, p. 468). However, research shows that, generally, success rates in new product development are below 25% (Evanschitzky, Eisend, Calantone, & Jiang, 2012, p. 21).

Pushed by global competition and short-term performance pressures, managers often give in to personnel reductions or relocation to lower-cost regions. In that, they sacrifice true innovation, strong organic growth and clear competitive advantage (Porter & Kramer, 2011, p. 66). Thus, it goes without saying that there is room (and necessity) for improvement of the enhancement of innovation outcomes from a national, but also from a managerial perspective. Clearly, innovation always goes in line with risk – investing in product development and never being 100% sure that the product will be an entire market success is what keeps

managers from the financial efforts needed for innovation. Since this is only understandable from an individual's point of view, it is still a risk that has to be taken if companies want to survive. Certainly, the risks and threats of new projects to the existing business of a firm have to be reflected when it comes to financial support, management systems or the location (Pfitzer, Bockstette, & Stamp, 2013, p. 105). But, overall, more research on success factors and organizational preconditions for innovation in Austria is needed in order to reduce the perceived risk that managers and companies experience here. For sure, innovation depends on a variety of different factors and includes extremely complex backgrounds. Looking into the literature on success factors for innovation reveals a very wide range of research studies and opinions immediately.

However, many authors agree that the soft factors in companies, such as organizational culture and values play a vital role for innovation performance. Nonetheless, particularly the idea how employee and management values relate to different aspects of organizational performance has received only scant treatment in business management research and can be seen as a research gap (Connor & Becker, 1979, pp. 71–81). Recent research points at a limited number of organizational values that enhance innovation. These can be classified into the following aspects:

Trust and encouragement
Pioneering spirit
Intrinsically motivated performance
Market-driven debates and discussion (Egger, 2015, pp. 38–39).

Interestingly enough, the value theme of trust and encouragement not only refers to such ideas as openness, participation and emotional safety, but also includes ethical, moral and altruistic aspects. In fact, these are positively correlated to product innovation outcomes in previous research amongst manufacturing companies, although managers generally do not rate them to be decisive for innovation performance (Egger, 2014, p. 385). Combining this background with the current trend towards corporate social responsibility concepts (Vollmers, 2015), the necessity for more intensive research on the interrelations of management ethics and successful innovation becomes obvious. Not only does ethical management increase a company's reputation and brand from a marketing perspective, it also contributes to innovation performance. When sustainability is used as an overall strategy for competitive advantage and market positioning, it builds a fundament for future business growth and innovation (Kepler, 2011, p. 49). With that, the topic provides immense potential for current and future managers to strengthen organizational performance and company value on different levels at the same time.

Definition of the Terms in the Context of the Paper

Innovation

Innovation implies significant change within an organization or its product or service range. Therefore, it requires substantial adjustments in functions and structures and, most importantly, it needs to be successfully introduced, decided upon and incorporated into the organization (Delbecq & Mills, 1985, p. 25). Only a successfully marketed invention can be defined as an innovation. Hence, it is related to entrepreneurship as well and can be seen as the true effort to create change in the economic and social potential of a company that is purposeful and focused (Drucker, 1985b, p. 67). Innovation uses the opportunity of a new idea and turns this into widely used practice. Therefore, for profit-oriented organizations it is innovation, not only invention that helps them to gain economic growth. Being a good inventor is never a guarantee of commercial success (Tidd & Bessant, 2009, pp. 16–17). In this regard, innovation is also different from creativity. Through creativity, novel and useful ideas in basically any domain can be gained. Innovation implies the successful implementation of these ideas, though.

Therefore, creativity can be seen as a necessary precondition or a starting point for innovation. However, innovation is not only about products. It may also be found in the means for creating or delivering it and basically describes the implantation of creative ideas within an organization (Amabile, 1996, pp. 1–3). Not necessarily does it have to be technical – there are great social innovations in history such as the newspaper, for example. Still, innovation is essentially about changing value and creating satisfaction for customers (Drucker, 1985a, pp. 31–33). The Organization for Economic Cooperation and Development (OECD) distinguishes four types of innovation: product innovation, process innovation, marketing innovation, and organizational innovations. Whereas product innovation relates to goods or services that are introduced to the market with new or significantly improved specifications, materials, software, or other functional characteristics, process innovation focuses on new or significantly improved production or delivery methods. Improvements in product design, packaging, promotion or even pricing are subsumed under marketing innovation according to the OECD. Finally, organizational innovation highlights changes and novelties in business practices, workplace organizations or external relations (OECD & Eurostat, 2005, pp. 47–51). For the context of this paper, the author follows the OECD perspective on innovation. Thus, when innovation is mentioned, it can relate to products, services, processes, marketing, or new business models.

Management Ethics

When it comes to management ethics, a lot of different terms and concepts come into place that sometimes deal with very similar ideas such as business ethics, management ethics, corporate social responsibility, corporate citizenship, sustainability, or, very generally, the creation of shared value or stakeholder management. Further, academics and practitioners often have different terms in use and also different perceptions and interpretations about them (Waddock, 2004, p. 5). The following section outlines a common understanding of these different terms for the context of this paper. Business or management ethics are supposed to provide us with "rules, principles, and standards for deciding what is morally right or wrong when doing business" (Cambridge University Press, 2015a). At the core, ethics encompass the "study or the science of morals" – it addresses what is "morally right" (Cambridge University Press, 2015b). However, the business ethics component also includes ethical decision-making, codes of conduct, and the idea to give an organization a broader sense than pure self-interest on profitability and economic performance. For a long time, compliance seemed to be the main reason for companies to implement a code of conduct at all.

But today, it is widely shared that common values contribute positively to organizational performance and competitive advantage (Waddock, 2004, pp. 19–20). The commission of the Austrian Chamber of Economics (Wirtschaftskammer Österreich – WKO) formally defines Corporate Social Responsibility (CSR) as the "responsibility of companies and their impact on society". Accordingly, companies create an added value when accepting this challenge and building their business sustainably (Austrian Chamber of Economics (Wirtschaftskammer Österreich - WKO), 2015). However, there is still some confusion about the term. CSR essentially summarizes business practices that are socially responsible. For that reason, it can be seen as a concept that is much more about successfully applying appropriate attitudes and cultures than about building formalized structures and processes (Vázquez-Carrasco & López-Pérez, 2013, p. 3212). CSR encompasses the idea that companies feel in charge of the prosperity of others in a community and the society as a whole (Factor, Oliver, & Montgomery, 2013, p. 144). Overall, the concept of CSR is still evolving and sometimes changing according to societal anticipations. However, in general, it goes beyond the idea that companies only have to fulfill their profit-making purposes (Boulouta & Pitelis, 2014, p. 351). The concepts on CSR have further evolved into corporate citizenship, responsibility, reputation, and relationships. While CSR is seen to focus on the interrelations a company has with its societal and community stakeholders on a voluntary basis, corporate citizenship also includes the natural environment. Waddock (2004, p. 13) actually uses the terms interchangeably.

Moreover, the concept also includes a company's values, principles and ethics and how they determine an organization's impact on its stakeholder and the environment. In practice, the term often encompasses the "do-good" things that companies do in some way or another (Waddock, 2004, pp. 9–15). With regard to business organizations, CSR means that everything companies do must be good for the organization, but also for the world – social, economic, and environmental needs must be met at the same time. However, today, CSR is also often used as an equivalent to sustainability (Gobble, 2012, p. 64). The United Nations officially define sustainability as "a standard of living for everyone today without compromising the needs of future generations" (United Nations, 2015). Kepler (2011, p. 53) states that sustainability must encompass the idea of a company to go beyond making profits or being green. Instead, embracing the sustainability concept means to create products and services that integrate economic, environmental, and social needs (Kepler, 2011, p. 53).

The core idea of these different concepts mainly is that companies can hardly exist without stakeholder relationships and these connections naturally include moral implications. In former times, this was focused particularly on politics. Today, a broader perspective is taken and must be encouraged (Waddock, 2004, pp. 25–26). In the context of this paper, the author focuses on the idea of management ethics in terms of promoting ethical values in an organization. In companies, these can be manifested in corporate social responsibility programs, a code of conduct, or sustainability reports, for example. In that, these terms will be used in the following literature review and onwards. However, the fundament of these activities and "visual outcomes" of management ethics is built by organizational values. Organizational values as such are seen as a set of underlying shared norms and standards which the employees of a company agree to and which they find valuable and worth pursuing, and which lead their activities and determine their daily organizational behavior and decision-making (Egger, 2015, p. 18). Thus, if these values contain ethical aspects like integrity, altruism, responsibility, honesty, equality, and humanity, for example, it is assumed that management overall is ethical.

LITERATURE REVIEW

In general, CSR enhances national competitiveness, particularly in less innovative countries. Most probably that is because CSR helps with differentiation for companies in less innovative markets. It is therefore suggested, that national and governmental initiatives promote CSR activities and CSR-differentiation strategies (Boulouta & Pitelis, 2014, p. 360). Very often, corporate social responsibility programs are seen as a necessary duty and pushed by the expectations of the public – but not very helpful for a business's profits. However, in fact, companies are and have always been highly dependent on their surroundings: they need a stable, ideally prosperous environment to create demand for their products and services. In turn, society needs companies that provide jobs for its citizens. However, this connection easily gets lost nowadays, since jobs and production facilities can easily be relocated elsewhere. Still, it is possible to enhance competitiveness while advancing the local social conditions at the same time. Only, management ethics are rarely seen to provide an additional benefit to improved reputation and going in line with the law, unfortunately (Porter & Kramer, 2011, pp. 65–66). On the other hand, managers with a rather philanthropic mindset can be found particularly in SMEs. In these smaller companies, often family-businesses, altruistic values, ethical considerations, and trustful relationships with stakeholders and the community very often build the core of a company.

Thus, a lot of SMEs have accorded with the CSR concept for a long time, although it is not always explicitly part of their strategic orientation, happens in an unstructured and less formalized way and hardly takes economic viewpoints into account (Vázquez-Carrasco & López-Pérez, 2013, pp. 3211–3212). Further, it was found that people with high incomes and extraordinary career opportunities are less likely to believe in supporting others. Nevertheless, managers as well as non-managers state the importance to care about others and society rather often nowadays. Thus, including different hierarchical levels into the concept may come as an encouraging force to increase understanding about the importance of ethical values (Factor et

al., 2013, pp. 154–155). Overall, CSR activities must go in line with a company's business products, services, and procedures in order actually create value (Husted & Allen, 2009, p. 791).

Luo and Du (2014) conceptualize that CSR does have a positive impact on innovation. In their research, they state that CSR programs usually enhance broad and deep relationships with stakeholders, which results in sharing and exchanging knowledge with these stakeholders. As an outcome, these stakeholders' knowledge strengthens a company's internal knowledge and brings in new perspectives (Luo & Du, 2014, p. 1). However, it depends on competitive pressure and R&D investments as well. Of course, a highly competitive marketplace forces companies to be more innovative and higher R&D investments certainly contribute to more innovation capabilities as well. Still, the authors' research clearly brings to light an interrelation between CSR activities and firm innovation via correlation and regression analysis (Luo & Du, 2014, pp. 4–9). Thus, it is concluded that CSR does not only help to make customers perceive a company in a positive way, it also boosts innovation. In that, managers can actually use CSR as an enhancement for innovation performance and are supposed to build a path to bring external stakeholders' experience and creativity into the organization (Luo & Du, 2014, p. 10).

For Porter and Kramer (2011, p. 64) the creation of shared value for businesses and society does not have anything to do with philanthropy, rather it is a revolutionized way to economic success. They argue that working on the fundamental needs of customers, instead of just trying to increase buying quantities or frequencies, for example, open up a whole new range of possibilities for innovation. To explore societal needs might lead to recognition of overlooked market needs and opportunities to real differentiation and repositioning. Further, society benefits as well, because businesses are much more efficient at marketing healthier or environmentally friendlier products, for example (Porter & Kramer, 2011, pp. 67–68). It is clear for the authors that productivity – and in that, process innovation – is sacrificed when prices are not transparent or unfair, and when workers or suppliers are exploited. Thus, "Not all profit is equal." is one of the authors' main statements arguing that when profits involve a social benefit, it leads to a higher level of capitalism – it results in an advanced society where companies grow even more and endurably (Porter & Kramer, 2011, pp. 73–75). In fact, an interesting number of companies state that sustainability even contributes to their profits. It is less clear, however, how it results in innovation (Gobble, 2012, p. 64). Actually, managers start to realize that social problems constrain their operations on the one hand. They also provide rich possibilities for growth, on the other hand, though.

When a company's mission includes the aspect to create shared value for itself and society, it channels resources to the enhancement of innovations that contribute to the solution of social problems (Pfitzer et al., 2013, pp. 101–102). The Austrian Chamber of Economics is convinced that when companies invest in CSR, they not only give something back to society and the environment, they also reduce risks, increase employees' motivation, strengthen their customer relationships, grow innovation potentials and, thus, generate competitive advantage (Austrian Chamber of Economics (Wirtschaftskammer Österreich - WKO), 2015). Further, a higher willingness to pay more for environmentally friendly products, for example, can no longer be denied in industrialized societies. Therefore, companies actually face the challenge to innovate in sustainable solutions. Full business models that focus on reducing the carbon footprint and launching ecological products have evolved in the last couple of years, although organizations need to be very flexible for this. In fact, response times to changed market needs and adopted customer interests must be reduced when putting efforts into sustainable innovation (Slotegraaf, 2012, p. 350). Nike, for example, introduced a sustainability committee in their board a couple of years ago. Of course, it was born out of pure pressure from the labor force to improve working conditions in their factories. However, it provides a main source of innovation today.

In fact, its main task is not only to improve operations, but mainly to find solutions for future growth in the light of macro-environmental challenges such as scarce resources, changing climate and shifting demographics. Their basic idea is to find ways that solve a problem without having to put all efforts in

monitoring and overseeing operations afterwards. Much more, they want to innovate in terms of building a more sustainable business model for the company (Paine, 2014, pp. 92–94). At Dow Chemical Co., sustainability is seen as a main pillar of the overall business model. The company is convinced that it boosts collaboration and, in that, modernizes innovation. In fact, it is stated here that when business models are supposed to be successful in the future, they must find creative solutions that improve bottom line performance, but bring value to society at the same time. Further, consumers increasingly demand sustainable products, so investments in appropriate R&D efforts are more than justified (Kepler, 2011, p. 50). However, Dow Chemical Co. expects and gets a return on sustainability investments, too: safer workplaces, cleaner facilities, more efficient energy use, and stronger governance are some of the positive outcomes that are addressed. In that, the concept of sustainability certainly contributes to the overall business performance (Kepler, 2011, p. 53).

In previous studies on success factors for innovation, particularly relating to the soft factors in an organization, such as organizational values, different authors mention an altruistic mindset to be decisive. Altruism itself can be seen as the focus of making the world a better place, being of service to society, contributing to humanity while emphasizing equal opportunities for all, including the values of integrity and loyalty (Egger, 2015, p. 29). It also may include unplanned behaviors to help a special individual with a certain task. It stimulates interaction in order to help, assist, and cooperate with others. In that, altruism facilitates communication, the exchange of information, and interaction with external company environments and stakeholders. Thus, an altruistic climate can be seen as enhancing risk-taking, shared decision-making, discussions, and experiments. Further, altruism creates an emotional bond between the parties involved. With that, the likelihood of interpersonal conflicts and disagreements in the job context decreases. Thus, employees face fewer conflicts in work relationships and the emotional connections that they build facilitate organizational learning and dialog (Guinot, Chiva, & Mallén, 2015, p. 4-5).

Guinot et al.'s (2015) results clearly suggest that altruism supports organizational trust, decreases relationship conflicts and with that highly supports organizational learning. Their results go in line with the recent management view to see organizations in a more humanistic and compassionate way, which includes interconnectedness, service, and stewardship. Consequently, the authors recommend creating altruistic work environments to prevent from counterproductive work affiliations and ensure organizational knowledge. As a result, altruism in organizations realizes long-term competitive advantage (Guinot et al., 2015, pp. 11–12). Jassawalla and Shashittal (2002, p. 44) introduce an additional altruistic idea: they label unequal distribution of power on low innovation-supportive settings. They see equality of team members and stakeholders as an attribute of highly innovative companies and encourage fostering a social environment of integrity (Jassawalla & Sashittal, 2002, pp. 44–51). Others see good citizenship behavior in terms of voluntarily helping each other and preserving and protecting the organization as enhancing innovation (Schneider, Gunnarson, & Niles-Jolly, 1994, p. 17). Where participants view others as equals and organizational characteristics include loyalty and integrity, innovation is more likely to occur (Brooke Dobni, 2008, p. 48).

From an evolutionary perspective, it can be stated that we need and we want to know how to deal with all the people sharing this planet with us. However, it is assumed that altruism emerges from the fact that we are the creatures with the longest childhood amongst all creatures. In that, we build special bonds with our parents and family. Therefore, altruism results from giving care to weak descendants. Naturally, we do not have any altruistic feelings towards strangers – we do not desire to be kind to them. In fact, adults living in small societies even are scared by strangers and develop hatred towards them. Consequently, it must be seen as a great achievement of mankind to have developed social responsibility and altruistic mindsets in order to make this world a better, friendlier place (Bloom, 1963, pp. 171–178). From a psychological point of view, it can be argued that people help others or treat them equally, mainly because humans feel uncomfortable when watching someone else suffering in general (Pinker, 2011, p. 575). Therefore, altruistic behavior can perfectly include the hope or expectation to receive something back for one self (from the

organization or from society) according to Steven Pinker (2011, p. 583) – this might actually include enhanced social recognition, improved image or status, or higher achievements for managers. However, that does not undermine altruistic behavior in itself at all, because a later benefit is not the explicit aim of behaving unselfishly. Further, experiments indicate that in absentia, we tend to help others or treat them good to relieve our own pain and feeling of responsibility. But, as soon as we empathize with a wounded the motive to reduce the victims suffering is much stronger – no matter if it lightens our own distress or not (Pinker, 2011, pp. 583–584). Looking into the concepts of treating others altruistically with fairness and equality does reveal it is not only about making the world a better place, although it certainly does help to do so. Much more it is about creating agreements that are long lasting and durable. If one side finds out later that an arrangement or an organizational responsibility is unfair, they might not be willing to work on it, and most likely, will conclude things to be untrustworthy (Fisher, Ury, & Patton, 2011, pp. 157–158). On the other hand, voluntary CSR measures and therefore altruistic organizational behavior is not necessarily associated with value creation in Mexico.

In fact, Mexican multi-national enterprises stated that they rather find it valuable to conform to the legal requests and common industry practices. However, one must know that Mexico regulates employee education, for example, which clearly can be seen as an altruistic activity (Husted & Allen, 2009, p. 791). Thus, although altruism seems a very complex concept, it is included in studies about innovation success in the sense of treating others with fairness and equality, helping others and working on a social environment. Claver et al. (1998) even state that an innovation-based culture relates to ethical behavior in research (Claver, Llopis, Garcia, & Molina, 1998, p. 65). Eigenstetter and Löhr (2008) explicitly researched the interrelationship of ethics and its contribution to innovation-supportive culture. Their findings reveal a positive correlation between social responsibility and innovation culture (Eigenstetter & Löhr, 2008, p. 26). The idea of treating employees and customers ethically also forms whole chapters in recent management literature (Bowie & Werhane, 2005, pp. 40–78), because it is believed that this impacts on organizational performance positively. In a recent study that takes a sample of 302 Chinese employees, it was found that employees' perception of ethical leadership was positively related to innovative work behavior such as brining up new ideas, contributing to discussions, and participating in decision-making (Yidong & Xinxin, 2013, p. 449).

Therefore, when leaders embed moral values in their work environment, outline how the job positively influences the company and society, and show respect and dignity to all employees, subordinates are more likely to share ideas and become creative. In fact, the authors see ethical leadership as a group phenomenon and utterly state that it boosts innovation when made a collective belief. If leaders manage to make the work interesting for their employees for the sake of the task itself, not only for external rewards, they will encourage innovative thinking and behavior. Thus, an emphasis of morality in the workplace, respect for followers and dignity, enriching every job's significance and using ethical leadership as an organizational norm while strengthening it as a shared value amongst all members of an organization, enhances and predicts innovation performance (Yidong & Xinxin, 2013, pp. 451–452).

Discussion, Development of Hypothesis and Research Questions

It was the purpose of this paper to show the benefits of ethical and socially responsible management with regard to innovation performance. The literature review shown above provides a very rich fundament of the interrelations between management ethics and innovation outcomes. Although the terms of "management ethics" or "corporate social responsibility" still seem to be under debate and evolution, there is a common consent of what actually lies behind them: an organizational, moral responsibility for all stakeholders of a company. Further, it was outlined how ethics contribute to innovation in various ways. Moreover, ethics even positively impact other organizational outcomes such as information exchange and employee motivation, which, in turn, facilitate innovation again. Therefore, a main hypothesis for future

research regarding the field is suggested as follows: The more an organization is managed ethically and socially responsible, the higher its innovation performance is.

Furthermore, the following research questions are of specific interest, particularly for the Austrian business landscape:

What are the indicators that determine an organization to be managed ethically and socially responsible? Are there certain aspects of management ethics that show a higher impact on innovation outcomes than others (e.g. is ethical treatment of employees more important to innovation than ethical treatment of suppliers?)?

How much are companies in Austria managed ethically already? Can differences between various industries and company sizes be revealed?

For different industries (e.g. manufacturing vs. tourism industry), is there a dissimilar interrelation between management ethics and innovation outcomes?

For different types of innovation (product, process, marketing, organization), is there a dissimilar dependency on management ethics?

In addition to that, this paper addresses other future fields of research as well. First of all, further questions not fully answered yet regarding ethics and responsibility of companies also go into the direction of diseases at the workplace (e.g. AIDS), water scarcity, and ecological sustainability – which all will have a high impact on business in the future (Waddock, 2004, p. 34). Moreover, these topics will also become more noticeable amongst all industries – resources will become scarce and whole business models are under threat. Therefore, companies have to make a strategic choice whether to intensify their risk management and build up good defense systems for these challenges or whether to invest in innovation to build a more sustainable future for their business (Paine, 2014, p. 94). Secondly, theoretical concepts on environmentally sustainable, successful innovation are still scarce, although consumer awareness for the topic only seems at the rise. The development of ecological processes, products, services, and business models can be seen as a main trend in business practice, because it holds the opportunity to create competitive advantage (Slotegraaf, 2012, pp. 350–351). From the author's perspective, these kinds of solutions provide tremendous market potential in German-speaking markets. Generally, those markets are highly sensitive to environmental questions already. Various sustainable business models are at the rise, such as grocery stores where customers bring their own recyclable boxes and bags to pack their shopping, for example. Thirdly, this idea could also be transferred to emerging markets: how can companies build products or services that take into account the exponential societal and environmental challenges in these markets while creating profits at the same time? Finally, all good purposes still come down to a matter of implementation. Thus, it remains to be discussed how to actually put management ethics into practice. Clearly, this is an area of high interest for managers, scientists, and consultants. Therefore, it provides rich opportunities for the development of accordant recommendations.

Limitations

The main limitation of the paper at hand is, that it lacks empirical research for the moment. As a conceptual paper, this was never the aim of the research, though. The approach shown in this paper is a thorough literature review and analysis of recent research. Still, one might also argue that the topic can be turned around: "Innovative culture may well be the most sustainable one" – forcing sustainable metrics into a company necessarily leads to a mindset that requires innovative thinking and creative solutions to old problems. Thus, instead of managing a company in terms of preventing from pollution and all other possibly negative effects, the creation of real value to customers with innovative products or services is encouraged

– which basically has always been the core idea of innovators (Gobble, 2012, pp. 65–66). In that, a valid question for future research might also address this: What comes first? Does innovation naturally have a positive impact on sustainability or CSR activities? Does it lead to management ethics in turn, because it deeply wants to find valuable, beneficial solutions for consumers' needs? So, for the moment, this paper brings to light a number of questions and it is hoped that many of them will be solved and argued back and forth in order to come up with recommendations for managers to create a future worth living in for everyone. For the context of this paper, management ethics were seen as a precondition and an enabler for innovation. Probably, the phenomenon works vice versa, though.

CONCLUSIONS

To sum up, it must be admitted, that the interrelations of management ethics and innovation seem very diverse. Overall, there is not much empirical research available, either. Further, measurement instruments are far from being standardized and agreed upon. Generally, organizations certainly do and have to play an essential role in different societal and environmental developments and it is encouraged to intensify research how these important questions can be solved in order to show a positive contribution to organizational performances in terms of innovation. Further, astonishingly, there are only around 10% of US companies having institutionalized sustainability up to now. In fact, the vast majority of organizations lack a committee that reports to the board and puts its entire efforts into corporate responsibility or sustainability (Paine, 2014, p. 88). Therefore, one final challenge regarding the topic is seen in its operationalization. However, the merits of management ethics leading to sustainable innovations provide incredible future market potential. As outlined, it may take capitalism to a next level – which, having survived the crises of 2008 must be in the interest of all researchers, governments, and managers alike.

REFERENCES

Amabile, T. M. (1996). Creativity and innovation in organizations. Harvard Business School, (January), 1–15.

Austrian Chamber of Economics (Wirtschaftskammer Österreich - WKO). (2015). CSR-Übersicht.

Austrian Chamber of Economics Official Website (Wirtschaftskammer Österreich - WKO). Retrieved October 15, 2015, from https://www.wko.at/Content.Node/Service/Umwelt-und-Energie/noe/CSR.html Bloom, P. (1963). Just Babies - The origins of good and evil (1st ed.). New York: Crown Publishers.

Boulouta, I., & Pitelis, C. N. (2014). Who Needs CSR? The Impact of Corporate Social Responsibility on National Competitiveness. Journal of Business Ethics, (119), 349–364.

Bowie, N. E., & Werhane, P. H. (2005). Management Ethics. Malden / Oxford / Carlton: Blackwell Publishing.

Brooke Dobni, C. (2008). The DNA of Innovation. Journal of Business Strategy, 29(2), 43–50.

Cambridge University Press. (2015a). Cambridge Dictionaries Online - Business Ethics. Official Website of Cambridge Dictionaries Online. Retrieved November 01, 2015, from http://dictionary.cambridge.org/dictionary/english/business-ethics

Cambridge University Press. (2015b). Cambridge Dictionaries Online - Ethics. Official Website of Cambridge Dictionaries Online. Retrieved November 01, 2015, from http://dictionary.cambridge.org/dictionary/english-german/ethics

Claver, E., Llopis, J., Garcia, D., & Molina, H. (1998). Organizational Culture for innovation and new technological behavior. The Journal of High Technology Management Research, 9(1), 55–68.

Connor, P. E., & Becker, B. W. (1979). Values and the Organization: Suggestions for Research. In M.

Rokeach (Ed.), Understanding Human Values (pp. 71–81). New York: The Free Press - Simon & Schuster Inc.

Cornell University, INSEAD, & WIPO. (2014). The Global Innovation Index 2014 - The Human Factor in Innovation. Fontainebleau, Ithaca, Geneva.

Davila, T., Epstein, M. J., & Shelton, R. (2006). Making innovation work (pp. 1–368). New Jersey: Wharton School Publishing.

Delbecq, A. L., & Mills, P. K. (1985). Managerial practices that enhance innovation. Organizational Dynamics, 14(1), 24–34.

Drucker, P. F. (1985a). Innovation and Entrepreneurship (pp. 1–277). New York: HarperCollins Publishers, Inc.

Drucker, P. F. (1985b). The discipline of innovation. Harvard Business Manager, (May-June), 67–72.

Egger, C. (2014). Organizational Values for Product Innovations in Manufacturing Companies. In Conference Proceedings for Political Sciences, Law, Finance, Economics & Tourism (Vol. 3, pp. 381–388). Sofia: SGEM International Multidisciplinary Scientific Conferences on Social Sciences and Arts.

Egger, C. (2015). The impact of organizational values on product innovation in manufacturing companies. Riga: University of Latvia.

Eigenstetter, M., & Löhr, A. (2008). Ethikprogramme in Unternehmen: Unterstützung einer innovationsförderlichen Gestaltung von Unternehmenskultur? FORUM Wirtschaftsethik, 16(3), 16–33.

Eurostat - European Commission. (2013). Science, technology and innovation in Europe - 2013 edition (pp. 1–141). Luxembourg.

Evanschitzky, H., Eisend, M., Calantone, R. J., & Jiang, Y. (2012). Success Factors of Product Innovation: An Updated Meta-Analysis. Journal of Product Innovation Management, (29), 21–37.

Factor, R., Oliver, A. L., & Montgomery, K. (2013). Beliefs about social responsibility at work: comparisons between managers and non-managers over time and cross-nationally. Business Ethics: A European Review, 22(2), 143–159.

Federal Ministry of Education and Research. (2009). Research and Innovation for Germany (pp. 1–116). Bonn, Berlin.

Fisher, R., Ury, W., & Patton, B. (2011). Getting to Yes (3rd ed., pp. 1–194). New York: Penguin Group. Gobble, M. M. (2012). Innovation and Sustainability. Research Technology Management, (September - October), 64–66.

Guinot, J., Chiva, R., & Mallén, F. (2015). Linking Altruism and Organizational Learning Capability: A Study from Excellent Human Resources Management Organizations in Spain. Journal of Business Ethics, (March), 1–16.

Husted, B. W., & Allen, D. B. (2009). Strategic Corporate Social Responsibility and Value Creation - A Study of Multinational Enterprises in Mexico. Management International Review, (49), 781–799.

Jassawalla, A. R., & Sashittal, H. C. (2002). Cultures that support product innovation processes. Academy of Management Journal, 16(3), 42–54.

Kepler, D. (2011). The Business Case for Sustainability. EHS Today, (June), 49–53.

Luo, X., & Du, S. (2014). Exploring the relationship between corporate social responsibility and firm innovation. Springer Science + Business Media Online, (May), 1–12.

Naranjo-Valencia, J. C., Valle, R. S., & Jiménez, D. J. (2010). Organizational culture as determinant of product innovation. European Journal of Innovation Management, 13(4), 466–480.

OECD, & Eurostat. (2005). Oslo Manual - Guidelines for collecting and interpreting innovation data (3rd ed., pp. 1–166). Paris: OECD Publisher.

Paine, L. S. (2014). Sustainability in the Boardroom. Harvard Business Review, (July - August), 86–94.

Pfitzer, M., Bockstette, V., & Stamp, M. (2013). Innovating for Shared Value. Harvard Business Review, (September), 101–107.

Pinker, S. (2011). The better angels of our nature (pp. 1–771). New York: Penguin Group.

Porter, M. E., & Kramer, M. R. (2011). Creating shared value. Harvard Business Review, (January - February), 62–77.

Schneider, B., Gunnarson, S. K., & Niles-Jolly, K. (1994). Creating the Climate and Culture of Success. Organizational Dynamics, 23(1), 17–29.

Slotegraaf, R. J. (2012). Keep the Door Open: Innovating Toward a More Sustainable Future. Journal of Product Innovation Management, 29(3), 349–351.

Tidd, J., & Bessant, J. (2009). Managing innovation (4th ed., pp. 1–600). West Sussex: John Wiley & Sons Ltd.

United Nations. (2015). What is sustainability? United Nations Official Website. Retrieved September 04, 2015, from http://www.un.org/en/sustainablefuture/sustainability.shtml

Vázquez-Carrasco, R., & López-Pérez, M. E. (2013). Small & medium-sized enterprises and Corporate Social Responsibility: a systematic review of the literature. Qual Quant, (47), 3205–3218.

Vollmers, F. (2015). Im Dauertrend: Corporate Social Responsibility. Audimax Career Center. Retrieved March 29, 2015, from https://www.audimax.de/news-detail/article/im-dauertrend-corporate-social-responsibility-01019/

Waddock, S. A. (2004). Parallel universes: Companies, academics, and the progress of corporate citizenship. Business and Society Review, 109(1), 5–42.

Yidong, T., & Xinxin, L. (2013). How Ethical Leadership Influence Employees' Innovative Work

Behavior: A Perspective of Intrinsic Motivation. Journal of Business Ethics, (116), 441–455.

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MAPP, GIDEON AND MIRANDA: COMMON PERPETRATORS, OR CONSTITUTIONAL PILLARS?

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ABSTRACT

The decade known as "The Sixties" saw many changes in American lifestyle, and development of political and cultural movements. Not to be outdone, the U. S. Supreme Court broke new ground in a variety of areas, not the least of which was in the interpretation, clarification and enhancement of the rights of the accused in criminal cases. Three of its decisions, Mapp v. Ohio, Gideon v. Wainwright and Miranda v. Arizona have weathered numerous storms in the past fifty (50) years, bringing many to question just what will be their legacy. Are the three principals in those cases to be considered and remembered as common criminals, or constitutional trailblazers? Surely there can be ample support for either conclusion. Yet, what were the foundations for the Supreme Court's rulings, and how are these cases viewed today, after all the intervening years? Is the criminal element of society being coddled, and law enforcement being hamstrung, or, have personal freedoms and protections been championed, and has law enforcement become more efficient and professional due to the Court's mandates? This paper will go back to the roots of these decisions, journey forward to the present, and venture a look to the future of these ground-breaking holdings.

JEL: K3, K4

KEYWORDS: Search and Seizure, Right to Counsel, Self Incrimination

INTRODUCTION

Three unlikely stablemates rode into Supreme Court history in the 1960s, and for the past fifty years have continued their ride through the courtrooms of the criminal justice system. Dollree Mapp, Clarence Earl Gideon and Ernesto Miranda were known to virtually no one but their neighbors when they were arrested in their cities of residence: Cleveland, Ohio, Panama City, Florida, and Phoenix, Arizona, respectively. Yet, they became legends in their own times, and any student of American criminal law has heard their tales, read and re-read of their journeys, and had their legacies branded into his or her reservoir of knowledge as to the constitutional rights of the accused. While many are called before the bar of justice to account for their alleged misdeeds, few are chosen by history to stand up and be counted as true landmarks. Mapp, Gideon and Miranda are among those few. This paper will examine the constitutional underpinnings of their importance, the factual quirks of their backgrounds and ordeals, and show how the principles that came forth from their cases have weathered the test of time.

The Fourth Amendment: The Fourth Amendment to the U.S. Constitution prohibits unreasonable searches and seizures, and outlines requirements for warrants to issue. *The right of the people to be secure in their persons, houses, papers and effects, against unreasonable searches and seizures, shall not be violated, and no Warrants shall issue, but upon probable cause, supported by Oath or affirmation, and particularly describing the place to be searched, and the persons or things to be seized.*

The Fifth Amendment

The Fifth Amendment to the U.S. Constitution has five clauses/protections to it. *No person shall be held to answer for a capital, or otherwise infamous crime, unless on a presentation or indictment of a Grand*

Jury, except in cases arising in the land or naval forces, or in the Militia, when in actual service in time of War or public danger; nor shall any person be subject for the same offense to be twice put in jeopardy of life or limb; nor shall be compelled in any criminal case to be a witness against himself, nor be deprived of life, liberty or property, without due process of law; nor shall private property be taken for public use, without just compensation. The so called, "self incrimination"/ "*nor shall be compelled…to be a witness against himself…*" portion is operative in the discussion at hand.

The Sixth Amendment

The Sixth Amendment to the U.S. Constitution has various protections. *In all criminal prosecutions, the accused shall enjoy the right to a speedy and public trial, by an impartial jury of the State and district where the crime shall have been committed; which district shall have been previously ascertained by law, and to be informed of the nature and cause of the accusation; to be confronted with witnesses against him; to have compulsory process for obtaining witnesses in his favor, and to have the Assistance of Counsel for his defense.* It is the "Assistance of Counsel" and the interpretation of *Miranda* requiring notice to an accused of the right to counsel, and notice of the supplying of free counsel if need be, that is operative in the discussion at hand.

Mapp Discussion

In 1961, the U.S. Supreme Court decided the case of *Mapp v. Ohio*. When this case was discussed in law school, Dollree Mapp was referred to as "old lady Mapp" (to both of the authors, attending different law schools, in the 1960s). In fact, it turns out that Miss Mapp was not old, but relatively young, and there is at least some question whether she was a "lady" in the traditional sense of the term's usage at that time, as the facts below bring out. Her Cleveland, Ohio, home was raided by police without a warrant. They did not find what they were looking for (a suspected bombing fugitive), but they did find a trunk of pornographic photos and objects. Mapp was convicted for possessing obscene material. Her appeal to the Ohio Supreme Court was denied, and she appealed to the U.S. Supreme court on the grounds that her Fourth Amendment rights were violated. Although the high court had applied the Fourth Amendment to federal prosecutions in the past, and had instituted an "exclusionary rule" for improperly seized evidence in federal cases, the 6-3 decision (see *Figure 1*, below) in *Mapp* clearly held that the same rule should also apply in *state* prosecutions by funneling the Fourth Amendment through the Fourteenth Amendment's requirements of imposing due process on the states. It is interesting to note that although Mapp's conviction was reversed, she later ran afoul of the criminal justice system when she was convicted of selling narcotics in 1970 in New York City (Time, 2015).

Supreme Court Justice Opinions and Votes (by Ideology)

Decision: 6 votes for Mapp, 3 votes against

Legal Provision: Amendment 4: Fourth Amendment   Full Opinion by Justice Tom C. Clark

Figure 1:   Source: the Oyez Project, Mapp v. Ohio, 367 U.S. 643 (1961)

| Douglas | Black | Warren | Brennan | Stewart | Clark | Whittaker | Frankfurter | Harlan |

Gideon Discussion

Gideon v. Wainwright is the landmark case on the right itself to counsel in a criminal proceeding. Clarence Earl Gideon was arrested for allegedly breaking and entering a pool hall in Panama City, Florida in 1961. Facing felony jail time, he requested and was denied an assigned/appointed attorney. Having no funds for an attorney, he represented himself at trial. For his well-intentioned efforts, he was found guilty by a jury and sentenced to five years in Florida State Prison. He ultimately appealed to the United States Supreme Court, and was appointed Washington, D.C. attorney, Abe Fortas to represent him. (Note: this is the same Abe Fortas that became a Supreme Court Justice, who was one of the five Justices voting in favor of *Miranda* in the Court's later 1966 decision, and whose portrait appears below with the *Miranda* bench.) The decision was 9-0 (see *Figure* 2, below) in favor of the principle that the states must assign counsel to indigent criminal defendants facing substantial incarceration. Again, the Fourteenth Amendment was used as a funnel through which the Sixth Amendment was applied to the states (The Oyez project, Gideon v. Wainwright). To this date, Federal, State and local jurisdictions are required to supply counsel, free of charge, to criminal defendants that cannot afford attorneys. Attorneys that perform this function are often known as Public Defenders, Assigned Counsel and the like.

Supreme Court Justice Opinions and Votes (By Ideology)

Decision: 9 Votes For Gideon, 0 Votes Against   Legal Provision: Right to Counsel

Figure 2:   Source: The Oyez Project, Gideon v. Wainwright, 372 U.S. 335 (1963)

| Douglas | Black | Warren | Brennan | Goldberg | White | Clark | Stewart | Harlan |

Miranda Discussion

Ernesto Miranda was a young man with prior criminal activity and a Dishonorable Discharge from the U.S. Army on his resume. He was someone, clearly, that a young woman would not want to bring home to "meet the parents." In March of 1963, a young woman was kidnapped and sexually assaulted in Phoenix, Arizona, and Ernesto became a suspect. He was interrogated by the police for a few hours, and relatively quickly confessed to the crimes. His later attempts to suppress his confession and evidence seized related thereto/resulting therefrom were denied, and he was convicted in Arizona State Court and sentenced to twenty to thirty years in state prison. His appeal to the highest court in Arizona was denied, and he appealed to the U.S. Supreme Court. The rest, as they say, is history. In a 5-4 split decision (see *Figure 3*, below), the Court concluded that Miranda's constitutional rights were violated (Fifth, Sixth and Fourteenth Amendments), in that he should have been warned that he had the right to remain silent, the right to an attorney, the right to a free attorney if he had no money to hire one, and that if he did say anything to his interrogators, his statement(s) could and would be used against him in court. These protections/warnings became required procedure for future prosecutions throughout the U.S.A.

As stated above, Ernesto Miranda was sentenced to twenty to thirty years in prison. Upon the reversal of his conviction, he was retried. Although the confession he initially made to police was not allowed into evidence in the re-trial, an incriminating statement he made to his common law wife was allowed into evidence, which, it seems certain, was a factor that contributed to the jury's verdict: he was reconvicted and re-sentenced to state prison. It seems Ernesto Miranda did not apply his lesson learned regarding a suspect remaining silent as far as police are concerned to the wisdom of remaining silent, at least at times, when it pertains to responding to inquiries made by a suspecting spouse. Testimony about the statement he made to his common law wife was admitted into evidence over his attorney's objection, the Court at that time holding that spousal privilege did not apply to common law relationships. He was paroled in 1972.

Yet, he continued to have trouble with the law, and was sent back to Arizona State Prison on a parole violation. After his release, he did not get far, in that he was mortally wounded at age 34 with a knife in a bar fight in 1976, short of ten years after the decision bearing his name was handed down. Ironically, a prime suspect in his fatal stabbing elected to stand on his *Miranda* rights, and refused to cooperate with the police. No one was ever formally charged with the killing (Time, 2015; The Oyez Project, Miranda v. Arizona). The *Miranda* warnings set forth by the Court in its 1966 ruling have weathered the test of time. As recently as 2000 (*Dickerson*) the Supreme Court struck down a federal statute aimed at weakening/limiting the application/enforcement of *Miranda*. To this date, upon an arrest, the police are supposed to warn an accused: (1) You have the right to remain silent; (2) you have the right to an attorney to represent you in each any every aspect of this proceeding; (3) if you do not have funds to hire an attorney, one will be appointed to you free of charge; and, (4) if you do waive your right to remain silent, and talk to us, anything you say can and will be used against you in a court of law.

The sanction imposed against the prosecution is that if the accused is not properly advised of his rights, and if the accused confesses, and if the appropriate, timely application is made to a court, and if the court finds that the accused's rights have been violated, the confession cannot be used as evidence against him. This does not mean that if the *Miranda* rights are violated the accused automatically goes free. As happened to Ernesto Miranda in the re-trial stage, if there is sufficient evidence aside from the suppressed confession to convict, a conviction can be obtained.   *Miranda* has even been applied to international interrogations, and comes into play today in the war against terrorism (Reville, 2009).

Supreme Court Justice Opinions and Votes (by Ideology)

Decision: 5 votes for Miranda, 4 votes against

Figure 3:   Source: The Oyez Project, Miranda V. Arizona, 384 U.S. 436 (1961)

Legal Provision: Self-Incrimination   Full Opinion by Chief Justice Earl Warren

| Douglas | Fortas | Warren | Brennan | Black | Clark | White | Stewart | Harlan |

CONCLUSION

Dollre Mapp, Clarence Earl Gideon and Ernesto Miranda were apparently not persons you would be inclined to write home about. They were accused of serious crimes, and, although at least temporarily cleared of those charges, later were convicted (at least in the cases of Mapp and Miranda) of acts that society

does not tolerate. Yet, their importance is not measured by the company they kept or the activities that they were involved in. They are remembered because they, with the assistance of competent counsel, stood up for the constitutional protections that benefit all in that same society. Yes, they were characterized at the time as common criminals, perpetrators if you will, and so forth. But collectively, their legacy is not measured by their convictions or the time they served in prison for their would-be unacceptable behavior. They are known for the constitutional breakthroughs that have ultimately made law enforcement more professional, resulting in all members of society better protected when accused of illegal acts. All members of society are better guaranteed a fairer day in court due to the plight these three found themselves in and the attorneys who picked up carried the torch of liberty on their behalf, and ultimately on behalf of all.

REFERENCES

U.S. CONST. amend IV, V and VI

Mapp v. Ohio, 367 U.S. 643 (1961)

Gideon v. Wainwright, 372 U.S. (1963)

Miranda v. Arizona, 384 U.S. 436 (1966)

Dickerson v. United States, 530 U.S. 428 (2000)

Reville, P. (2009) "International Application Of The Fifth Amendment," International Business and Economics Journal, Vol. 8, No. 10.

Time, Inc. Specials (2015) "The Supreme Court; Decisions That Changed America"
The Oyez Project (Mapp v. Ohio, Gideon v. Wainwright, Miranda v. Arizona).

BIOGRAPHY

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THE IMPACT OF FAIR VALUE ON AUDIT QUALITY AND THE CONTRIBUTION OF ISA 540 (REVISED AND REDRAFTED)

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ABSTRACT

This study collects the views of Tunisian external auditors about the impact of audit challenges related to fair value on audit quality, and the role of ISA 540 (Revised and Redrafted) in mitigating these challenges. Based on responses from 52 Auditors to our questionnaire, we found out that the fair value is perceived as engendering technical difficulties for auditors. However, these challenges at fair value have no negative impact on audit quality. On the other hand, 78.8% of our respondents believe that ISA 540 (Revised and Redrafted) plays a significant role in mitigating the audit challenges related to fair value. Thus our study shows that in the eyes of Tunisian external auditors, benefits of fair value outweigh its disadvantages and ISA 540 (Revised and Redrafted) provide auditors by all the necessary tools to deal with audit challenges related to fair value estimates.

JEL: M41, M42, C12, C25

KEYWORDS: Audit Quality; Fair Value; ISA 540 (Revised and Redrafted); Logistic Regression

INTRODUCTION

Accounting standards are the basis on which is built any financial information. Thus, before issuing an opinion on the quality of financial statements, one must question the quality of standards that led to their establishment. In this regard, some research had indicated the presence of a significant relationship between the accounting framework adopted and earnings management (Barth et al. (2008)). The financial scandals that were arisen in the United States and Europe, such as Enron and Worldcom, have given rise to doubts, among investors, about the sincerity and credibility of disclosed financial information. To restore investor's confidence in the quality of published financial statements, the European Union (EU) applies to all the countries if the EU, had made mandatory the application of IFRS (International Financial Reporting Standards) for listed companies establishing consolidated accounts from January 1st 2005. In order to provide an international regulatory framework in favor of having financial information which is at the same time understandable, relevant and comparable for investors. Other countries, such as Australia, Turkey and South Africa, among others, had set the same rule.

IFRS are inspired by the Anglo-Saxon model that favors the dominance of an economic approach which estimate how much the company is currently worth, in detriment of a historical approach which reflects what has happened, produced and certain .So with IFRS, we have moved forward from a Stakeholder model to a Shareholder model prepared, in priority, to guarantee the specific informational needs of shareholders and investors. The impact of the transition to IFRS on the quality of financial reporting has been the subject of several empirical studies (Zimmermann & Goncharov (2003); (Leuz & Verrecchia (2000) and (Bartov et al. (2005)). According to these studies, this impact differs from one country to another, and sometimes, from one study to another within the same context. This topic was the subject of the keenest doctrinal controversies; there are two streams of research.

Proponents of IFRS are in favor of such adoption and believe that through these standards, which provide managers with limited flexibility in accounting choices, investors will have more transparent financial statements. On the other hand, opponents assume that IFRS adoption is a necessary condition for improving information quality but is still insufficient because it must take into account environmental factors (Ball et al. (2000)). Adversaries of such adoption justify their views based on the fact that IFRS are complex, abstract, expensive, and they are based on the principle of fair value, which is often accused of being a crisis accelerator (Laux & Leuz (2009)).

These suspicions on IFRS, particularly on fair value, were accompanied with a total loss of confidence in audit quality. According to Sikka (2009), audit firms have shown an increasing willingness to violate the laws, regulations, and help their clients to publish flattering financial statements. The growing demand on fair value accounting has resulted in a series of challenges for external auditors and auditing standard setters (Kumarasiri & Fisher (2011)). In recent years, we noted the disappearance of local accounting systems of different countries in detriment of the appearance of a single international accounting system. Tunisia was not apart of this movement. Indeed, the Tunisian authorities has aimed to adopt IFRS around 2014. And given the political and economic instability in the country since 2011, no decision has been taken According to Ball (2006), the implementation of IFRS has not received enough attention and the implementation of fair value, among other IFRSs, may be more problematic given its complex and controversial nature, as well as other political and economic factors deeply rooted and vary by country. To successfully adopt IFRS in Tunisia, a change process must be designed in order to measure the complexity and depth of IFRS. Therefore, examining the implementation of fair value at each country is beneficial to get a further insight into the implementation of IFRS.

This paper aims to examine the impact of audit challenges in fair value on audit quality as required by ISA 540 (Revised and Redrafted). Our decision to retain the Tunisian context is explained by the debate about adoption of IFRS in the current environment and the lack of studies that have addressed this topic. The objectives of our research are first, to examine the impact of fair value on audit quality while addressing the challenges audit fair value. And second, to analyze the impact of failures of the ISA 540 (Revised and Redrafted) on its role in mitigating the challenges at fair value. In this paper, we first present the literature review, then the methodology and the results and finally the conclusion.

LITERATURE REVIEW

In this part we present two research streams: the research stream that studies the fair value audit challenges and the research stream that studies the failures at the ISA 540 (Revised and Redrafted).

Fair Value Audit Challenges

To understand how accounting estimates are verified, Griffith et al. (2012) interviewed 24 auditors belonging to six major audit firms, during the months of October and November. These interviewees noticed that the accounting estimates are difficult to verify because they must assess the reasonableness of the estimates rather than simply verify their accuracy. Montague (2010) sought to address potential problems with the audit of financial instruments measured at fair value. She concluded that the auditors should ensure that managers has classified assets / liabilities measured at fair value under the appropriate hierarchy. Martin et al. (2006), based on psychological studies to highlight the various problems that may occur during the verification of estimates at fair value, pointed out that the knowledge of specialized assessment needed to audit effectively estimates at fair value will be difficult for auditors to acquire and maintain, due to its complexity. They described the problems related to fair value from three different perspectives. First problem is the challenges to identify and assess the fair value estimates. Second is the potential bias of direction. Finally, the third problem is problem associated with the lack of internal control specific to fair value estimates.

Kumarasiri & Fisher (2011) sought to identify and examine the issues and challenges faced by auditors in auditing estimates at fair value in a context of developing countries based on a survey of 156 auditors in Sri Lanka. Among the problems they found is the prevalence of inactive markets in developing countries. According to the above-mentioned studies, we can formulate the following assumptions:

H1a: the complexity of fair value measures has a negative impact on audit quality.

H1b: The potential biases by managers have a negative impact on audit quality.

H1c: lack of technical knowledge on the fair value measures has a negative impact on audit quality.
H1d: the absence of an active market has a negative impact on audit quality.

H1e: the absence of specific internal control for fair value measurement has a negative impact on audit quality.

Failures at the ISA 540 (Revised and Redrafted)

Canadian Public Accountability Board (CPAB) (2012,) in its attempt to examine the effectiveness of the post-implementation of clarified ISAs, identified a number of deficiencies in ISA 540 that may affect audit quality. The members of board believe that the effectiveness of the audit procedures required by ISA 540 that are implemented in response to risks of significant anomalies are often insufficient to support the conclusion of the auditor on the reasonableness of the accounting estimates. Jeppesen & Liempd (2011) noted that when the auditor makes an estimate and uses assumptions or methods different from those used by managers, a difference may arise because the auditor used different but equally valid assumptions. Auditors are technically unable to determine what to do with the equally valid assumptions. According to the above-mentioned studies, we can formulate the following assumptions:

H2a: failures of audit risk procedures in ISA 540 have a negative effect on its role in mitigating fair value audit challenges.

H2b: the lack of guidelines for equally valid assumptions in ISA 540 (revised and redrafted) have a negative effect on its role in mitigating fair value audit challenges.

METHODOLOGY

Background and Sample

In this research, we selected a sample of Tunisian Certified Public Accountants (TCPAs), referred here as external auditors. Our questionnaire is realized in two phases. A pre-exploratory survey was conducted among some TCPAs belonging to our sample to adapt different questions to the Tunisian context and improve the measure scales. The second phase consists of the distribution of the final questionnaire by email and via social networks such as Facebook and LinkedIn. We sent 110 questionnaires, we received 59 responses and after excluding incomplete responses. We retained only 52 responses. The variables developed in the survey and used in our analysis are presented in Table 1. Table 2, 3 and 4 details the descriptive statistics of the sample.

Table 1: Variables in the Study

Variable	Definition
Sample characteristics	
V1 (AGE)	Age of the responding
V2 (GENDER)	Gender of the responding
V3 (EXP)	Number of years of respondent's experience as an auditor
V4 (BIG6)	Responding member of Big 6 (Y/N)
Dependent	
V5 (JV-QD)	Fair value has a negative impact audit quality (Y/N)
V6 (ISA540)	ISA 540 plays a sufficient role in mitigating the challenges of audit related to fair value measurements (Y/N)
Independent	
V7 (COMP)	Complexity to measure at fair value
V8 (MANQ)	Lack of technical knowledge on fair value measurement
V9 (AB_M_A)	Absence of an active market
V10 (AB_CI)	Absence of specific internal control to measure at fair value
V11 (POTEN)	Potential bias of fair value by management
V12 (RISQ)	Failures of risk assessment procedures in ISA 540 relative to fair value estimates
V13 (EST_VAL)	Lack of guidelines for equally valid estimates in ISA 540

Table 2: Descriptive Statistics of the Sample Characteristics

Variable	Modality	Frequency	Percentage
AGE	[20 - 30[	16	30.8%
	[30 - 40[	30	57.7%
	[40 – 50[	4	7.7%
	>= 50	2	3.8%
GENDER	Male	41	78.8%
	Female	11	21.2%
EXP	=< 10	36	69.2%
	[11 - 20]	14	26.9
	>= 21	2	3.8
BIG6	Yes (1)	19	36.5%
	No (0)	33	63.5

Table 3: Descriptive Statistics of the Dependent Variables

Variable	Modality	Frequency	Percentage
JV-QD	Yes (1)	19	36.5%
	No (0)	33	63.5%
ISA540	Yes (1)	41	78.8%
	No (0)	11	21.2%

Table 4: Descriptive Statistics of the Independent Variables

Variable	Modality	Frequency	Percentage
COMP	1	0	0%
	2	12	23.1%
	3	10	19.2%
	4	23	44.2%
	5	7	13.5%
MANQ	1	9	17.3%
	2	4	7.7%
	3	15	28.8%
	4	18	34.6%
	5	6	11.5%
AB_M_A	1	2	3.8%
	2	6	11.5%
	3	10	19.2%
	4	20	38.5%
	5	14	26.9%
AB_CI	1	7	13.5%
	2	8	15.4%
	3	6	11.5%
	4	16	30.8%
	5	15	28.8%
POTEN	1	2	3.8%
	2	4	7.7%
	3	13	25%
	4	15	28.8%
	5	18	34.6%
RISQ	1	5	9.6%
	2	6	11.5%
	3	19	36.5%
	4	13	25%
	5	9	17.3%
EST_VAL	1	1	1.9%
	2	9	17.3%
	3	23	44.2%
	4	14	26.9%
	5	5	9.6%

Models of the Study

We developed two logistics regression models. In the first model, we try to analyze the impact of fair value audit challenges on audit quality. In the second model, we analyze the impact of failures of ISA 540 in its role in mitigating the challenges of audit related to fair value measurements.

Model 1

$$JV - QD = \beta_0 + \beta_1 COMP + \beta_2 MANQ + \beta_3 AB\_M\_A + \beta_4 AB\_CI + \beta_5 POTEN + \beta_6 EXP + \beta_7 BIG6 + \varepsilon_{i,t} \tag{1}$$

Where

JV-QD, COMP, MANQ, AB_M_A, AB_CI, POTENT, EXP and BIG6 are the variable defined in Table 1 EXP and BIG6 are control variables.

Model 2

$$ISA540 = \beta_0 + \beta_1 RISQ + \beta_2 EST\_VAL + \beta_3 EXP + \beta_4 BIG6 + \varepsilon_{i,t} \tag{2}$$

Where

ISA540, RISQ, EST_VAL, EXP and BIG6 are the variable defined in Table 1 EXP and BIG6 are control variables.

RESULTS

After verifying the absence of outliers that can skew our statistics and the absence of multicollinearity between the independent variables that are introduced in our regression models, we tested the significance of the coefficients assigned to our variables based on the Wald test. Then, we examined the adequacy and classification of our empirical models.

Model 1: Impact of Fair Value Audit Challenges on Audit Quality

Table 6 presents the logistic regression estimates of Model 1. Wald statistics measures the statistical significance of each regression coefficient. The null hypothesis of this test H_0, states that the independent variables have no impact on the dependent variable. We accept H_0 if the significance of the Wald statistic is greater than the significance level of 0.05. So, we can conclude from Table 6 that the independent variables (COMP, MANQ, AB_M_A, AB_CI and POTEN) have no impact on audit quality. Thus, hypothesis H1a, H1b, H1c, H1d and H1e are rejected. Therefore, the complexity of fair value measures (H1a); the potential bias of managers (H1b); the lack of technical knowledge on the fair value measurements (H1c); the absence of an active market (H1d) and the absence of specific internal control to fair value measurement (H1e) have no negative impact on the quality of audit.

Table 6: Logistic Regression Parameter Estimates For Model 1

	B	Std. Error	Wald	Df	Sig.	Exp(B)
Intercept	-5.001	2.039	6.017	1	0.014	.007
COMP	.248	.404	.378	1	.539	1.282
MANQ	-.073	.277	.069	1	.793	.930
AB_M_A	.287	.347	.684	1	.408	1.332
AB_CI	.183	.290	.396	1	.529	1.200
POTEN	.012	.333	.001	1	.971	1.012
EXP	1.391	.639	4.747	1	.029	4.020
BIG6	.203	.702	.083	1	.773	1.225

From Table 6, we can conclude that the model 1 for measuring the impact of fair value audit challenges on audit quality can be written as follow:

$$JV - QD = .248COMP - .073MANQ + .287AB_{M_A} .183AB_{CI} .012POTEN \quad (3)$$
$$+ 1.391EXP + .203BIG6 - 5.001$$

Table 7 measures how well the model can predict the dependent variable based on the independent variables. The percentage of correct classification for affirming that fair value has a negative impact on audit quality is 68.4% and for infirming it is 93.4%. The Overall Percentage classification rate is 84.6%, which is considered as a good classification rate as well as a good predictive power.

Table 7: Classification rate

Observed	Predicted		
	Yes	No	Percent Correct
Yes	13	6	68.4%
No	2	31	93.4%
Overall Percentage			84.6%

The Nagelkerke's pseudo-R^2, which measures the explanatory power of the model, has a value of .610. This means that 61% of the variation of the dependent variable is explained by the model. Hosmer-Lemeshow's test measures the goodness of fit of a model. Table 8 shows that model 1 fits well with the data. In fact, we accept the hypothesis (H_0) that the model is well adjusted since the value χ^2 is equal to 8.488 and is significant.

Table 8: Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	8.488	8	.387%

Model 2: Impact of Failures In ISA 540 on Its Role In Mitigating Fair Value Audit Challenges

Table 9 presents the logistic regression estimates of Model 2. As mentioned earlier, Wald statistics measures the statistical significance of each regression coefficient. The null hypothesis of this test H_0 states that the independent variables have no negative impact on the dependent variable. We accept H_0 if the significance of the Wald statistic is greater than the significance level of 0.05. So, we can conclude from Table 9 that the independent variables (RISQ and EST_VAL) have no negative impact on the role of ISA 540 in mitigation fair value audit challenges. This explains that 88.5% of the respondents think that ISA 540 makes a positive contribution to the quality of audit, 11.5% think otherwise. Thus, hypothesis H2a and H2b are rejected. Therefore, failures of audit risk procedures in ISA 540 and the lack of guidelines for equally valid assumptions in ISA 540 have no negative impact on its role in mitigating fair value audit challenges and in its role in mitigating fair value audit challenges.

Table 9: Logistic Regression Parameter Estimates for Model 2

	B	Std. Error	Wald	Df	Sig.	Exp(B)
Intercept	2.479	2.037	1.481	1	.224	11.925
RISQ	-.107	.412	.068	1	.794	.898
EST_VAL	-.724	.533	1.847	1	.174	.485
EXP	1.485	1.088	1.865	1	.172	4.416
BIG6	-.316	.793	.159	1	.690	.729

From Table 9, we can conclude that the model 2 for measuring the impact of failures of ISA 540 in its role in mitigating the challenges of audit related to fair value measurements can be written as follow:

$$ISA540 = -.107RISQ - .724EST_{VAL} + 1.485EXP - .316BIG6 - 2.479 \qquad (4)$$

Table 10 measures how well the model can predict the dependent variable based on the independent variables. The percentage of correct classification for affirming that fair value has a negative impact on audit quality is 54.5% and for infirming it is 87.8%. The Overall Percentage classification rate is 80.8%, which is considered as a good classification rate as well as a good predictive power.

Table 10: Classification rate

Observed	Predicted		
	Yes	No	Percent Correct
Yes	36	5	87.8%
No	5	6	54.5%
Overall Percentage			80.8%

The Nagelkerke's pseudo-R^2, which measures the explanatory power of the model, has a value of .382. This means that 38% of the variation of the dependent variable is explained by the model. Hosmer-Lemeshow's test measures the goodness of fit of a model. Table 11 shows that model 2 fits well the data. In fact, we accept the hypothesis (H_0) that the model is well adjusted since the value χ^2 is equal to 7.812 and is significant.

Table 11: Hosmer and Lemeshow Test

Step	Chi-square	Df	Sig.
1	7.812	8	.452%

The objective of this work is to collect the TCPAs views on the impact of the adoption of IFRS, particularly, the impact of the fair value measurements on the quality of audit as well as the impact of the contribution of ISA 540 (Revised and Redrafted) on the quality of audit. The results of our statistical analysis show that, according to TCPAs, the five challenges of auditing fair value measurements, namely, the complexity of fair value measures; the potential bias of managers; the lack of technical knowledge on the fair value measurements; the absence of an active market and the absence of specific internal control to fair value measurement have no negative impact on the quality of audit. In other words, according to the TCPAs, the benefits of the fair value outweigh its disadvantages. In addition, the ISA 540 (Revised and Redrafted) gives auditor all the necessary tools to face the challenges of auditing at fair value. However it seems that there are convergence issues in Tunisia with this standard.

CONCLUSION

This research aims to test the impact of fair value audit challenges on audit quality and the impact of failures in ISA 540 (revised and redrafted) on its role in mitigating fair value audit challenges in the Tunisian context. The result of our study shows that, according to the auditors interviewed, no fair value audit challenge has a negative effect on audit quality. One can speculate that fair value is perceived as engendering technical difficulties for auditors. However, it is seen as an essential feature and its advantages overcome its disadvantages. These results are consistent with those of Kumarasiri and Fisher (2011). In fact, they found that Sri Lankan auditors perceive fair value as an essential feature, allowing managers to select the models that best suit their business despite the lack of an active market and the lack of experience as well as the additional audit fees involved in the context of developing countries.

This study shows that according to the auditors interviewed, no fair value audit challenge has a negative effect on audit quality. In fact, 53.8% of the respondents think that it is appropriate to introduce the standards of fair value in Tunisia, against 46.2% who think the opposite. Based on our statistical analysis, the failures of risk assessment procedures and the lack of guidelines for equally valid estimates in ISA 540 (revised and redrafted) have no negative impact on the role played by this standard in mitigating audit challenges in fair value. 78.8% of the respondents believe that ISA 540 (revised and Redrafted) plays a significant role in mitigating fair value audit challenges. Only 21.2% believe that this role is not sufficient. This explains why 88.5% of our respondents think that the ISA 540 (revised and Redrafted) makes a positive contribution to audit quality, while 11.5% think the opposite. The present research can be extended to identify challenges and obstacles that prevent Tunisian Certified Public Accounts (TCPAs) to comply with ISA 540 (revised and redrafted) specifically, and with international auditing standards generally. In addition, it will be interesting to identify the political and economic factors that may influence how fair value is measured and disclosed in the financial statements in the Tunisian context.

REFERENCES

Ball, R., (2006). "International Financial Reporting Standards (IFRS): Pros and cons for investors", Accounting and Business Research, International Accounting Policy, volume 36, p. 5-29.

Ball, R., Kothari, S. P. & Robin, A., (2000). " The effect of international institutional factors on properties of accounting earnings", Journal of Accounting and Economics, volume 29, p. 1-52.

Barth, M. E., Landsman, W. R. & Lang, M. H., (2008). "International Accounting Standards and Accounting Quality", Journal of Accounting Research, volume 46, n°3, p.467-498.

Bartov, E., Goldberg, S. R. & Kim, M., (2005). "Comparative value relevance among German, US and international accounting standards. A German stock market perspective", Journal of Accounting, Auditing and Finance, volume 20, n°2 ,p. 95-119.

Canadian Public Accountability Board (CPAB), (2012). "Review post-implementation of clarified ISAs" Fisher, R. & Kumarasiri, J., (2011). "Auditors Perceptions of Fair Value Accounting: Developing Country Evidence", International Journal of Auditing, volume 15, p .66-87.

Griffith, E. E., Hammersley, J. S., & KADOUS K., (2012). "Auditing Complex Estimates: Understanding the Process Used and Problems Encountered." Working Paper. University of Georgia, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=1857175.

Jeppesen, K. K. & Van Liempd, D., (2011). "Fair Value and the Missing Correspondence Between Accounting and Auditing", working papers, http://www.lse.ac.uk/accounting/pdf/liempdandjeppesen.pdf.

Laux, C. & Leuz, C., (2009). "The crisis of fair-value accounting: Making sense of the recent debate", Accounting, Organizations and Society, volume 34, p.826-834.

Leuz, C., Verrecchia, R., (2000)."The economic consequences of increased disclosure", Journal of Accounting Research, volume 38, p. 91-124.

Martin, R., Rich, J. & Wilks, J., (2006). "Auditing fair value measurements: a synthesis of relevant research", Accounting Horizons, volume 20, n° 3, p 287–303.

Montague, N. R., (2010). "The Effects of Directional Audit Guidance and Estimation Uncertainty on Auditor Confirmation Bias and Professional Skepticism When Evaluating Fair Value Estimates", doctoral thesis, University of South Florida.

Sikka, P., (2009). "Financial crisis and the silence of the auditors", Accounting, Organizations and Society, volume 34, pp. 868-873.

Zimmermann, J., Gontcharvo, I., (2003). " Do accounting standards influence the level of earnings management? Evidence from Germany", working papers, http://papers.ssrn.com/sol3/papers.cfm?abstract_id=386521.

BIOGRAPHY

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METHODS TO BATTLE THE $431 BILLION FAKE PHARMACEUTICAL INDUSTRY

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ABSTRACT

Nowadays, counterfeit drugs are available in the market more than ever. One has no idea whether they are acquiring the genuine drug or not. Many deaths have occurred because of mistakes made while purchasing the counterfeit medication. Not only does it alter one's health but it also crushes their hopes. The data concerning counterfeit drugs are increasingly being published in reports and reviews. It seems like government does not care about the issue since it is ongoing and growing.Governments seem to underestimate the importance of the issue, hence its growing prospect. Harsher sanctions are needed to prove that counterfeiting is not an unpunished crime. Whoever gives into that felony has to face the consequences that come along with breaking the law and possibly participating in harming and endangering one's life.

JEL: I10, I18, I19, K20, K42, F19, F23

KEYWORDS: Medicine; Counterfeit Drugs; Generic; Regulation

INTODUCTION

Over the years, the world as we now know it, has witnessed great progress. But with progress comes many issues. One issue of great consequences is pharmaceutical counterfeiting. Pharmaceutical counterfeiting stands for fraudulently producing or mislabeling medicines that are being purchased by consumers who believe them to be genuine. The illegitimate drugs can cause many serious health complications. Packaging these drugs are also identical to the legitimate ones, making it extremely difficult to distinguish them. But when one looks closely into their chemical formula, he/she notices that the ingredients were most likely misused. Counterfeiting does not only target brand-names but generic ones as well. Medical devices and medical-related products do not escape this problem. Counterfeiting has not only increased but has also targeted terminal and incurable diseases, giving people a prospect of an affordable and easy to get solution. On one hand, it raises people's hopes and gives them something to hold on and look forward too. On the other hand, the outcomes are unpredictable since no one knows what the components really are. Counterfeiting is an issue that is looking to dominate the pharmaceutical world. With its low cost and easy access, more individuals turn to the illegitimate drugs for salvation. This paper proceeds as follows. Section 2 presents a brief overview of literature. Section 3 presents an analysis of the situation. Section 4 presents a path forward. Section 5 concludes.

LITERATURE REVIEW

One way to fight counterfeiting is to send the supposedly fake drug to the original maker and have them analyze it. Many renowned companies employ undercover detectives to help them track down and find out who is counterfeiting their drugs. Those detectives then share the information they found with each other since they are all fighting the same crime and criminals. Pfizer, which is the world's largest drug company fights continually concerning the safety of their trademark since their products are the most counterfeited. During 2010, counterfeited drugs generated about $75 billion (Gillette (2013)). Counterfeiting does not

only effect the economy but also people's lives. Each year, about 100,000 million people worldwide may succumb to these fraudulent medicines. Some pills sometimes contain chalk, brick dust, paint, and even pesticides. Some of them even contain the remains of human fetuses. Others contain no active ingredients at all. Miraculously enough, the fake medications sometimes do actually work (Gillette (2013)). According to OseiTutu (2013), one form of the distribution of counterfeit pharmaceuticals into the hands of public is through the illicit drug trade. Individuals that traffic in the distribution of illegal drugs such as cocaine or heroin may also choose to enter the counterfeit medicine trade. Evidence shows that some counterfeits are as deadly as the illegal substances.

When one hears about how much profit is made out of fictitious drugs, he/she wonders how they get their hands on them. One way is the internet. Since its creation, the internet has only grown and been accessed all over the world. Finding fake drugs online is as easy as typing something on the computer. Specialized websites offer hundreds of drugs for whatever illness one has. Even website like "Craigslist" do suggest fake drugs. Counterfeiters play one patients' feelings to get them to turn to them. People do feel some embarrassment and shame when it gets to some parts of their health and they would much rather order their medication online in the intimacy of their own home. Another way to get customers is their unbeatable prices. In fact, anyone would prefer to pay $1 rather than $15 per tablet.

In fact, the number one driver for the purchase of counterfeit drugs is price. One study of 144 American students showed that the perceived legal and social risk or societal consequences did not influence the intent to purchase counterfeit goods. In many cases, consumers of counterfeit drugs feel they are 'getting away with something.' They feel the discounted price they pay is somehow 'getting even with the large pharmaceutical companies,' for the prices they charge. High drug costs drive Chinese consumers into the counterfeit marketplace, especially in rural areas. Chinese officials are more prone to ignore the activities of drug counterfeiters and in fact may aid the production of fake medicines supported by corruption in both the police and military (Bird (2008)). In addition, the deception of websites offering pharmaceuticals runs wide and deep. A recent study funded by the Food and Drug Administration found that of 11,000 purportedly "Canadian" websites, only 214 were actually registered in Canada. Websites may contain logo's, company symbols, national flags, etc. in attempt to legitimize their presentation. It's also important to note that even drugs shipped through countries such as Canada are not subject to those countries' safety requirements if the products are not for domestic consumption. From a business perspective, the transportation of counterfeit pharmaceuticals is an act of trade (Liang (2008)).

Detectives investigate counterfeited pharmaceuticals by looking at the small leads that would eventually take them to the "big fish". For that purpose, criminals resort to the express mail service to get their drugs wherever they need to be. Bigger the package, smaller the odds of inspecting it. Once the package reaches its first recipient, usually a drop shipper, then unwilling! serves as an intermediate between the original sender and the customer. The reason behind this is to not scare off the customer if the package is searched. Drop shippers are the ones that usually use "Craigslist" to make more money on the side, without thinking about the consequences. Asia is leading in counterfeiting, especially China. It is not surprising that counterfeiting is this prominent since the laws against it are very weak. Criminals do not fear the consequences hence there are more of them.

Counterfeiters pay attention to every detail to make sure that their drug would look very similar to the original one. Because of how much thought they put in it, many licensed distributors are not able to distinguish between the real drug and the fake one. It is tough to evaluate the severity of the issue because of the lack of resources available to detect counterfeited medicines, the different definitions of counterfeiting around the world and the variation in the distribution system (World Health Organization (WHO) (2010)). To try and assess the problem's gravity, WHO (2010) sent on a questionnaire to a handful of countries. Only 13 countries out of the 22 in the WHO Regional Office for Eastern Mediterranean region (EMRO) responded. They found out that only 3 countries in EMRO have distinct legislation on counterfeit

medicine.

They also discovered that 23 countries would welcome a specific legislation on counterfeit medicine (13 from WHO Regional Office for Africa (AFRO); 10 from EMRO). Unfortunately, information on counterfeiting is rarely shared with other National Medicines Regulatory Authority (NMRA) or WHO. Some recommendations were made, stating with Member States developing a specific legislation that empowers NMRAs and criminalizes counterfeit medical products. Second, proposing that information should be shared between NMRAs and police and customsl. Joining efforts will increase the odds of lessening counterfeiting. Third, declaring that Single Points of Contact (SPOC) should be established to facilitate exchange of information on counterfeiting at regional, national and international levels. Fourth, saying that Member States are encouraged to declare cases of counterfeiting to WHO and INTERPOL. Fifth, proposing that pharmaceutical trade in free zones should be controlled by legislation. And finally, suggesting that information on counterfeiting should be shared with other NMRAs and law enforcers within the country (WHO (2010)).

Counterfeiting is underestimated crime wise even though it makes billions of dollars annually and is harmful to one's health and the society as a whole. The illicit pharmaceutical trade usually occurs with post-Soviet organized criminals, Columbian drug cartels, Chinese triads, and Mexican drug gangs. Hezbollah and al-Qaeda are believed to be involved. It proves that counterfeiting is not assigned to one special country or part of the world. It originates from all over the world, especially from the "rough" areas. Counterfeiting provides jobs in the roughest areas of Asia such as China and India. Private entrepreneurs, state officials, and online criminals play an important role as facilitators of counterfeiting. The internet advertises counterfeiting trough spams. Out of all the criminals that are involved in counterfeiting, only 1,300 people worldwide were arrested. Over half of the arrests occurred in China. So with so few arrests potential traffickers are likely never to get caught (Shelley (2012)).

About 2 billion consumers worldwide purchase counterfeiting medicine and fall victim to its dangerous consequences. Between 1999 and 2008, counterfeiting revenues increased by $8.2 billion per year (Shelley (2012)). Poverty plays a major role in counterfeiting. Fake drugs are very affordable, making it easier for needy people to get to them. One of the most important consequences to fake drugs is that most people tend to develop drug-resistant strains of the deadliest diseases. It was also discovered that licensed pharmacists use counterfeited drugs to make more money, selling them to customers as genuine. No one is willing to confront and address the issue, which is ongoing and still growing.

Online acquisition of counterfeit pharmaceuticals through the Internet has become much more pervasive. Some websites simply require an 'online profile,' followed by a brief review by a physician. The physician never examines or communicates with the patient before the order is dispensed. One online pharmacy in particular was found to fill virtually every order that was placed. The physicians were compensated based upon the number of prescriptions they approved. The main focus of law enforcement today are online outlets called 'rouge pharmacies.' These sites distributed drugs to consumers without a prescription. They are harder to track by regulatory bodies because they are not registered anywhere. If the drug or counterfeit is available, a credit card is all that is needed. These pharmacies are largely located outside the U.S., but may advertise their products as being "FDA Approved."

Given the light penalties and the time lag for regulators or law enforcement to shut down these Internet websites, operators simply take down the website and relocate to another region of the country or perhaps to another country. From a business perspective, this is merely a relocation of a distribution center. Large and important pieces of the supply chain remain intact. A recent study found nearly 10.000 websites out of compliance with U.S. federal and state regulations. 2,274 of the sites have physical addresses located outside the U.S. and 3,708 maintain servers in foreign countries. Because of variations in drug laws from country to country, some countries may not be aggressive with either investigation or prosecution. In fact,

extradition may not be possible if the defendant's actions are not considered criminal in the extraditing country (Lipman (2013)). According to Faucon et. al (2013), a cargo ship originating in Guangzhou, China set sail for Luanda, Angola. Part of the cargo was a shipment of loudspeakers. Within the loudspeakers, 1.4 million packets of counterfeit Coartem, a malaria drug, was discovered by Angolan customs. The destination of the loudspeakers was a Luanda pharmaceutical distributor.

He was arrested, questioned and released with no charges filed. It was enough to treat more than half the country's annual malaria cases, if only they were genuine. Because of how many fake antimalarial drugs are being sent to Africa, health administrators fear a relapse. The counterfeit "Coartem" found in Angola did not have any active ingredients found in the real drug. Instead, they consisted of calcium phosphate, fatty acids and yellow pigments. Patients turn to markets where fake "Coartem" is known to be sold because it is much cheaper and easier to get. Some of the counterfeited "Coartem" found seemed to be destined for African countries specifically. According to WHO (2010), counterfeit and substandard medicines constitute a $431 billion market, which accounts for a 300% increase since 2000. Because of that increase, an estimated 25-60% of the medicine supply in developing countries is either substandard or counterfeit. The WHO also reported that more than 100 patients were killed in Panama by counterfeit glycerin contained in cough medicine. WHO also reported that around 100,000 deaths per year in Africa are linked to counterfeit drugs. Furthermore, Nayyar et al. (2012) collected surveys that examined 2,634 malaria drugs samples across 21 sub-Saharan African countries and found that one-third of them failed on the basis of chemical analysis. The London-based International Policy Network attributes 700,000 fatalities to fake malaria and tuberculosis medicines every year. In 2008, an active ingredient in "Heparin" was replaced with with a cheaper counterfeit substitute that resulted in 81 deaths. 2012 statistics show there were 841 counterfeiting incidents involving customs seizures or police/health inspector raids, 1,238 people arrested for counterfeiting worldwide, and 123 countries were impacted by pharmaceutical crime (Asia and Europe were the most highly impacted).

Analysis of the Situation

The human will to survive is a basic instinct. In regions with widespread chronic afflictions such as malaria, HIV/AID, tuberculosis, diabetes, etc., counterfeits can easily find markets to serve. These and other medical conditions drive consumers into the counterfeit market because they usually cost less than the authentic product and they are more easily obtained. The vast majority of these consumers are unaware that counterfeits do not undergo the rigorous testing of manufacturers and regulatory bodies. They also risk consuming material that was formulated in a setting that was void of the Good Manufacturing Practices (GMP) and may be void of the active ingredients necessary to address the medical condition. Criminal organizations and individuals are discovering that there is less risk and penalties associated with counterfeit pharmaceuticals than human trafficking and illegal drugs. Courts and judges generally do not view counterfeit pharmaceuticals as they may a violent crime. It seems to fall somewhere between what may referred to 'white-collar' crime and a violent offense. For example, a pharmacist in Ontario, Canada was arrested in 2005 for substituting talcum powder in heart medicine. The coroner cited "unauthorized medication substitution" in four deaths. The pharmacist was acquitted by a court in 2007 because prosecutors failed to prove criminal intent. He sued to get his license back and is now the owner of a pharmacy in Toronto (LaGanga (2014)).

In another example, a Chinese national was accused as being the architect of a world-wide pharmaceutical counterfeiting operation when he was arrested in New Zealand in 2010. He was released on bail and failed to appear for an extradition hearing. Authorities suspect he fled to China (Gillette (2013)). Finally, a U.S. citizen pled guilty to one count of conspiracy to traffic and one of trafficking. He received 10 months in prison and a $5,100 fine. According to Donelly, director of Pfizers global security team in the Americas, "…the laws against drug counterfeiting are too weak. If he were a crack dealer, for the same type of operation, he'd be looking at a five-year minimum" (Gillette (2013)). The research in the area counterfeit

pharmaceuticals and law enforcement seems to reference "arrests," "questioning," "detainment." It's rare that any paper published in this area ends with the phrases "sentencing" or "incarceration." In the rare occasion the phrase 'sentencing' is mentioned it's usually in the context of 'ridiculously low'. In fact, some counterfeit drug distribution has occurred from totally unsuspected sources, For example, in 1995 Niger suffered a widespread outbreak of meningitis. In an effort to provide aid to its neighbor, the government of Nigeria shipped 88,000 doses of meningitis vaccine to Niger. The vaccine was discovered to be counterfeit and resulted in the deaths of 2,500 people. Counterfeit drugs currently account for approximately 30% of the medicines distributed in developing African nations (Chavez (2009)). Counterfeiting is more prevalent in countries where government and regulatory officials choose to turn a 'blind eye' to the situation. The depth and breadth of counterfeiting can also differ from rural to urban settings with a country.

According the WHO's (2010) survey of 24 African and Eastern Mediterranean, only three in the eastern Mediterranean have specific legislation on counterfeit medicines. Based upon subsequent discussions and meetings of survey responses, the number one recommendation was, "Member states should develop specific legislation that empowers National Medicines Regulatory Authority's (NMRA's) and criminalizes counterfeit products". Organized criminal elements within Italy have played a lead role in the importation and dissemination of a variety of counterfeit goods. According to the U.S. Department of Treasury, the criminal group Camorra may earn as much as $2.5 billion of their annual profit from counterfeit goods, including pharmaceuticals. According to Shelley (2012), "Corruption within the Italian government is a key component in their ability to operate on such a large scale". Central and South America are fast emerging as a production and sales territory for a wide variety of counterfeit goods, including medicines. Many of these medicines travel north into the U.S. This trade survives because of "…corrupt officials of all ranks..." (Shelley (2012)).

The Australian government recently threatened to withhold a $38 million medical aid project destined for Papua New Guinea (PNG) due to corruption allegations. A large contractor, Borneo Pacific Pharmaceuticals was accused by the PNG medical society of "giving presents to people in the government procurement system" and branded the process "corrupt". The PNG Health Departments' drug supply division was described by its minister in 2011 as "Riddled with corruption" (Towell (2013)). The continent of Africa is an example of a large group of countries with borders that ill defined and is easily breached. During a 9-month period in 2012, China exported $1.5 billion worth of medical products to Africa which in some cases have few or no active ingredients at all (Good Governance Africa (2013)). According to the United Nations Office on Drugs and Crime, in 2012, 500 million container movements were recorded. Of those containers, only 2% received any attention in regard to inspection.

A Path Forward

Some administrators looked into finding some way to battle counterfeiting. They are using private investigators and many new technologies such as RfIds to trace medicine. But to get right to the problem's core, one has to understand it. One of the major reasons is poverty. People hold on to the tiniest bit of hope, which, in this case is what usually hurts them more. But it is the only thing they can afford, without prescription. If medical care was cheaper, no one would look into buying a medicine that can possible hurt them in any way. Consequently economical, educational and social policy implemented by local government can help avoid the proliferation of counterfeited medicine. Another part of fighting counterfeited drugs is enforcing the laws. Laws regarding counterfeiting are way too weak and does not scare criminals away. Drug dealers face a harsher sentence compared to medicine counterfeiters. The government has to make it clear that they are not facing a few months but more like a couple of years. Finally, another way to fight counterfeiting is to check larger cargos rather than just letting them go. Not only will it take them by surprise but it will also make it possible to arrest the people that are at the base rather that just the drop shippers.

CONCLUSION

Counterfeiting is a terrible problem that took its place worldwide. Not only is it crushing the economy but it also is crushing people's health and hopes. It would be easier if customers stopped buying medicines online. Sadly, there are many other factors that play along, such as poverty or emotions. Economics combined with a severe medical condition tend to establish an end user market for counterfeit pharmaceuticals. This demand is more easily serviced when laws are nonexistent or not rigorously enforced. One reason laws may not be enforced is because of the lack of an effective regulatory system and a government in place that chooses to ignore certain criminal activities. The last major piece is access – the challenge to counterfeiters to move their materials into the country and establish the forward distribution networks.

REFERENCES

Bird, R. C., (2008) "Counterfeit Drugs: A Global Consumer Perspective," *Wake Forest Intellectual Property Law Journal*, vol. 8(3), pp. 387 – 406

Chavez, A., (2009) "A Growing National Headache: The Prevalence of International Counterfeit Pharmaceutical Trade in Developing African Nations," *Suffolk Transnational Law Review*, vol. 32(3), pp. 631 – 654

Faucon, B., Murphy, C., Whalen, J., (2013) "Fake-Pill Pipeline Undercuts Africa's Battle with Malaria", *The Wall Street Journal*, Eastern Edition, New York, 29 May 2013

Gillette, F., (2013) "Inside Big Pharma's fight against the $75 billion counterfeit drug business", *Bloomberg Business week*, (4313), pp. 58-61

LaGanga, S. A. (2014). *The Partnership for Safe Medicines*. Retrieved September 11, 2015, from The Partnership For Safe Medicines Web Site: http://www.slideshare.net/SafeMedicines?utm_campaign=profiletracking&utm_medium=sssite&utm_source=ssslideview

Liang, B. A., (2008) "A Dose of Reality: Promoting Access to Pharmaceuticals," *Wake Forest Intellectual Property Law Journal*, vol. 8(3), pp. 302 – 386

Lipman, B., (2013) "Prescribing Medicine for Online Pharmacies: An Assessment of the Law and a Proposal to Combat Illegal Drug Outlets," *American Criminal Law Review*, vol. 50(3), pp. 545 – 573

Nayyar, G. M. L., Breman, J. G., Newton, P. N., Herrington, J., (2012) "Poor-quality antimalarial drugs in southeast Asia and sub-Saharan Africa,*" The Lancet Infectious Diseases*, Vol. 12(6), June 2012, pp. 488-496

OseiTutu, J. J. (2013) "Private Rights for the Public Good?" *SMU Law Review*, vol. 66, pp. 767 – 816.

Shelley, L. I., (2012) "The Diverse Facilitators of Counterfeiting: A Regional Perspective," Journal of International Affairs, Fall/Winter 2012, Vol. 66 Issue 1, pp. 19-37

Towell, N., (2013). *Fear of counterfeit drugs in $38m aid project for Papua New Guinea*. The Canberra Times, November 30, 2013. Retrieved September 11, 2015, from Web Site: http://www.canberratimes.com.au/national/public-service/fear-of-counterfeit-drugs-in-38m-aid-project-

for-papua-new-guinea-20131129-2yhhs.html

World Health Organization (WHO), (2010). "Report of the situation of counterfeit medicines based on data collection tool. WHO regions for Africa and eastern Mediterranean," *WHO/ACM/3*, 2010

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WHY DO THE UNFERWRITERS ALLOCATE INDIVIDUAL INVESTORS MORE IPO SHARES IN JAPAN?

Yoji Takahashi, Gifu Shotoku Gakuen University

ABSTRACT

This paper explores whether and how individuals' allocation affects IPO pricing in Japan. IPO underpricing is a robust phenomenon that extends across equity markets in several countries and time periods. However, in U.S. versus Japan, the underwriters have allocated institutions versus individuals 70-80% of IPO shares. There is surprisingly little research on how initial gains are divided between these different investors. In Japan, we can use the valuable allocation data to individuals. In the context of asymmetric information, underwriters can favor preferred investors by allocating them more shares in 'hot' issues. In Japan, the preferred investors may be individuals. In contrast to book-building theories, some previous studies raise doubts as to the extent of information production. In cold market, if their bids are informative, individuals' allocation has a positive effect on IPO underpricing. On the other hand, in the context of behavioral finance, individual investor sentiment has a positive influence on the price. However, pre-IPO individuals' allocation reduces post-IPO sentiment. Therefore, in cold market, individuals' allocation will be likely to decrease the underpricing. The results provide evidence that individuals' allocation is likely to decrease the underpricing. We discuss the asymmetric information and behavioral finance implication on our findings.

JEL: G32

KEYWORDS: IPO Underpricing, Allocation, Institutional/Individual Investors

INTRODUCTION

This paper explores whether and how allocation to individual investors affect IPO pricing in Japan. It is well known that IPOs are underpriced on average. Underpricing is a robust phenomenon that extends across equity markets in several countries and time period (Jenkinson and Ljungqvist, 2001; Ritter and Welch, 2002; Ljungqvist, 2007). This phenomenon is the same in Japan (Kutsuna, 2008; Okamura, 2013). However, there is surprisingly little research on how these initial gains are divided between different investors (institutions versus individuals), especially in Japan. The primary obstacle to empirical research has been the lack of data. The underwriters do not disclose the proportion of shares allocated to institutions versus individuals. In U.S., according to articles and previous research, underwriters have allocated institutional investors 70-80% of IPO shares. In contrast, in Japan, the underwriters have allocated individual investors 70-80% of IPO shares (Kutsuna, 2008; Okamura, 2013). In Japan, we can use the valuable allocation data to individual investors. However, no research has examined using the micro-data.

IPO pricing research has two different points of view: asymmetric information and behavioral finance (Ritter and Welch, 2002; Ljungqvist, 2007). In the context of asymmetric information, it's necessary to make the initial gain for preferred investors. IPO underwriters play a central role in determining the division of initial gains between different investors. Underwriters possess substantial information about issue demand as a result of their information gathering activities during the book-building process. In principle, underwriters can favor preferred investors by allocating them more shares in 'hot' issues that are expected to trade up strongly in the aftermarket. Who are the preferred investors? In U.S., the preferred investors are institutions. In Japan, the preferred investors may be individuals. In contrast to book-building theories, Jenkinson and Jones (2004, 2009) raise doubts as to the extent of information production. In cold market, if their bids are informative, allocation to individual investors has a positive effect on IPO underpricing. On the other hand, in the context of behavioral finance, individual investor sentiment has a

positive influence on the price. However, pre-IPO individuals' allocation reduces post-IPO sentiment. Therefore, individuals' allocation will be likely to decrease the underpricing, especially in the cold market. The results provide evidence that individuals' allocation is likely to decrease the underpricing. We discuss the asymmetric information and behavioral finance implication on our findings. The rest of the paper is organized as follows: Section II describes different view of IPO pricing research and these hypotheses; the details of data and methodology in Section III; Section IV discusses the empirical findings; and conclusions are provided in Section V.

LITERATURE REVIEW AND HYPOTHESES

In the context of asymmetric information(Rock's (1986) adverse selection indicates that uninformed investors are allocated greater quantities in overpriced IPOs and smaller quantities in underpriced IPOs. Amihud, Hauser and Kirsh (2003) examine Rock's theory using unique data from Israel), Benveniste and Spindt (1989) and Benveniste and Wilhelm (1990) indicate that underwriters use discretion to extract information from investors, which reduces average underpricing and increases proceeds to the issuers (Sherman (2000) and Sherman and Titman (2002) extend the framework to allow for costly information acquisition). Many related models are at least partly based on the notion that if IPOs are underpriced on average, investors have an incentive to acquire information about the firms to try and discern which will be underpriced the most. In Loughran and Ritter (2002), underwriters might intentionally leave more money on the table then necessary, and then allocate these shares to favored buy-side clients. Using U.S. data, Hanley and Wilhelm (1995) and Aggarwal, Prabhala and Puri (2002) find that institutions are favored, as do Cornelli and Goldreich (2001))using U.K. data, and Lee, Taylor and Walter (1999) using Singapore data. Moreover, Ljungqvist and Wilhelm (2002) find the same is true worldwide. They support book-building theories of IPO underpricing. However, in Japan, the underwriters have allocated individual investors 70-80% of IPO shares (Kutsuna, 2008; Okamura, 2013). Are individuals favored?

H1: As allocation to individual investors increases, IPO underpricing is higher.

In contrast to book-building theories, Jenkinson and Jones (2004) find that investors perceived to be long-term holders of the stock are consistently favored in allocation and in out-turn profits, Aggarwal (2003) and Zhang (2004) think that allocations are directed toward investors who will. Moreover, they find little evidence that more informative bids receive larger allocations or higher profits. Jenkinson and Jones (2009) is based on a survey and raises doubts as to the extent of information production. In Japan, we don't have known that whether their bids are informative. The primary obstacle to whether their bids are informative has been the lack of data. However, in cold market, we will find that whether their bids are informative. That is, in hot market, their bids may be uninformative, we don't know that whether allocation to individual investors has a positive effect on IPO underpricing. On the other hand, in cold market, if their bids are informative, allocation to individual investors has a positive effect on IPO underpricing.

H2: In cold market, as allocation to individual investors increases, IPO underpricing is higher.

In the context of behavioral finance, IPO studies discuss the impact of investor sentiment on the post-IPO pricing (Helwege and Liang, 2004; Derrien, 2005; Ljungqvist, Nanda and Singh, 2006). Derrien (2005) and Ljungqvist, Nanda and Singh (2006) show that investor demand at the time of IPO has a positive effect on post-IPO investor demand. Helwege and Liang (2004) show that IPO pricing is affected by investor sentiment rather than firm specific characteristics in hot market. In Japan, many empirical papers find investor sentiment at the time of IPO has a positive effect on post-IPO pricing (Takahashi, 2009; Yamada and Takahashi, 2010; Okamura, 2013 etc). We think that allocation to individual investors has a negative effect on post-IPO pricing. That is, If investor sentiment has a large quantity, allocation to individual investors has almost no effect on post-IPO pricing. However, if investor sentiment has a given quantity (that is, in cold market) and the underwriters don't adjust allocation, we think that allocation to individual investors has a negative effect on post-IPO pricing.

H3: Given that the underwriters don't adjust allocation, in cold market, as allocation to individual investors increases, IPO underpricing is lower.

DATA AND METHODOLOGY

We use data from IPO firms that went public between August 2006 and December 2014 in JASDAQ market. The reason to select this period is as follows. Japan Securities Dealers Association (JSDA) has published the allocation data to individual investors at IPO from August 2006 (/www.jsda.or.jp/shiryo/toukei/shinkikoukai/index.html). Therefore, we restrict the data to after August 2006. Further, we use Trader's web (www.traders.co.jp/ipo_info/ipo_info_top.asp), IPO prospectuses to identify the IPO detailed information. Finally, we use 154 firms in the sample. We use OLS for H1, H2, H3. Dependent variable is IPO underpricing (= (initial price – offer price)/offer price*100, *underpricing*). Other variables are defined as follow. Independent variables are 1) allocation to individual investors (= allocation to individual investors/issue shares, *allocation*), 2) favored allocation (= non-lottery allocation+1/allocation to individual investors, *favor*). Control variables are the natural logarithm of 1) firm age (= the number of months from start-up, *ln_age*), 2) the number of employee (*In_employee*), 3) sale in the previous IPO (*In_sale*), 4) IPO gross proceeds (= offer price*issue shares, *In_lot*), and 5) partial adjustment (= (offer price – midpoint of filing rage)/midpoint of filing range*100, *part_adjust*, Hanley, 1993), and Top 3 underwriters dummy (= NOMURA, DAIWA, SMBC NIKKO, *sec_d*), VC backed dummy (*vc_d*), year dummy. Table 1 shows the descriptive statistics (mean, S.D., min, max) for all variables. Moreover, to test the above hypotheses, we classify hot/cold market by the number of IPO (see Figure 1). Cold market is defined from 2008 to 2014.

Table 1: Descriptive Statistics

	Mean	S.D.	Min	Max
underpricing	37.425	73.313	-42.857	456.250
allocation	0.740	0.113	0.008	0.975
favor	0.665	0.221	0.000	0.910
ln_age	5.602	0.720	3.688	6.817
ln_employee	5.445	1.119	2.484	8.504
ln_sale	15.876	1.162	11.972	19.886
ln_lot	20.804	0.928	19.464	24.680
part_adjust	3.395	5.092	-14.285	14.285
sec_d	0.688	0.464	0	1
vc_d	0.584	0.494	0	1

*This table shows the descriptive statistics (mean, S.D., min, max) for all variables. underpricing is (initial price – offer price)/offer price*100. allocation is allocation to individual investors/issue shares. favor is non-lottery allocation+1/allocation to individual investors. 1) In_age, 2) In_employee, 3) In_sale, 4) In_lot, 5) part_adjust are the natural logarithm of 1) the number of months from start-up, 2) the number of employee, 3) sale in the previous IPO, 4) offer price*issue shares, and 5) (offer price – midpoint of filing rage)/midpoint of filing range*100. sec_d is Top 3 underwriters dummy, and vc_d is VC backed dummy.*
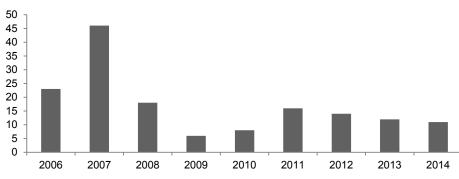
Figure 1: the Number of IPO

This figure shows the number of IPO from August 2006 to December 2014.

ESTIMATION RESULTS

Table 2 shows OLS regression results in sample period. H1 is not support. The *allocation* has a statistically significant negative effect on IPO underpricing at the 1% level. The empirical results support U.S. book-building theories of IPO underpricing in Japan. The preferred investors are not individuals but institutions. Why have the underwriters allocated individual investors 70-80% of IPO shares in Japan? This fact is a puzzle.

Table 2: OLS Regression Results in Sample Period

	Underpricing	
allocation	-91.402***	
	(-2.97)	
favor		2.090
		(0.05)
ln_age	-7.399	-8.123
	(-1.21)	(-1.27)
ln_employee	-7.898	-5.554
	(-1.32)	(-0.96)
ln_sale	-5.497	-6.323
	(-0.86)	(-1.00)
ln_lot	-20.380**	-16.754**
	(-2.43)	(-2.03)
part_adjust	0.955	1.192
	(1.32)	(1.51)
sec_d	20.727*	16.982
	(1.66)	(1.09)
vc_d	16.799*	14.558
	(1.85)	(1.63)
_cons	681.926***	543.287***
	(4.87)	(4.29)
year dummy	yes	
R-squared	0.4477	0.4312
number of obs	154	

underpricing is (initial price – offer price)/offer price*100. allocation is allocation to individual investors/issue shares. favor is non-lottery allocation+1/allocation to individual investors. 1) In_age, 2) In_employee, 3) In_sale, 4) In_lot, 5) part_adjust are the natural logarithm of 1) the number of months from start-up, 2) the number of employee, 3) sale in the previous IPO, 4) offer price*issue shares, and 5) (offer price – midpoint of filing rage)/midpoint of filing range*100. sec_d is Top 3 underwriters dummy, and vc_d is VC backed dummy. T-statistics (based upon robust standard errors) are in parentheses. ***, **, * Significant at the 1, 5, 10 percent level using a two-tailed test.

Table 3: OLS Regression Results in Cold Market (From 2008 to December 2014)

	underpricing	
allocation	-169.157**	
	(-2.30)	
favor		-4.166
		(-0.06)
ln_age	-8.188	-7.025
	(-0.96)	(-0.77)
ln_employee	-9.257	-6.578
	(-0.87)	(-0.64)
ln_sale	-8.307	-8.212
	(-1.01)	(-1.03)
ln_lot	-22.067*	-14.459
	(-1.67)	(-1.08)
part_adjust	0.747	1.147
	(0.79)	(1.10)
sec_d	15.259	13.453
	(0.75)	(0.47)
vc_d	15.440	12.252
	(1.03)	(0.83)
_cons	797.246***	494.385**
	(3.28)	(2.36)
year dummy	yes	
R-squared	0.4813	0.4591
number of obs	85	

underpricing is (initial price – offer price)/offer price*100. allocation is allocation to individual investors/issue shares. favor is non-lottery allocation+1/allocation to individual investors. 1) In_age, 2) In_employee, 3) In_sale, 4) In_lot, 5) part_adjust are the natural logarithm of 1) the number of months from start-up, 2) the number of employee, 3) sale in the previous IPO, 4) offer price*issue shares, and 5) (offer price –

midpoint of filing rage)/midpoint of filing range*100.   sec_d is Top 3 underwriters dummy, and vc_d is VC backed dummy.   T-statistics (based upon robust standard errors) are in parentheses.   ***, **, * Significant at the 1, 5, 10 percent level using a two-tailed test.

Table 3 shows OLS regression results in cold market (from 2008 to December 2014).   H2 is not support, H3 is support.   The *allocation* has a statistically significant negative effect on IPO underpricing at the 5% level.   The empirical results find that institutional investors' bids are informative.   Moreover, allocation to individual investors decreases investor sentiment, and post-IPO pricing.

CONCLUSIONS

This paper explores whether and how allocation to individual investors affects IPO pricing in Japan.   The empirical results support U.S. book-building theories of IPO underpricing in Japan. Why have the underwriters allocated individual investors 70-80% of IPO shares in Japan? This fact is a puzzle. Moreover, IPO pricing is affected by investor sentiment. Future research adds analysis for post-IPO activities. For example, previous studies relate allocations to long-run performance after IPO (Boehmer, Boehmer and Fishe, 2006), and the generation of subsequent trading commissions (Loughran and Ritter, 2004; Reuter, 2006; Nimalendran, Ritter and Zhang, 2007; Ritter and Zhang, 2007).

REFERENCES

Aggarwal, R. (2000), "Stabilization Activities by Underwriters after IPOs," *Journal of Finance* 55, pp.1075-1103.

Aggarwal, R. (2003), "Allocation of Initial Public Offerings and Flipping Activity," *Journal of Financial Economics* 68, pp.111-135.

Aggarwal, R., Prabhala, N. R. and Puri, M. (2002), "Institutional Allocation in Initial Public Offerings: Empirical Evidence," *Journal of Finance* 57, pp.1421-1442.

Amihud, Y., Hauser, S. and Kirsh, A. (2003), "Allocations, Adverse Selection, and Cascades in IPOs: Evidence from the Tel Aviv Stock Exchange," *Journal of Financial Economics* 68, pp.137-158.
Benveniste, L. M. and Spindt P. A. (1989), "How Investment Bankers Determine the Offer Price and Allocation of New Issues," *Journal of Financial Economics* 24, pp.343-361.

Benveniste, L. M. and Wilhelm, W. J. (1990), "A Comparative Analysis of IPO Proceeds under Alternative Regulatory Environments," *Journal of Financial Economics* 28, pp.173-207.

Boehmer, B., Boehmer, E., and Fishe, R. P. H. (2006), "Do Institutions Receive Favorable Allocations in IPOs with Better Long Run Returns?," *Journal of Financial and Quantitative Analysis* 41, pp.809-828.

Cornelli, F. and Goldreich, D. (2001), "Bookbuilding and Strategic Allocation," *Journal of Finance* 56, pp.2337-2369.

Derrien, F. (2005), "IPO Pricing in "Hot" Market Conditions: Who Leaves Money on the Table?," *Journal of Finance* 60, pp.487-521.

Hanley, K. W. (1993), "The Underpricing of Initial Public Offerings and the Partial Adjustment Phenomenon," *Journal of Financial Economics* 34, pp.231-250.

Hanley, K. W. and Wilhelm, W. J. (1995), "Evidence on the Strategic Allocation od Initial Public Offerings," *Journal of Financial Economics* 37, pp.239-257.

Helwege, J. and Liang, N. (2004), "Initial Public Offerings in Hot and Cold Markets," *Journal of Financial and Quantitative Analysis* 39, pp.541-569.

Jenkinson, T. and Jones, H. (2004), "Bids and Allocations in European IPO Bookbuilding," *Journal of Finance* 59, pp.2309-2338.

Jenkinson, T. and Jones, H. (2009), "IPO Pricing and Allocation: A Survey of the Views of Institutional Investors," *Review of Financial Studies* 22, pp.1477-1504.

Jenkinson, T. and Ljungqvist, A. (2001), *Going Public*, 2nd edition, Oxford University Press.

Kutsuna, K. (2008), *Price Formation on the IPO Markets*, Chuokeizai-Sha, Inc. (in Japanese)
Lee, P. J., Taylor, S. L. and Walter, T. S. (1999), "IPO Underpricing Explanations: Implications from Investor Application and Allocation Schedules," *Journal of Financial and Quantitative Analysis* 34, pp.425-444.

Ljungqvist, A. (2007), IPO Underpricing, Handbook of Corporate Finance, Vol.1, Chapter 7, pp.375-422.
Ljungqvist, A. and Wilhelm, W. J. (2002), "IPO Allocations: Discriminatory or Discretionary?," *Journal of Financial Economics* 65, pp.167-201.

Ljungqvist, A., Nada, V. and Singh, R. (2006), "Hot Markets, Investor Sentiment, and IPO Pricing," *Journal of Business* 79, pp.1667-1702.

Loughran, T. and Ritter, J. R. (2002), "Why don't Issuers Get upset about Leaving Money on the Table in IPOs?," *Review of Financial Studies* 15, pp.413-443.

Loughran, T. and Ritter, J. R. (2004), "Why Has IPO Underpricing Changed over Time?," *Financial Management* 33, pp.5-37.

Nimalendran, M., Ritter, J. R. and Zhang, D. (2007), "Do Today's Trades Affect Tomorrow's IPO Allocations?," *Journal of Financial Economics* 84, pp.87-109.

Okamura, H. (2013), *Japanese IPO Markets*, Toyo Keizai, Inc. (in Japanese)
Reuter, J. (2006), "Are IPO Allocations for Sale?: Evidence from Mutual Funds," *Journal of Finance* 61, pp.2289-2324.

Ritter, J. R. and Welch, I. (2002), "A Review of IPO Activity, Pricing, and Allocations," *Journal of Finance* 57, pp.1795-1828.

Ritter, J. R. and Zhang, D. (2007), "Affiliated Mutual Funds and the Allocation of Initial Public Offerings," *Journal of Financial Economics* 86, pp.337-368.

Rock, K. (1986), "Why New Issues are Underpriced?," *Journal of Financial Economics* 15, pp.187-212.

Sherman, A. (2000), "IPOs and Long-term Relationships: An Advantage of Bookbuilding," *Review of Financial Studies* 13, pp.697-714.

Sherman, A. and Titman, S. (2002), "Building the IPO Order Book: Underpricing and Participation Limits with Costly Information," *Journal of Financial Economics* 65, pp.3-29.

Takahashi, Y. (2009), "Is Internet Message Board Informative?: Evidence from Japanese IPOs," *Annuals of Society for the Economic Studies of Securities* 44, pp.153-158. (in Japanese)

Yamada, K. and Takahashi, Y. (2010), "Effects of Investor Sentiment on IPO Pricing: Evidence from the Japanese Auction Method," *Proceedings of the 6th International Conference on Asian Financial Markets*, Published in CD-ROM.

Zhang, D. (2004), "Why do Underwriters Allocate Extra Shares that They Have to Buy Back?," *Journal of Financial and Quantitative Analysis* 39, pp.571-594.

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THE EFFECT OF HOUSING ASSETS ON A HOUSEHOLD`S ASSET PORTFOLIO USING MICRO DATA

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Youn Seol, Kyungpook National University

ABSTRACT

The paper analyzes the effect of housing assets and mortgage debt on a household's asset portfolio based on data from The Survey of Household Finances and Living Conditions in Korea. To solve endogeneity problem and to find various cross-sectional variations, we use an individual household's housing value and mortgage debt as instrument variables and two-stage least squares regression for our analysis. In conclusion, we confirm that an increase in mortgage debt has a negative effect on the household's portfolio's stock ratio and simultaneously, an increase in housing value has a significant positive effect on the portfolio's risk-asset ratio for Korean households.

JEL: D1

KEY WORDS: Portfolio, Housing Asset, Mortgage debt, 2SLS

INTRODUCTION

any households own their own homes as well as other real estate and this housing asset generally represents the largest share of a household's assets. However, although housing is an important part of a household's assets, there has not been much research on a household's portfolio considering the housing asset. Theoretical conclusions currently suggested by major research imply that owning a house generally decreases demand for risky assets because of the increase in household risk and illiquidity from housing ownership (Fratantoni, 1998, Heaton and Lucas, 2000, Yamashita, 2003, Cocco, 2005). In general, empirical studies show mixed results; however, recent research by Chetty and Szeild (2014) provides clear empirical evidence for the relationship between house ownership and a household's portfolio choices. Our study explores the relationship between the housing asset and portfolio choices by examining Korean household micro finance data. In Korea, most housing assets represent the largest share of a household portfolio. This is of particular interest to the real estate market and to the economy as a whole. As suggested by Chetty and Szeild (2014), we use an empirical model driven by theory to test the relationship between housing ownership and portfolio choices. We also pursue an analysis using instrument variables to solve the endogeneity problem through the estimation process.

When households choose to own a house as part of their portfolio, these decisions are affected by unobserved factors. As a result of this, there are estimation problems when we analyze the causal relationship effects for household portfolios using cross-sectional variation across the households. The basic idea of this approach is to separate the variation for unobserved decision factors orthogonal to the variation of mortgage debt and the housing asset under different variable assumptions when households make portfolio choices (Chetty and Szeild, 2014). By doing this, the current housing price index can present a strong prediction for housing property values for each household. Therefore, for this purpose, our study utilizes house prices for individual households as the instrument variable for mortgage debt and the housing asset. Compared to a study for U.S. households by Chetty and Szeild (2014), we use variations for metropolitan versus non-metropolitan areas and the average of the house price index to improve a weakness in state-level variations in their study.

In this study, we analyze the relationship between housing assets and household portfolios with instrument variables, using the data from the Survey of Household Finances and Living Conditions (SHFLC) for the

years 2010-2013. Specifically, using the two-stage least square estimate (2SLS), we examine the effect of debt mortgage and housing assets on the share of risky assets in a household's portfolio. Empirical results find a significant effect of housing value on a household's portfolio choices.

An increase in mortgage debt negatively affects the share of stocks to liquid assets, and, on the other hand, an increase in housing value has a significant positive effect on the ratio of risky assets (stocks) to liquid assets. The interpretation of this is that an increase of KRW 1,000M in debt (roughly, USD 10,000) generates a negative (1.70%) effect on the ratio of stock holdings to assets and an increase of KRW 1,000M in the housing asset has a positive 1.96% effect on the ratio of stock holdings. Our empirical results for Korean households are consistent with Chetty and Szeild's (2014) results for U.S. households.

However, our study has some limitations. First, we use the current house price index because we could not utilize house prices for purchasing points as instrument variables since the data lack concrete information around the dates of the house purchases. Second, we do not have details around the locations of the houses, for example, state information. Therefore, to amend this weakness, we utilize information for metropolitan and non-metropolitan areas. Additionally, through the use of house prices for various house types, we can engender relatively smaller cross-sectional variations. Moreover, as pointed out by other studies, there are still possible correlations between household portfolio choices and other factors such as the condition of the labor market in the area. Ignoring this possibility may be a weakness in analyzing the empirical tests. Although these limitations exist, our empirical results represent relatively new findings for Korean households. This study is the first empirical study derived from a theoretical model and extended to new, recent data. To fix the endogeneity problem, we use various house price indices for house types and areas, compared to existing Korean research. As a result, we think our empirical approach and results will contribute to the literature.

LITERATURE REVIEW

Research on portfolio choices has a long history that continues today. Specifically, in 1991, Grossman and Laroque (1990) presented the first theoretical paper in which housing became a part of the study of the household portfolio. In their study, they created a portfolio choice model under the assumption that unlimited existing investors consume one non-liquid durable consumption good. Flavin and Yamashita (2002) study the effect of portfolio constraints by house consumption demand, called "house constraint," on the optimal decisions for an investor in financial assets. Further, Yamashita (2003) conducts empirical research on the relationship between house investments and stock-holdings, and finds that the ratio of house assets to net wealth and the share of stocks to financial assets are negatively correlated. Therefore, he explains that the phenomenon arises from a decrease in the household portfolio's investments in risky assets to offset the increased risk from being highly leveraged in the house asset.

Hu (2004) analyzes whether owning a house affects the ratio of risky asset investments and finds that renters are apt to be more risk averse in allocating portfolio assets. Therefore, he provides evidence that the share of stocks to liquid assets for house owners is higher than the share of stock to liquid assets for renters. Yao and Zhang (2005) extend their interest on housing and portfolio choices of liquid assets between stocks and bonds. In the home owner' investment decision to participate in the stock market, the share of the house price to net assets negatively affects the household portfolio and the share of the house mortgage debt to net assets positively affects the household portfolio. Cocco (2005) shows that investment in a house asset plays a role in explaining the cross-sectional variations of asset components and stock holdings, thereby analyzing the effect of the risk in house assets on the portfolio of financial assets. He provides evidence of the effect of crowding out households that exclude risky assets, such as stocks in the formation of a portfolio of financial assets, when home owners face risks of decreasing house prices. In a recent study by Chetty and Szeidl (2014), they estimate a model with separate effects for mortgage debt and house assets on household portfolios. To address the endogeneity problem, they use the average house price and house

supply elasticity as instrument variables and generate estimates with separate exogenous variations. Using PSID of the U.S., they find that an increase in mortgage debt significantly affects a decrease in stock holdings, but an increase in house value significantly affects an increase in risky assets. Therefore, they provide evidence that the effect of housing on portfolio choices exists.

DATA AND METHODOLOGY

Our study uses SHFLC for the years 2010-2013, conducted by the Korea National Statistics Office (NSO). Since the initial sample selection, a new survey has been started. The sample now constitutes two different waves: 2010-2011 and 2012-2013. Currently, the NSO is continuously surveying the same households from the 2012 sample. The data contain demographics, such as age, gender, education level for the head of the household, and main occupation type for each household, as well as broad financial information, for example, mortgage debt, other financial debt, and asset estimations. In our sample, since we are not interested in whether or not individuals own their houses, we focus only on households with house ownership. Our starting sample is 22,952 households. Sample selection deletes the following: i) head of the household age below 20 or over 80, ii) financial assets less than zero, and iii) negative housing equity. Therefore, our final sample is 22,221 households.

Our empirical model is based on the model suggested by Chetty and Szeidl (2014). To analyze the effect of housing ownership on the household portfolio through exogenous variations of housing assets and mortgage debt, they derive an analytical approximate equation for optimal portfolio choices under a typical (stylized) two-period model. Their suggested model has the advantage of providing a simple, easy, and tractable tool, combined with insight into other important mechanisms affecting the household portfolio choices including illiquidity and housing price risk, hedging effects, and variation effects. In addition, considering fixed moving costs, multi-period, and labor income risk, the model can be generally characterized. The empirical model in its explicit form derived from Chetty and Szeidl (2014), analyzes the separate effect of the housing asset and housing mortgage debt on a household's portfolio. The model follows a linear combination:

$$ss_{i,t} = \beta_0 + \beta_1 pv_{i,t} + \beta_2 he_{i,t} + \theta X_{i,t} + \varepsilon_{i,t}. \tag{1}$$

In equation (1), $ss_{i,t}$ is the dependent variable for each household i in year t; $pv_{i,t}$ is mortgage debt (or property value); and, $he_{i,t}$ denotes the housing asset. $X_{i,t}$ is the vector of the control variables, and these are divided largely into two groups. The first group is the demographic variables: household head age, education, gender, and marital status, household size, a dummy for the metropolitan area location; and, the other variables are yearly dummies. For the benchmark model, we extend two models with different dependent variables, using two different risky assets, which we explain in the data. The expected empirical results are $\beta_1 < 0$ and $\beta_2 > 0$. An increase in mortgage debt decreases the share of stock holdings through the general increase in illiquidity, an increase in risk exposure, and a decrease in the present value of life assets. Simultaneously, an increase in the housing asset affects the share of stocks to liquid assets through the increased wealth effect, and the expected positive effect (Yao and Zhang 2005).

RESULTS AND DISCUSSION

The Effect of Housing on the Household Portfolio

As explained in the model, we expect the empirical results to be $\beta_1 < 0$ and $\beta_2 > 0$. However, the residual β_1 could have other sources of heterogeneity when a household is making portfolio choices. As pointed out by other studies, these different kinds of sources are entrepreneur risk, investment failure, risk-aversion heterogeneity, and income measurement error. There exists a correlation between mortgage debt and the

housing asset and the residuals caused by heterogeneity; clearly, if we use OLS, then there is bias in estimating β_1 and β_2. In our study, first we compare our Ordinary Least Square (OLS) results with the empirical results of other existing studies, and then to separate the independent effect of mortgage debt and the housing asset on the portfolio, we utilize the estimate approach by Chetty and Szeild (2014), using Korean household data.

The results using OLS for equation (1) are shown in Table 1. The empirical results are from four different models, which are combinations with different explanatory variables. First, for the two major points of interest, with mortgage debt and the housing asset, we analyze combinations with other control variables. The first model is without control variables, and the coefficient of mortgage debt β_1 is positive, and the coefficient of house asset β_2 is significantly positive. When we control the demographic variables, β_1 changes to significantly negative, while β_2 is still significantly positive. In the fourth column of the Table, the model with all the control variables, the coefficient of mortgage debt β_1 is significantly negative, and the coefficient of the housing asset β_2 is significantly positive.

These results imply the importance of controlling for the demographics. However, it may not make a big difference to the empirical results considering the fixed effect from the short panel of two years. Our results are consistent with the prediction of the theory, even though we use the OLS estimation method. Our results, with OLS, are in contrast to the results from existing research of the positive correlation between mortgage debt and risky asset portfolios (Heaton and Lucas, 2000, Cocco, 2005, Yao and Zhang , 2005, Chetty and Szeild, 2014). For the robustness of our empirical results using a relatively low share of stocks to liquid assets, we extend the empirical test using two alternative dependent variables. One dependent variable, risky1 is defined as stocks added to future options, and the other variable, risky2, adds deposit savings. Deposit savings is the concept of a lower risk asset, and if we include this, then the share of risky assets to liquid assets rises above 20%. The results with concept for the extended risky assets are described in Tables 2 and 3. In Table 2 in the fourth column, β_1 is significantly negative and the coefficient of the house asset β_2 is significantly positive, with different magnitudes of its coefficient compared to Table 1. The results for all the models are similar to the results in Table 1, even though we include a wider definition of the dependent variable. The only difference is that the magnitude of the coefficient is larger since the mean of the dependent variable is larger than our initial dependent variable.

The Effect of Housing on the Portfolio Using Instrument Variables

As in previous research, we use instrument variables to solve the endogeneity problem. We utilize a research approach for this suggested by Chetty and Szeild (2014). The basic idea of the approach is that we derive general variations of mortgage debt and housing assets using two house prices as instrument variables. Two different house prices are considered: the average price of a house in the household's state in the current year, and the average price of a house in the household's state in the year that the house was purchased. However, our study has two limitations compared to the research of Chetty and Szeild (2014)`s for U.S, households. First, our data lack information about the purchasing date by the current household. Therefore, we use only current house prices in the household's area in the current year. Second, the ranges of cross-sectional and time-series house prices are shorter than the state-level and the time-series in the U.S. To make up for such gaps, we try to maximize our explanatory power related to cross-sectional variations of the instrument variables.

Table 1: Empirical results: dependent variable – stock share (%)

Variable	Model 1	Model 2	Model 3	Model 4
	coefficient (S.E.)	coefficient (S.E.)	coefficient (S.E.)	coefficient (S.E.)
Mortgage debt (×1,000)	0.0036 (0.0057)	-0.0133** (0.0057)	0.0037 (0.0057)	-0.013** (0.0057)
House asset (×1,000)	0.0197*** (0.0063)	0.0262*** (0.0063)	0.0195*** (0.0063)	0.0261*** (0.0063)
Age		-0.0098 (0.0078)		-0.0096 (0.0078)
Gender		0.7038** (0.3024)		0.6984** (0.3023)
Education		2.6202*** (0.1879)		2.6490*** (0.1880)
Marital status		0.0855 (0.3039)		0.0700 (0.3038)
Household size		-0.1101 (0.0842)		-0.1093 (0.0842)
Dummy for metropolitan residency		0.3068 (0.1989)		-0.0307 (0.2315)
Income		0.0002*** (0.00002)		0.0002*** (0.00002)
Year 2010			0.0651 (0.2284)	0.1233 (0.2447)
Year 2011			0.2381 (0.2272)	0.2573 (0.2447)
Year 2012			-	-
Year 2013			-0.6000*** (0.2329)	-0.7017*** (0.2301)
Constant	2.6232*** (0.0926)	1.0494* (0.5847)	2.6900*** (0.1678)	1.1657** (0.5958)
R^2	0.0117	0.0362	0.0124	0.037
Number of obs.			22,221	

This table shows the effect of mortgage debt and housing assets on the share of stock in a household`s portfolio controlling household`s demographic factors and year dummies.

Therefore, we use house prices for house types as well as areas in which the household resides in the current year. Our house residency type is classified as detached house, apartment, row house, and others. The Korea National Statistics Office (NSO) provides a yearly house price index for each house type and we use these house price indices to match each household's house type. Additionally, we collect information for two different areas: the metropolitan and non-metropolitan areas. In the same way, we match the house price index for the metropolitan and non-metropolitan areas. The results are shown in Table 4. We use a two-stage least square (2SLS) analysis and we first regress the instrument variables on the dependent variable, where the explanatory variable has endogeneity; in the second stage, we use the prediction value from the first stage as the explanatory variable. In this study, we analyze the average house price as the instrument variable for mortgage debt and the house asset.

The first column (i) of Table 4 presents the result for the first-stage of the mortgage debt, with both yearly dummies and demographics. The second column (ii) provides results for the dependent variable as the house asset in the first-stage. The estimation result shows a strong positive correlation between each mortgage debt and house asset and house price index. In the second stage, we estimate the explanatory variable in equation (1) as the predicted value using the instrument variable in the first-stage. The coefficient of mortgage debt is significantly positive and the coefficient of the housing asset is significantly negative, thus this is consistent with theory prediction results. The negative estimate of β_1 implies a negative (1.70)% stock-holding ratio drop as mortgage debt increases by KRW 1,000M and simultaneously a positive estimate of β_2 implies a positive 1.96% increase in the stock-holding ratio as the house asset increases by KRW 1000M.

Table 2:Empirical Results: Dependent Variable – Risky1 Share (%)

variable	model 1	model 2	model 3	model 4
	coefficient (s.e.)	coefficient (s.e.)	coefficient (s.e.)	coefficient (s.e.)
mortgage debt (×1,000)	0.0029 (0.0059)	-0.0119** (0.0059)	0.0029 (0.0059)	-0.0119** (0.0059)
house asset (×1,000)	0.0198*** (0.0066)	0.0246*** (0.0065)	0.0200*** (0.0066)	0.0246*** (0.0065)
age		0.0020 (0.0081)		0.0023 (0.0081)
gender		0.8378*** (0.3140)		0.8385*** (0.3140)
education		2.5148*** (0.1951)		2.5177*** (0.1953)
marital status		0.0535 (0.3155)		0.0528 (0.3156)
household size		-0.1738** (0.0874)		-0.1728** (0.0874)
dummy for metropolitan residency		0.0510 (0.2065)		0.0685 (0.2404)
income		0.0002*** (0.0002)		0.0002*** (0.00002)
year 2010			-0.3006 (0.2365)	-0.2791 (0.2541)
year 2011			-0.1266 (0.2353)	-0.1466 (0.2542)
year 2012 year 2013			- -0.2760 (0.2412)	- -0.3774 (0.2390)
constant	2.9114*** (0.0959)	0.9212 (0.6070)	3.0854*** (0.1738)	1.0964* (0.6188)
r²	0.0103	0.0297	0.0104	0.0298
number of obs.			22,221	

This table shows the effect of mortgage debt and housing assets on the share of risky1 in a household`s portfolio controlling household`s demographic factors and year dummies .

Table 3 Empirical results: dependent variable – risky2 share (%)

Variable	Model 1	Model 2	Model 3	Model 4
	coefficient (S.E.)	coefficient (S.E.)	coefficient (S.E.)	coefficient (S.E.)
Mortgage debt (×1,000)	-0.1844*** (0.0142)	-0.1719*** (0.0141)	-0.1847*** (0.0142)	-0.1712*** (0.0141)
House asset (×1,000)	0.2663*** (0.0159)	0.2243*** (0.0156)	0.2669*** (0.0159)	0.2243*** (0.0156)
Age		0.4721*** (0.0192)		0.4707*** (0.0192)
Gender		3.9326*** (0.7482)		3.9120*** (0.7480)
Education		6.2582*** (0.4650)		6.3252*** (0.4653)
Marital status		1.1602 (0.7519)		1.1236 (0.7518)
Household size		-1.8452*** (0.2083)		-1.8536*** (0.2083)
Dummy for metropolitan residency		-3.7025*** (0.4920)		-4.8495*** (0.5727)
Income		0.0005*** (0.0001)		0.0005*** (0.0001)
Year 2010			-0.9581* (0.5725)	1.3323** (0.6054)
Year 2011			-0.1589 (0.5695)	1.9037*** (0.6055)
Year 2012 Year 2013			- 0.0742 (0.5838)	- -0.3706 (0.5694)
Constant	18.2842*** (0.2321)	-8.8364*** (1.4466)	18.5468*** (0.4207)	-9.2601*** (1.4742)
R²	0.0219	0.0704	0.0221	0.0711
Number of obs.			22,221	

This table shows the effect of mortgage debt and housing assets on the share of risky2 in a household`s portfolio controlling household`s demographic factors and year dummies.

Table 4: Empirical results using 2SLS

Variable	First-Stage		Second-Stage
	Mortgage debt i	Housing asset ii	Stock ratio iii
Mortgage debt (×1,000)			-1.7014***
			(0.454)
House asset (×1,000)			1.9634***
			(0.5119)
Age			-0.1980***
			(0.0446)
Gender			-1.1935**
			(0.5767)
Education			0.8414*
			(0.4315)
Marital status			-1.5163***
			(0.5079)
Household size			0.3829***
			(0.1492)
Dummy for metropolitan residency			-1.3094***
			(0.3792)
Income			0.0005***
			(0.0001)
Year 2010			-
Year 2011			1.0059***
			(0.3129)
Year 2012			-0.0234
			(0.2671)
Year 2013			-0.2511
			(0.3135)
Constant			10.9062***
			(2.2945)
House price	72.35*	83.61**	
	(40.97)	(37.05)	
Year dummies	○	○	
Demographics	○	○	
R^2	0.2301	0.2179	0.0359
Number of obs.		21,980	

This table shows the effect of mortgage debt and housing assets on the share of stock in a household`s portfolio using 2SLS. we use the average house price in the current year as the instrument variable for mortgage debt and the house asset. for controlling household`s demographic factors and year dummies.

CONCLUSION

In this paper, we analyze the correlation between housing and the household portfolio with a cross-sectional instrument variable using data from The Korean Household Finance and Welfare Survey for the years 2010-2013. Deriving an empirical model from a theoretical one, we use the instrument variable to solve the endogeneity problem where the explanatory variable and residual are correlated. To this end, we use the average house price in the current year as the instrument variable for mortgage debt and the house asset. House price indices are used as various variations for metropolitan and non-metropolitan areas and house type. We found that the effect of housing on the household's portfolio is significant. An increase in mortgage debt has a significantly negative effect on the share of stocks to liquid assets and an increase in the house asset has a positively significant effect on the share of stocks to liquid assets. A negative coefficient β_1 implies a negative (1.70%) stock-holding ratio drop as mortgage debt increases by KRW 1,000M and simultaneously a positive coefficient β_2 implies a positive 1.96% increase in the stock-holding ratio as the house asset value increases by KRW 1000M. We expect that related research can expand in the future using this research as a starting point.

REFERENCES

Campbell, J. Y. and Cocco, J. F. (2003), 'Household Risk Management and Optimal Mortgage Choice,' *Quarterly Journal of Economics,* 118, 1449-1494.

Chetty, R. and Szeidl, A. (2014), 'The Effect of Housing on Portfolio Choice,' Working Paper.

Cocco, J. (2005), 'Portfolio Choice in the Presence of Housing,' *Review of Financial Studies*, 18, 535-567.

Flavin, M. and Yamashita, T. (2002), 'Owner-Occupied Housing and the Composition of the Household Portfolio,' *American Economic Review*, 92(1), 345-362.

Fratantoni, M.C. (1998), 'Homeownership and Investment in Risky Assets,' *Journal of Urban Economics*, 44(1), 27-42.

Grossman, S. J. and Laroque, G. (1990), 'Asset Pricing and Optimal Portfolio Choice in the Presence of Illiquid Durable Consumption Goods,' *Econometrica,* 58, 25-51.

Heaton J. and Lucas, D.J. (2000), 'Portfolio Choice in the Presence of Background Risk,' *Economic Journal,* 110(460), 1-26.

Hu, X. (2004), 'Household`s Saving and Portfolios,' *Investment Management and financial Innovations*, 3, 132-143.

Vissing-Jorgensen, A. (2003), 'Perspectives on Behavioral Finance: Does Irrationality Disappear with Wealth? Evidence from Expectations and Actions,' *NBER Macroeconomics Annual*, 139-194.

Yamashita, T. (2003), 'Owner-Occupied Housing and Investment in Stocks: An Empirical Test,' *Journal of Urban Economics*, 53(2), 220-237.

Yao, R. and Zhang, H. (2005). 'Optimal Consumption and Portfolio Choices with Risky Housing and Borrowing Constraints,' *Review of Financial Studies*, 18(1), 197-239.

MACRO-ECONOMIC FACTORS INFLUENCING THE FINANCING OF BUILD-OPERATE-TRANSFER PROJECTS IN DEVELOPING COUNTRIES: A CASE OF RAILWAYS PROJECT IN KENYA

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ABSTRACT

The Government of Kenya entered in a concessional agreement with Rift Valley Railways (RVR) in 2006, under the build-operate-transfer financing arrangement, to boost economic growth. However, 10 years later, RVR's performance failed to meet performance targets, due to financing and technical capacity constraints, as per anecdotal reports. This article examined the influence selected macro-economic factors on the project's financing. We sourced primary data from 348 staff of key stakeholders. We applied Relative Importance Index to rank the factors based on their importance; besides, we applied Kendall's Coefficient of Concordance (W) to determine the degree of agreement among participants. Findings show that inflation rates ranked highest, scoring an index of 0.8; followed by interest rates (0.7), debt ratio (0.6) and taxation burden (0.6). The study obtained a strong level of concordance in perceptions regarding influence of macro-economic factors on the project's financing, which was also statistically significant at 0.01 error margin (W = 0.833, χ^2 = 41.8223, df = 3 & ρ-value = 0.000). Besides financial and technical capacity, stakeholders should consider macro-economic environments, when evaluating RVR's performance. The study suggests the need for appropriate adjustments of the monetary, fiscal, taxation and domestic borrowing policies, among other interventions.

JEL: O16

KEYWORDS: Macro-economic, Financing, Build-Operates-Transfer, Railways Project

INTRODUCTION

Railways transport is an important factor in Kenya's economy, having provided freight and passenger services for more than a century (Ministry of Transport, Kenya, 2014). At its peak in 1983, the railways system moved some 4.3 million tons of freight, before a precipitous decline to 1.9 million tons by the end of 2005 (Mwiti, 2013). The period saw a significant reduction in net returns and financial stability, which threatened system's very survival (IEA-Kenya, 2014). The resulting inefficiency pushed away cargo transporters and passengers to use road transport services, albeit at a higher cost. In response to declining performance, the Government of Kenya and Government of Uganda entered into a concessional agreement with Rift Valley Railways (RVR) under a build-operate-transfer (BOT) financing framework in 2006. The purpose of the concession was to inject new capital and technical skills, as well as improve management of the railways systems; thereby, enhance efficiency in the delivery of services (Ministry of Transport, Kenya, 2014). Consequently, RVR committed to provide freight services for twenty-five (25) years and passenger services for five (5) years.

Under the agreement, RVR bore the obligation of rehabilitating and maintaining rail networks, as well as improve the management, operation and financial performance (IEA-Kenya, 2014). The concession agreement obligated RVR to pay the two governments for use of conceded assets a one-off entry fee of US $3 million to the Government of Kenya and US $2 million to the Government of Uganda. In addition, RVR committed to pay an annual concession fee of 11.1% of gross freight revenues to the two governments.

Regarding passenger business in Kenya, the concessionaire agreed to pay GoK a flat annual fee of US $1 million. A third requirement was to invest up at least US $40 million in the infrastructure development and rolling stock over the first five years. However, nearly ten years after concession's onset, RVR was unable to meet performance and investment targets as well as concessional obligations. Available data show that both freight and passenger volumes dropped by 30.7% between 2007/08 and 2011/12 financial years (Kenya National Bureau of Statistics, 2014). A recent performance update report confirms that RVR handles an average of 1.5 million tons of goods annually, down from 2.4 million tons in 2007/08 financial year. Besides, passenger traffic fell by 30% from about 600,000 in 2007/08 to about 400,000 in 2011/2012, leading to a drop in revenue, backlogs of unpaid concession fees and under-investment in infrastructure (KRC, 2012; Mwiti, 2013).

Anecdotal reports show that stakeholders linked RVR's underperformance to lack of financial capacity and technical expertise on the part of the lead investor (Mwiti, 2013), which may not be the only factors at play. Notably though, no academic process had ever examined and provided a comprehensive picture of factors influencing the project's financing and underperformance. The study examined various factors influencing the project's financing; however, this article focuses on macro-economic factors. Public-Private Partnership (PPP) initiatives describe a range of possible relationships between public and private sector operators, to develop infrastructural facilities and deliver essential services, such as energy, communication, transport, as well as water and sanitation, among others (Asian Development Bank, 2010). In many developing countries, where governments face the twin challenges of limited financial resources and lack of technical capacity, PPP initiatives provide opportunities to improve the supply of such essential services (United Nations, 2011). A review of literature reveals that PPP options range along a spectrum - at one end are those in which the government retains full responsibility for operations, maintenance, capital investment, financing, and commercial risk; while at the other, are those in which the private sector takes on much of this responsibility (World Bank, 1997). PPP options fall under five broad categories, viz. service contracts, management contracts, leases, concessions and divestitures.

In concessions, governments define and grant specific rights to a private operator (concessionaire) to build and operates a facility for a fixed period (United Nations, 2011). Concessions can assume two models, viz. Build-Operates-Transfer (BOT) of Build-Operates-Own (BOO) (Walker, 1993). Although the public authority owns facilities, the private operator has wide-ranging powers over the operation and finances of the system. Concessions thrive by contracts, which set out performance targets, including service coverage, quality, standards, arrangements for capital investment, mechanisms for adjusting tariffs, as well as arbitration over disputes (World Bank, 1997). Furthermore, the concessionaire assumes full responsibility for all capital investments required to build, upgrade, or expand facilities, and for financing those investments out of own resources.

The public authority is responsible for establishing performance standards and ensuring that the concessionaire meets them. At the end of the contract period, the public authority assumes ownership of project facilities and can opt to assume operating responsibility too, renew the operator's contract, or award a new contract to a new concessionaire (Asian Development Bank, 2010). The concessionaire collects tariffs directly from service users. Payments can take place both ways: concessionaire paying the authority for concession rights or the authority paying the concessionaire, based on target achievements (Asian Development Bank, 2010). Typical concession periods range between 25 to 30 years, which provide sufficient time for the concessionaire to recover the capital invested and earn an appropriate return over the life of the concession.

DATA AND METHODOLOGY

The study adopted a causal-comparative design, which permitted the application of quantitative approaches in data collection, processing and analysis. The study targeted senior operational, managerial, technical,

monitoring and evaluation, as well as advisory staff, affiliated to all key stakeholders, including KRC, RVR, Ministry of Finance (MOF) and Ministry of Transport (MOT). The sampling process identified 402 eligible participants. We collected primary data in May 2015 after obtaining necessary approval from University of Nairobi, National Council of Science and Technology, as well as KRC. Of the 402 targeted participants, 348 (86.6%) successfully completed and returned the questionnaires. The analysis involved listing coding, digitalizing and cleaning data for logical inconsistencies and misplaced codes. The methods used included descriptive, Chi square tests, one-way analysis of variance (ANOVA) as well as Relative Importance Index (RII) analyses. Furthermore, we applied Kendall's Coefficient of Concordance to determine the degree of agreement among the four categories of participants with respect to their ranking. We performed all quantitative analyses using the Statistical Package for Social Sciences (SPSS) and Microsoft Excel. In addition, qualitative analysis involved organizing data under thematic areas, followed by description and thematic analysis to identify emerging themes and patterns (Kometa, Oloimolaiye & Harris, 1994; Frimpong, Olowoye & Crawford, 2003).

RESULTS AND DISCUSSIONS

The study sourced primary data from 348 participants, of whom 134 (38.5%) were staff of KRC; 179 (51.4%) were staff of RVR; 12 (3.4%) were officers of MOF and 23 (6.6%) served at MOT. By cadre, 109 (31.3%) were operational staff, while 39 (11.2%) were managerial staff. Besides, technical staff were 174 (50.0%), monitoring and evaluation staff were 12 (3.4%) while 14 (4.0%) participants served as policy advisory staff at the ministries. The analysis revealed up to 99% chance that the institutions varied significantly in terms of the cadre of staff who participated in the study ($\chi^2 = 251.091$, df = 12 and ρ-value = 0.000). The participants included 230 (66.1%) men and 118 (33.9%) women. However, the analysis revealed that the institutions did not vary significantly in terms participants' distribution based on gender ($\chi^2 = 1.420$, df = 3 and ρ-value = 0.701).

The results further show that participants were aged between 22 and 54 years. The mean age for the entire group was 38.7 (≈39) years. Besides, participants from RVR reported the lowest mean age (38.1 years), while those from MOF reported the highest mean age (43.5 years). However, one-way analysis of variance (ANOVA) revealed that there was no significant variation among staff of various stakeholders regarding age ($F_{(3, 344)} = 1.627$ & ρ = 0.183). The participants reported a mean of 16.41 (≈16 years), with the lowest being 1 year and the highest 35 years. Whereas staff of RVR reported the lowest duration of professional experience (15.8 years), the results suggest that the staff of the MOF were the most experience (22.2 years). Based on this, the ANOVA results show lack of a significant variation among staff of various stakeholders ($F_{(3, 344)} = 2.255$ & ρ-value = 0.102).

The results show that there was no significant variation between participants involved in this study in terms of gender, age and years of professional experience. Based on this, further analyses, including ranking macro-economic factors influencing the project's financing as well as determination of the coefficient of concordance, assumed that participants were homogenous in terms of most background attributes. This assumption was important for offsetting the risk of invalidity.

Macro-Economic Factors Influencing Financing of the Concession

The results in Table 1 show that of the 348 participants, 146 (42.0%) believed that the influence of inflation rates on the project's financing was 'very strong', while 72 (20.6%) felt that the influence of inflation rates was 'strong'. Contrastingly, 56 (16.1%) participants described the influence inflation rates as 'very weak', while 26 (7.5%) indicated that the indicator's influence was 'weak'. However, the analysis revealed lack of a significant variation in perceptions regarding inflation rate's influence on financing of the concession project ($\chi^2 = 8.024$, df = 12 & ρ-value = 0.115). The results in Table 1 further show that 113 (32.5%) participants believed that the influence of interest rates on financing of the concession project was 'very

strong', while 96 (27.6%) felt that the indicator had a 'strong' influence on the project's financing. However, 53 (15.2%) participants perceived that the influence of interest rates was 'very weak', while 37 (10.6%) believed that the indicator's influence was 'weak'. Based on this, the analysis revealed lack of a significant variation in perceptions regarding the influence of interest rates on the project's financing (χ^2 = 3.120, df = 12 & ρ-value = 0.360).

Table 1: Perceived Extent to Which Macro-Economic Factors Influence the Project's Financing

MACRO-ECONOMIC FACTORS	KRC		RVR		MOF		MOT		TOTAL	
	Freq	Pct	Freq	Pct	Freq	Pct	Freq	Pct	Freq	Pct
Inflation										
Very strong	70	52.2	64	35.8	5	41.6	7	30.4	146	42.0
Strong	17	12.7	47	26.3	2	16.7	6	26.1	72	20.6
Average	16	11.9	27	15.1	3	25.0	2	8.7	48	13.8
Weak	9	6.8	15	8.3	0	0.0	2	8.7	26	7.5
Very weak	22	16.4	26	14.5	2	16.7	6	26.1	56	16.1
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Interest rates										
Very strong	45	33.5	57	31.8	4	33.3	7	30.4	113	32.5
Strong	40	29.9	49	27.4	2	16.7	5	21.8	96	27.6
Average	13	9.7	26	14.5	4	33.3	6	26.1	49	14.1
Weak	19	14.2	16	8.9	0	0.0	2	8.7	37	10.6
Very weak	17	12.7	31	17.4	2	16.7	3	13.0	53	15.2
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Debt ratio										
Very strong	39	29.1	32	17.9	3	25.0	8	34.8	82	23.6
Strong	53	39.6	73	40.7	6	50.0	7	30.4	139	39.9
Average	19	14.1	42	23.5	1	8.3	3	13.0	65	18.7
Weak	15	11.2	14	7.8	0	0.0	4	17.4	33	9.5
Very weak	8	6.0	18	10.1	2	16.7	1	4.4	29	8.3
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Taxation burden										
Very strong	64	47.8	88	49.2	7	58.3	7	30.4	166	47.8
Strong	37	27.6	60	33.5	4	33.4	10	43.5	111	31.9
Average	20	14.9	17	9.5	1	8.3	6	26.1	44	12.6
Weak	6	4.5	9	5.0	0	0.0	0	0.0	15	4.3
Very weak	7	5.2	5	2.8	0	0.0	0	0.0	12	3.4
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0

Table 1 presents participants' perceptions regarding the extent to which various macro-economic factors influenced financing of the concession project. The participants rated their perceptions on a five-point Likert scale, ranging from 'very strong' to 'very weak'. Under each institution, the Table shows frequency distributions (Freq) and accompanying percentages (Pct).

Regarding debt ratio, the results show that 82 (23.6%) participants reported that the indicator had a 'very strong' influence on the project's financing, while 139 (39.9%) described the indicators' influence as 'strong'. Contrastingly, 29 (8.3%) participants stated that the debt ratio had a 'very weak' influence, while 33 (9.5%) felt that the indicator's influence on the project's financing was 'weak'. Again, the analysis revealed lack of a significant variation in perceptions regarding the influence of debt ratio on the project's financing (χ^2 = 7.592, df = 12 & ρ-value = 0.129). In addition, nearly one-half of participants, 166 (47.8%) described the influence of taxation burden on the project's financing as 'very strong', while 111 (31.9%) felt that the indicator had a 'strong' influence on. However, 12 (3.4%) participants perceived that the influence of taxation burden was 'very weak', while 15 (4.3%) felt that the indicator had a 'weak' influence on the project's financing. Based on this, the results show lack of a significant variation in perceptions regarding the influence of taxation burden on financing of the concession project (χ^2 = 13.499, df = 12 & ρ-value = 0.334).

Relative Importance of Macro-Economic Factors Influencing the Project's Financing

The results in Table 2 show that inflation rate was the most important macro-economic factor influencing financing of the concession project. The indicator scored a relative importance index of 0.774 (≈0.8). In Kenya, inflation rates averaged 7.8% during the concession period (2007 to 2014). The economy experienced the lowest rates of 4.8% in 2007, while the highest rates (14.3%) occurred in 2012 (Kenya National Bureau of Statistics, 2015). Participants noted that high inflation influenced the project's financing by increasing the cost of essential supplies such as fuel, electricity, water and labour. Some participants associated high inflation rates with a high cost of hiring and maintaining technical labour. Due to high inflation rates, the concessionaire experienced increasing demands for higher wages from its workers to keep-up with escalating consumer prices. Not only did the challenge undermine RVR's ability to meet its concessional obligations, but also transmitted negative signals to external financiers. In addition, participants reported that high inflation rates weakened the confidence of existing and potential financiers.

Table 2: Relative Importance Index of Macro-Economic Factors

INTER-ITEM CORRELATION MATRIX						RELATIVE IMPORTANCE	
Macro-economic factors	Inflation rates	Interest rates	Debt ratio	Taxation burden	β	General dominance weights	Relative weights
Inflation rates	1.000	0.444	0. 538	0.418	0.205	0.774	0.774
Interest rates	0.444	1.000	0.414	0.789	0.200	0.701	0.701
Debt ratio	0.538	0.414	1.000	0.552	0.136	0.582	0.582
Taxation burden	0.418	0.789	0.552	1.000	0.117	0.556	0.556

Table 2 presents the Relative Importance Index associated with each of the macro-economic factors perceived to be influencing financing of the concession project. The first five columns show the correlation matrix of the factors, while the last three columns show the relative importance of each macro-economic factor, in terms of partial regression co-efficients (β), dominance weights and relative weights.

Next in the order of importance was interest rate (0.7). Participants noted that the rising interest rates affected the project's financing. A review of Central Bank of Kenya (CBK) data reveals that commercial banks' lending interest rates averaged at 15.6% between 2007 and 2014 (CBK, 2015a). Participants pointed out that escalating interest rates ate into revenues, which constrained the ability of RVR partners plough back sufficient resources. Besides, rising interest rates made local credit too expensive for partners focusing on the local market; thus, discouraging or delaying further borrowing. Ranking third was debt ratio, with an RII of 0.6. Over the concession period Kenya's debt to Gross Domestic Products (GDP) ratio average at 46.2% (CBK, 2015b). In view of this, participants indicated that high debt ratio indirectly influenced the project's financing, by triggering domestic borrowing by the Government, thereby, heightening the risk of inflation and high interest rates. Rising debt ratio interrupted the financial market, making lending terms too expensive for RVR partners.

Taxation burden also scored an RII of 0.6. Participants reported that taxation burden negatively influenced the project's financing by increasing overhead costs as well as reducing revenues. Of the greatest concern to participants was the fuel levy tax, which RVR paid through the purchase of diesel to power locomotive engines. Participants felt that fuel levy disadvantaged RVR economically, while favoring competitors. Fuel levy is one of the factors that rendered RVR's tariffs uncompetitive. In addition, import duty and excise tax on imported hardware affected the project's financing by increasing the burden and reducing revenues.

Concordance of Perceptions on the Influence of Macro-Economic Factors on the Project's Financing

The results in Table 3 confirms show the mean rank of each macro-economic factor, where inflation rates ranked first, with a mean rank of 2.68; interest rates scored a mean rank of 2.64, followed by debt ratio with 2.53 and taxation burden with 2.16. Furthermore, the analysis obtained a strong level of concordance in

the ranking of macro-economic factors influencing the project's financing, which was also statistically significant at 0.01 error margin (W = 0.833, χ^2 = 41.8223, df = 3 & ρ-value = 0.000).

Table 3: Concordance of Perceptions the Influence of Macro-Economic Factors

Ranks		Test Statistics	
Factors	Mean Rank	N	348
Inflation rates	2.68	Kendall's W	0.833
Interest rates	2.64	Chi-Square	41.822
Debt ratio	2.53	df	3
Taxation burden	2.16	Asymp. Sig.	0.000

Table 3 shows the ranking of macro-economic factors, based on the strength of perceived influence on the financing of the concession project, where inflation rates ranked first, with a mean rank of 2.68; interest rates scored a mean rank of 2.64, followed by debt ratio with 2.53 and taxation burden with 2.16. The last two columns show Kendall's test statistics for the concordance of perceptions. Notably, the concordance is strong and statistically significant.

The results imply up to 99% chance that participants were concordant and that the identified macro-economic factors had a strong influence on the project's financing. Consequently, regulating inflation and interest rates, as well as managing the level of public debt and waiving fuel levy are crucial interventions that stakeholders may consider to improve the macro-economic environment, as well as cushion the concessionaire against commercial risks.

CONCLUSIONS

The purpose of this study was to determine factors influencing financing of the railways concession project in Kenya. The study reveals that all the four factors examined were fairly strong predictors of the project's financing, with inflation rates ranking highest (0.8); followed by interest rates (0.7), debt ratio (0.6) and taxation burden (0.6). In addition, the study obtained a strong level of concordance in the ranking of macro-economic factors vis-à-vis their influence on the project's financing, which was also statistically significant at a high level of precision. Based on the findings, stakeholders should provide a supportive policy environment by formulating appropriate and/or adjusting existing monetary, fiscal, taxation, and domestic borrowing policies. Besides, the Government should also consider appropriate measures to cushion the concessionaire global market shocks, as well as waiving fuel levy to provide room for the concessionaire to meet revenue targets.

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REFERENCES

Asian Development Bank (2010). *Public Private Partnership Handbook*. Manila: AsDB.

Central Bank of Kenya (2015a). *Commercial Banks' Weighted Average Interest Rates 1991-2015*. Nairobi: CBK.

Central Bank of Kenya (2015b). *Kenya Government Debt to GDP 1998-2015*. Nairobi: CBK.

Frimpong, Y., Olowoye, J. and Crawford, L. (2003). "Causes of Delay and Cost Overruns in Construction of Ground Water Projects in Developing Countries: Ghana as a Case Study," *International Journal of Management*, Vol. 21 (1), p. 321-326.

Institute of Economic Affairs Kenya (2014). *Railway Transportation Policy in Kenya: State of Play and Policy Challenges. Public Forum on Kenya's Railways Transportation Policy 2014.* Nairobi: IEA-Kenya.

Kenya National Bureau of Statistics (2014). *Economic Survey 2014.* Nairobi: KNBS.

Kenya Railways Corporation (2012). *Annual Review Report*. Nairobi: KRC.

Kometa, S.T., Oloimolaiye, P.O. and Harris, F.C. (1994). "Attributes of UK Construction Clients Influencing Project Consultants' Performance," *Construction Management Economics,* Vol. 12, p. 433-443.

Ministry of Transport (2014). "Standard Gauge Railway: Forging New Frontier in Railway Development In Kenya And The Region," *Uchukuzi*, Issue 1, June 2014.

Mwiti, L. (2013). *RVR Fights to Keep Concession on Track amid Rising Criticism, Business daily Africa.* Wednesday, July 31, 2013.

United Nations (2011). *A Guidebook on Public-Private Partnership in Infrastructure*. Bangkok: UNESCAP.

Walker, J. (1993). *Preparing for Private Sector Participation in the Provision of Water Supply and Sanitation Services*: WASH Technical Report No. 84. Office of Health, Bureau for Research and Development, USAID.

World Bank (1997). *Selecting an Option for Private Sector Participation*. Washington DC: The International Bank for Reconstruction and Development/ the World Bank.

BIOGRAPHY

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CONCESSIONAL FACTORS INFLUENCING THE FINANCING OF BUILD-OPERATE-TRANSFER PROJECTS IN DEVELOPING COUNTRIES: THE CASE OF A RAILWAY PROJECT IN KENYA

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ABSTRACT

The Government of Kenya initiated a concessional agreement with Rift Valley Railways (RVR) in 2006, under the build-operate-transfer financing framework, to improve delivery of railway transport services and spur economic growth. However, a decade later, RVR's performance failed to meet performance targets due to financing constraints, among other factors. This study examined selected concessional factors also perceived to be important predictors of the project's financing and performance. We sourced primary data from 348 staff of RVR and government authorities. We applied Relative Importance Index to determine relative importance of each factor; while Kendall's Coefficient of Concordance (W) determined the concordance of participants perceptions regarding the influence of concessional factors on the project's financing. The study found that lack of stakeholder review forums was the most important predictor of the project's financing (0.7). Also important were concessionaire's technical capacity (0.6), concession fees (0.6), concessionaire's revenue (0.5), tariff adjustment (0.5) and concession period (0.3). The study obtained an average level of concordance in participant's perceptions, which however, was statistically significant (W = 0.618, χ² = 17.248, df = 5 & ρ-value = 0.015). Periodical review and improvement of concessional factors is likely to facilitate implementation, financing and performance of concessional projects.

JEL: O16

KEYWORDS: Concession, Financing, Build-Operate-Transfer, Railway Project, Relative Importance, Concordance

INTRODUCTION

Railway transport has served Kenya's economy for more than one century, providing freight and passenger services within and between major urban centres (Ministry of Transport, Kenya, 2014). Kenya Railways Corporation (KRC) came into existence in 1978, through an Act of Parliament (Cap 397), to manage and coordinate an integrated system of rail and inland waterways transport services. At its peak in 1983, the railway system moved some 4.3 million tons of freight, before declining to 1.9 million tons by end of 2005 (Mwiti, 2013). However, the volume of business started reducing in the mid 1980s through to early 2000, which significantly reduced net returns and threatened system's very survival (IEA-Kenya, 2014). In view of this situation, the Government of Kenya and Government of Uganda jointly concessioned railway transport services. Thus, the two Governments entered into a concessional agreement with Rift Valley Railways (RVR) under a build-operate-transfer (BOT) financing framework in November 2006. The purpose was to inject new capital and technical skills; thereby improve efficiency in the delivery of freight and passenger services (Ministry of Transport, Kenya, 2014). The concession period was 25 years for freight services and 5 years for passenger services (IEA-Kenya, 2014). The concession agreement obligated RVR to rehabilitate and maintain rail networks, as well as improve the management, operation and financial performance. On their part, the Governments of Kenya and Uganda remained owners of the railway infrastructure and facilities (African Development Bank, 2011). The concession agreement obligated RVR

to pay a one-off entry fee of US $3 million to the Government of Kenya. In addition, RVR committed to pay an annual concession fee of 11.1% of gross freight revenues to the governments. Regarding passenger services, the concessionaire agreed to pay the Government a fixed annual fee of US $1 million. A third requirement was to invest up at least US $40 million in the development of infrastructure during the first five years. However, ten years down the line, RVR failed to meet performance and investment targets; neither did it fulfill its concessional obligations, due to what government officers perceived as underperformance. Available data on annual freight and passenger volumes also suggest that the concessionaire was way below performance targets (IEA-Kenya, 2014). The Government and KRC officers linked RVR's underperformance to lack of financial capacity and technical expertise. This study examined various factors influencing the project's financing, including macro-economic, concessional, financial, legal and environmental; however, this article focuses on the influence of concessional factors within the Kenyan context.

LITERATURE REVIEW

In many developing countries, governments face the challenge of meeting the growing demand for essential services, including transport, communication and energy, among others, due to financial and capacity constraints. Public-Private Partnership (PPP) initiatives are financing mechanisms that bring together public and private sector operators to develop infrastructural facilities and deliver such services (Asian Development Bank, 2010). Railway transport is one of the services in which governments have involved private sector operators to deliver, through PPP initiatives. A strong PPP system allocates tasks, obligations and risks among public and private partners in an optimal way. Whereas, public partners include government entities, such as ministries, departments, municipalities, or state-owned enterprises, private partners include local or international businesses with technical as well as financial expertise relevant to particular project priorities (Asian Development Bank, 2010).

A review of literature reveals that PPP options vary from one where government retains full responsibility for operations, maintenance, capital, financing and commercial risk; to one in which the private sector takes on much of this responsibility (World Bank, 1997). Based on this premise, PPP options include service contracts, management contracts, leases, concessions and divestitures. In concessions, governments define and grant specific rights to a private operator (concessionaire) to build and operate a facility for a fixed period (United Nations, 2011). Concessions often assume two models, viz. Build-Operate-Transfer (BOT) or Build-Operate-Own (BOO) (Walker, 1993). Although the public authority owns facilities, the private operator has wide-ranging powers over the operation and finances.

The success of concessions depends on the concessionaire's financial and technical competency. Concession contracts set out performance targets, including service coverage, quality, standards, arrangements for capital investment, mechanisms for adjusting tariffs, as well as arbitration over disputes (World Bank, 1997). Quite important is that the concessionaire assumes full responsibility for all capital investments required to build, upgrade, or expand facilities. Besides, the concessionaire is responsible for working capital (Asian Development Bank, 2010). The public authority establishes performance standards and ensures compliance. At the end of the contract period, the authority assumes ownership of project facilities and can choose to assume operating responsibility too, renew the operator's contract, or award a new contract (Asian Development Bank, 2010). Concession contracts often establish tariffs, including provisions for adjustments when need arises. Typical concession periods range between 25 to 30 years, which provide sufficient time for the concessionaire to recover the capital invested and earn sufficient profits.

DATA AND METHODOLOGY

The study adopted a causal-comparative design and targeted staff of the concessionaire and government authorities. The sampling process identified 402 eligible participants, who were all included in the sample. We collected primary data in May 2015 after obtaining necessary approval from University of Nairobi, National Council of Science and Technology, as well as KRC. We delivered questionnaires to targeted participants and made follow-ups through e-mails and telephone calls. Of the 402 targeted participants, 348 (86.6%) successfully completed and returned the questionnaires. The analysis involved listing coding, digitalizing and cleaning data for logical inconsistencies and misplaced codes. The methods that we used included descriptive, Chi square tests, one-way analysis of variance (ANOVA) as well as Relative Importance Index (RII) analyses. Kendall's Coefficient of Concordance enabled us to determine the degree of concordance in participant's perceptions regarding the influence of concessional factors on the project's financing. We performed all quantitative analyses using the Statistical Package for Social Sciences and Microsoft Excel. In addition, qualitative analysis involved organizing data under thematic areas, followed by description and thematic analysis to identify emerging themes and patterns (Kometa, Oloimolaiye & Harris, 1994; Frimpong, Olowoye & Crawford, 2003).

RESULTS AND DISCUSSIONS

The results show that of the 348 participants, 134 (38.5%) were staff of KRC; 179 (51.4%) were staff of RVR; 12 (3.4%) were officers of MOF, while 23 (6.6%) served at MOT. By cadre, 109 (31.3%) participants were operational staff, while 39 (11.2%) were managerial staff. Besides, technical staff were 174 (50.0%), monitoring and evaluation staff were 12 (3.4%) while 14 (4.0%) participants served as policy advisory staff at the ministries. The institutions varied significantly in terms of the cadre of staff who participated in the study (χ^2 = 251.091, df = 12 and ρ-value = 0.000). In terms of gender, participants included 230 (66.1%) men and 118 (33.9%) women. However, the institutions did not vary significantly in terms participants' distribution based on gender (χ^2 = 1.420, df = 3 and ρ-value = 0.701).

Participants were aged between 22 and 54 years, with the mean age for the entire group being 38.7 ($\approx$39) years. Besides, participants from RVR reported the lowest mean age (38.1 years), while those from MOF reported the highest mean age (43.5 years). Even though results suggest that RVR staff may have been the youngest, one-way analysis of variance (ANOVA) revealed that there was no significant variation among staff of various stakeholders regarding age ($F_{(3, 344)}$ = 1.627 & ρ = 0.183). Besides, participants reported a mean of 16.41 ($\approx$16) years of experience, with the lowest being 1 year and the highest 35 years. Whereas staff of RVR reported the lowest duration of professional experience (15.8 years), the results suggest that the staff of the MOF were the most experience (22.2 years). Based on this, the ANOVA results show lack of a significant variation among staff of various stakeholders regarding years of professional experience ($F_{(3, 344)}$ = 2.255 & ρ-value = 0.102).

Concessional Factors Influencing Financing of the Project

The results presented in Table 1 show that of the 348 participants, 137 (39.4%) believed that lack of regular performance review forums had a 'very strong' influence on the project's financing, while 79 (22.7%) reported that the indicator's influence on the project's financing was 'strong'. Contrastingly, 49 (14.1%) participants indicated that lack of regular performance review forums had a 'very weak' influence on the project's financing, while 30 (8.6%) described the indicator's influence as 'weak'. There was a significant variation in perceptions regarding the indicator's influence on the project's financing (χ^2 = 10.231, df = 12 & ρ-value = 0.083). Regarding concessionaire's technical capacity, 90 (25.9%) participants described the indicator's influence on the project's financing as 'very strong', 76 (21.8%) felt that the indicator had a 'strong' influence. Those who felt that concessionaire's technical capacity had a 'very weak' influence on

the project's financing were 66 (19.0%), while those saying that the indicator's influence was 'weak' were 62 (17.8%). The analysis obtained a significant variation in perceptions regarding the influence of concessionaire's technical capacity on the project's financing ($\chi2$ = 66.743, df = 12 & ρ-value = 0.000). The results further show that 70 (20.1%) participants stated that concession fees structure had a 'very strong' influence on the project's financing, while 150 (43.1%) felt that the indicators' influence was 'strong'. However, 21 (6.0%) participants were of the view that concession fees structure had a 'very weak' influence on the project's financing, while 40 (11.5%) felt that the indicator's influence was 'weak'. The analysis revealed a significant variation in perceptions regarding the influence of concession fees structure on the project's financing ($\chi2$ = 23.138, df = 12 & ρ-value = 0.027).

Table 1: Perceived Influence of Concessional Factors on the Project's Financing

CONCESSIONAL FACTORS	KRC		RVR		MOF		MOT		TOTAL	
	Freq	Pct	Freq	Pct	Freq	Pct	Freq	Pct	Freq	Pct
Performance review forums										
Very strong	67	50.0	59	33.0	4	33.3	7	30.4	137	39.4
Strong	18	13.4	54	30.1	2	16.7	5	21.7	79	22.7
Average	18	13.4	29	16.2	3	25.0	3	13.1	53	15.2
Weak	11	8.3	15	8.4	1	8.3	3	13.1	30	8.6
Very weak	20	14.9	22	12.3	2	16.7	5	21.7	49	14.1
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Concessionaire's technical capacity										
Very strong	40	29.8	46	25.7	1	8.3	3	13.0	90	25.9
Strong	45	33.6	14	7.8	6	50.0	11	47.9	76	21.8
Average	11	8.2	42	23.4	0	0.0	1	4.3	54	15.5
Weak	19	14.2	35	19.6	1	8.3	7	30.5	62	17.8
Very weak	19	14.2	42	23.5	4	33.4	1	4.3	66	19.0
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Concession fees structure										
Very strong	31	23.1	33	18.4	3	25.0	3	13.0	70	20.1
Strong	50	37.3	87	48.7	5	41.7	8	34.9	150	43.1
Average	23	17.2	40	22.3	1	8.3	3	13.0	67	19.3
Weak	22	16.4	11	6.1	1	8.3	6	26.1	40	11.5
Very weak	8	6.0	8	4.5	2	16.7	3	13.0	21	6.0
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Concessionaire's revenue										
Very strong	52	38.8	73	40.8	6	50.0	5	21.7	136	39.1
Strong	44	32.8	61	34.1	4	33.4	11	47.8	120	34.5
Average	19	14.2	23	12.8	1	8.3	5	21.7	48	13.8
Weak	7	5.2	15	8.4	0	0.0	2	8.8	24	6.9
Very weak	12	9.0	7	3.9	1	8.3	0	0.0	20	5.7
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Tariff adjustment										
Very strong	31	23.1	36	20.1	4	33.4	8	34.8	79	22.6
Strong	53	39.6	64	35.8	6	50.0	6	26.1	129	37.1
Average	21	15.7	41	22.9	1	8.3	4	17.4	67	19.3
Weak	20	14.9	21	11.7	1	8.3	4	17.4	46	13.2
Very weak	9	6.7	17	9.5	0	0.0	1	4.3	27	7.8
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0
Concession period										
Very strong	39	29.1	69	38.5	5	41.7	9	39.1	122	35.1
Strong	31	23.2	62	34.7	4	33.3	10	43.5	107	30.7
Average	23	17.2	17	9.5	2	16.7	4	17.4	46	13.2
Weak	27	20.1	15	8.4	1	8.3	0	0.0	43	12.4
Very weak	14	10.4	16	8.9	0	0.0	0	0.0	30	8.6
Total	134	100.0	179	100.0	12	100.0	23	100.0	348	100.0

Table 1 presents participants' perceptions regarding the extent to which various concessional factors influenced financing of the concession project. Participants rated their perceptions on a five-point Likert scale, ranging from 'very strong' to 'very weak'. Under each institution, the Table shows frequency distributions (Freq) and accompanying percentages (Pct).

Table 1 further shows that 136 (39.1%) participants were of the view that the influence of concessionaire's revenue on the project's financing was 'very strong', while 120 (34.5%) felt that the indicator's influence was 'strong'. Those who perceived that the concessionaire's influence on the project's financing was 'very

weak' were 20 (5.7%), while those saying the indicator's influence was 'weak' were 24 (6.9%). However, there was no significant variation in perceptions regarding the influence of concessionaire's revenue on the project's financing (χ^2 = 11.981, df = 12 & ρ-value = 0.447). The results show that 79 (22.6%) participants reported that adjustment of tariffs had a 'very strong' influence on the project's financing as 'very strong', while 129 (37.1%) stated that the indicator's influence was 'strong'. However, 27 (7.8%) participants perceived that adjustment of tariffs had a 'very weak' influence on the project's financing, while 46 (13.2%) believed that the indicator had a 'weak' influence on the project's financing. There was no significant variation in perceptions regarding the influence of tariff adjustment on the project's financing (χ^2 = 10.405, df = 12 & ρ-value = 0.581). In addition, 122 (35.1%) participants described the influence of concession period on the project's financing as 'very strong', while 107 (30.7%) perceived that the indicator had a 'strong' influence. However, 30 (8.6%) participants were of the view that the influence of concession period on the project's financing was 'very weak', while 43 (12.4%) said that the indicator's influence was 'weak'. The analysis revealed a significant variation in perceptions regarding the influence of concession period on financing of the concession project (χ^2 = 26.177, df = 12 & ρ-value = 0.010).

Relative Importance of Concessional Factors Influencing the Project's Financing

The Relative Importance Index (RII) results show that lack of performance review forums was the most important concessional factor influencing the project's financing. The indicator scored a relative importance index of 0.7, which suggests that it was a strong predictor of the project's financing. Participants reported that the concession agreement did not have a provision for joint evaluation forums for partners to review performance and address issues arising. Regular joint evaluation of concessional projects can greatly improve the management of internal and external risk factors preventing such projects from achieving performance targets; thereby, improve chances and ability to mobilize additional financing for capital investments. Concessionaire's technical capacity scored a relative importance index of 0.6; which suggests that the indicator was an average predictor of the project's financing. Participants believed that the concessionaire's lack of technical capacity exacerbated a decline in volumes of freight and passenger services, which affected the level of net returns, investment targets and the project's creditworthiness. Prolonged underperformance undermined the concessionaire's ability to attract funding from international financial institutions. More still, lack of technical capacity and experience to manage the concession project, raises questions regarding rigorousness of the selection process before the Government awarded the concession.

Having scored a relative importance index of 0.6, concession fees had an average influence on the project's financing and performance. Participants noted that the fixed fee for passenger services was not feasible, considering a significant drop in passenger volumes during the first decade of the concession. Nonetheless, RVR paid the amount regardless of whether or not it met revenue targets. Whereas, fixed concession fees can be feasible in advanced PPP markets, variable fees are suitable for developing markets. In the case of RVR, participants pointed out that fixed concession fees for passenger services was not a good option considering the level of competition exerted by road transport. Concessionaire's revenue scored a relative importance index of 0.5; thus, suggesting that the indicator was an average predictor of the project's financing. Revenue is a key indicator of any business venture's viability for financing consideration. Enterprises with consistent and sufficient revenues are more likely to access credit services from local and international financing institutions. In this study, participants reported that RVR's revenue stayed below performance target for far too long, which weakened the concessionaire's ability to meet overhead costs, pay concession fees regularly, attract financing and keep business afloat in the midst of competition. Tariff adjustment scored a relative importance index of 0.5; again, suggesting that the indicator was an average predictor of the project's financing. Pricing of transport services is often a matter of in-depth economic analysis. In other words, comprehensive feasibility studies should precede pricing processes. In this study, participants reported that RVR reserved the right to adjust tariffs when necessary; however, tariff adjustments were, in most cases, boardroom decisions. Consequently, adjustment of tariffs often resulted

to a drop in business volume, with far-reaching consequences on revenues, liability portfolio and financing of infrastructure development. Concession period scored a relative importance index of 0.3, suggesting that it was a weak predictor of the project's financing. Notably, the concession period was 25 years for freight services and 5 years for passenger services (IEA-Kenya, 2014). The challenge with fixed concession periods is that there is no time to adjust to internal and external factors that may heighten non-completion and/or demand-related risks. In this regard, the length of concession period should hook around the concessionaire's recovery of investments. Concession periods vis-à-vis market risk factors, is a key element that usually inform financiers' investment decisions.

Concordance of Perceptions regarding Influence of Concessional Factors on the Project's Financing

The analysis obtained an average level of concordance in the ranking of concessional factors influencing the project's financing. The results suggest up to 95% chance that the level of concordance was statistically significant (W = 0.618, χ^2 = 17.248, df = 3 & ρ-value = 0.015). The results show that participants' perceptions regarding the influence of concessional factors on the project's financing were concordant and the level of concordance was statistically significant. The results suggest that concessional factors are important to the success of concession projects.

CONCLUSIONS

The purpose of PPP initiatives is to improve the delivery of essential services to citizens, in line with national development goals. The success of PPP initiatives is important to all stakeholders, including citizens, public authorities and private sector operators. This study reveals that concessional factors are important predictors of the success of concessional projects. Regarding the railway project in Kenya, the findings suggest that concessional factors might have contributed to under-financing and underperformance that characterized the project's first decade. As the railway project gets into its second decade of concession, failure to address emerging concessional challenges is likely to continue preventing the project from reaching its full productivity potential. Concessions run for 25 to 30 years, which makes it necessary for partners to create regular interludes for joint review of concessional contracts, in view of issues arising from internal and external environments. Notably, 30 years is a long time and many changes may occur during implementation, which may prevent concessional projects from achieving set objectives. Consequently, it is important for concessional contracts to have provisions for periodical revisions to facilitate implementation processes as well as improve financing and attainment of performance targets.

REFERENCES

African Development Bank (2011). *Rift Valley Railway Project: Environmental and Social Assessment*. Addis Ababa: ADB Group

Asian Development Bank (2010). *Public Private Partnership Handbook*. Manila: AsDB.

Frimpong, Y., Olowoye, J. and Crawford, L. (2003). "Causes of Delay and Cost Overruns in Construction of Ground Water Projects in Developing Countries: Ghana as a Case Study," *International Journal of Management*, Vol. 21 (1), p. 321-326.

Institute of Economic Affairs Kenya (2014). *Railway Transportation Policy in Kenya: State of Play and Policy Challenges*. Nairobi: IEA-Kenya.

Kometa, S.T., Oloimolaiye, P. and Harris, F. (1994). "Attributes of UK Construction Clients Influencing Project Consultants' Performance," *Construction Management Economics,* Vol. 12, p. 433-443.

Ministry of Transport (2014). "Standard Gauge Railway: Forging New Frontier in Railway Development In Kenya And The Region," *Uchukuzi*, Issue 1, June 2014.

United Nations (2011). *A Guidebook on Public-Private Partnership in Infrastructure*. Bangkok: UNESCAP.

Walker, J. (1993). *Preparing for Private Sector Participation in the Provision of Water Supply and Sanitation Services*: WASH Technical Report No. 84. Office of Health, Bureau for Research and Development, USAID.

World Bank (1997). *Selecting an Option for Private Sector Participation*. Washington DC: The International Bank for Reconstruction and Development/ the World Bank.

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SOFTWARE ENGINEERING EVALUATION: A FUZZY APPROACH

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ABSTRACT

Nowadays, we have several sophisticated tools and various successful methods for software project management engineering. Despite this fact, the famous Cobb's Paradox "We know why projects fail; we know how to prevent their failure—so why do they still fail?" is still relevant. In fact, many reports into the software projects management ask the same question! This may be the cause of unknown factors that can complicate the smooth running of a project management. So what if we are able to benefit from the company's experience in project management, taking into account vagaries of the future? In this article we apply fuzzy logic to evaluate of a company's software management engineering process (SMEP). We define a fuzzy computational environment to study the efficiency of the SMEP. This consists of (1) a knowledge base which holds production rules used in the fuzzy evaluation of SMEP efficiency, (2) a SMEP database that stores the company's data concerning past software projects, (3) a fuzzy database that contains membership functions structures, and (4) an inference mechanism that fuzzifies managerial input vectors, and generate fuzzy inferences which are defuzzified before they are submitted to the project manager. A complete illustrative example, provided at the end of this article, will further show how fuzzy logic can be an effective decision aid when the complex and semi-structured nature of the problem inhibits the use of a rigorous analytical model.

JEL: C02, C63, C88, L86

KEYWORDS: Fuzzy Sets, Database, Project Management, Software Engineering, Fuzzification, Defuzzification

INTRODUCTION

Even though software is hardly cited to customers, and rarely mentioned in sales brochures, and price books, software products are always there. Software is either implanted in the product R&D process, employed to assist sales people and better serve their customers, or utilized by information services to provide timely and accurate information to line managers. Obviously the organization does not have to be a software company to consider software management a high-level support activity, in order to assure the subsistence of other business functions. This paper shows how fuzzy logic can be effectively applied to the evaluation of a software engineering process. Based mostly on knowledge obtained from various experts in the field of software engineering, especially Boehm (1981), Christensen & Thayer (2002), and Pfleeger et al. (2005). This article is organized into five sections, in addition to the introduction and the conclusion. The first section describes main activities of the Software Management Engineering Process (SMEP) and how they are evaluated. The second section defines fuzzy sets and linguistic variables used in the fuzzy analysis of SMEP efficiency. The third section is reserved for a detailed presentation of the fuzzy evaluation system. The Fourth section presents the fuzzy database. The last section describes the inference mechanism.

The Smep Evaluation Process

In evaluating a company's SMEP, the Software Engineering (SE) literature suggested that productivity, software quality, cost, and documentation should be measured (Boehm,1981; Dennis and al., 2014; Dennis,

2012; Fenton & Bieman, 2015; Grady & Caswell, 1987; Pfleeger et al., 2005; Christensen & Thayer, 2002). The evaluation will aid top management in redefining their goals and in devising new strategies for the purpose of enhancing the software engineering process. The refinement of the software engineering process will have a direct impact on organizational performance, products, customers, and sales Christensen and Thayer, (2002). There is therefore no doubt that software is a strategic business issue.
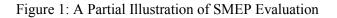
Even though size-oriented metrics like quality, cost, productivity, and documentation, are utilized in the evaluation of a software engineering process. SE management also use other ways to evaluate and improve the company's software engineering process. However, most approaches adopted in SMEP evaluations are based on data collection, metrics computations, and data evaluation. Those approaches are thoroughly studied in Grady & Caswell (1987), Fenton (1991), and Jones (1991). Independently of the evaluation methodology, the complex and semi-structured nature of the evaluation task has often obstructed the effective development and application of rigorous analytical models. Senior software managers have often relied on their expertise and subjective judgment to perform the evaluation task.
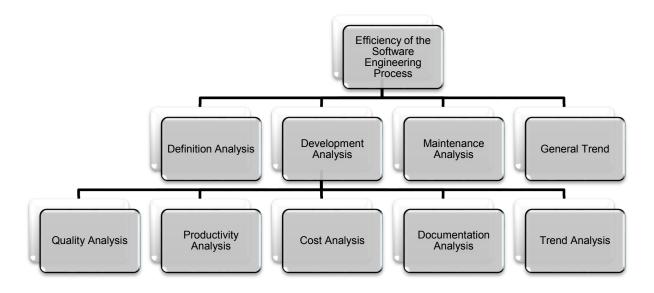
According to several researches (Boehm, 1981; Fenton & Bieman, 2015; Grady & Caswell, 1987; Pfleeger et al., 2005; Christensen & Thayer, 2002), a company's software applications are organized into four types, namely, information system applications (IS), system applications (SA), real-time embedded systems (RT), and human-rated systems (HR). Independently of the type of the software application, the SMEP consists of three main activities; definition, development, and maintenance. These activities are conducted in all aspects of software engineering, regardless of application area, project size, or complexity. The definition phase is characterized by the joint effort exerted by both the software engineers and the users to identify key requirements of the system and the software. The definition activity is evaluated by examining customer contracts, project planning, and requirement analysis (Christensen & Thayer (2002)).

The development activity consists of the developer's attempt to define how data structure and software architecture are to be designed, how procedural details are to be implemented, how the design will be translated into a programming/nonprocedural language, and how testing will be performed. The development activity is evaluated by examining the design, the code, and the testing using four size-based metrics: quality, cost, productivity, and documentation (Christensen & Thayer (2002)). The maintenance activity is concerned with change to the software due to the evolution of the software environment. This activity is evaluated by examining four types of change; correction, adaptation, enhancement, and reengineering. For more detailed information about SE activities, one may refer to Boehm (1981) and Christensen & Thayer (2002). SMEP efficiency analysis measures the company's ability, in the short and long terms, to provide reliable and timely software products as needed by the company's diverse business activities. The SMEP efficiency analysis consists of separate quality, cost, productivity, and documentation evaluations. The process of evaluating the efficiency of a company's SMEP consists, in addition to general trend analysis, of three independent separate analyses of the definition, development, and maintenance activities. Figure 1 provides a partial illustration of the SMEP evaluation scheme. Due to space limitation, the definition and maintenance activities are however not considered in the proposed fuzzy evaluation system. SMEP efficiency is therefore assumed to depend merely on the development process.

Software quality was defined by Christensen & Thayer (2002) as the conformance to explicitly stated functional and performance requirements, explicitly documented development standards, and implicit characteristics that are expected of the software. This is usually measured in terms of the number of defects detected in the final software product. Software cost consists of two cost components, engineering cost, prior to delivery, and support cost, after delivery. Software documentation consists of all documents associated to the definition, the development, or the maintenance of the software project. Productivity analysis measures the company's ability to keep pace with the demand for the company's products, services, and for all other business activities.

Figure 1: A Partial Illustration of SMEP Evaluation

Fuzzy Sets

Fuzzy sets introduced by Zadeh (1978) are sets whose elements have degrees of membership. Fuzzy sets based on fuzzy sets theory, which is a generalization of the classical set theory admits gradation such as all shades between black and white, by using a membership function valued in the real unit interval [0, 1]. Fuzzy sets theory aims to decrease complexity by allowing the use of imperfect information in sensible way. Zadeh (1978) writes: "The notion of a fuzzy set provides a convenient point of departure for the construction of a conceptual framework which parallels in many respects the framework used in the case of ordinary sets, but is more general than the latter and, potentially, may prove to have a much wider scope of applicability, particularly in the fields of pattern classification and information processing. Essentially, such a framework provides a natural way of dealing with problems in which the source of imprecision is the absence of sharply defined criteria of class membership rather than the presence of random variables". 'Imprecision' means fuzziness and can be viewed in a sense of vagueness rather than the lack of knowledge about the value of a parameter (as in tolerance analysis). As in Zadeh (1975, 1983), the inference procedures constituting approximative reasoning are based on fuzzy production rules that are presented, in this article, each as a two-part construct: antecedent and consequent of the rule. For example, if X1 and Y1 are fuzzy sets of the linguistic variables x and y, then "If x is X1, then y is Y1" is a production rule where "x is X1" is its antecedent and "y is Y1" is its consequent.

The inference mechanism is characterized by fuzzy modus ponens since subjective judgment associated with SMEP knowledge can only produce imprecise conclusions. That is reasoning from fuzzy data $\delta(X1)$ about x that only approximates X1 to some extent, fuzzy logic will infer from the production rule a fuzzy conclusion $\delta(Y1)$ of y that is also approximate to Yl. Thus, "y is Yl" may be only partially true. In contrast, in the traditional modus ponens, two true propositions "If x is Xl, then y is Yl" and "x is Xl" with X1 and Yl traditional sets, the conclusion "y is Yl" is inferred as fully true. Let x_i, i=1,4 denote respectively the Quality, Cost, Productivity, and Documentation of a software application. A fifth input variable, x_5 represents the trend analysis, aggregating all base variables selected by senior SE managers. The output variable, y, is SMEP Efficiency. All variables are assumed to have three linguistic terms, "low", "fair", and "high". Linguistic terms, "low", "fair", and "high", for x, are denoted L_, F_, and H_, where the underscore character is replaced by the first letter of the fuzzy variable name.

The universes of discourse, U_i i=1,5, and V, in which the fuzzy sets x_i, i=1,5 and y will have inexact boundaries are defined first. These fuzzy sets are associated with two properties, vagueness, characterized by the grade membership; and ambiguity, interpreted by the fact that two elements can belong to two different sets with two different grades of membership. Each fuzzy set x_i, in a universe U_i, is coupled with a membership or compatibility function $m_{xi} : U_i \rightarrow [0,1]$. That is, a fuzzy set x, is the set of ordered pairs, $\{(u, m_{xi}(u)) | u \in U_i\}$. An element u shows a partial membership in x_i, when $0 < m_{xi}(u) < 1$ or non-membership when $m_{xi}(u) = 0$ (full membership when $m_{xi}(u) = 1$). Fuzzy set operations are expressed in terms of membership functions. Let Cl and C2 be 2 fuzzy sets in U.

The complement ¬C1 of Cl, corresponds to the Boolean NOT function and is given by the subset $\{u \in U | u\neg \in\}$ with a membership function $m_{\neg C1}(u) = 1 - m_{C1}(u)$. The fuzzy intersection of C1 and C2, C1∩C2 will have as a membership function
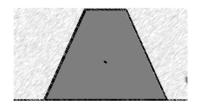
$m_{C1 \cap C2}(u) = min\{m_{C1}(u), m_{C2}(u)\}$. The fuzzy set union of C1 and C2, C1∪C2 will have as a membership function $m_{C1 \cup C2}(u) = max\{m_{C1}(u), m_{C2}(u)\}$.

Membership functions are constructed to represent subjectivity of fuzziness as faithfully as possible, and to promote computational facility. As in Levy et al. (1991) and Barua et al. (2013), our system uses trapezoidal functions to represent all fuzzy sets pertinent to the SMEP evaluation. A trapezoid t(a,b,c,d) is defined for real numbers $-\infty < a \leq b \leq c \leq d < \infty$ by:

$$t(u) = \begin{cases} 0, u \leq a \\ \dfrac{u-a}{b-a}, a \leq u \leq b \\ 1, b \leq u \leq c \\ \dfrac{d-u}{d-c}, c \leq u \leq d \\ 0, d \leq u \end{cases}$$

where t(a)=1 if a=b and t(d)=1 if c=d. Figure 2 shows t(u) graphically

Figure 2: Trapezoid T(1,2,3,4)
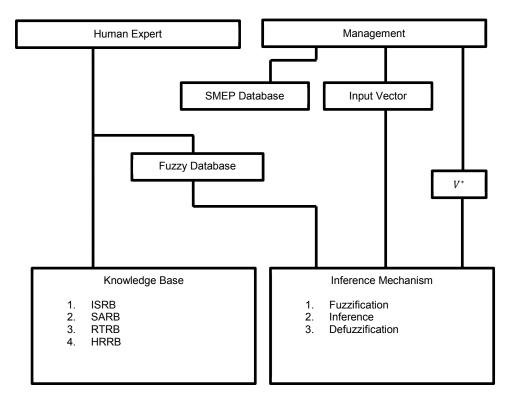
Fuzzy Evaluation System

The fuzzy evaluation system, illustrated in Figure 3, consists mainly of a fuzzy knowledge base, SMEP database, a fuzzy database, and an inference mechanism. The knowledge base stores all production rules used in the fuzzy evaluation of SMEP efficiency. The SMEP database is useful to provide necessary information for the construction of compatibility functions of fuzzy sets which are stored in the fuzzy database. The inference mechanism will process managerial input vectors containing their quantitative judgment. The SMEP database contains the company's rudimentary data concerning past software projects, useful for the human expert to estimate several size-oriented metrics. The database contains information

about the size of a project in Kilo Lines of Code (kloc), Development cost (in k$/kloc), the number of defects per kloc, the documentation of the project (in pages/kloc), and the number of project staff. The system knowledge base (KB) consists of 4 rule bases, one for every software type: information systems rule base (ISRB), systems applications rule base (SARK), embedded real-time applications rule base (RTRB), and human-rated applications rule base (HRRB). Each rule base b_k, k=1,4 consists of three knowledge segments S_{kj} of size n_{kj}, $j = 1,3$, identified with every linguistic variables Low (L), Fair (F), and High (H) constituting the consequent SMEP Efficiency. That is:

KB= {{ISRB1, ISRB2, ISRB3}, {SARB1, SARB2, SARB3},
{RTRB1, RTRB2, RTRB3}, {HRRB1, HRRB2, HRRB3}}.

Figure 3: Fuzzy Logic System for SMEP Efficiency

The structure of the knowledge base is displayed in Table 1. There will be a maximum of 3^3x4=972 production rules in the knowledge base. However, knowledge acquisition concerning the relationship between $< x_i, i = 1,5 >$ and y will hopefully reduce the size of the rule base to a manageable one.

The organization of the fuzzy rule base ISRB is based on the fundamental analyses conducted by SE experts. Every fuzzy subset participating in the definition of the main linguistic variable, SMEP Efficiency (y1), is identified with a knowledge segment made of a collection of production rules which have this fuzzy subset as a consequent. The rule base will therefore include three knowledge segments identified with y_1=LE, y_1=FE and y_1=HE. A production rule consists of a five-part antecedent {x_i,i=1,5} and a consequent y_i. The rule base ISBR will include 3^5=243 productions rules. The expert's knowledge will significantly reduce the total number of combinatorial possibilities to a considerably smaller number of production rules. The portion of the rule base identified with y_1=HE is displayed in Figure 4. The remaining rule bases, SARB, RTRB and HRRB are constructed the same way.

Table 1: Structure of the Knowledge Base

$< x_{1i}, i = 1,5 >$	$\rightarrow$	y=L
$< x_{1i}, i = 1,5 >$	$\rightarrow$	y=F
$< x_{1i}, i = 1,5 >$	$\rightarrow$	y=H
$< x_{2i}, i = 1,5 >$	$\rightarrow$	y=L
$< x_{2i}, i = 1,5 >$	$\rightarrow$	y=F
$< x_{2i}, i = 1,5 >$	$\rightarrow$	y=H
$< x_{3i}, i = 1,5 >$	$\rightarrow$	y=L
$< x_{3i}, i = 1,5 >$	$\rightarrow$	y=F
$< x_{3i}, i = 1,5 >$	$\rightarrow$	y=H
$< x_{4i}, i = 1,5 >$	$\rightarrow$	y=L
$< x_{4i}, i = 1,5 >$	$\rightarrow$	y=F
$< x_{4i}, i = 1,5 >$	$\rightarrow$	y=H

As illustrated in Figure 3, management first submit the input vector e=(u1, u2, u3, u4, u5) expressing quantitative estimates for Quality, Productivity, Cost, and Documentation describing the current software application, and a score of 1, 2, or 3 expressing the trend of the overall base variable. The input vector is then fuzzified using the database and the rule base associated with the current type of the software application. The fuzzification process produces a fuzzy matrix that will be processed by the inference function to produce the certainty factors associated with the recommendations generated by various segments of the rule base. New fuzzy variables are then obtained by combining, in a multiplicative fashion, those certainty factors and respective membership functions of various linguistic variables identified with SMEP Efficiency. Those new fuzzy sets are then aggregated in a new fuzzy variable z, which will indicate the current evaluation of SMEP Efficiency. The defuzzification of the new variable will produce a scalar that best represents the current status of SMEP Efficiency.

Fuzzy Database

Knowledge of the application domain should be obtained and used to assess membership functions associated with the retained fuzzy terms. The domain expert will help sketching the shape of each function over an appropriate scale of values. The parameters a, b, c, and d, defining the trapezoidal functions, are then determined accordingly. size-oriented metrics, but most of them remain too unrealistic to use. As an example, the industrial norm for an acceptable software quality is defined by literature (Boehm (1981), Fenton & Bieman (2015), Pfleeger et al. (2005), and Christensen & Thayer (2002)) as the software quality baseline and has been set at 2 defects/kloc. Unfortunately, this baseline software quality figure is rarely attained. For instance, the minimum software quality of IS applications has been set to 5 defects/kloc, a number considerably larger than the baseline. Also, the maximum software quality of human-rated systems has been set to .1 defects/kloc, extremely smaller than the baseline.

Therefore, a historical investigation of past software projects is obviously needed. For the purpose of the study, we use separate data sources for different types of software applications (Christensen & Thayer (2002), Boehm (1981) and Pfleeger et al. (2005)). Table 2 shows the minima and maxima of software quality as observed in real world applications. Using Table 2, software quality is considered residing in the range [.01 30].

Table 2: Minimum and Maximum Averages of the Quality and Productivity For Various Types of Software

Application	Minimum (q L)	Maximum (q L)	Average
IS Applications	(5 .800)	(30 3.200)	(17.5 2.000)
System Applications	(0.8 .400)	(10 1.000)	(5.4 0.700)
Real-time Embedded Systems	(0.5 .100)	(5 .600)	(2.75 0.350)
Human-rated Systems	(0.01 .030)	(.1 .400)	(0.11 0.430)

The universe of discourse of the linguistic variable, software Quality, is therefore the domain U1=[.01 30]. The software Quality variable is associated, in a first step, with three fuzzy subsets HQ expressed by the linguistic term, "high quality", LQ expressed by the linguistic term, "low quality", and FQ expressed by "fair quality". The membership functions for HQ, FQ, and LQ are defined, respectively, as:

$m_{HQ}(u) = t(5,5,10,15)$
$m_{FQ}(u) = t(12.5,15,20,22.5)$
$m_{LQ}(u) = t(20,25,30,30)$

Further fuzzy linguistic variables that are incorporated into SMEP efficiency analysis are Productivity (x_2) Cost (x_3), and Documentation(x_4). Using Table 3, the acceptable universes of discourse of Productivity, Cost, and Documentation are respectively, U_2 =[.8 3.2], U_3 =[0 50.0], and U_4=[0 100]. The baseline figures for Productivity, Cost, and Documentation are .905/kloc, k\$25.0/kloc, and 30 pages/kloc, respectively. As for the linguistic fuzzy subsets of the software Quality variable, we associate three linguistic fuzzy subsets H_, F_ and L_ for each variable x_i, i=1,4 as presented in Figure 4. In order to allow management to play an interactive role in evaluating the overall performance of the SMEP with respect to various base variables (not included in the fuzzy process), the linguistic variable "Trend" is added at all levels of the hierarchic structure of the evaluation process. The trend variable x, is associated with three fuzzy subsets HT, FT, and LT expressed as follows:
HT="the overall base performance of the SMEP is now higher"
FT="the overall base performance of the SMEP is now fair"
LT="the overall base performance of the SMEP is now lower"

Figure 4: Rule Base Segment Identified with $y_1 = HE$

HP="high software productivity"
FP="fair software productivity"
LP="low software productivity"
HC="high software cost"
FC="fair software cost"
LC="low software cost"
HD="high software documentation"
FD="fair software documentation"
LD="low software documentation"

$< x_1 = HQ, x_2 = LP, x_3 = LC, x_4 = FD, x_5 = LT > \rightarrow y_1 = HE$
$< x_1 = HQ, x_2 = LP, x_3 = LC, x_4 = FD, x_5 = FT > \rightarrow y_1 = HE$
$< x_1 = HQ, x_2 = LP, x_3 = LC, x_4 = FD, x_5 = HT > \rightarrow y_1 = HE$

. . .

$< x_1 = FQ, x_2 = LP, x_3 = LC, x_4 = HD, x_5 = LT > \rightarrow y_1 = HE$
$< x_1 = FQ, x_2 = LP, x_3 = LC, x_4 = HD, x_5 = FT > \rightarrow y_1 = HE$
$< x_1 = FQ, x_2 = LP, x_3 = LC, x_4 = HD, x_5 = HT > \rightarrow y_1 = HE$

The SMEP database is useful in assessing membership functions associated with 3x5x4+3=63 linguistic variables. Membership functions are stared in the fuzzy database. The fuzzy database constitutes a universal relation where 4 columns are reserved to the coefficients a, b, c, and d. This relation may have 3x6x4=72 tuples. Management selects the base variables pertinent to evaluating the SMEP and may use bar charts to examine the evolution of base variables over the last five years. By looking at the trend, management will be able to judge if the SMEP performance, with respect to this variable, is improving, stable, or worsening. A three-point scale may be used to rate the situation: 3="improving", 2="stable", and 1="worsening". Following analyzing the trends of all selected base variables, the overall performance of base variables may be obtained by averaging all rates collected. The universe of discourse of the linguistic fuzzy variable, Trend, is therefore [1 3]. Its membership function is computed as follows:

$$m_{HT} = t(2.25, 2.75, 3.0, 3.0)$$
$$m_{FT} = t(1.5, 1.75, 2.25, 2.75)$$
$$m_{LT} = t(1, 1, 1.25, 1.75)$$

Inference Mechanism

The inference mechanism consists of three functions: fuzzification, inference, and defuzzification. The fuzzification function transforms the input vector $e=(e_1, e_2, e_3, e_4)$ into 4 membership matrices, $M_k(e_k)$, k=1,4 with $n_{k1}+n_{k2}+n_{k3}$ rows and 5 columns, each. In the inference process, for every knowledge segment s_{kj}, k=1,4 and j=1,3 in the rule base b_k, a truth factor v_{kj}^i, i=1, n_{kj} is first attributed to every rule r_{kj}^i of the segment s_{kj}. The value of v_{kj}^i is computed as $Min_{p=1,5}\{m(r_{kj}^i, p)(e_k)\}$, the minimum of all membership grades of the input vector e_k in the fuzzy sets x_p, p=1,5, forming the rule r_{kj}^i. In a second step, every segment s_{kj}, is associated with a truth factor w_{kj} computed as $w_{kj} = Max_{i=1,nkj}\{v_{kj}^i\}$ the highest truth factor attributed to the rules making the segment s_{kj}. In a third step, every segment s_{kj} is represented by a fuzzy variable defined as $w_{kj} * y_{kj}$. The rule base b_k is represented by z_k, the aggregation of the these fuzzy variables; that is, $z_k = \sum_{j=1,3} w_{kj} * y_{kj}$. The fuzzification function transforms the input vector $e_1=(u_1, u_2, u_3, u_4, u_5)$ into a membership matrix, $M_1(e_1)$, that has $n_{11}+n_{12}+n_{13}$ rows and 5 columns. The inference process applies ISBR to produce a compatibility function for the SMEP Efficiency variable associated with information system applications, as an aggregation of all its linguistic values. The defuzzification function will produce a scaler representative of the aggregated variable, computed in this system as the fuzzy set's center of gravity. Every rule r_{11}^i, i=1, n_{11}, is mapped to v_{11}^i, in [0 1]. The scalar v_{11}^i represents the truth value of the rule r_{11}^i, or $Min_{p=1,5}\{m(r_{11}^i, p)(e_1)\}$. Among all v_{11}^i i=1, n_{11}, identified with one rule base segment s_{11}, only $w_{11}=Max_{i=1,n11}\{v_{11}^i\}$, the maximum truth factor of the rule base segment s_{11} is selected. In the same manner for the remaining ISRB segments, the local truth factors for SMEP Efficiency (type=IS) are given as follows:

Efficiency is High: w_{11}, based on segment s_{11} or ISBR1
Efficiency is Fair: w_{12}, based on segment s_{12} or ISBR2
Efficiency is Low: w_{13}, based on segment s_{13} or ISBR3

Because of the fuzzy modus ponens employed in fuzzy logic, the input vector only partially satisfies the antecedents of rules. Using the maximum truth factors w_{ij}, j=1,3, the fuzzy sets Y_{1j}, j=1,3 associated with y_1, may be redefined so that:

$$M_{HQ'}(y) = min(w_{11}, m_{HQ}(y))$$
$$M_{FQ'}(y) = min(w_{11}, m_{FQ}(y))$$
$$M_{LQ'}(y) = min(w_{11}, m_{LQ}(y))$$

The factors w_{1j}, j=1,3 not only correspond to the largest partial match of the input vector with all rules for which y_1=HQ, y_1=FQ, and y_1=LQ but also the truth of these respective conclusions. In fact, "y_1=HQ'" means "y_1=HQ with a truth of w_{11}". An aggregate truth distribution that takes into account all rules of the rule base ISBR is then developed from the three new fuzzy subsets HQ', FQ', and LQ'. That is, z_1=HQ'+FQ'+LQ', for which $m_{zl}(v)$=Max$\{m_{HQ'}(v), m_{FQ'}(v), m_{LQ'}(v)\}$. In general, however, for every rule base b_k, k=1,4, a truth factor $w_{k,j}$ represents a rule base segment s_{kj}, p=1,3. Truth factors for the current fuzzification process are computed as follows:

$$w_{k,j}=\text{Max}_{i=1,nkj}\{\text{Min}_{p=1,5}\{m(r_{kj}^i,p)(e_k)\}\} \quad k=1,4, j=1,3$$

The fuzzy set variables identified with various rule bases are sets z_k, k=1,4, in V defined by their compatibility functions:

$$z_k = \sum_{j=1,3} w_{kj} * y_{kj}$$
$$m_{zk}(v)=\text{Max}_{j=1,3}\{\text{Min}\{w_{k,j},m_{Ykj}\}\}$$

SMEP efficiency is then represented by a new fuzzy set z computed as the product of SMEP efficiency fuzzy variables used in organizing various rule bases identified with various software applications. That is, $z=\prod_{k=1,4}z_k$. The membership function of z is computed as m_z=Min$_{k=1,4}z_k$. The defuzzification is performed by computing z's center of gravity as a scalar v^* representing the fuzzy set z, $v^*=\int_0^1 vm_z(v)dv$.

CONCLUSION

This article demonstrated how fuzzy logic offers a natural process for analyzing the imprecise declarations and managerial subjective judgment involved in the evaluation of a company's software engineering process. Human resources constitute an important factor in the success of the fuzzy logic system. For instance, the system required the involvement of a human expert for the construction of the rule bases and the fuzzy subsets and management for the fuzzification function. While the fuzzy logic system enforces the independence between the uncertainty management method and the rule base, since the rules and fuzzy sets are stored in two different subsystems, the success of inference process depends on both structures. The proposed fuzzy evaluation system remains partial without including definition and maintenance analyzes and a direct query system for management to keep track of changes in base variables incorporated in this system as trend analyses. However, this article demonstrates how fuzzy logic is effective in modeling managerial heuristic processes in the evaluation of SMEP efficiency.

REFERENCES

Upon request

BIOGRAPHY

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SOME ASPECTS ABOUT APPLICATION OF TAX INCENTIVES TO FOREIGN LEGAL ENTITIES WITHIN THE REPUBLIC OF UZBEKISTAN

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ABSTRACT

In today's world, foreign investments remains as important financial resources for development of economics, in its place improving the investment climate – is a guarantee of investments flow. In order to create favorable conditions for foreign investors, as well as to protect their interests, a legal framework, which is constantly being improved and modified, has been established in Uzbekistan.

INTRODUCTION

Among the most important laws of the Republic of Uzbekistan in the sphere of foreign investments protection, guarantees and rights of investors, the laws such as "On foreign investments", "On guarantees and measures to protect the rights of investors" must be noted. This kind of laws are laid the foundation for the formation of favorable investment climate.

In addition, there are more that 50 bilateral agreements, as well as a number of multilateral international legal agreements, which are signed by Uzbekistan with different countries in the field of mutual encouragement and protection of the investments.

The practical result of improving the legal framework may be noted in the area of the growth of the GDP of Uzbekistan, which over the past five years has averaged 8 (eight) %, and which is higher than the average growth in CIS. The stable GDP growth within the country is one of the main indicators (factors) of attracting foreign investments and assets.

The analysis of the causes which contributes to the dynamic growth both of the GDP and tax revenues (to the budget) shows, that it depends on the state policies, which are held in the country, and which is aimed to attracting foreign assets to the various spheres of industrial production, primarily by providing the tax incentives.

ANALYSIS

Some British and US experts argue that investments are a highly profitable source of the taxes and ensure of the society maintenance, development of all its spheres, satisfaction of new, more complex and diverse needs of people (Atkinson & Stiglitz, 1995)

The major investments within Uzbekistan are carried out by the foreign legal entities, through the creation of joint ventures or foreign companies, through the acquisition of shares in the Charter Capital of the existing company or through permanent institutions.

Thus, during the years of Independence, investments which have been involved in our economy, are more than $120 billion US dollars, and more than 50 per cent of this investments are direct foreign investments (Minister of the Foreign Economic Relations and Trade of the Republic of Uzbekistan, 2014)
The main part of the assimilated foreign investments are in the oil and gas industry (58.9%), in the area of transport security (8%), in the area of communication and information (6.4%), in the area of energy (5%), in the scope of public service and drinking water consumption (3.2%), in chemical industry (2.8%), light industry (2.7%), in the scope of agriculture and water management (2.7%), in the credit lines made for the development of small businesses (2.5%) and others (Tashkent city, Republic of Uzbekistan). However, for the further implementation of the commercial activity and investments in our country, foreign legal enterprises require an appropriate and favorable guarantee system, which primarily should include a clear regulation of the tax issues and the provision of benefits on taxes and payments.

With respect for this fact, Republic of Uzbekistan is implementing and conducting a work, which is aimed both at improving the system of the legal regulations of taxation of the non-residents of the Republic of Uzbekistan and the creation of the certain privileges and preferences.According to the norms of the Tax Code of the Republic of Uzbekistan about granting privileges, laws, individual decisions of the President and the Government, foreign legal entities are provided with the different kinds of privileges and preferences, which are depending on the ongoing industrial activities, depending on products or modernization aim, technical or technological re-equipment.

Thus, the enterprises which are attracting direct and private foreign investments in the amount of not less than 300 (three hundred) thousand USD, are exempted from the corporate income tax, property tax, tax on improvement and development of the social infrastructure, single tax payments of a micro and small enterprises, as well as mandatory contributions to the Republican Road Fund (Presidential Decree № PD-3594 from 11.04.2005).

At the same time, in accordance with the Article 159 of the Tax Code, with the connection of directed attraction of the foreign investments for modernization, technical and technological re-equipment of the industry, the purchase of the new technological equipment, expansion of the production in the form of new constructions (buildings), reconstruction of the buildings and installations which are used for industrial purposes, the taxable profits reduces. The reduction of the taxable profits is made within 5 (five) years, starting with the tax period in which the abovementioned costs are carried out (implemented). The reduction of the taxable profits for process equipment made from the equipment operation beginning date (from the maintenance and operation date).

Foreign companies which are implementing the works of exploration and prospecting the gas and oil, as well as foreign contractors and subcontractors which are attracted by these foreign companies, for the period of exploration are fully exempted from the all taxes and mandatory contributions to the non-budget funds. The joint-ventures on oil-and-gas recovery which are created with the participation of foreign companies engaged in prospecting and exploration of the oil and gas, are exempted from the taxes for a period of 7 (seven) years, from the beginning of oil-and-gas-recovery(Presidential Decree № PD-2598, 2000).

Also, such kind of exemptions (similar exemptions) are applied with respect to foreign contractors and subcontractors of the "DAEWOO INTERNATIONAL" (Republic of Korea), and "Petronas Corigali Overseas SDN.BHD" (Malaysia) Companies, which are implementing the exploration of hydrocarbons, as well as exploration works in Ustyurt and other regions of Uzbekistan.

During the investment implementation, through the agreement, investors, as well as their contractors and subcontractors are exempted from all kind of taxes, duties and other payments related with the implementation of the exploration works in the areas defined in the agreement, which are established in the Republic of Uzbekistan, and they (investors, contractors, subcontractors) shall pay only those taxes (income

tax, land tax, tax for the usage of water resources, taxes and special payments for the users of mineral resources, except tax of profit excess, unifies social tax and excise tax) and with the rates which are established in the agreement.

In order to create a favorable conditions for the attracting foreign and domestic investments to create a modern high technology industries, which will provide a competitive products production with high added value (premium prices), as well as for integrated and effective use of production and resource potential, for the creation on this basis new job places and increasing the incomes of the population of the Republic of Uzbekistan, Free Industrial Economic Zone (FIEZ) "Navoi" in Navoi region, special industrial zone "Angren" in Tashkent region and special industrial zone "Jizzakh" in Jizzakh regiod (with the branch in Syrdarya) are operating in the Republic of Uzbekistan.

Their terms of operation – is 30 (thirty) years, with the extension possibilities.
The special custom regime, currency regime and tax regimes are set within the "Navoi", "Jizzakh" and "Angren" industrial zones. Moreover, the procedure of entry, stay and departure, as well as permits for non-resident citizens of the Uzbekistan employment if simplified.

According to the established special tax regime, the participants of the "Navoi", "Angren" and "Jizzakh" industrial zones, are exempted from the some taxes for a certain period, based on the introduced amount of investments in accordance with the law. Particularly, the members of the "Navoi" free economic industrial zone are exempted from the land taxes, property taxes, profit tax, tax on development of the social infrastructure, from the mandatory contributions to the Republican Road Fund and Reconstruction Fund, from the contributions for refurbishment and equipping secondary schools, vocational colleges, academic lyceums and medical institutions, as well as from single tax payments (for small businesses) (MFERIT).

The members of the "Jizzakh" and "Angren" free industrial economic zones – are exempt from property taxes, profit taxes, tax on development of the social infrastructure, from the mandatory contributions to the Republican Road Fund and from the single tax payments (for small businesses).
The introduction of the special tax regimes for the members of the "Angren", "Navoi" and "Jizzakh", is aimed on creating of all necessary conditions for effective activity, providing protection of the investment interests.

For applying tax incentives for the foreign companies, who are planning to invest direct and private investments to Uzbekistan, should:

Invest the direct private investments on the amount which is not less than 300 (three hundred) thousand USD in certain sectors of the economy;

Implementation of the foreign private and direct investments by foreign investors without a guarantee of the Republic of Uzbekistan;

The share of the foreign member should not be less than 33 (thirty three) per cent in the Authorized Capital; Foreign investment in the form of freely convertible currency or new equipment;

Direct not less than 50 (fifty) per cent of the income, which is earned as a result of tax privileges during the term of this privileges application, to reinvest for the further development of the enterprise.

Not less than 3 million euro of direct investments is required to invest into the "Navoi" free industrial-economic zone, and not less than 300 (three hundred) thousand USD is required to invest into the "Angren" and "Jizzakh" free special industrial zones.

Also, there are some benefits (privileges) for exporter-enterprises in the Republic of Uzbekistan. These privileges are lowering the income tax rates, property tax rates and single tax payment rate for the small businesses. So, if the export share will be from 15 (fifteen) to 30 (thirty) percent of the total sales – the rates will reduce on 30 percent, if the export share exceeds 30(thirty) percent the rates will reduce on 50(fifty) percent.

For instance, the tax rate on the corporate income for 2015 is 7.5%, if the shares of export will be from 15% to 30 % of the total sales, the rate of the tax will be 5.25%, while if shares of the export will exceeds 30% of the total sales, the rate of the tax will be equal to 3.75%.

For the operating small businesses the single tax rate is 5 (five) percent – respectively it will be 3.5 percent and 2.5 percent.

In order of Tax legislation change, the newly established enterprises with the foreign investments, in which the contribution of the foreign investor in the form of money is not less than 5 million US dollars, have rights to apply the rules and regulations on payment of 7 (seven) main taxes and contributions from existing 15 (fifteen) in the Republic.

In addition, foreign companies can also take advantages of the incentives and preferences, which are established for local businesses by the Tax Code and the decisions of the Government of the Republic of Uzbekistan.

The practice of the certain tax incentives with respect for business entities with the foreign investors requires an application which will be based on the legal structure that excludes conflicting positions and conflicts with the tax authorities. One example of a fuzzy legal regulation is a usage of the incentives concerning with the guarantees against adverse changes in the Tax Laws.

Thus, through the law N320-II of "On amendments and additions to some legislative act of the Republic of Uzbekistan" which was dated with December 7, 2001, (entered into the force on 19.01.2002) some amendments was added into the Tax Code. According to these amendments, the tax payment incentives for enterprises and for disabled workers of this enterprises (total number of which is at least fifty people) was ordered: income tax, value added tax, property tax, land and environmental taxes and the taxes for the water usage. Not all the companies were exempted from this kind of taxes. With the entrance the law N320 – II from 07.12.2001 into force, only companies which are owned by the public associations of disabled persons, "Nuroniy" fund and "Chernobylci Uzbekistana" are exempted from these taxes.

In accordance with the fourth part of the Article 3 of the Law "On guarantees and measures to protect the rights of the foreign investors", if the subsequent legislation of Uzbekistan worse the investment conditions, the legislation which was applied for this investment within 10 (ten) years from the registration date, will be applied, i.e. a foreign investor has the rights to choose and to apply the provisions of a new legislation which improves the conditions of his investments.

On this basis, all enterprises with foreign investments, which are already passed the State Registration before the Law N320 – II of 07.12.2001 entered into the force, and with the a total employing no less than 50 (fifty) percent of persons with disabilities, have the rights to use the incentives that have been provided by the previous legislation, as the residents of the Republic of Uzbekistan. Accordingly, pursuant to the provisions of the Articles 31, 71, 92, 102, 113, 119 of the Tax Code (before the amendments and additions which are made from the Law N320 – II dated 07.12.2001) this category of companies was exempted from the payments to the budget of tax on income, VAT, property taxes, land and environmental taxes and the tax for the water resources usage.

At the same time, there were several cases when tax authorities canceled the usage of such kind of tax incentives for manufacturing enterprises with foreign investments, citing the fact that they were not owned by the public associations of disabled persons, "Nuroniy" fund and "Chernobylci Uzbekistana" Fund. According to the statements of claim, such disputes of enterprises with the foreign investments, have been considered in court(Financial-Economic Newspaper, 2003, 2003).

During the trial, the court first of all was guided by the provisions of the Law N609 - I "On foreign investments" dated on April 30 in 1998. Thus, under the Article 3 of the Law of Foreign investments, all tangible and intangible benefits and the rights to their investing, which are invested by foreign investors to the entrepreneurial activity, which is not prohibited by the legislation, are recognized within the territory of Uzbekistan. According to the second and third paragraph of the Article 5, the law among the forms of foreign investment in Uzbekistan is the participation of foreign investors in the authorized funds and other property of business entities, established jointly with the legal and (or) natural persons of the Republic of Uzbekistan, as well as the creation and development business entities, fully owned by foreign investors.

During recognizing the cancellation of privileges for enterprises with the foreign investments are worsening investment conditions of foreign investors, the judgment is based on the primarily properties of the latter. Since, during the cancellation of the incentives, the net profit of the enterprise is reducing, the profit of the foreign investor from the participation is also reduced. This fact should be identified as deterioration of investment conditions for the foreign founders.

Therefore, the court decided that the enterprises which are invested by foreign investors, and which are registered before the Law N320 – II dated 07.12.2001 entered into the force, i.e. until January 19, 2002, which are employing people with disabilities, as described before, have the full rights to use the given incentives within 10 (ten) years from the date of company registration, and access to the economic court to protection of their rights. The process of cancelling these incentives for the enterprise with foreign investments (because, it is not owned by the public associations of disabled persons, "Nuroniy" Fund and "Chernobylci Uzbekistana" Fund) was recognized as the conditions worsens investment.

The main reason for this illegal collection of taxes, is that the current legislation is not fixed an Article (Article 3 of the Law "On guarantees and measures to protect the rights of the foreign investors") which recognizes the true cancelling of the enterprises with the foreign investments as the circumstances "deteriorating investment conditions" for foreign investors (Law No. 611, 1998).

CONCLUSIONS

In conclusion, it should be noted that there is a great requirement to improve the legal regulation of the foreign investors taxation, in particularly, the issues of the tax incentives, given that the tax regulation is the part of attraction of the foreign investors into the economy of the country. Creating clear and understandable rules of the Law in the field of taxation is an additional guarantee to save and protect the rights of foreign investors.

REFERENCES

Anthony B.Atkinson & Joseph E. Stiglitz, "Lectures on public economics". M-UNITY, 1995. P. 137-176,

Speech by the Minister of the Foreign Economic Relations and Trade of the Republic of Uzbekistan – E. Ganiev, on the VII-th International Investment and Finance Forum in Tashkent, May 19-23, 2014.

Tashkent city, Republic of Uzbekistan. http://saipro.uz/archive/2014/tiiff/smi_29_r.html
Official web-site of the MFERIT/Stats/http://www.mfer.uz/ru/news/statistics/

Presidential Decree No. PD-4116 from 17.06.2009, "On Amendments and Repeal certain decisions of the President of the Republic of Uzbekistan in connection with the ordering the tax incentives"

Decree of the President of the republic of Uzbekistan No. PD-2598 from 28.04.2000, "On measures to attract the direct foreign investments to the oil-and-gas-recovery and exploration"

The Official web-site of the MFERIT of the Republic of Uzbekistan. Incentives (privileges) and preferences. http://www.mfer.uz/ru/investments/privileges-and-preferences/

In the dispute on the applicatio of the tax exemptions on foreign investments" is published in "Tax and Customs News", financial-economic newspaper 47 (487) on November 19, 2003

"In the disute about the usage of the exemptions from the payment of income tax" is published in "Tax and Customs News", financial-economic newspaper 38 (582) on September 19, 2005

The Law No. 611-I of the Republic of Uzbekistan, dated 30.04.1998, "On the guarantees and measures to protect the rights of foreign investors"

THE RELATIONSHIP BETWEEN ENTREPRENURIAL DRIVE AND CHALLENGES AMONG MINORITY ENTREPRENEURS IN THE UNITED STATES

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ABSTRACT

Research shows that minority entrepreneurs experience challenges with growth of their businesses in the United States. The challenges that minority entrepreneurs experience and the impact of growth in their businesses are not clearly defined. Research explores the levels of entrepreneurial drive among entrepreneurs and the effect of growth in their businesses in the United States. Previous studies about entrepreneurial drives does not provide an in-depth analysis about minority entrepreneurs and the influence of business growth in the United States. This paper shows the existing challenges and various levels of entrepreneurial drive among minority entrepreneurs in the United States. It reveals the relationship of existing challenges and various levels of entrepreneurial drive among minority entrepreneurs and the impact of business growth in the United States.

JEL: P230

KEYWORDS: Entrepreneurship, Business, Minorities

INTRODUCTION

Entrepreneurial drives are psychological responses exhibited through internal motivation to fulfill personal needs during the journey of entrepreneurship, despite, race, gender and creed. The psychological focus of entrepreneurship comes from the internal desires and principals of entrepreneurs. Businesses are established based on entrepreneur's values and beliefs from their frame of reference within their professional and personal lives. In many organizations, whether large or small, entrepreneur's values and beliefs are classified as core values, in order to follow and execute in daily activities with peers, vendors, management, and customers. Entrepreneurship is a continuous and evolving process that changes with successes and lessons learned through entrepreneurial drives and practical experience. High levels of entrepreneurial drives that entrepreneurs possess creates desires to fulfill internal motivational factors within their environment. Examples of internal motivational factors include self- actualization and esteem needs. The five entrepreneurial drives include mental cognition, ability to create new ideas, take risks, identify one's abilities through challenges, and possess entrepreneurial vision known as having faith beyond one's current situation into future (Ensley, Carland & Carland, 2000).

In spite of entrepreneurial drives, minority entrepreneurs experience additional concerns, such as socioeconomic issues through the entrepreneurship process. Socioeconomic perspective focuses on external needs within the environment, in order to initiate, and sustain business growth. It has a tremendous impact with the success and growth of minority-owned businesses. Socioeconomic status is the integration of sociological and economic factors that are controlled for power, wealth and resources. The historical perspective of socioeconomic status derives from the need of minorities that were considered as people of color in the United States. The establishment of the United States Constitution excluded Non-Whites, especially Blacks for opportunities to increase financial opportunities through land and employment before 1865. Instead, the content of the United States Constitution identified Blacks as opportunities to increase financial gains, power and wealth. In the late 1800-1900's, immigrants settled and were used for cheaper labor rather than using Blacks for cheaper wages. Since the establishment of the United State Constitution, the competition has been classified as a race between Whites and Non-Whites, in order dominate for control

of money, power and resources. According to Anderson (1995), Whites control the majority of wealth, power and resources compared to Non-Whites.

LITERATURE REVIEW

The psychological perspective of individuals becoming entrepreneurs derive from innate responses to fulfill. Entrepreneurs desire the need to create unique possibilities into execution of products or services for a financial exchange with potential customers (Iyigun & Owen, 1999). Innate responses comes from internal stimuli, such as mental cognition. Cognition are mental processes and thoughts that are exhibited through one's behavior. For example, positive thinking among entrepreneurs are classified as predicting high levels of self-confidence. The levels of confidence enable entrepreneurs to believe the positive perspectives about the purpose of starting their businesses into manifestation, despite the circumstances. In fact, entrepreneurs that possess high levels of confidence believe positive thoughts despite one's ability to make decisions. (Saravathy, Memon and Kuechle, 2011). Additional research supports that entrepreneurs possess in high levels of positive thinking about opportunities and expectations of their business, despite the actual performance or status of the company. The positive thinking is a great attribute, however, it can lead to inaccurate point of view and problems with realistic expectations, financial status and important decisions to implement based on existing circumstances of businesses or decisions to start business. Bergen & Bressler (2011). Also, entrepreneurs seem to possess high levels of confidence that can hinder decision making processes, in order to start and maintain growth of their businesses (Holland and Garrett, 2015).

The high levels of confidence derive from a well-known psychological theory, Vroom's Expectancy Theory that focuses on the quality of input toward the fulfillment of a goal, such as time, hard work and effort that leads to output, such as, growth and success in areas of revenue, quality, customer retention, and expansion of services or products. The foundation of the entrepreneurial drives are contributed to Maslow's Hierarchy of Needs. The model focuses on motivation to fulfill external and internal needs. Initially, one's desires is to fulfill external needs, such as physiological needs, including food, water and air. Once the physiological needs are met, then one is motivated to fulfill the next external need, safety. Examples of safety needs include the ability to maintain a secure environment and maintenance of personal health. When safety needs are met, then an internal need, belongingness is desired to become fulfilled. Examples of belongingness needs include the need to become a part of a group, maintenance of friendships and relationships. When belongingness needs are met, then esteem needs are desired to fulfill. Examples of esteem needs include self-esteem, self-confidence, and respect from others. When esteem needs are met, then self-actualization are desired to fulfill. Examples of self-actualization is the highest level to fulfill. Examples of self-actualization include the ability to understand one's purpose, problem solving and creativity. Maslow's Hierarchy of Needs demonstrates that low levels of needs, such as physiological and safety needs are classified as external needs, because they are needed for survival purposes from the environment. As the lower needs are fulfilled, then a person is motivated to fulfill internal needs, such as esteem and self-actualization (Gordon Rouse, 2004).

Based on Maslow's Hierarchy of Needs, Carland suggests that entrepreneurs with low entrepreneurial drives focus on fulfilling lower level needs, such as physiological and safety needs. Entrepreneurs that possess high entrepreneurial drives focus on fulfilling internal needs, such as esteem and self-actualization, because they have fulfilled the lower level of needs (Carland & Carland, 2000). Additional research supports that successful entrepreneurship leads to internal factors, such as mentally transitioning from employees to employers, consider ventures that solves issues or needs in society, previous experiences, and resources to possess a solid network of resources. Most importantly, they are able to recognize and execute their opportunities to market through entrepreneurship (Singh & Gibbs, 2013). Based on the socioeconomic perspective, the term racism is not used to define one group of people versus another, however, it is process of competing for power, money and the ability to access resources (Anderson, 1995). As time progressed, the Civil Rights and Affirmative Action programs were established to include Non-Whites, especially

Blacks for the perception of equality with employment, financial and educational opportunities that started in 1964. Based on the changes for equality, the jargon was modified to provide politically correct identification of other races, such as Pacific Islanders, Hispanics, African Americans, Asian Americans, Native Americans, as well as the term, Minorities. Women were included as minorities for the perception of equality with employment, financial and educational opportunities, as well. Throughout decades to the present, the race continues for socioeconomic status through domination of power, wealth and use of resources between Caucasians and Minorities (Lottie & Noda, 2003).

Socioeconomic circumstances have motivate people to become entrepreneurs when they are unable to obtain gainful employment, despite the competitive job market. Statistics have shown that unemployment rates and length of unemployment are twice as high for Minorities compared to Caucasians. African Americans compared to any other minority group are more likely to experience increase levels of discrimination and stigmatization in financial, legal and educational sectors (Hirsh & Jack, 2012). As a result, Caucasians are motivated to start businesses based on opportunities of personal pursuit (internal motivation) however, African Americans are motivated to start businesses due to the shortage in the job market (external motivation). Therefore, individuals who are start businesses based on internal motivational factors exceed in longevity and growth in businesses, revenue and human capital compared to individuals who start businesses for external motivational factors (Singh & Gibbs, 2013).

Despite previous research, Minorities, especially African Americans possess higher levels of positive thinking, attitude, and greater desire toward entrepreneurship than non-minority people, however, positive attitudes and excitement about entrepreneurship do not reflect the actual amount of minorities that have started businesses. In fact, minority owned businesses usually abandoned their entrepreneurial venture at a higher rate than non-minority owned businesses. The reasons for abandonment of businesses include a lack of education. Most minorities have a high school diploma and a limited college education. Higher education is a key factor toward entrepreneurship, because individuals are expected to analyze and synthesize information in depth, in order to plan and execute (Singh & Gibbs, 2013).

In the United States, entrepreneurs usually possess positive attitudes about businesses, because the framework of business owners are usually Caucasian males who are classified as Baby Boomers. Minority entrepreneurs, despite their age, are not typically considered the majority to become entrepreneurs. If minority owned businesses exist, then they are classified as small businesses with limited profit, marketability of products and services. As a result, minority entrepreneurs usually experience discrimination from banks and limited experience as business owners. (Schultz & Achtenhagen, 2013). Minorities experience discrimination and receive limited revenue from loans or similar programs that hinders future success (Singh & Gibbs, 2013). Minorities are usually denied business loans, because they have no or low credit scores along with no collateral. Additional issues include a lack of knowledge about desired business industries, operational activities, inability to market, plan and forecast (White, 2010).

Women, especially minority women entrepreneurs usually have challenges with raising children, caring for aging parents while maintaining households, as well as, maintaining the success of their businesses. Occasionally, the family obligations hinders potential growth of businesses and minority women simply prefer to remain small (White, 2010). Disadvantages of minorities, especially with women, have challenges with their businesses based on discrimination, inadequate startup money, limited access of resources and limited business support that leads to business growth (Davison, Fielden, Omar, 2008). Businesses owned by minority women are usually smaller than those in retail related or service industries. The businesses usually generate lower customer and revenue performance due to a smaller network of resources, in order to start, market, and sustain business growth. Women usually focus more non-monetary goals, such as opportunities to balance home, work and autonomy rather than focus on finances and growth of their businesses. Whereas, men usually own large companies that are not in retail and service industries. They have a larger network of resources, in order to start, market, and increase revenue of their businesses. Men

are able to focus on monetary goals, because most of them are not primary caretakers of children, aging parents, and households (Robinson & Stubberud, 2011). Business owners with large firms can focus on more profit, and executing additional markets for future revenue, whereas, smaller firms are content with receiving salaries from their businesses, maintaining operational activities, and job satisfaction from their businesses (Saravathy, Memon and Kuechle, 2011).

METHODOLOGY

There are two (2) surveys that required completion from participants, including the Carland Entrepreneurship Index and the Demographic Survey. The Carland Entrepreneurship Index focuses on 33 questions regarding preferences on internal and external needs. The questions are used to determine levels of entrepreneurial drives among entrepreneurs. A cumulative score of thirty-three (33) is classified as high levels of entrepreneurial drive and a cumulative score of one (1) is classified as low levels of entrepreneurial drive (Carland & Carland, 2000). The Demographic Survey completed by the researcher included questions about ethnicity, age, education and gender. Additional questions included types of industries, annual gross, legal structure and location of businesses. The survey included additional questions, regarding their existing challenges with their businesses and needs for their businesses within the next six (6) and twelve (12) months. The collection of the surveys were completed in traditional and non-traditional settings. Two (2) small minority owned businesses invited other entrepreneurs to attend network events, in order to complete the surveys. The researcher explained the nature of the surveys, provided each participant an informed consent form, and the surveys. Upon completion, the participants placed the surveys in an anonymous box. The non-traditional approach enabled the researcher to send emails to entrepreneurs through social media, such as LinkedIn, Facebook and Twitter. The surveys and informed consent forms were sent to entrepreneurs who expressed an interest in participating in the study. Verbal and written forms of appreciation were provided to entrepreneurs who completed the surveys.

RESULTS AND DISCUSSIONS

Table 1: Carland Entrepreneurship Index
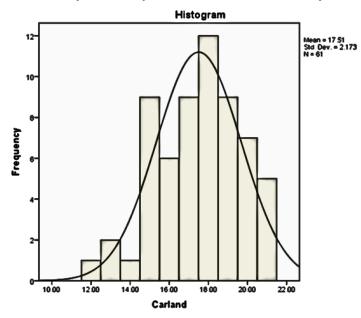
N	Valid	61
	Missing	0
Mean		17.5082
Std. Deviation		2.17273
Minimum		12.00
Maximum		21.00

In table 1, the completed responses of surveys were sixty one (N= 61; Mean 17.5). The standard deviation was (2.17273) that demonstrated that results are significant, despite the sample of the population. The lowest score of entrepreneurship drive among entrepreneurs were twelve (12) and the highest score was twenty-one (21) out of a score of thirty-three (33).

In Table 2, the highest entrepreneurial drive among entrepreneurs was eighteen (18) (12; 19.7%) out of a total score of thirty three (33). Immediately following the highest score of eighteen (18), participants responded equally between the entrepreneurial drives of fifteen (15), seventeen (17) and nineteen (19) with (9; 14.8%). The lowest scores among participants were levels of twelve (12) and fourteen (14) with (1; 1.6%).

Table 2: Frequency Distribution of Entrepreneurial Drives

		Frequency	Percent	Valid	Percent
Valid	12.00	1	1.6	1.6	
	13.00	2	3.3	3.3	
	14.00	1	1.6	1.6	
	15.00	9	14.8	14.8	
	16.00	6	9.8	9.8	
	17.00	9	14.8	14.8	
	18.00	12	19.7	19.7	
	19.00	9	14.8	14.8	
	20.00	7	11.5	11.5	
	21.00	5	8.2	8.2	
	Total	61	100.0	100.0	

Table 3: Graph of Entrepreneurial Drives from Participants

In table 3, the histogram showed that eighteen (18) was the highest level of entrepreneurial drives from participants. The lowest entrepreneurial drives are equally distributed between levels of twelve (12) and fourteen (14) from Carland Entrepreneurship Index.

Table 4: Gender Percentages of Participants

Males	Females
47 %	52%

In table 4, there were fifty-two percent (52%) females and forty seven percent (47%) male entrepreneurs who participated during the study. There were sixty- one (61) participants that completed the Carland Entrepreneurship Index and fifty-three percent (53%) of participants that completed demographic surveys.
Table 5: Ethnicity of Participants

Caucasians	African Americans	Hispanics	Pacific Islanders
28%	66%	6%	0%

The distribution among participants were African American with sixty-six percent (66%), Caucasians with twenty eight percent (28%), Hispanics with six percent (6%) and no Pacific Islanders (0%) (see Table 5).

Table 6: Age of Participants

Under 30 years	31-41 years	41-51 years	51-61 years	62+ years
8%	40%	25%	25%	2%

The largest amount of entrepreneurs ranged between 31-41 years of age and accounted for forty percent (40%) and classified as Generation Y. There was an equal distribution between twenty-five percent (25%) in 41-51 years old as Generation X and twenty five percent (25%) of Baby Boomers from 51-61years (25%). The lowest response of two percent (2%) was among entrepreneurs who were 62 years and older while classified as Baby Boomers, also (see Table 6).

Table 7: Education of Participants

Some College	College Graduate	Completed School	Graduate	High School
13%	51%	21%		15%

In table 7, fifty-one percent (51%) of entrepreneurs were college graduates. Twenty-one percent (21%) entrepreneurs graduated from graduate school. The lowest amount were thirteen percent (13%) of entrepreneurs with a high school diploma.

Table 8: Types of Industries of Entrepreneurs

Service	Technology	Construction	Real Estate
79%	11%	4%	6%

The highest percentage of responses were seventy nine percent (79%) in Service industries that included businesses in Training, Consulting, Cosmetology, Health Care, Retail, Music, Law and Education. The lowest responses from entrepreneurs were in Construction at four percent (4%) (See table 8).

Table 9: Annual Gross Revenue of Businesses

0-50,000	50-100,000	100-150,000	150-200,000	250,000 +
47%	15%	25%	0%	9%

The highest annual gross of businesses ranged between 0-50,000.00 was forty-seven percent (47%), and twenty-five percent (25%) ranged between 100-150,000.00 per year. There were no responses for businesses that earned annual revenue between 150-200,000.00. However, there were nine percent (9%) of businesses that generated over 250,000.00 (see table 9).

Table 10: Number of Employees Employed in Businesses of Entrepreneurs

0-5	6-10	11-16	17-22
83%	8%	6%	3%

Entrepreneurs had eighty three percent (83%) of employees ranging between 0-5 within their businesses. The lowest amount of responses were three percent (3%) with 17-22 employees working in businesses among entrepreneurs (see table 10).

Table 11: Legal Structures of Businesses

Sole Proprietor	Non Profit	S Corporation	Partnership	Llc
40%	6%	4%	2%	47%

In table 11, forty-seven percent (47%) of entrepreneurs have their businesses structured as LLC's and forty percent (40%) of entrepreneurs have their businesses structured as sole proprietors. Two percent (2%) of entrepreneurs have their businesses structured as partnerships.

Table 12: Location of Businesses

New York	New Jersey	Georgia	North Carolina	Connecticut	California
10%	70%	2%	3%	12%	3%

In table 12, most of the responses of entrepreneurs ranged in the Northeast of the United States, such as, seventy percent (70%) in New Jersey, ten percent (10%) in New York and twelve percent (12%) in Connecticut. The lowest responses of entrepreneurs were two percent (2%) in Georgia.

Table 13: Existing Challenges Among Entrepreneurs

Lack of Resources	34%
Issues with Competent Employees	19%
Not enough Customers	36%
Lack of Marketing	30%
Borrowing Money	23%
Technology	28%
Social Media	28%
Government Restrictions	21%
Fear of Success	13%
Training	17%
Money	43%
Education	6%
Management	13%

In table 13, entrepreneurs responded with external needs rather than internal needs as challenges within their businesses. Forty three percent (43%) of entrepreneurs responded with concerns about money as existing challenges within their businesses. Also, thirty percent (36%) of entrepreneurs responded that insufficient amount of customers was a concern, in order to survive, sustain and increase business growth. The lowest challenge reported was education at six percent (6%) among entrepreneurs.

Table 14: Needs from Entrepreneurs in Six (6) Months

Money	**19%**
Resources	30%
Training	9%
Networking	8%
Marketing	9%
Motivation	8%
Support Groups	2%

In table 14, the highest need among entrepreneurs within six (6) months included the need to access resources at thirty percent (30%). The ability to access resources included the knowledge of processes, systems and positions to enhance the status of their businesses. The outcome to effectively use resources

can increase opportunities for additional revenue, grants, marketing, networking and potential partnerships. The lowest response regarding the need of support groups was 2 percent (2%) among entrepreneurs.

Table 15: Needs from Entrepreneurs in Twelve (12) Months

Money	42%
Resources	53%
Training	2%
Networking	40%
Marketing	28%
Motivation	0%
Support Groups	6%

In table 15, the two highest needs among entrepreneurs within twelve (12) months included the need to access resources at fifty three percent (53%). The ability to access resources included the knowledge of processes, systems and positions to enhance the status of their financial and operational activities in their businesses. The lowest response regarding the need of motivation was 0 percent (0%) among entrepreneurs.

CONCLUSION

The study revealed interesting results regarding entrepreneurial drives and challenges of minority owned businesses in the United States. Most entrepreneurs possessed moderate levels of entrepreneurial drive, however, their challenges and needs were not focused on internal motivation, such as esteem and self-actualization. Instead, the challenges focused on external motivational factors, such as, money, lack of resources and not enough customers in each scope of their businesses. The needs among entrepreneurs within six (6) months were external needs, such as money, resources, training and marketing. The needs of entrepreneurs within twelve (12) months were external needs, such as, resources, money and networking. All of their challenges and needs are the foundation to start, maintain and sustain business growth, despite the competitive markets, industries and demographics. Another interesting finding showed that most of the participants were from the Northeast region of the United States. The perceptions and attitude of entrepreneurs from the area, despite race, gender and creed has significance, because the cost of living is similar to the West and higher than the Southeast of the United States.

As far as socioeconomic perspective, the results showed that most of the entrepreneurs generated between 0-50,000.00 that clearly demonstrated money is a significant factor, in order to start and maintain growth through entrepreneurship. Despite individual biases that are exhibited through discrimination and the competitive race for resources and wealth, it is vital as minority entrepreneurs to explore various non-conventional opportunities for funding, in order to start and maintain business growth. For example, peer to peer financing enables entrepreneurs to borrow money online with less than perfect personal credit history. The interest rates of peer to peer financing are less than traditional lenders and the administrative processes are not as challenging compared to traditional lenders. The opportunity of peer to peer financing can improve entrepreneurs' personal credit, as well. Another option for funding, crowdfunding enables entrepreneurs to generate revenue based on various types of startup endeavors and ongoing projects in their businesses. The fundraising goal must be moderate, in order to expect to receive funding from donors. If the fundraising goal is not achieved, then all of the donations are not provided for funding purposes. The third option for funding, micro financing, enables entrepreneurs to borrow fifty thousand dollars (50,000.00) or less and pay it back within a shorter period time. Similar to peer to peer financing, micro financing is easier to secure compared to traditional banks. A fourth option, 401(k) retirement funds, enable entrepreneurs to borrow against their plan without any penalties and taxes. However, entrepreneurs must have a 401(k) plan from their previous jobs (Bruton, Khavul, Siegel & Wright, 2015). A fifth option includes the use of government loans or grants for minority-owned businesses, however, there are several types of criteria in addition to being a minority (Geho & Frakes, 2013).

Additional resources can be obtained by joining associations, such as Minority Business Development Agency, (MBDA) and Minority and Women Business Enterprise (MWBE). Both associations are able to offer assistance, and support with access to capital and resources. The services extend to Women, African Americans, Asian Americans, Hasidic Jews, Hispanic Americans, Native Americans, Pacific Islanders and Veterans. As a result, the creative ways to secure revenue and opportunities to network through minority associations can lead to marketing and access to additional resources for business growth (White, 2010). . Additional revenue and resources can help minority entrepreneurs focus on other areas, such as relationships with employees and customers. Entrepreneurs must invest in professional training themselves, however, it is equally important to provide professional training to employees and contractors, in order to excel professionally and financially. At the same time, entrepreneurs must cultivate positive relationships with employees through incentives to increase revenue, quality with customer service, in order to increase long term customers and employees (Iyigun & Owen, 1999). As a result, the ability to hire competent employees can enable minority entrepreneurs to operate their existing business. Meanwhile, they are able to increase growth with other business opportunities through effective planning. The need to increase and improve business growth creates a balance of positive emotional thinking with realistic goals, planning and projections, in order to experience effective results (Saravathy, Memon and Kuechle, 2011, Bergen & Bressler 2011). Future research is needed to obtain feedback from a larger sample of the population, in order to explore an in-depth analysis of entrepreneurial drives among minority entrepreneurs and their business challenges.

REFERENCES

Anderson, C. (1995, July). Affirmative action promised blacks fairness and justice. *Michigan Chronicle*, *58*(43), 6-8.

Bergen, C.W., & Bressler, M.S. (2011). Too much positive thinking hinders entrepreneur's success. *Journal of Business and Entrepreneurship, 23*(1), 30-34.

Bruton, G., Khavul, S., Siegal, D.& Wright, M. (2015). New financial alternatives in seeding entrepreneurship: microfinance, crowdfunding, and peer-to-peer innovations. *Entrepreneurship Theory and Practice*, *39*(1), 9-26.

Carland, J.W. & Carland, J.C., (2000). New venture creation model. *Journal of Business and Entrepreneurship,* 12(3), 29-39.

Davidson, M.J., Fielden, S.L., & Omar, A. (2010). Black. Asian and minority ethnic female business owners. *International Journal of Entrepreneurial Behavior & Research*, *16*(1), 58-80.

Ensley, M.D., Carland, J.W., & Carland, J.C. (2000). Investigating the existence of the lead entrepreneur. , *38*(4), 59-77.

Geho, P.R., & Frakes, J. (2013). Financing for small business in a sluggish economy versus conflicting impulses of the entrepreneur. , *18*(1), 89-101.

Gordon Rouse, K.A. (2004, November/December). Beyond Maslow's hierarchy of needs what do people strive for?. *Performance Improvement*, *43*(10), 27-31.

Hirsch, N.A., & Jack, A.A. (2012). What we face framing problems in the black community. *DuBois Review*, *9*(1), 133-148.

Holland, D.V., & Garrett, R.P. (2015). Entrepreneur start-up versus persistence decisions: a critical evaluation of expectancy and value. *International Small Business Journal*, *33*(2), 194-215.

Iyigun, M.F., & Owen, A.L. (1999). Entrepreneurs, professionals and growth. *Journal of Economic Growth*, *4*(2), 213-232.

Lottie, A.J., & Clemens Noda, P.A. (2003). The suppression of diversity. *Ethnic Studies Review, 26*(2), 27-50.

Robinson, S., & Stubberud, H.A. (2011). Gender differences in entrepreneurs' perceived problems, profits and plans. *International Journal of Entrepreneurship, 15*(1), 25-42.

Sarasvathy, S., Menon, A., & Kuechle, G. (2013). Failing firms and successful entrepreneurs: serial entrepreneurship as a temporal portfolio. *Small Business Econ*, *40*(1), 417-434.

Schultz, C.P., & Achtenhagen, L. (2013). Discouraging stereotypes? US newspaper coverage of ethnic minority entrepreneurs before the economic downturn. *Journalism*, *14*(8), 1059-1075.

Singh, R.P., & Gibbs, S.R. (2013). Opportunity recognition processes of black entrepreneurs. *Journal of Small Business & Entrepreneurship*, *26*(6), 643-659.

White, R. (2010, February). Challenges encountered by women and minorities in business. *I-manager's Journal on Management*, *4*(3), 65-71.

Wilson, L.A., & Davis, L. (1973, October). Problems of black business. *Journal of Small Business Management*, *11*(1), 1-5.

BIOGRAPHY

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OPTIMIZING THE PERFORMANCE OF THE FRACTAL ADAPTIVE MOVING AVERAGE STRATEGY: THE CASE OF THE EUR/USD

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ABSTRACT

Most technical analysis tools focus traditionally on the simple and exponential moving average technique. This study looks at the performance of an optimized fractal adaptive moving average strategy over different frequency intervals, where the Euro/US Dollar currency pair is analyzed due to the increased correlation between the Euro Index and EUR/USD, and the Dollar Index and EUR/USD over the last year compared to the last 15 years. The optimized strategy is evaluated against a buy-and-hold strategy over the 2000-2015 period, using annualized returns, annualized risk and Sharpe performance measure. Due to the existence of different number of long and short trades in every trading scenario, this paper proposes the use of a new measure called the Sharpe/Total trades ratio which takes into account the number of trades when evaluating the different trading strategies. Findings strongly support the use of the adaptive fractal moving average model over the naïve buy-and-hold strategy where the former yielded higher annualized returns, lower annualized risk, a higher Sharpe value, although it was subject to more trades than the buy-and-hold strategy. The best market timing strategy occurred when using 131 daily fractal data with a Sharpe/Total trades ratio of 0.31%.

JEL: G11, G15, G17

KEYWORDS: Adaptive Fractal Moving Average, Currency Market, Trading Strategy

INTRODUCTION

Most if not all decisions made in financial markets by investors have considered the use of techniques like fundamental analysis and technical analysis, whether the period of investing is for a short time or long period, or whether it is an active or passive trading strategy. For instance, Dimson et *al.* (2002) showed that many global asset classes in the twentieth century produced spectacular gains in wealth for individuals who bought and held those assets for generation-long holding periods, but the assets also went through regular and painful drawdowns like 2008. All of the G-7 countries have experienced at least one period where stocks lost 75% of their value. Conversely, Faber (2013) found that, using an out-sampling testing comparison between a timing model and a buy-and-hold strategy from 2006-2012, the timing strategy beat the buy and hold by over two percentage points per year, with much less volatility and most importantly to many investors, lower drawdowns. Taylor and Allen (2002), after conducting a survey with chief foreign exchange dealers in the UK, found that 90 percent of respondents placed some weight on technical analysis, with a skew towards relying on technical analysis as opposed to fundamental analysis. Similarly, Lui and Mole (1998), after conducting a survey with foreign dealers in Hong Kong, found that technical analysis is considered slightly more useful in forecasting trends than fundamental analysis, but significantly more useful in predicting turning points. More importantly, moving average (MA) and/or other trend-following systems are the most useful technical technique. One of the main reasons such tools are used widely is due to the fact that people adjust less by staying close to their anchors (here being the investment tools they used more frequently) as proposed in Epley and Gilovich (2006), where they confirmed that adjustment to other techniques is indeed an effortful operation.

While existing literature about the success of trend following systems is abundant, Zweig and Goldfischer (1986) and Hayes (2000) provide a good review of pioneer systems like the Dow Theory, which upon which today's Dow Jones Industrial Average is based from. The existence of technical analysis based systems, with particular reference to the moving average, can be traced back to Tintner (1935) and Cowles (1933). Perhaps the most cited long term measurement of trend among technical analysts is the 200 day MA. Spiegel (2013), using a percentage price oscillator approach with 1% up and down variation, testing the long run MA on the Dow Jones Industrial Average (DJIA) over the 1886-2006 period, and found the market timing strategy to outperform a buy-and-hold strategy. Similar results were held for the Nasdaq Composite Index. Overall, the uses of the MA technique resulted in annual excess return of 4% (adjusted for transaction costs) with 25% less volatility, when comparing the market timing and buy and hold strategies. Using a similar approach, Faber (2013) tested the a 10 month MA for the S&P500 market index over the 1901-2012 period and found the market timing strategy to outperform a buy-and-hold of the index in terms of returns, volatility and Sharpe performance measurements. The use of the MA strategy had fewer instances of both large gains and large losses, with correspondingly higher occurrences of small gains and losses. Basically, the technical analysis tool signaled when an investor should be long a riskier asset class (equity) with upside potentials, and when to be out and sitting in cash (lower risk asset class). Alternatively stated, the MA strategy avoids the far left tail of big losses while sacrificing the far right tail of big gains.

A popular use for moving averages is to develop simple trading systems based on moving average crossovers. A trading system using two moving averages would give a buy signal when the shorter (faster) moving average advances above the longer (slower) moving average. A sell signal would be given when the shorter moving average crosses below the longer moving average. The speed of the systems and the number of signals generated will depend on the length of the moving averages. Shorter moving average systems will be faster, generate more signals and be more prone for early entry. However, they will also generate more false signals than systems with longer moving averages. Gurrib (2015) optimized a simple moving average strategy using daily ETF funds data against a simple buy and hold strategy, and find higher absolute returns and risk for the buy-and-hold strategy, particularly during correction waves of the last fifteen years. While the optimized double cross over strategy resulted in a relatively lower risk and returns, the market timing strategy still outperformed the naïve buy-and-hold strategy, with a relatively higher Sharpe performance measure. Although Todea and Zoicas-Ienciu (2011) finds consistent positive returns when using the moving average crossover strategy, the study did not adjust for risk. While Kaufman and Chaikin (1991) find several price-volume crossover patterns to be significant in forecasting stock or commodity prices, Anghel (2013) finds the moving crossover strategy to produce consistent excess returns and lower risk when compared with a buy-and-hold strategy for companies on the Bucharest Stock Exchange.

This paper adds further contribution to the existing literature, by not only testing for the fractal adaptive moving average using a price crossover strategy, but also robust testing its performance over different time intervals, and comparing the results with a naïve buy-and-hold strategy. This paper is the first one to introduce a performance measure which accounts for the number of trades in a strategy due to the fact that different strategy might end up with different number of long and short trades. The aim of this paper is to test the use of an optimized fractal adaptive moving average crossover trading strategy for the Euro/ US dollar currency pair, and whether it outperform the naïve buy-and-hold strategy. The rest of the paper provides some background to the study, lays the framework on the data and research methodology, conducts the analysis, before ending with some conclusive remarks.

DATA AND RESEARCH METHODOLOGY

Data Assumptions:
All entry and exit prices are on the day of the signal at the close.
The frequency of data is set to minute wise, hourly, daily, weekly and monthly.

The effect of discounts due to bulk trading and taxes are ignored.
All orders occur at market prices. Limit and stop order options are not allowed at this stage.

Annualized return and annualized standard deviation of daily returns would be used as measurements of risk and return. The Sharpe ratio would then be used to compare the performance of the fractal based strategy with the buy-and-hold strategy. Due different strategies yielding different number of long and short trades, and the fact that their Sharpe values are compared for selection purposes, this study proposes the use of a new ratio which will allow for better comparisons among the different trading strategies as follows:

$$\text{Sharpe to Total Trades ratio} = \frac{\frac{R_t - r_f}{\sigma_t}}{(\gamma + \delta)} \qquad (1)$$

Where,

R_t = Annualized return
r_f = Risk free rate
σ_t = Annualized risk
γ = Number of long trades
δ = Number of short trades

The Sharpe to Total Trades ratio adjusts for the number of total trades, and does not discriminate between long and short trades since both would usually have the same trading costs. A higher value of the ratio suggests comparatively a better trading strategy when comparing excess return, risk and number of trades. In regards to Assumption 3, Wilcox and Crittenden (2005) argue that trend following systems still work well in the equities market after adjusting for taxes. Further, it is expected in this current paper, that any optimized strategy based on moving averages of shorter durations would result in more trading transactions, creating sufficient losses for the investor to benefit from during taxation times. Further, more transactions would result in more discounts from the trading platforms offered by brokers. Assumption 4 is maintained at this stage to prevent any subjectivity from the trader's beliefs what about are the boundaries of prices that could be entered as limit or stop orders. The time window under analysis is set from 4th January 2000 till the 25th June 2015. FXCM trading station is used to obtain the daily, minute wise, weekly, monthly data.

LITERATURE REVIEW

While the concept of fractured dimensions was emphasized in Mandelbrot (1967) where he initiated the coastline paradox, its applications range from characterizing turbulence (Mandelbrot, 1982), urban growth (Chen, 2011), human physiology (King *et al*, 2009) medicine (Losa, 2006) and more importantly in our case, market trends (Peters, 1991; Mandelbrot, 2004). Mandelbrot (1967) suggests that the smaller the increment of measurement, the longer the measured length becomes such that if one were to measure a stretch of coastline with a yardstick, one would get a shorter result than if the same stretch were measured with a one-foot ruler. This is due to the fact that one would be laying the ruler along a more curvilinear route than that followed by the yardstick. The empirical evidence suggests a rule which that the measured length increases without limit as the measurement scale decreases towards zero.   Essentially, he used Richardson's law that the measured length of various geographic borders was a function of the measurement a scale *G* which is raised to the power of 1-*D*, where *D* is the dimension of the coastline, for instance. Applied in the context of financial market prices, if a stock price series looks smooth, it should have a dimension close to 1, and the more volatile the stock prices, the closer the dimension is to 2. In short, the fractal dimension *D* is a measure of how completely a fractal appears to fill space as one zooms in,

where the fractal is a fragmented shape that can be split into parts, which is at least similar to a reduced size of the original. The fractal dimension provides a statistical index of complexity comparing how detail in a pattern changes with the scale at which it is measured. The feature of self-similarity defines a fractal shape and is well existent in financial markets, where one can easily be misguided by the similarity that exists in price movements across different time frames. Similarly, various finance theories such as the stochastic Wiener process which charts Brownian motion - used in the Black Scholes Option Pricing Model, are backed by the concept of fractals.

Using the concept of fractal dimension, Ehlers (2010) developed a method of identifying the D for stocks, simply by averaging the measured fractal dimension over different scales. The fractal dimension is then adopted into the Fractal Adaptive Moving Average (FRAMA) model. Traditionally, the dimension of a shape is uncovered by covering the shape with a number of similar small objects that are various sizes and comparing how many of each fit across the surface. For instance, if a square is broken into 25 similar sub squares then a magnification factor of 5 is needed to reveal the original shape, such that a square can be broken into N^2 self-similar copies and to reveal the original shape, a magnification factor of N is needed. Similarly, a line segment can be broken down into N self-similar parts and a magnification factor of N will reveal the original shape. Alternatively stated, the dimension of an object is the exponential of the number of self-similar pieces with a magnification factor of N which a shape can be fragmented into. Due to the fact that prices on a stock chart are homogeneously spaced, Ehlers (2010) used the average slope of the price curve as an estimation of the number of self-similar pieces, and is calculated as follows:

$$D = \frac{\log(Hilo_1 + Hilo_2) - \log Hilo_{12}}{\log 2} \tag{2}$$

where,

$Hilo_1 = \frac{max(High,....N) - min(Low,....N)}{\frac{1}{2}N}$ for the 1st half of the period under analysis

$Hilo_2 = \frac{max(High,....N) - min(Low,....N)}{\frac{1}{2}N}$ for the 2nd half of the period under analysis

$Hilo_{12} = \frac{max(High,....N) - min(Low,....N)}{N}$ for the whole the period under analysis

N is the period under analysis and D is the dimension value. The lower the dimension value, the closer the price graph is to a straight line, suggesting strong trend presence. Alternatively, higher values of D suggest more complex fractals which are usually witnessed in volatility geared markets. As part of adding value to the traditional exponential moving average (EMA) method, Ehlers (2010) made use of the dynamic D to adjust the alpha of the EMA such that there is a quicker reaction in a trending market and a conversely slower reaction time to more volatile markets where traditional moving average techniques results usually in lots of whipsawed trades. The FRAMA model is provided as follows:

$$FRAMA_t = FRAMA_{t-1} + \alpha(Close - FRAMA_{t-1}) \tag{3}$$

, where $\alpha = e^{W(D-1)}$. The FRAMA model is similar to the EMA model, except for the fact that α adapts to dynamic, by continuously adapting to changes in the fractal dimensions. It is important to note that Ehlers (2010) set the W value to be -4.6 under the assumptions that the FRAMA moves between a fast moving average of 1 day and a slow moving average of 198 days. The value of $FRAMA_{t-1}$ is set to the closing price initially. The higher the value of D, the slower the EMA (higher N value) and the lower the D, the faster the EMA (lower N value). The lower the D, the closer the stock chart is to a straight line and the stronger the trend. Higher D values tend to support charts operating within channels. Alternatively stated, the smoothing factor, α, which is used like in the EMA series is lower when D is higher and vice versa, meaning that a higher D results in a lower weighting factor of the last price in the EMA series, such that N tends to be large and the EMA resulting in a slow EMA.

Research Findings

The currency index depicts the evolution of a currency relative to the entire forex where the index of the currencies is a simple arithmetic average of the variation in each pair. While a currency pair, say the EUR/USD, is trending when the value of one of the two currencies increases by reference to the other, the most interesting trend is when the Euro (EUR) and the Dollar (USD) are in opposing trends such that the movement of the EUR/USD is the result of the combined variation of the two currencies. An index value of 100 is set at the start of the period under consideration. For consistency purposes, the Japanese yen, British pound and Swiss Francs are used against the US dollar and Euro in the calculation of both the Dollar and Euro Index.   Figure 1 shows the performance of the EUR/USD, the Dollar and Euro indices for the period January 2000- June 2015. While the EUR/USD had a closing value of 1.02469 at the beginning of the period and a value 1.12064 at the end, its value trended upwards to reach a maximum of 1.59918 in April 2008, before generally experiencing lower highs to reach a low value of 1.12064 by the 25th June 2015. Noticeably, the EUR/USD has been falling constantly around May 2014, attributable mostly to a stronger Dollar index, accompanied by a Euro currency dropping in value against other major global currencies. Although not reported here, the correlation coefficient between the EUR/USD and the Dollar Index for the last 15 years, using daily data, was -0.94, compared to a value of 0.88 for the EUR/USD and the Euro Index, showing the dollar had a stronger negative relationship on the currency pair. Those relationships became stronger when looking at the correlation between the three variables for the May 2014- June 2015 period. While the Dollar Index had a strong correlation value of -0.97 against the EUR/USD, the Euro Index had a strong positive correlation value of 0.95 against the EUR/USD. The correlation between the Dollar Index and Euro Index changed from -0.70 for the last 15 years to -0.85 over the last year, suggesting the EUR/USD is more affected by both currencies than before.
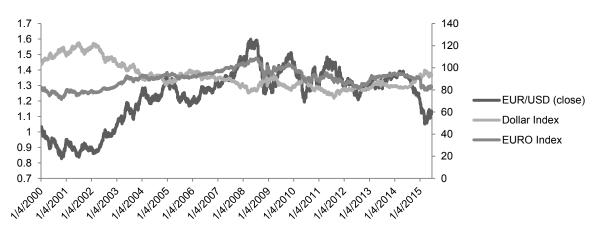
Figure 1: Performance of the EUR/USD, Dollar Index and Euro Index

This figure shows the performance of the Euro/USD, the dollar index and Euro index during 2000-2015.

Due to the coverage of various moving average (MA) techniques in existing literature, and with various studies having mixed findings regarding their superiority among each other, it important to start the analysis by carrying out a simple correlation analysis over different time frames, over different moving averages, with different data ranging from opening, high, low to closing values of the EUR/USD. Gurrib (2015) provides a good overview of the importance of changing the number of periods in the models whereby increasing the number of periods results in the latest data added in the calculation in having a subdued effect on the moving average calculation. This would result in greater smoothing of the moving average data series. A 1 day MA would almost faultlessly reflect the more volatile and everyday currency pair value

while a longer period MA, say 100, would be flatter and indicate a long-run and more stable state. While the number of periods is important, the frequency in the data interval is also critical in determining the behavior of the MA dataset, whether the interval is daily, weekly, monthly or quarterly. Gurrib (2015) found that a daily MA tracks the currency pair values more closely, compared to a higher data interval like the monthly or quarterly series, where the quarterly interval MA series is less prone to the daily fluctuations of the prices resulting in a smoother MA series.

For the purpose of this study, the simple moving average (SMA) and exponential moving average (EMA), which are the most commonly covered moving averages in existing literature, are analysed together with the fractal adaptive moving average (FRAMA). The Open, High, Low, and Close (OHLC) values of the EUR/USD are used over the minute wise, daily, weekly, and monthly frequencies. Lag periods of 10, 100 and 200 are selected to provide an overview of the change in Pearson product-moment correlation coefficient values over different frequency intervals over a set time period. Results suggest an EMA model with a lag period of 10 is superior to the SMA and FRAMA for all the OHLC values. As the frequency interval is increased to monthly, correlation values drop. Importantly, correlations between EMA and OHLC are nearing zero values at higher frequency intervals, and correlations between SMA and OHLC turned negative at higher intervals. For the monthly data, only SMA is calculated from 2009 due to time frame under analysis. As part of the selection process, minute wise data is discarded for later analysis due to high correlation values among all variables.

Further, although open prices have the highest correlations with FRAMA models, closing prices are used to be consistent with the use of the closing price in the FRAMA model. Daily frequency is used henceforth since they reflect less noise in the correlations when the frequency interval changes across different lag periods. As part of the initial process towards a robust trading strategy, the FRAMA model is tested over the three respective lag periods used in the initial part of the study, i.e. 10, 100, 200 days. The annualized return and annualized risk are calculated, followed by the Sharpe performance measure. The risk free rate is based on a 30 year Treasury bond yield at 4.42% p.a. The return over the whole period and the number of short and long trades are also calculated. On any given day, if the value of EUR/USD_t is greater than the value of $FRAMA_t$, and the value of EUR/USD_{t-1} is less than the value of $FRAMA_{t-1}$, a buy (long) trade is initiated. Similarly, if the value of EUR/USD_t is less than the value of $FRAMA_t$, and the value of EUR/USD_{t-1} is greater than the value of $FRAMA_{t-1}$, a sell (short) trade is initiated. If none of these conditions are met, the previous day trading strategy (long or short) is held. Findings are reported in Table 1.

Table 1: Risk and Return For FRAMA Models with Lag Periods of 10, 100 and 200

	Lag Period		
	10	*100*	*200*
Trading days	3922	3922	3922
long trades	299	326	334
short trades	300	326	335
Return over whole period	931.5%	952.2%	977.3%
Annualized return	24.3%	24.5%	24.8%
Annualized risk	11.5%	11.4%	11.4%
Sharpe	1.729	1.760	1.787
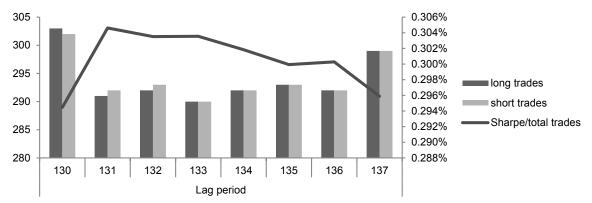
Table 1 shows the risk and return profiles for FRAMA model under different lag periods of 10, 100 and 1000 days.

Findings tend to support that the shorter the lag period under consideration, the lesser the number of trades. However, the annualized return was the highest with the longest lag period of 200 although all of the annualized returns were valued around 24%. Annualized risk was stable under all three scenarios around 11%. With the highest annualized return and stable risk, the Sharpe performance measure was the highest for the longest lag period used among the three. However, due to the small incremental increase in the return for the 200 period case, it is important to investigate further lag period to detect any possible change

in the trend of the return over different lag periods since the use of a longer lag period reduces the availability of data within a specific time frame analysis. This will also shed further light if the number of extra trades can be justified for such an incremental return. Trading strategies with lag intervals of 25, 50, 75, 125, 150 and 175 are also tested to shed further light on any such possible relationship between annualized return and lag period under the FRAMA model.

As the lag period is increased from 10 to 200, the annualized return increases by a small increment of 0.5% overall. The annualized risk still remained stable over the other different lag periods, resulting in a higher Sharpe value when using the longest lag period in the trading strategy. The number of trades tends to increase in a similar fashion as the annualized return, with an additional 70 trades when using the 200 days FRAMA model compared to the 10 days FRAMA model. Noticeably too, the number of trades dropped to 303 long and 302 short trades when using the 125 lag period, accompanied with a Sharpe measure of 1.781 and annualized return of 24.6%. Due to the fall in the annualized risk from 11.4% to 11.3% when comparing lag periods 75,100 and 125, it is interesting to investigate if the drop persists at other lag periods between 125 and 150, while sustaining the relatively high return of 24.6%.

Due to the fact the annualized returns and total number of trades can be two distinct decision making factors, the use of a relative ratio between them allows the comparison which model has a relatively higher annualized return to trade value. In a similar fashion, since the Sharpe measure takes into account both the risk and return factors, the Sharpe to Total Trades ratio as per equation (1) is used to allow for comparison between the model having different Sharpe values relative to the total number of trades. The annualized return/ total trades and Sharpe/total trades ratios reported higher values when using the 135 lag period model. While the Annualized return/ total trades increased from 0.041% to 0.042%, together with an increase in the Sharpe measurement value from 0.297% to 0.3%, it is important to acknowledge a drop in the number of trades on both the long and short sides, when comparing the 130 lag model to the 135 counterpart. As part of robust testing, lag periods between 130-137 are tested in regards to the total number of trades, annualized risk and returns, Annualized return/ total trades and the Sharpe/total trades values. Figure 2 provides a graphical representation of the results.

Figure 2: Optimized FRAMA Model
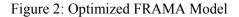
Figure 2 shows the number of long and short trades, and the Sharpe/total trades ratio for the optimized FRAMA model.

Findings tend to support the optimal lag number occurs when using the 131 day FRAMA model, with 291 long and 292 short trades over the January 2000 to June 2015 period. While the annualized return was not the highest among all, the annualized return/ total trades, which factors in the total number of trades, resulted in 0.042%. Similarly, the Sharpe/total trades ratio was the highest at 0.305%. The declining trend in the Sharpe/total trades values as the lag period is increased can be attributed to higher number of trades, accompanied with relatively similar annualized risk and returns. A comparison with a naïve buy and hold

strategy over the 15 year period, would have resulted in an annualized return of 0.84% p.a. and an annualized risk of 12.34%. In both instances, the fractal adaptive based model yielded a higher annualized return of 24.53% and a lower annualized risk 11.32%. Assuming that a naïve buy and hold strategy is based on a long and a short trade, the Sharpe/Total trades ratio would have been -14.5% compared with the optimized FRAMA model yielding 0.305%.

CONCLUSIVE REMARKS

The emergence of behavioral finance can be explained through many facets, including the use of technical analysis techniques such as the moving average. The use of historical representations during the time in which investors make decisions, whether informed or not, whether short run or long run remains valid. This paper adds to the existing literature by demonstrating that a moving average technique based on adaptive fractals can yield superior annualized returns, lower annualized risk, and a relatively higher Sharpe ratio. The paper sets the tone initially by comparing the strength of the relationship between the FRAMA model with open, high, low and closing values of the EUR/USD currency pair, compared with the widely used EMA and SMA model. Minute-wise, daily, weekly and monthly data are tested and the FRAMA model tends to hold a leading hand particularly for the closing EUR/USD values under the daily frequency interval. This paper also introduces the Sharpe to Total Trades ratio which takes into account the fact that different trading strategies are compared while having different number of long and short transactions. The Sharpe to Total Trades ratio extends on the existing Sharpe measure by adjusting it to the number of total trades. The optimized FRAMA model in the study is based on daily data using 131 lags. The annualized return of the market timing strategy yielded 24.53%, an annualized risk of 11.32%, a total number of 583 trades, and a Sharpe/total trades value of 0.305% compared with a buy-and-hold strategy which yielded a negative Sharpe/total trades value of -14.5%. One important area of future research would be to relax the assumption that the fractal adaptive moving average model moves between a fast moving average of 1 day and a slow moving average of 198 days, and as such test other daily boundaries.

REFERENCES

Anghel, D.G. (2013). How reliable is the Moving Average Crossover Rule for an Investor on the Romanian Stock Market? *Review of Finance and Banking*. 5(2), pp. 89-115.

Chen, Y. (2011). Modeling Fractal Structure of City-Size Distributions Using Correlation Functions. *PLoS ONE*, 6(9). doi:10.1371/journal.pone.0024791

Cowles, A. (1933). Can Stock Market Forecasters Forecast? *Econometrica, 1*, pp. 209-324.

Dimson, E., & Marsh, P. (2002). *Triumph of the optimists: 101 years of global investment returns* (pp. 21-320). Princeton, N.J.: Princeton University Press.

Ehlers, J. (2010). Fractal Dimension As a Market Mode Sensor. Technical Analysis of Stocks and Commodities. *Technical Analysis of Stocks and Commodities*.

Epley, N., & Gilovich, T. 2006. The Anchoring-and-Adjustment Heuristic. Why The Adjustments Are Insufficient. *Psychological Science, 17*, pp. 311-318.

Faber, M. 2013. A Quantitative Approach to Tactical Asset Allocation. *The Journal of Wealth Management, 9*(4), pp. 69-79.

Frost, A., & Prechter, R. 1978. *Elliott wave principle: Key to stock market profits* (2nd ed.). Chappaqua N.Y.: New Classics Library.

Gurrib, I. (2015). The Moving Average Crossover Strategy: Does it Work for the S&P500 Market Index? *SSRN Journal SSRN Electronic Journal*, p1-24.

Hayes, T. 2000. *The research driven investor how to use information, data, and analysis for investment success*. New York: McGraw Hill.

Kaufman, S.K. & Chaikin, M. (1991). The Use of Price-Volume Crossover Patterns in Technical Analysis. *MTA Journal*, 37, pp. 35-41.

King, R., George, A., Jeon, T., Hynan, L., Youn, T., Kennedy, D., & Dickerson, B. (2009). Characterization of Atrophic Changes in the Cerebral Cortex Using Fractal Dimensional Analysis. *Brain Imaging and Behavior*, 3(2), 154-166.

Losa, G. (2006). Fractals in Biology and Medicine. *Encyclopedia of Molecular Cell Biology and Molecular Medicine*.

Lui, Y., & Mole, D. (1998). The use of fundamental and technical analyses by foreign exchange dealers: Hong Kong evidence. *Journal of International Money and Finance, 17*(3), pp. 535-545.

Mandelbrot, B. (1967). How Long Is the Coast of Britain? Statistical Self-Similarity and Fractional Dimension. *Science*, 156(3775), 636-638. doi:10.1126/science.156.3775.636

Mandelbrot, B. (1982). The fractal geometry of nature. San Francisco: W.H. Freeman.

Mandelbrot, B., & Hudson, R. (2004). The (mis)behavior of markets: A fractal view of risk, ruin, and reward. New York: Basic Books.

Mulloy, P. (1994). *Smoothing Data with Faster Moving Averages*. Technical Analysis of Stocks & Commodities.

Murphy, J. (1999). *Technical analysis of the financial markets: A comprehensive guide to trading methods and applications* (pp. 15-576). New York: New York Institute of Finance.

Peters, E. (1991). Chaos and order in the capital markets: A new view of cycles, prices, and market volatility. New York: Wiley.

Siegel, J. (2013). *Stocks for the Long Run 5/E: The Definitive Guide to Financial Market Returns & Long-Term Investment Strategies* (pp. 151-448). McGraw-Hill.

Taylor, M., & Allen, H. (1992). The use of technical analysis in the foreign exchange market.*Journal of International Money and Finance, 11*(3), pp. 304-314.

Tintner, G. (1935). *Prices in the trade cycle,* (pp. 23-26). Vienna: J. Springer.

Todea, A. & Zoica¸s-Ienciu, A. (2011). Technical Analysis and Stochastic Properties of Exchange Rate Movements: Empirical Evidence from the Romanian Currency Market. *Romanian Journal of Economic Forecasting*, 14(1), pp. 175-192.

Wilcox, C. & Crittenden, E. (2005). Does Trend-Following Work on Stocks? *The Technical Analyst*, *14*, pp. 1-19.

Zweig, M., & Goldfischer, M. (1986). *Martin Zweig's winning on Wall Street*. New York, NY: Warner Books.

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THE GROWING IMPORTANCE OF INTEGRATED REPORTING FOR CORPORATE SOCIAL RESPONSIBILITY

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ABSTRACT

The recent scandal of Volkswagen AG (VW) has demonstrated one of the weaknesses of Corporate Social Responsibility (CSR)—how much people can trust CSR reporting. At a time when CSR is moving from voluntary initiative to a required component for businesses in many countries, sustainability and the environmental standards of Environmental/Social/Governmental (ESG) CSR have gained importance because there are existing regulations, especially in the emissions area. However, this focus has meant that CSR reporting can lack strategic focus and neglect profit reporting (ESGP). This paper will briefly describe the history of CSR and its movement toward the Environmental focus based on the current Cone, LLC consumer research on CSR. It will then describe the current reporting organizations and the current CSR focus of different companies and the value of adopting integrative reporting. As the number of organizations that act as third-party assessors and that announce awards for being social responsible grows, the fact that there is an Integrated model on the horizon may be the solution to standardizing what is meant by being socially responsible.

JEL: M140

KEYWORDS: Corporate Social Responsibility (Csr), Sustainability, Global Reporting Initiative, Accountability, Third Party Assessors

INTRODUCTION

The recent scandal of Volkswagen AG (VW) has demonstrated one of the weaknesses of Corporate Social Responsibility (CSR)—how much people can trust CSR reporting. VW had just been named as the 2015 Automotive Industry Leader in its Dow Jones Sustainability Index. VW was removed from all the Dow Jones Sustainability Indexes on October 6, 2015, and the removal followed closely the removal of Toshiba Corporation, which has published CSR reports from 2011 through 2014, because of a fraudulent accounting scandal, which is the other area that is regulated and evaluated (S&P Dow Jones Indices, 2015, para 1). At a time when CSR is moving from voluntary initiative to a required component for businesses in many countries, sustainability and the environmental standards of Environmental/Social/Governmental (ESG) CSR have gained importance because there are existing regulations, especially in the emissions area. The fact that the one area that is actually regulated and has inspections could allow a company to falsify its emissions tests for years is disconcerting, especially at a time when research shows that more consumers are using companies' CSR successes as a basis for making buying decisions. However, this focus has meant that CSR reporting can lack strategic focus and neglect including financial reporting. As the number of organizations that act as third-party assessors and that announce awards for being social responsible grows, the fact that there is an Integrated Reporting model on the horizon may be the solution to standardizing what is meant by being socially responsible. CSR International, a non-profit organization founded in 2009, supports the transition from CSR 1.0 (Corporate Social Responsibility or old CSR) to a new CSR, CSR 2.0, Corporate Sustainability & Responsibility. It does not matter the name. If the results that are being touted in annual reports, and the awards being announced, cannot be trusted, the movement is doomed.

Unfortunately, while the ideals behind corporate social responsibility certainly have merit, the overall execution has been deeply flawed. The trend in CSR has been to focus more on goals and aspirations, and less on concrete and tangible results. Companies often highlight what they say they will do in 2020 or 2025, and focus less on what happened last year or in 2015. (Kay, 2015, para. 7)

Purpose of the Paper

This paper will briefly describe the history of CSR and its movement toward the environmental focus based on the current Cone, LLC consumer research on CSR. It will then describe the current reporting organizations and the current CSR focus of different companies and the value of adopting integrative reporting.

What is Corporate Social Responsibility (CSR)?

With his seminal paper, Archie Carroll (1979) created a model for CSR. "The social responsibility of business encompasses the economic, legal, ethical, and discretionary [later referred to as philanthropic] expectations that society has of organizations at a given point in time"' (Carroll, 1979, p. 500). In a 2010 paper Carrol described CSR's path as starting after WWII. He traced its changing focus from the responsibility of business for doing good for society in the 1950s and 1960s, to linking CSR with corporate financial performance (CFP) in the 1970s and 1980s and then to sustainability, or sustainable development in the early 2000s, (Carroll & Shabana, 2010).

Within the world of business, the main "responsibility" for corporations has historically been to make money and increase shareholder value. In other words, corporate financial responsibility has been the sole bottom line driving force. However, in the last decade, a movement defining broader corporate responsibilities–for the environment, for local communities, for working conditions, and for ethical practices–has gathered momentum and taken hold. This new driving force is known as corporate social responsibility (CSR). CSR is oftentimes also described as the corporate "triple bottom line"–the totality of the corporation's financial, social, and environmental performance in conducting its business. (Catalyst Consortium and USAID, 2002, p. 2)

While there is still no universal definition of corporate social responsibility, most references include transparency in business practices that are ethical, legally compliant, and respect people and the environment. The people are the stakeholders of the business, including employees, customers, suppliers, investors, and the community. For global companies this means respecting the culture and community values of the host country. Profit is important because it is the means by which a company can have a positive impact on people and the planet.

The Continued Importance of CSR

The use of the term 'sustainability,' became a focus of CSR reporting in this century. Researchers for the 2010 U.N. Global Compact—Accenture CEO Study surveyed more than seven hundred of its member CEOs, and found that sustainability is increasingly perceived as a necessary part of a business strategy, not just a nice-to-do add-on, and that integrating it into strategy and operations requires a long-term view. According to the study, "96% of CEOs believe that sustainability—environmental, social, and governance—issues should be fully integrated into the strategy and operations of a company (up from 72%) in 2007." More than half of the CEOs said that they would focus on consumers as the stakeholder group to manage expectations. "88% of CEOs believe that they should be integrating sustainability through their supply chain" (Lacy, Cooper, Hayward, & Neuberger, 2010, p. 13). The 2015 Cone Communications/Ebiquity Global CSR Study surveyed "9,709 consumers in nine of the largest countries in the world by GDP, including the United States, Canada, Brazil, the United Kingdom, Germany, France,

China, India and Japan." CSR was defined as "companies changing their business practices and giving their support to help address the social and environmental issues the world faces today" (Cone LLC, 2015a, p.

The Major Finding Was That

global consumers have officially embraced corporate social responsibility – not only as a universal expectation for companies but as a personal responsibility in their own lives. Consumers see their own power to make an impact in so many ways: the products they buy, the places they work and the sacrifices they are willing to make to address social and environmental issues. (Cone LLC, 2015a, p. 4) There were ten findings that are important for companies. One was that half of the global consumers need proof before they believe a company is socially responsible, and they pay attention to companies that are doing more than is required. Global consumers also pay attention to companies who are identified for poor CSR performance. There is an increase in those who believe that good CSR performance is making an impact on society.

Consumers are willing to make personal sacrifices for the greater good. They are even willing to compromise quality, pay more or reduce how much they buy if it will have a positive impact on social or environmental issues. But companies shouldn't take this as a signal to cut corners; rather, this is an opportunity to engage consumers more fully in new CSR solutions, collaborating to push the boundaries of responsible consumption and lifestyle. (Cone LLC, 2015a, p. 3)

However, even though consumers pay attention to CSR, they do not always act on the information. This may explain a recent report in *The Economist* that said almost all soaps and detergents are environmentally friendly because the Environmental Protection Agency (EPA) and environmental groups forced the industry to take harmful ingredients out of their formulas. The EPA now awards grades to the chemicals with labels that consumers can see. "Grey-square ingredients disqualify products from gaining the EPA's Safer Choice label;" thus, most products could qualify for environmental eco-labels but the companies do not bother because "they see consumers as being more interested in cost and how well they work." (Green Wash, 2015, para. 6). Method, Seventh Generation, and The Honest Company are the only companies that market their products as green. This may also be because the consumers know that the EPA has cleaned up the cleaning supplies so they come to expect this as a norm. If the company is forced to do it, it does not count as CSR they will support.

When it comes to purchasing with a cause in mind, consumers say they consistently seek out responsible products, but they are not necessarily following through with action. Companies can help consumers close this gap by not only giving them more opportunities to act, but also through translating how their purchases can create individual impact. (Cone LLC, 2015a, p. 3)

Other findings were around social media, and the fact that 75% of global consumers say they do not read CSR reports but they still pay attention to the data from the reports as it is reported on Websites and through social media. Thus, companies must promote their CSR results in various channels to ensure consumers can find the information and act on it.

Consumers view their role in creating social and environmental change as extending well beyond the cash register. Companies can serve as a catalyst for sparking donations, volunteerism and advocacy by giving consumers a spectrum of ways to get involved. Partnering with consumers in this way can serve as both a reputation and bottom-line builder. (Cone LLC, 2015a, p. 4)

Cone's 2010 study found that more than three-fourths of consumers expect companies to support CSR in addition to making a profit and to communicate their CSR results. Like global consumers, "Americans say when a company supports social or environmental issues, they have a more positive image (91%), more

trust (87%) and more loyalty (87%) toward that business" (Cone LLC., 2010, p. 34) In its 2015 survey of millennials (age 18-34) in the United States, Cone found that "more than nine-in-10 Millennials would switch brands to one associated with a cause (91% vs. 85% U.S. average) and two-thirds use social media to engage around CSR (66% vs. 53% U.S. average) (Cone LLC, 2015b, p. 1). They will pay more for a product with a social benefit that the U.S. average and take a pay cut to work for a responsible company. Although the research found differences among younger millennials vs. older ones, and females vs. males, the results supported the earlier research that CSR is important to the American consumer. Today's global consumers hold companies accountable for producing and communicating results. This makes the actions by Volkswagen and Toshiba very damaging because consumers will now not trust what they read in annual reports, and they may not trust what organizations that announce winners of CSR/Sustainability Awards now either. It is important that there be more focus on accuracy and truth telling. Evan Harvey, Director of Corporate Responsibility for Nasdaq, said the stock exchanges care about the ESG performance of public companies because their value is in providing other stakeholders key performance results in all areas, including environmental, social, and governance data that help them make decisions. This requires transparency in how the results are measured and verified.

Imagine a world where the reporting expectations for public companies are essentially uniform. Every business is tracking and disclosing the same metrics in the same ways, using the same framework. The data has been assured or verified in some ways. It's a world where the common language of corporate performance includes ESG just as readily as it does EBITDA and EPS. Then investors can truly make apples-to-apples comparisons. This could encourage longer holding periods and even cross-market participation. Companies built on bad strategy or short-term value will be exposed. The engagement between investors, regulators, and issuers would be much more substantive and meaningful. The range of indexes and other financial products would dramatically increase, because the niche data possibilities (and evaluative criteria) also increase. In short, you have markets with more transparency, more choice and more inclusion. (Skroupa, C., 2015, para. 4)

REPORTING

CSR reporting has been voluntary throughout much of its history. However, that is changing. The 2013 sustainability report, *Carrots and Sticks*, third edition, compiled by the United Nationals Environmental Programme (UNEP), the Global Reporting Initiative (GRI), KPMG, and The Center for Corporate Governance in Africa covers forty-five countries (the first edition covered in 2006 covered only nineteen). "This includes a notable increase in the number of mandatory reporting measures. In 2006, 58 percent of policies were mandatory; now, more than two-thirds (72 percent) of the 180 policies in the 45 reviewed countries are mandatory" (Governance & Accountability Institute, 2014, p. 8).

Global Reporting Initiative (GRI)

The Global Reporting Initiative (GRI) is becoming the gold standard for global companies both for reporting CSR and sustainability initiatives and for third party assessment of those initiatives. "GRI is an international not-for-profit organization, with a network-based structure. Its activity involves thousands of professionals and organizations from many sectors, constituencies, and regions" (Global Reporting Initiative, 2015, para. 6). It has developed its reporting framework in collaboration with stakeholders from business, government, labor, and professional groups in order to ensure credibility and relevance. GRI's vision is "A sustainable global economy where organizations manage their economic, environmental, social and governance performance and impacts responsibly, and report transparently" and its mission is "To make sustainability reporting standard practice by providing guidance and support to organizations. Its Sustainability Reporting Framework provides metrics and methods for measuring and "reporting sustainability-related impacts and performance" (Global Reporting Initiative, 2015, para. 4) that enables all organizations to measure and report their sustainability performance.

Its Guidelines establish the principles and performance indicators that organizations can use to measure and report their economic, environmental, and social performance in six categories: Economic, Environment, Social, Human Rights, Society, and Product Responsibility. GRI classifies reports as Application Level A, B or C, depending on the particular set of Guidelines' disclosures and the number of indicators used by the reporting organization. Application levels are not a grade evaluating the quality of the report, but only represent the extent to which the Guidelines have been used in an organization's report by identifying the set and how many disclosures have been addressed. The "+" behind the declared Application Level signifies that external assurance was sought for the report.

GRI's Sustainability Reporting Standards are foundational to this success. With thousands of reporters in over 90 countries, GRI provides the world's most widely used standards on sustainability reporting and disclosure, enabling businesses, governments, civil society and citizens to make better decisions based on information that matters. Of the world's largest 250 corporations, 93% report on their sustainability performance and 82% of these use GRI's Standards to do so. (KPMG International, 2013, p. 1)

It has just adopted its G4 Reporting Framework, which will have more granularization for specific industries and types of initiatives as well as allow small organizations to participate. Its new G-4 Guidelines have a focus on materiality:

A robust sustainability report is far more than a mere data gathering or compliance exercise. It makes abstract issues tangible and concrete, helping organizations to set goals, measure performance, and manage change. These are matters directly related to an organization's core business strategy. Materiality is the threshold at which the sustainability subjects covered by the Guidelines – known as 'Aspects' – become sufficiently important that they should be reported. G4-based reports should cover Aspects that reflect the organization's significant economic, environmental and social impacts; or substantively influence the assessments and decisions of stakeholders. (Global Reporting Initiative, 2015a, p. 3)

Governance & Accountability Institute, Inc. recently published *Sustainability – What Matters?* on its research examining GRI G3 and G3.1 sustainability reports published in 2012. The research looked at organizations that utilized the Global Reporting Initiative (GRI) Framework to identify level of disclosure on all 84 key performance indicator disclosures. "The objective of this report is to serve as a starting point for discussion and planning around sector-specific materiality — as seen through the lens of these 1,246 reporting organizations as well as the lens of their respective stakeholders" Governance & Accountability, 2014, p. 1) the report listed the ranking of each GRI category, Society, Human Rights, Economic, Labor Practices and Decent Work, Environment, and Product Responsibility for each sector, and then identified the top ten aspects of the categories for each sector. The top ten categories for all sectors: Diversity & Equal Opportunity, Economic Performance, Energy, Training & Education, Child Labor, Compliance, Non-discrimination, Labor/Management Relations, Prevention of Forced & Compulsory Labor, Corruption. The list below identifies only the top three for each sector:

Agriculture: Child Labor, Prevention of Forced & Compulsory Labor, Biodiversity

Automotive: Products & Services, Overall (environmental), Customer Health & Safety

Aviation: Customer Health & Safety, Local Communities, Assessment

Chemicals: Assessment, Overall (environmental), Water

Commercial Services: Customer Privacy, Anti-Competitive Behavior, Training & Education

Computers: Transport, Assessment, Products & Services

Conglomerates: Child Labor, Water, Compliance

Construction: Anti-Competitive Behavior, Non-discrimination, Corruption

Construction Materials: Materials, Freedom of Association & Collective Bargaining, Transport

Consumer Durables: Investment & Procurement Practices, Indigenous Rights, Products & Services

Energy: Overall (environmental), Biodiversity, Security Practices

Energy Utilities: Compliance, Anti-competitive Behavior, Labor/Management Relations

Equipment: Customer Health & Safety, Indigenous Rights, Energy

Financial Services: Customer Privacy, Materials, Marketing Communications

Food and Beverage Products: Customer Health & Safety, Marketing Communications, Products & Services

Forest and Paper Products: Materials, Biodiversity, Labor/Management Relations

Healthcare Products: Customer Health & Safety, Products & Services, Water

Healthcare Services: Diversity & Equal Opportunity, Marketing Communications, Non-discrimination

Household and Personal Products: Public Policy, Customer Health & Safety, Investment & Procurement Practices

Logistics: Labor/Management Relations, Economic Performance, Energy

Media: Materials, Equal Remuneration for Women & Men, Local Communities

Metals Products: Materials, Overall (environmental), Water

Mining: Biodiversity, Water, Market Presence

Public Agency: Overall (environmental), Market Presence, Equal Remuneration for Women & Men

Railroad: Local Communities, Remediation, Freedom of Association & Collective Bargaining

Real Estate: Employment, Non-discrimination, Diversity & Equal Opportunity

Retailers: Transport, Customer Health & Safety, Assessment

Technology Hardware: Prevention of Forced & Compulsory Labor, Child Labor, Products & Services

Telecommunications: Customer Privacy, Marketing Communications, Indirect Economic Impacts

Textiles and Apparel: Transport, Prevention of Forced & Compulsory Labor, Child Labor

Tobacco: Marketing Communications, Water, Materials

Travel and Tourism: Customer Privacy, Security Practices, Non-discrimination

Universities: Equal Remuneration for Women & Men, Customer Privacy, Materials

Waste Management: Materials, Overall (environmental), Transport

Water Utilities: Water, Customer Privacy, Assessment

It is notable that many of the top ten are not identified in the top three; in fact, consumer health and safety are listed in seven segments for top three, materials are listed in five and assessment in is listed in four. This would indicate a value for integrated reporting that could allow all companies in all sectors to have standards that meet their needs. According to Michael Meehan, GRI's CEO, GRI "envisions a future beyond reports, where information from sustainability reporting empowers decision making throughout organizations" (Global Reporting Initiative, 2015b, para. 3). This would seem to help GRI achieve some of its goals in its new five-year plan through 2020:

"Enabling smart policy" to support sustainability reporting and disclosure around the world. Continuing to grow its global community of reporters and "better reporting." "Moving beyond reporting" by helping companies extract more value from the sustainability reporting process. Leveraging technology and big data "to enable others to succeed based on its standards." (Macower, 2015, para 4).

Other Reporting Organizations and Standards

The difficulties can be seen in the number of organizations that have developed guidelines for measuring CSR and Sustainability such as International Integrated Reporting Council (IIRC), United Nations Global Compact (UNGC), and OECD Guidelines for Multinational Enterprises. "The MSCI KLD 400 Social Index is a capitalization weighted index of 400 US securities that provides exposure to companies with outstanding Environmental, Social and Governance (ESG) ratings and excludes companies whose products have negative social or environmental impacts" (MSCI, 2015, para. 1) AccountAbility (2014) has developed accountability tools and standards that help companies develop sustainably. Additionally, there are other guidelines specific to industries or topic like ISO 26000, Carbon Disclosure Project (CDP), Greenhous Gas Protocol (GHG), Protocol Corporate Standard, Principles for Responsible Investment (PRI) Framework, Extractive Industries Transparency Initiative (EITI), International Labour Organization (ILO), Tripartite declaration of principles concentrating multinational enterprises and social policy, Core Labour Standers (CLS), and UN Guiding Principles on Business and Human Rights.

The 2015 edition of The Conference Board Sustainability Practices Dashboard is a collaboration of The Conference Board, Bloomberg, and the Global Reporting Initiative that "is a database and online benchmarking tool that captures the most recent disclosure of environmental and social practices of business corporations" that "captures data on 79 environmental and social practices of business corporations in the S&P Global 1200 and segments results by market index, geography, sector, and revenue group." It features data on two new practices: "the number of companies adopting executive compensation policies inclusive of long-term incentives of environmental, social and governance performance as well as the number of companies disclosing the presence of child labor policies." It found that reporting continues to rise especially from large multinationals, many of whom are required to issue reports. (Environmental Disclosure, Benchmarking Tool Online, 2015) Then there are forums and networks that promote CSR and standards. The International Business Leaders Forum (IBLF Global, 2014) promotes responsible business leadership and partnerships for social, economic, and environmentally sustainable international development, especially in emerging markets. The Caux Round Table (2014), a network of business leaders, developed principles through which "principled capitalism can flourish and sustainable socially responsible prosperity can become the foundation for a fair, free, and transparent global society" (para. 2).

There are also organizations that rank CRS/Sustainability/ESG such as Newsweek's Greenest Companies, CRO's 100 Best Corporate Citizens, Ethisphere's World's Most Ethical Companies, Dow Jones Sustainability World and North America Indexes®, and NASDAQ OMX CRD Global Sustainability Index, CRD Analytics' SPV Ratings®, and Carbon Disclosure Project score. Reports studying CSR and Sustainability are published by Governance & Accountability Institute, Inc., the United Nations Global Compact/Accenture, and CONE Communications. Business Roundtable's 2015 *Create, Grow, Sustain: Leading by Example* has narratives from 148 CEOs about their CSR achievements. Some of the companies covered are: 3M, Accenture, Anadarko Petroleum, AT&T, Bayer, BlackRock, Boeing, Caterpillar, Chevron, Cisco Corning, CVS Health, Deere & Co, DIRECTTV, Dow Chemical, Edison Internationally, FedEx, GE, General Mills, Humana, Humana, IBM, Johnson & Johnson, JPMorgan Chase & Co, Lockheed Martin, MasterCard, Motorola, Northrop Grumman, Oracle, PepsiCo, Pfizer, Pitney Bowes, Proctor & Gamble, SAS, Seimens AG, State Farm Insurance, Tenet, Texas International, UPS, Wyndham, Whirlpool Walmart, Xerox, The previous paragraphs make it clear that an integrated reporting platform with third-party assessment is needed if CSR reporting is to meet the needs of consumers. In August 2010, HRH the Prince of Wales, together with the International Federation of Accountants and the Global Reporting Initiative, launched the International Integrated Reporting Council (IIRC). Integrated Reporting is a tool to communicate strategy holistically.

The project was intended to establish integrated reporting–covering the non-financial capital aspects of a business as well as the usual financials–within mainstream business practice with the aim of aligning capital allocation and corporate behaviour to the wider goals of financial stability and sustainable development through the integrated reporting cycle. (Izza, 2015, para. 1)

In June, 2014, the IIRC launched the Corporate Reporting Dialogue (CRD), a platform to coordinate and align corporate reporting, that will "promote greater coherence, consistency and comparability between corporate reporting frameworks, standards and related requirements, leading to improved efficiency and effectiveness" (para. 2). The organizations participating in the CRD are Carb CDP, Climate Disclosure Standards Board, Financial Accounting Standards Board, Global Reporting Initiative, International Accounting Standards Board, IIRC, International Public Sector Accounting Standards Board, International Organization for Standardization and Sustainability Accounting Standards Board. As sustainability becomes more central to the business, companies should align internally on what they stand for and what actions they want to take on these issues, whether it's economic development or changing business practices. Whatever approach companies take, they should develop a strategy with no more than five clear, well-defined priorities—one of the key factors for successful sustainability programs. (McKinsey & Co. 2014, p. 10) These priorities could be part of an integrated report, rather than being priorities that are lost in a sea of other standards. It would also encourage all companies to report their CSR and sustainability priorities and progress so that stakeholders could compare goals and achievements by country and sectors. Forbes writer Enrique Dans (2015) said that the reason Volkswagen got into trouble is reporting.

The problem with CSR pretty much comes down to this: we are asking companies to self-regulate. . . . The Volkswagen case shows in stark contrast that we must reinvent CSR. The people who head these departments must be made responsible for their companies' actions, even if that means going to jail. . . . The Volkswagen crisis highlights the failings of capitalism, of a system that has closed its eyes to the reality of the future, and a clearly unsustainable future. (p. 7)

CONCLUSION

An integrative reporting platform with third-party assessors will at least allow regulators and consumers to have a format that is understandable across all industries that can be compared. It will make it easier to allow regulators to check veracity so that companies do not self-regulate. Growing support for the business case among academic and practitioners is evident. Generally, the business case for CSR is being made by documenting and illustrating that CSR has a positive economic impact on firm financial performance. The broad view of the business case, however, brings attention to the details of the relationship between CSR and firm financial performance. Mediating variables and situational contingencies affect the impact of CSR on firm financial performance. Therefore, the impact of CSR on firm financial performance is not always favorable. Rather, firms should understand the circumstances of the different CSR activities and pursue those activities that demonstrate a convergence between the firm's economic objectives and the social objectives of society. Only when firms are able to pursue CSR activities with the support of their stakeholders can there be a market for virtue and a business case for CSR. (Carroll & Shabana, 2010, p. 102)

REFERENCES

AccountAbility. (2014). Standards. Retrieved from http://www.accountability.org/standards/ index.html

Carroll, A. (1979). A three-dimensional conceptual model of corporate social performance. Academy of Management Review. 4(4) pp. 497-505.

Carroll, A. (1987). In search of the moral manager. Business Horizons. 30(2), p. 7.

Carroll, A., & Shabana, K. (2010). The business case for corporate social responsibility. International Journal of Management Reviews. 12(1), pp. 85-105.

Catalyst Consortium and USAID. (2002). What is corporate social responsibility? Retrieved from http://www.rhcatalyst.org/site/DocServer/CSRQ_A.pdf?docID=103

Caux Round Table. (2014). About Caux round table. Retrieved from http://www.cauxroundtable.org/ index.cfm?&menuid=2

Cone LLC. (2010). 2010 Cone cause evolution study. Retrieved from http://www.conecomm.com/stuff/ contentmgr/files/0/6bc819050a7914fc99b99c205493d8bc/files/2010_cone_cause_evolution_study_report .pdf

Cone LLC. (2015a). Global CSR study. Retrieved from http://www.conecomm.com/stuff/contentmgr/files /0/2482ff6f22fe4753488d3fe37e948e3d/files/global_pdf_2015.pdf

Cone LLC. (2015b). New Cone research confirms millennials as American's most ardent CSR supporters, but marked differences revealed among this diverse generation. Retrieved from http://www.conecomm.com/new-cone-communications-research-confirms-millennials-as-americas-most-ardent-csr-supporters

Dans, E. (2015). Volkswagen and the failure of corporate social responsibility. Forbes. Retrieved fromhttp://www.forbes.com/sites/enriquedans/2015/09/27/volkswagen-and-the-failure-of-corporate-social-responsibility/

Environmental disclosure, benchmarking tool online. (2015). Environment & Energy Management News. Retrieved from http://www.environmentalleader.com/ 2014/06/17/iirc-launches-corporate-reporting-dialogue/

Global Reporting Initiative. (2011). GRI application levels. Retrieved from http://www.globalreporting. org/NR/rdonlyres/D48897B8-210D-4B7C-8FCA-85E480816854/0/G31ApplicationLevels.pdf

Global Reporting Initiative. (2014). What is GRI? Retrieved from https://www.globalreporting.org/ information/about-gri/what-is-GRI/Pages/default.aspx

Global Reporting Initiative. (2015a). An introduction to G-4. Retrieved from https://www.globalreporting. org/resourcelibrary/GRI-An-introduction-to-G4.pdf

Global Reporting Initiative. (2015b) GRI unveils new strategy to empower sustainable decision making. Retrieved from https://www.globalreporting.org/information/news-and-press-center/Pages/GRI-unveils-new-strategy-to-empower-sustainable-decision-making.aspx

Governance & Accountability, Inc. (2014). Sustainability-what matters? Retrieved from http://www.ga-institute.com/sustainability-what-matters.html

Governance & Accountability Institute. (2014). G&A Institute contributes to carrots & sticks III. Retrieved from http://www.ga-institute.com/research-reports/ga-institute-contributes-to-carrots-sticks-iii-2013-edition.html

Green Wash. (2015). The Economist. Retrieved from http://www.economist.com/news/business/ 21667944-most-soaps-are-eco-friendly-these-days-only-some-advertise-fact-green-wash

IBLF Global. (2015). Promoting responsible business through collective action. Retrieved from http://www.iblfglobal.org/home

Izza, M. (2015). IR and improving corporate reporting. Retrieved from http://economia.icaew.com/ opinion/september-2015/ir-and-improving-corporate-reporting#sthash.CjHiUiyv.XVfAMtjo.dpuf

Kaye, L. (2015). VW scandal exposes what has gone awry with CSR. Triple Pundit People, Planet, *Profit.* Retrieved from http://www.triplepundit.com/2015/09/vw-scandal-exposes-what-is-has-gone-awry-with-csr/

KPMG International. (2013). *The KPMG survey of corporate responsibility reporting.* Retrieved from https://www.kpmg.com/Global/en/IssuesAndInsights/ArticlesPublications/ corporate-responsibility/Documents/corporate-responsibility-reporting-survey-2013-exec-summary.pdf

Lacy, P., Cooper, T. Hayward R., & Neuberger, L. (2010), A new era of sustainability: CEO Reflections on progress to date, challenges ahead and the impact of the journey toward sustainable economy. *United Nations Global Compact-Accenture Sustainability Services* Retrieved from http://www.accenture.com/ SiteCollectionDocuments/ PDF/Accenture_A_New_Era_of_Sustainability_CEO_Study.pdf

Macower, J. (2015, June 9). Two Steps Forward: Inside GRI's new 'beyond reporting' strategy. *GreenBiz*. Retrieved from http://www.greenbiz.com/article/inside-gris-new-beyond-reporting-strategy

McKinsey & Company. (2014). *Sustainability's strategic worth.* Retrieved from http://www.mckinsey. com/insights/sustainability/sustainabilitys_strategic_worth_mckinsey_global_survey_results

MSCI. (2015). *MSCI KLD 400 social index (USD)*. Retrieved from https://www.msci.com/resources/factsheets/index_fact_sheet/msci-kld-400-social-index.pdf

S&P Dow Jones Indices. (2015). *Volkswagen AG to be removed from the Dow Jones Sustainability Indices*. Retrieved from http://www.sustainability-indices.com/images/150929-statement-vw-exclusion_vdef.pdf

Skroupa, C., (2015). Nasdaq cares about performance--financial and social. *Forbes*. Retrieved from http://www.forbes.com/sites/christopherskroupa/2015/04/10/nasdaq-cares-about-performance-financial-and-social/

BIOGRAPHIES

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"Evaluating CSR Accomplishments of Founding Certified B Corps" and "Social Purpose in a Social Media World*"* were published in *Journal of Global Responsibility* in 2015. "Asking What Else? to Identify Unintended Negative Consequences" will be published in *Business Horizons* in 2016.

THE IMPLEMENTATION OF CONJOINT ANALYSIS TO MEASURE THE ATTRIBUTES OF XCARET PARK

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ABSTRACT

Today tourism businesses offer a variety of products and services where consumers have a wide range to choose from, therefore there is a concern of the entrepreneurs when identifying which products or services are most preferred. Xcaret Park has a variety of recreational activities; however it is necessary to know which itineraries of these activities are predilections for the consumer, in order to determine the best service strategies. The objective of this research is to know what is the itinerary that consumers (residents of Cancun and Playa del Carmen) prefer of the Xcaret park, through a quantitative study using the technique of conjoint analysis, which measures the relative value of every attribute of a product or service, and determines the perfect combination of the attributes of choice for consumers, thus determined may establish competitive strategies of services.

JEL: M, M3, M31

KEYWORD: Strategic, Service, Tourist, Preference, Conjoint Analysis

INTRODUCTION

One of Cancun's attractions is the eco archeological Park Xcaret, which offers shows, gastronomy and a diversity of flora and fauna. Xcaret is located beside the sea, in the Riviera Maya near to Cancun it has attractions for all types of clients, it is entirely a family park distinguished by the conservation of the Mexican culture (Xcaret,2015). Xcaret offers a wide variety of services, making it necessary to ask ¿which is the best set of products or service to choose? To be able to create more competitive and accurate strategies, the objective of this investigation is to know which products or services consumers (residents from Cancun and Playa del Carmen) prefer from the Xcaret Park. The study is organized in the following way, for a better understanding if the investigation: In first instance the relevant literary review is done in which the basic aspects related to tourism, products and services are studied; in second instance the methodology applied is described in which conjoint analysis were used; in third instance the results obtained in which the most representative attributes are described from the analysis; and in forth instance the conclusions or the future investigations.

LITERARY REVIEW

Tourism has a great potential in Mexico due to the fact that it has generous weather that allows it to receive travelers all year round, with a well-known worldwide gastronomical diversity. Destinies with sun and beach are known internationally due to the fact that they are included in the UNESCO Worldwide Heritage List (BANCOMEXT, 2013). The diversity of touristic products and services in this sector allow the consumer to have a wider diversity of choice at the moment of making a decision. Products are anything that can be offered to a market for their attention, acquisition, use or consumption and that could satisfy a wish or need, including physical objects, services, people, places, organizations and ideas (Kotler y Armstrong, 2003). Services are economical activities that are offered from one party to another, which generally use performance based on the time taken to achieve the results wished on the own receptors, in objects and other goods that the buyers are responsible for; in exchange for their money, time and effort.

Clients wish to obtain value by accessing goods, professional abilities, premises, networks and systems; even though generally they do not acquire the property of any of the physical elements involved (Lovelock, 2004). For Walker, Boyd, Mullins y Larréche (2002), services are the activities or benefits that a party can offer to another, essentially intangible. Before any type of marketing can affect consumers, due to the growing supply of goods and services, these have to be exposed to it. Exposure refers to the process through which a consumer comes across physically with stimuli. Marketing stimulus are messages or information about the attributes of the product, service or brand that help at the moment of choosing. Exposure is crucial to influence in the consumer's thoughts and feelings (Hoyer y Maclnnis, 2010). Consumers preferences, are those who transfer tastes and the possibilities of election between several options, due to this it is fundamental that organizations stablish strategies to capture the consumer's attention to push the decision of buying, based on the knowledge of taste of the consumers to be able to achieve efficient strategies.

METODOLOGY

The research was done using a questionnaire with 17 questions from which six of them were in an ordinal scale, scale in which numbers are assign to objects to indicate the relative extension that a characteristics has, due to this it is possible to determine if a product has more or less the same characteristic as another (Malhotra, 2008) and 11 had an interval scale, that is a form of scale that activates not only the assignment properties and order of scale, but also the length property. All the answers from the scale have a known absolute difference between of each of the other points (Hair, Bush, and Ortinau, 2004). The sample was not probable, technique of sampling that does not use random selective procedure, but is based on the personal judgement of the investigator, in this case 309 people were questioned from which 235 are Cancun residents and 73 Playa del Carmen residents. The questionnaire was applied by students from scientific summers (Dolphin Program and The Mexican Science Academy) every interview took approximately five minutes and was made from the 10th to the 27th of July 2015.

RESULTS

From the results obtained 76.3% from the residents were from Cancun, and a 23.7% were from Playa del Carmen. From which 50.6% were women and 49.4% were men. The average age of the participants was 29 years, the minimum age was 15 years and the maximum was 64 years. From the total of participants 83.4% have visited the Xcaret park, meanwhile the 16.6% has not visited the park. From the 83.4% that has visited the park, the 43.8% has visited it only once a year, the 26.3% has visited it twice and the 13.3% has visited it more than three times in a year. The joint analysis was carried out in two different stages, the first consisted on an octagonal matrix, that is a sub group of all the possible combinations that still allows the stimulation of the partial values for all the principal effects. The final number of all the remaining profiles from all the possible combinations of levels raises a lot to allow the participants to be able to classify o grade all of them in a way that it has a meaning like it is shown on Table 1.

The second part consisted on interviewing the 309 residents about the profiles given from the octagonal matrix where the results with higher values of utility show more preference, meaning that residents prefer to make water activities (.166), taste international food (.193) and watch the fauna (.063). The joint analysis also showed important values, relative measure of each denominated factor or importance points. Values are measured using the utility range for each factor separated and dividing it with the sum of the utility ranges of all the factors. For which, the values show percentages and have the property of adding up 100, like it is shown on Table 2.

Tabla 1: Octagonal Matrix Profiles

Octagonal Matrix Profiles
Attend artistic and cultural activities - Taste international Food - Enjoy the Flora
Attend artistic and cultural activities - Taste international Food - Enjoy the Flora
Attend artistic and cultural activities –taste food in the snack – Enjoy the Flora
Attend artistic and cultural activities – taste food in the snack – Enjoy the Fauna
Attend artistic and cultural activities – Taste Mexican regional food – Enjoy the Flora
Take part in water activities- Taste international Food - Enjoy the Fauna
Take part in water activities - Taste international Food - Enjoy the Flora
Take part in water activities – taste food in the snack – Enjoy the Flora
Take part in water activities – taste food in the snack – Enjoy the Fauna
Take part in water activities – Taste Mexican regional food – Enjoy the Flora
Take part in water activities – Taste Mexican regional food – Enjoy the Fauna

This table shows the eleven octagonal matrix obtained through the Statistical Package for the Social Sciences (SPSS). The interview consisted on the interviewed putting in order from the 1to 11 the profiles marked on the table, one being the highest preference and 11 the lowest preference.

Table 2: Importance Values

Attributes	Importance Value
Activities (water, cultural, atistic)	26.896
Restaurants	49.488
Natural Attractions	23.616

Important mean from a determined factor relevant to global preference, values are calculated for each value separately and dividing it by the sum of the ranges of utility of all the factors, and have the property of adding 100, these results show that restaurants have a high value of importance (49.488).

CONCLUSION

The park is one of the main attractions of the State of Quintana Roo, in which several diverse activities for adventure and green tourism can be done, like water activities, artistic, cultural and ecological activities, etc. In which to be able to determine the variables from the study these activities were considered, where eleven types of profiles that the consumer can choose outstood, which were obtained from the octagonal matrix. Something important about the analysis is that the 80% of the people interviewed have visited the park, what gives a more solid opinion about the different profile of services offered by Xcaret. The obtained results show that the clients prefer the following aspects: a) water activities, it is the main aspect of the park and the study shows that 26% feel attracted in taking part on these activities; b) Restaurants, specially international food that the food establishments offer and beverages the park offers, this point is a decisive one do the client acquires the service, this inference is backed up with the results obtained where it can be seen that 49% of the participants chose it as a main aspect; and c) Natural attractions, essentially related to the fauna, from this aspect we can deduct that it is important for the client due to the fact that there is a constant worry from their part to look after and preserve nature (taking into consideration that the participants are residents). Knowing the ideal combination of attributes marketing placement or product or service placement can be done, which it will encourage the organization to evaluate how to increase those qualified attributes with a greater percentage to keep and exceed the client's expectation.

REFERENCES

BANCOMEXT (2013). *Turismo motor de crecimiento económico*. Recuperado de http:// www.bancomext.gob.mx/Bancomext/getDownload?id=1772

Hair,J., Bush, R., y Ortinau, D. (2004). *Investigación de Mercados*. México: Mc Graw Hill

Hoyer, W. y MacInnis, D. (2010). *Comportamiento del Consumidor*. Madrid: Cengage Learning Editors.C.

Kotler,P. y Armstrong, G. (2003). *Fundamentos de Marketing*. México. Prentice Hall.

Lovelock, J. (2004). *Administración de Servicios*. México: Perason.

Malhotra, N. (2008). *Investigación de Mercados*. México: Prentice Hall

Xcaret. (2015). Acerca de Xcaret. Recuperado en www. xcaret.com.mx.

Walker, J., Boyd, J., Mullins, J. y Larréché, J. (2002). *Marketing Estratégico*. México: McGraw Hill.

FACTORS AFFECTING ADOPTION OF DIGITAL BUSINESS: A QUALITATIVE STUDY OF SMES IN GREATER WESTERN SYDNEY (GWS) AUSTRALIA

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ABSTRACT

Small and medium-size enterprises (SMEs) are a significant part of the Australian economy. Understanding how SMEs can effectively adopt digital strategies to facilitate their growth will have positive implications for the national economy. Research has found that SMEs with a high level of digital engagement are more profitable, survive longer and grow larger (Deloitte Access Economics, 2013). However, a recent research survey shows only 16% of Australian SMEs with a high level of digital engagement and the vast majority of SMEs are not fully engaging with digital strategies (Deloitte Access Economics, 2013). Small businesses are at risk of missing opportunities that the digital economy opens up. While there are considerable studies on small business going online in the research literature, few studies have focused on the adoption of digital business in Greater Western Sydney (GWS). This paper attempts to address this lack by examining the level of digital engagement in SMEs in GWS using a qualitative approach. This research analyses and identifies factors affecting adoption of digital business in SMEs. The findings of this research suggest that the current state of local digital businesses in GWS can be best viewed as little more than using emails or providing basic information and services online. The factors affecting digital business adoption include lack of understanding of relevance of digital business to their organisations, absence of digital strategies, lack of skills and perceived cost and risk of change. Most local small businesses in GWS appear to be slow to advance their efforts to engage in the digital economy. This research recommends that SMEs in GWS need a proactive approach to developing effective digital strategies.

JEL: O32

KEYWORDS: SME, Digital Business

INTRODUCTION

Small and medium-size enterprises (SMEs) are a significant part of the Australian economy as they make up the majority of Australian businesses. In Australia the Commonwealth Scientific and Industrial Research Organisation (CSIRO) defines the SMEs business category by the number of full-time employees. This definition includes: micro enterprise have 1-4 employees, small enterprises have 5-19 employees, and medium enterprises have 20-200 employees (CSIRO 2008). As of 2014 there are over 2 million active SMEs with a contribution of about 48% to national economy. SMEs play a vital role in the Australian economy because they are employing 70% of the Australian workforce and remain the key players in making the Australian economy more competitive in the global marketplace (Kapurubandara, Hol & Ginige 2010). Understanding how SMEs can effectively adopt digital strategies to facilitate their growth will have positive implications for the national economy. Research has found that SMEs with a high level of digital engagement are more profitable, survive longer and grow larger (Deloitte Access Economics, 2013). However, a recent research survey shows only 16% of Australian SMEs with a high level of digital engagement and the vast majority of SMEs are not fully engaging with digital strategies (Deloitte Access Economics, 2013). Small businesses are at risk of missing opportunities that the digital economy opens up. While there are considerable studies on small business going online in the research literature, few studies have focused on the adoption of digital business in Greater Western Sydney (GWS). This paper aims to

address this lack by analysing and identifying the factors affecting adoption of digital business in SMEs in GWS using a qualitative approach. For the purpose of this research, digital business is defined as the use of digital technologies to enable major business improvements such as enhancing customer experience, streamlining operations or creating new business models (Chaffey, 2015). Digital business is an opportunity that no organisation regardless of size should ignore. It is crucially important for small businesses to understand the potential and impact of advanced digital business as digitally engaged businesses are more likely to grow and remain competitive in the future.

LITERATURE REVIEW

There have been a number of studies concerned with SMEs digital business adoption (Rosli & Noor Azizi 2009; Damaskopoulos & Evgeniou 2003; Drew 2003; Pearson & Grandon 2005; Jeona, Han & Lee 2006; Molla, Heeks & Balcells 2006; Al-Qirim 2006; Johnston & Wright 2004; Saffu, Walker & Hinson 2008). These studies showed how different factors affect digital adoption amongst SMEs in different settings. Grandon & Pearson (2004a) found that the commitment of top management, the level of IT knowledge they have, and their attitude to innovation greatly influenced the adoption of e-commerce. In a study of Korean SMEs by Jeona, Han & Lee (2006), they suggested that the CEO's knowledge of IT/e-business and positive attitudes toward innovation were one of the major determining factors of digital business adoption.

Al-Qirim (2006) indicates that business size and the necessary capital and resources appear to limit SMEs' ability to adopt digital technologies while Johnston & Wright (2004) argue that smaller size allow SMEs to be more flexible to change. Molla, Heeks & Balcells (2006) suggest that SMEs are more ready to make internal changes to processes and structures that are needed to deliver the benefits of e-commerce. The studies by Grandon & Pearson (2004b) on the adoption factors of US SMEs and Sutanonpaiboon & Pearson (2006) on e-commerce adoption of Thailand SMEs show that SMEs that are ready to adopt do have the necessary financial and technological resources to support the implementation of e-commerce.

Johnston & Wright (2004) in a study of the e-business capability of SMEs in various countries found that customer pressures are one of the most significant drivers. The reason for this is because SMEs were forced to adopt e-business in order for their system to become compatible with that of their customers. In another study by Drew (2003) of e-commerce adoption by SMEs in England, the key factors identified were customers demanding to deal on the internet, pressures from suppliers, and the need to keep up with existing competitors. However the results of this study contrast that of Ching & Ellis (2004). Ching & Ellis (2004) surveyed 84 SMEs in Hong Kong and found that pressure from customers motivated Hong Kong SMEs to adopt e-commerce, but pressure from suppliers and competitor rivalry had little impact on the adoption decision.

A study of 100 Ghana SMEs by Saffu, Walker & Hinson (2008) suggested that e-commerce adoption was higher when the business practices are compatible with the infrastructure of e-commerce.   On the other hand, Maguire, Koh & Magrys (2007) in a study of e-business adoption in SMEs, found that the lack of skilled personnel was a major barrier for the low level of e-commerce adoption in the business sectors researched. Other barriers to SMEs digital business adoption include security and privacy concerns, cost of digital business implementation and lack of digital strategy and relevant resources and skilled staff to implement digital business (MacGregor & Vrazalic 2008, Maguire, Koh & Magrys 2007).

 METHODOLOGY

This research is based on a study of four small businesses employing people between 6 and 25 in GWS. To identify the factors affecting digital business adoption in SMEs in GWS, a qualitative case study approach is employed in this research. Drawing on a publicly available database of the SMEs located in GWS, businesses were initially approached with an invitation to participate in the study. The four businesses were

selected due to its size, geographic location and their willingness to participate in the study. For this qualitative study, data was collected through face-to-face interviews of business owners or managers and unstructured observation. The topics discussed at the interview included drivers and barriers to digital business adoption and business strategy to adopt digital technology or overcome their barriers. In-depth semi- structured interviewing of 4 business owners or managers was carried out in 2014. The semi-structured interviews lasting about 50 minutes each session were digitally recorded and transcribed. Semi-structured interviewing is a fairly flexible structure that allows some probing to be done. The researcher can ask additional follow up questions for further explanation and clarification. Semi-structured interviews increases the comparability of the data collected due to the use of a semi-structured interview guide, which helps show relationships and common reoccurring themes between the answers (Flick 2002). In addition to semi- structured interviews, unstructured observations were used to gather additional data on participant behaviour and the workplace environment in which they operate concerning the usage of digital technologies. A research diary or field notes were used to carry out unstructured observations.

The data from the interviews and the field notes were analyzed and interpreted using categorizing, coding, and contextualization techniques to look for patterns and themes both within and across the businesses. The research presents its data analysis through a combination of the literature and themes emerging from the in-depth interviews and the unstructured observation during the interviews.

RESULTS AND DISCUSSIONS

This research reveals that adoption of digital business is rather limited in the participating organisations. The level of digital business adoption can be best viewed as using emails or providing basic information and services online according to the managers or business owners interviewed. During the interviews different aspects were often mentioned by the interviewees as having a significant impact on their ability to adopt digital business. Based on the analysis of the data, the aspects perceived as important include perceived costs and risk and benefits. Business adoption tends to be driven by benefits and restricted by perceived cost and risk of change (Chaffey, 2015). The managers or business owners interviewed were uncertain about the financial returns from investments in digital systems. This uncertainty was exacerbated by a lack of cost and benefits analysis on their investment and reasonable knowledge about digital system setup and running costs. Lack of understanding of relevance of digital business to their organisations has been identified as a major barrier by the managers interviewed. Their limited understanding of the business implications of digital business and digital business models make them reluctant to take further actions. Therefore, they often take a 'Wait and See' approach in digital business adoption for their organisations.

Security, privacy and legal issues were commonly perceived barriers. The perception of these risks resulted in limited adoption of digital business in these companies. Lack of skilled staff and confidence in digital business adoption has also become a major issue for these companies interviewed. The current low level of digital engagement further highlights these concerns. The four business owners and managers interviewed reported that their business has yet to adopt strategic use of digital technologies to enhance business processes. It appeared that they were unaware that competitive advantages came not from technology but from how it is integrated into business processes and practices. Digital business adoption is clearly a strategic business issue rather than a technical issue. As observed by Porter 15 years ago, 'the key question is not whether to deploy Internet technology – companies have no choice if they want to stay competitive – but how to deploy it.' (Porter 2001). It is noted that this view still remains relevant today to many SMEs for adopting digital business. It is important for SMEs to take a strategic approach to be ready for the digital future.

CONCLUSION

SMEs are a major and important part of the Australian economy in terms of making contribution to Gross Domestic Product (GDP) and employment. However, SMEs have been slow in the uptake of digital business despite its benefits, due to various barriers. The findings of this research suggest that the current state of digital businesses adoption in SMEs in GWS can be best viewed as little more than using emails or providing basic information and services online. The factors affecting digital business adoption identified from this research include lack of understanding of benefits to their business, absence of digital strategy to bring transformative change to business, lack of skills and perceived cost and risk of change. These results are consistent with the factors identified in the previous studies presented in the literature review section. The research findings indicate that the local small businesses in GWS appear to be slow to advance their efforts to engage in the digital economy. This research recommends that SMEs in GWS need to take a proactive approach to developing effective digital strategies as companies that do not have a coherent digital business strategy with clearly defined objectives are less likely to engage more efficiently with suppliers and expand and better serve their customer base in a fast changing digital environment.

REFERENCES

Al-Qirim, N. (2006), 'Personas of e-commerce adoption in small businesses in New Zealand', Journal of Electronic Commerce in Organizations, vol. 4, no. 3, pp. 18-45.

Chaffey, D 2015, Digital business and e-commerce management: strategy, implementation and practice, 6th edn, Financial Times Prentice Hall, Harlow

Ching, H.L. & Ellis, P. (2004), 'Marketing in cyberspace: what factors drive e-commerce adoption?', Journal of Marketing Management, vol. 20, pp. 409-429.

CSIRO (2008), CSIRO's small and medium enterprise engagement centre, viewed 28 December 2010, <http://www.csiro.au/solutions/SMEEngagement.html>.

Damaskopoulos, P. & Evgeniou, T. (2003), 'Adoption of new economy practices by SMEs in eastern Europe', European Management Journal, vol. 21, no. 2, pp. 133-145.

Deloitte Access Economics (2003), "Connected Small Businesses: how Australian small businesses are growing in the digital economy".

Drew, S. (2003), 'Strategic uses of e-commerce by SMEs in the east of England', European Management Journal, vol. 21, no. 1, pp. 79–88.

Flick, U. (2002), An introduction to qualitative research, 2nd edn, SAGE Publications Ltd, London.
Grandon, E.E. & Pearson, M.J. (2004a), 'E-commerce adoption: perceptions of managers/owners of small and medium sized firms in Chile', Communications of AIS, vol. 13, pp. 81-102.

Grandon, E.E. & Pearson, M.J. (2004b), 'Electronic commerce adoption: an empirical study of small and medium US businesses', Information & Management, vol. 42, pp. 197-216.

Jeona, B.N., Han, K.S. & Lee, M.J. (2006), 'Determining factors for the adoption of e-business: the case of SMEs in Korea', Applied Economics, vol. 38, no. 16, pp. 1905-1916.

Johnston, D.A. & Wright, L. (2004), 'The e-business capability of small and medium sized firms in international supply chains', Information Systems & e-Business Management, vol. 2, pp. 223-240.

Kapurubandara, M., Hol, A. & Ginige, A. (2010), 'SMES in developed and developing countries treading similar paths towards etransformation', The international joint conference on e-business and telecommunications 2010, pp. 26-28, viewed 24 December 2010, Australasian Digital Thesis database.

MacGregor, R.C. & Vrazalic, L. (2008), 'A profile of Australian regional SME non-adopters of e-commerce', Small Enterprise Research, vol. 16, no. 1, pp. 27-46.

Maguire, S., Koh, S.C.L. & Magrys, A. (2007), 'The adoption of e-business and knowledge management in SMEs', Benchmarking: An International Journal, vol. 14, no. 1, pp. 37-58.

Molla, A., Heeks, R., & Balcells, I. (2006), 'Adding clicks to bricks: a case study of e-commerce adoption by a catalan small retailer', European Journal of Information Systems, vol. 15, pp. 424-438.
Pearson, M.J. & Grandon, E.E. (2005), 'An empirical study of factors that influence e-commerce adoption/non-adoption in small and medium sized businesses', Journal of Internet Commerce, vol. 4, no. 4, pp. 1-21.

Porter, M. (2001) Strategy and the Internet, Harvard Business Review, March 2001, 62–78
Rosli, M. & Noor Azizi, I. (2009), 'Electronic commerce adoption in SME: the trend of prior studies', Journal of Internet Banking & Commerce, vol. 14, no. 2, pp. 1-16.

Saffu, K., Walker, J.H. & Hinson, R. (2008), 'Strategic value and electronic commerce adoption among small and medium-sized enterprises in a transitional economy', Journal of Business & Industrial Marketing, vol. 23, no. 6, pp. 395-404.

Sutanonpaiboon, J. & Pearson, M.A. (2006), 'E-commerce adoption: perceptions of managers/owners of small- and medium-sized enterprises (SMEs) in Thailand', Journal of Internet Commerce, vol. 5, no. 3, pp. 53-82.

ABILITY AND NECESSARY OF FOOD DESIGN THAT NEEDS KNOWLEDGE FOR ADDING MORE VALUE OF RESTAURANT IN BANGKOK

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ABSTRACT

This Research aims to study the ability and need of food styling skills of restaurant owners who need knowledge to add more value to Thai dishes in Thailand Tourist destinations. The objectives of this research are to study and analyze the abilities and food styling skills of the restaurant owners to be able to add more value on dishes. It also aims to investigate the different patterns and the ways to increase food styling knowledge and ability. The findings restaurant had on the capabilities and needs the skills and knowledge to design and decorate dishes to add value to the pool design plate. Forms and ways to enhance their knowledge and skills for the decoration of dishes to add value to the food dish Thailand. The study found that Respondents to learn more about the customer. In order to understand their needs and can bring development shop. There also needs to participate in a creative workshop designed to increase revenue. This research suggests that the future research should consider on consumers' attitude towards food styling that can add more money value on the Thai Food or not. The consumer is willing to either pay more for the beauty of the food, or not. Also, what are the most important factors when considering on eating? The results of the future research will benefit the restaurant business owners to be able to understand and satisfy the consumer's needs.

KEYWORD: Food Design, Thai Dishes, and Thai Restaurant

JEL: A10, A30

INTRODUCTION

Thai food serves as the national dish of Thailand, which has a long history, unique, different from other people. It is also a well-known and acceptable from foreigners. The key components of Thai food are mainly vegetables, herbs, spices and meat. A foreigner in a healthy diet, tasty and inexpensive, knew Thailand. The world's largest travel web site name Lonely Planet has conducted a survey on the topic "if you could travel to any city in the world purely for the food, where would you go?" the survey found Bangkok is one of the great people that tourists want to go for foods (Andy, 2011). The researchers assumed the worth of meals problem in Thailand that cost is not very high compared to the benefits and nutrients received. Thus there is a need to think of ways to add value to the Thai national cuisine. Research conducts to Entrepreneurial education restaurant with the capacity and needs of skills and knowledge in interior design to add value to the pool design plate on the tourist attraction in Thailand. The information and guidance of food business operators should improve to add value their products. There also is a professional approach to the newly emerging countries. Professional designers Food (Food stylist) to enable people to this group recognizes the importance of design and higher value from the dishes themselves, decoration and also as a guide for the college student or are studying in class of B.A. had the opportunity to learn the cuisine and decor, food is increasing. The group of people, who are interested in food, has introduced the concept and the data acquired is useful and can increase the value of Thailand's national dishes, too. Hawkins et al. (1998) divided ideas in the four types as below

Actual self-concept is what we are today.
Ideal self-concept is the people we would like to be.

Private self-concept is that we want to be.
Social self-concept is that we will be seen as someone else or how we want others to see.

Although Assael (1998) describes the concept of the self that depends primarily two reasons: the desire to give us achieves a permanent (Self - consistency) by trying to behave in line with the concept of self. It is the same old clothes, diesel cars and spent quietly at home. Another is the desire to increase their own prestige (Self - esteem) as a reaction by their own ideals (Ideal Self), which will enhance their dignity by pulling himself closer to his ideal self. Costa Magoulas (2009) study of color affect the decision to buy the food (How color affects food choices) that colors have a great influence on the industry. Employees need to understand how food preparation, presentation, and collaboration between colors and flavors to impress visually to customers since the first sighting. Therefore, understanding consumer behavior is influenced by the style of life. You should study the various factors that affect those behaviors. These factors are external motivation and intrinsic motivation. The factors that are external motivation in the sense that it is the social and demographic factors, cultural subcultures demographic reference group, family and study the internal motivation and awareness, learning, memory, motivation, personality, emotional attitudes to come to an understanding of consumer behavior more.

METHODOLOGY

The samples in this research were restaurant owners in Bangkok. Questionnaires were used as a tool to conduct a survey in which 200 people had responded to the questionnaires. The instrument used to collect descriptive study was a questionnaire (Questionnaire) with closed-type questions. The project is divided into five parts, namely the question. The first is the demographic characteristics of respondents, including gender, age, marital status, monthly income during the opening the restaurant features seats with a choice question (Check list). The second is about the general behavior of the service to consumers. It is a choice question (Check list). The three is about the ability and skills to design and decorate dishes. It is a choice question (Check list). The fourth is on the review of the decorative plates for patterns and ways to enhance their knowledge and skills for the decoration of dishes. It is a question of rating scales with five levels (Rating scale) according to the Linker's scale. The five is open-ended questions (Open- ended Questionnaire) by giving respondents the opportunity to comment on the capabilities and needs of the knowledge and skills to design and decorate dishes. To add value to the pool plate Thailand. The problems and suggest ways to improve and fix it. The data was analyzed as percentage, mean and standard deviation using the SPSS program.

RESULTS AND DISCUSSIONS

The results from the 200 responders were: 1) Most of the responders were female, age 21-24 years of age, single, Bachelor degree holder, monthly income between 10,001 - 15,000 Baht, working in regional and traditional restaurant type, open between morning until evening, had $10-20$ seats, working as business owner with 1-5 years of working experience. 2) The general service behavior in convenience was 4.31 on average; in coordination were 4.32 on average; in courtesy were 4.35 on average; in information were 4.42 on average; in service quality were 4.37 on average; in cost were 4.01 on average. 3) The food styling ability was 4.16 on average and the food styling skill was 3.86 on average. 4) The food styling in price was 4.00 on average; in patterns were 3.90 on average; in the ways of increasing food styling knowledge and abilities were 3.85 on average. 5) Responders' opinions on Food styling abilities and skills were the price of the decorating ingredients shouldn't be high and should be able to eat with the meal; the most important parts of food business is focusing on food cleanliness and food taste; increasing the food price causes the limit of target groups which is the high income people can only spend the money on expensive food; food styling should be a universal style which can apply to any types of foods. Food styling techniques can be learned from the Food Advertising pictures.   Responders would like to attend the Food styling class and cooking class.

Table 3.1 Shows the Mean ($\overline{X}$) and Standard Deviation (S.D.) of the Decorative Plate on Price

Decorative Plate On Price	Levels	
	$\overline{X}$	S.D
1. The dish is decorated beautifully to add value to food	4.17	.846
2. Do you think your customers will not complain, if your diet is beautiful? Look appetizing even though prices are higher than ever.	4.04	.840
3. Do you think customers like the taste of the food rather than the beauty of food?	4.10	.835
4. Do you think you can raise the price of food, as you want whenever you want?	3.79	1.050
5. If you believe would increase food prices. You can use the beautifully decorated restaurant. Instead of increasing the amount of meat, vegetables, rice and more.	3.85	.949
6. Food can make look beautiful with increased sales.	3.98	.849
7. The decorative plate increases the burden on you, and you cannot raise the price of food.	3.95	.968
8. Customers want cheap food and ignore the beauty of food.	4.09	.945
Average	4.00	0.910

Table 3.1 found that decorated the dish price. Overall in the study When they are considered sorted by average of descending found to have an average height are the one who said, "Decorative plates beautifully add value to food" (X = 4.17, SD = .846), followed by Article 3, " customers like the taste of the food rather than the beauty of food" (X = 4.10, SD = .835) and the lowest average including the four that. "Do you think you can raise the price of food as you want whenever you want" (X = 3.79, SD = 1.050)?

Table 3: 2 Shows the Mean ($\overline{X}$) and Standard Deviation (S.D.) of the Decorative Plate is the Guidelines for the Development of Knowledge and Skills for the Design

Decorative Plate is the Guidelines for the Development of Knowledge and skills for the design.	Levels	
	$\overline{X}$	S.D
1. Do you want to know more on the plate design?	3.78	.958
2. Do you want to read more about the food design?	3.81	.946
3. Do you want to join a food styling workshop to increase revenue?	3.90	.980
4. Do you want to learn more about your customers? To understand the customer's needs in order to develop your restaurant.	3.91	1.005
5. If there is the training food and design to understand the needs of customers. I will attend a training course.	3.87	1.018
Average	3.85	0.981

Table 3.2 found that decorated the plate is the guidelines for the development of knowledge and skills for the decoration of dishes. Overall in the study When it is considered sorted by average of descending found to have the highest average including Article 19 that "you want to learn more about your customers. To understand the customer's needs in order to develop your store "($\overline{X}$ = 3.91, SD = 1.005), followed by Article 18 that" you want participants to design a very creative way to increase revenue "($\overline{X}$ = 3.90, SD = .980) and the lowest average, including Article 16, which says, "you need more knowledge on the design Fast Food" ($\overline{X}$ = 3.78, SD = .958).

CONCLUSION

The findings restaurant had on the capabilities and needs the skills and knowledge to design and decorate dishes to add value to the pool design plate. The attraction can be discussed in the following. 4.1 Operators

restaurant decorated with knowledge and know the benefits of dishes, but the lack of skills in design. They do not see the importance of good food compared with Cleanliness and taste. There were also commented that the decor, food and increase food prices will restrain group of customers with higher incomes alone. 4.2 Forms and ways to enhance their knowledge and skills for the decoration of dishes to add value to the food dish Thailand. The study found that Respondents to learn more about the customer. In order to understand their needs and can bring development shop. There also needs to participate in a creative workshop designed to increase revenue. This research suggests that the future research should consider on consumers' attitude towards food styling that can add more money value on the Thai Food or not. The consumer is willing to either pay more for the beauty of the food, or not. Also, what are the most important factors when considering on eating? The results of the future research will benefit the restaurant business owners to be able to understand and satisfy the consumer's needs.

REFERENCES

Andy Murdock. (2011). If you could travel to any city in the world purely for the food, Where would you go? (Online). Available at http://www.lonelyplanet.com/**.**

Assael, H.)1998(. Consumer Behavior and Marketing Action 6th edition. New York: International Thomson Publishing.

Costa Margoles. **)**2009**(**. How color affects food choices. Thesis: *University of Nevada, Las Vegas.* Engel, James F. Blackwell, Roger D. Miniard, Paul W. **)**1993**(**. Consumer Behavior. 7th ed. Fort Worth: The Dryden Press, Inc.

Gastón Ares and Rosires Deliza. **)**2010**(**. Studying the influence of package shape and Color on consumer expectations of milk desserts using word association and Conjoint analysis. Journal of Food Quality and Preference, 21(8), December 2010, p. 930–937.

Hawkins,D.I,Best R.J.& Coney,K.A. **)**1998**(**. Consumer Behaviors:Building Marketing Strategy. (7th ed). Boston, MA:McGraw-Hill. p.27.

H. Kildegaard , A. Olsen , G. Gabrielsen , P. Møller , A.K. Thybo. **)**2011**(**. A method to measure the effect of food appearance factors on children's visual preferences. Food Quality and Preference 22, p.763–771.

Hoyer, W.D. and MacInnis, D. **)**1997**(**. Consumer Behavior. Boston, MA: Houghton Mifflin. I. Jáuregui-Lobera and P. Bolaños Ríos.)2011(. What motivates the consumer's food Choice? Department of Bromatology and Nutrition, Pablo de Olavide University, Seville, Spain.

Loudon, Daavid & Della Bitta Albert J. **)**1988**(**. Consumer Behavior. Concepts an Applications. Third edition. McGraw-Hill Book Co. Singapore.

Marie¨ lle E. H. Creusen and Jan P. L. Schoormans. **)**2005**(**. The Different Roles of Product Appearance in Consumer Choice. Journal of Product Innovation Management, 22: p. 63–81.

Nazlin Imram. **)**1999**(**. The role of visual cues in consumer perception and acceptance of a food product. Nutrition & Food Science, Vol. 99 Iss: 5 p. 224 – 230.

Peter J. Paul and Olsen Jerry C. (1990). Consumer Behavior and Marketing Strategy. 2nded. Homewood, Illinois : Richard D. Irwin.

Philip Kotler. (2003). Marketing Management, 11th ed. USA: Pearson Education. p.184. _____. (2000). Marketing Management- The Millennium Edition. 10th Edition, Prentice Hall.

Pires Gon_calves, Ricardo. (2008). Consumer Behavior: Product Characteristics and Quality Perception. (Online). Available at http://mpra.ub.unimuenchen.de/11142/.

Ravindra Chitturi. (2009). Emotions by Design: A Consumer Perspective**.** International Journal of Design: SPECIAL ISSUE ON DESIGN & EMOTION, 3(2), p.7-17.

SOCIAL ENVIRONMENT AND DECISIONS, FACTORS IN ORGANIZATIONAL BEHAVIOR IN A BUSINESS SCHOOL IN MEXICO

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ABSTRACT

The study addresses some of the organizational climate taking into account only two factors that make it up: Social Environment and Decision Making. The objective of this research is to identify and document the relationship of these factors on the various members of the Academic Unit of Accounting and Administration of UAZ in Mexico. It is a follow-up study to previous research that address the organizational behavior, but taking into account other factors that constitute it. The realization of this study is important because it is known that the organizational behavior provides information to administrators about the conditions in which they can change the strategy of group working, so they can guide the actions leading to direct the course of the members towards the goals of the organization; allows continuous improvement of relations in an organization. The organizational behavior has been studied since the late sixties of last century, but now we integrate various factors that identify areas of opportunity for companies and institutions to achieve the full potential of which they are capable of doing collective work. It is a study based mainly on qualitative analysis to perform descriptive statistics, correlation analysis and finalizing with factorial analysis. With the results we conclude identifying the best conditions of the factors in the measurement of organizational behavior, work with appropriate recommendations for each factor is concluded.

JEL M140

KEYWORDS: Organizational Behavior, University, Social Environment, Decisions

INTRODUCTION

In the Academic Unit of Accounting and Administration at the Autonomous University of Zacatecas (UACA) it has been studying the organizational environment through various factors that allow approaching the perception of organizational members about this situation. It has redefined the study of organizational climate considering new authors that speak of these issues, including the author of this work has added some conditions that expand the perception of this organizational condition. This work aims to seek some conditions of the social environment and decisions that arise in the organization so that if it is desired they can improve those aspects which are believed to be appropriate to modify in any organization and particularly by the authorities of this study object.

When the organization is studied normally supposed to generate social relationships among people occur automatically in conditions that are as favorable as possible, however, the reality is that these conditions vary from person to person and sometimes are not desirable, so social contacts may be regulated by the administration, generating impact on our subject. People living in the organization perceive the direction of this taking into account the decisions taken daily from strategic positions to the actions taken by members of the organization of the lowest positions. When appropriate decisions are taken in the right direction the members may perceive that everything is fine, but when decisions are perceived to be not the best, or that are affecting the direction of the organization, members could create a climate not suitable.

Considering these situations we ask the following research question: How perceive the members of the UACA the social environment and decision making as part of the organizational climate?This question generated the following objective: To determine the perception of members of the UACA about the social environment and decision making as part of the organizational climate. This objective can try the following hypothesis: The perception of members of the UACA about the social environment and decision making as part of the organizational climate is most favorable.

LITERATURE REVIEW

Although most of the research and public pressure concerning sustainability has been focused on the effects of business and organizational activity on the physical environment, companies and their management practices profoundly affect the human and social environment as well. Pfeffer considers some possible explanations for why social sustainability has received relatively short shrift in management writing, and outlines a research agenda for investigating the links between social sustainability and organizational effectiveness as well as the role of ideology in understanding the relative neglect of the human factor in sustainability research (Pfeffer 2010).

Becker in 2007 studies about the information age in which employees are knowledge workers, and the amount of information expands exponentially, managing knowledge in all its forms has become a major organizational challenge. Studied data, information, and knowledge, Data was defined as a set of discrete, objective facts about events. Information transforms data by adding meaning or value to give it relevant purpose. And information as data that has been sorted, analyzed, and displayed, and is communicated through spoken language, graphic displays, or numeric tables. Knowledge draws on both data and information as a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information (Becker 2007).

Davis says that physical settings in offices have largely been ignored by managers and scholars, they can influence behavior in numerous ways. On his paper pulls together relevant research and examined it in terms of the physical structure, physical stimuli, and symbolic artifacts that comprise office settings (Davis 1984). There are ethnographic studies about the findings of research that examined the impact of workplace design features on newly acquired communication skills back on the job. The qualitative nature of this study, however, limited quantitative measurement of the design features and learned skills. He studied supervisor perceptions about the relative importance of organizational factors affecting transfer, measured relationships between learned skills and workplace design features, and prioritized the importance of the design features to support learned communication skills. Participants in this case study held nonacademic supervisory positions at a major land-grant university. The supervisors had attended a communication skills training workshop and had been applying their learned skills for about 6 months. The findings indicate that workplace design appears to play a vital role in facilitating as well as impeding communication skills transfer in face-to-face interaction with employees (Kupritz 2011).

There were differences in reported health behaviors and socio/organizational environment by gender, race, age, income, and worksite size. For example, agreement with the statement the company values was highest among Whites, older employees, and higher income workers. As worksite size increased, the frequency of reporting seeing coworkers doing several types of healthy behaviors (eat fruits and vegetables, doing PA, and doing PA on breaks at work) increased. In adjusted analyses, employees agreeing the company values my health were more likely to engage in higher PA levels and less likely to be obese. Seeing co-workers eating fruits and vegetables was associated with increased reporting of eating at least one vegetable per day and seeing co-workers being active was associated with higher PA levels. This research suggests that social/organizational characteristics of the workplace environment, particularly feeling the company values the workers' health and to seeing co-workers engaging in healthy behaviors, may be related to nutrition and PA behaviors and obesity (Tabak et al 2015).

By studying what the research says about decisions we find theorists who addressed the issue from different angles. Uncertainty has been thought to challenge the cognitive capabilities of managers and thereby undermine their decision-making abilities, however, managers who experience uncertainty in that they are unsure of the adequacy of their own position may open-mindedly consult with their colleagues in the organization before they make the decision. A sample of 122 Chinese mainland managers described and rated a critical incident when they tried to make a decision. To the extent that managers initially felt uncertain about the solution they engaged in constructive controversy, i.e. the open-minded discussion for mutual benefit, which, in turn, led to effective decision-making. Cooperative goals further moderated the association of uncertainty with cooperative goals such that the positive association was stronger with less cooperative goals. These results underline the positive role of uncertainty in solving difficult problems, especially under competitive goals (Tjosvold, 2013).

Non-profit organizations and leaders may benefit from the utilization of behaviors attributed to emotional intelligence. The consideration of emotional intelligence skills becomes a strategy for the development of the non-profit organizational leader's ability to assess the impact and consequences of decisions, while simultaneously improving the quality and effectiveness of the decision-making process. Four essential elements of emotional intelligence and their associated 20 behavioral competencies were utilized to develop a methodology for the practical application of emotional intelligence skills to leadership decision-making within the non-profit organization (Hess and Bacigalupo 2013).

Studies of organizational communication around decision-making and decision communication have largely concerned how decisions should be made and promoted. Less efforts have focused on how decisions should be communicated inside organizations and how they influence organizational effectiveness and performance. The study made by Mykkänen and Tampere examined decision communication in an engineer-based organization 2008–2009, demonstrate that effective decision communication can be considered as the backbone of organizational communication, which can benefit the whole organization from the top management to lower levels. Organizations need to make decision-making processes visible. From the organizational communication perspective this means holding decisions' meetings, certain rites and documents. Organizations as systems need a rational type of order to follow the decision-making process. The public relations or communication management workers' (specifically internal relations management) role in organizations has traditionally been to communicate the goals and objectives of current decisions at hand (Mykkänen and Tampere, 2014).

Marques Miragaia and her team studied aims to identify and prioritize the stakeholders involved in making decisions in a sports organization. An analysis was used to assess the influence of the attributes of power, legitimacy and urgency on the salience of the various stakeholders. They showed a convergence of external and internal decision makers' perceptions, concerning the three main stakeholder groups: top management, sponsors and member association. A generalized differentiation was also found in stakeholder classification, regarding evaluation of attributes, between external and internal decision makers. In addition, it's shown that the success of organizations' management will depend on correct identification of stakeholders and consequent assessment of their relevance, in order to highlight who should get priority, and how, in strategic decision making (Marques Miragaia et al 2014).

Decision-making about innovative change in high-risk networks is exceptionally difficult because system failure may result in catastrophe. Bierly and his colleages adopt a historical method to compare the US and Soviet choices in their nuclear attack submarine programs between 1970 and 1996 and to surface their complex political, technological, and operational relations. One program achieved high reliability in the face of innovation while the other did not. Actor network theory (ANT) helps illuminate the interactions and resulting innovation paths and dependencies. They study how open communication and power dispersion across high-risk networks influence system reliability, individuals spanning multiple groups

within the network generate dominant coalitions, and strong safety advocates impact the network (Bierly et al, 2014).

DATA AND METHODOLOGY

The research presented is exploratory. To take this research line education management and quantitative analysis is applied. It was designed and implemented a tool to obtain data that would meet the proposed objectives. We sought to determine a representative sample of all the members of the UACA to check this hypothesis to do extensive research and the results to the entire population involved. A correlation analysis of the variables that make up the organizational climate called "factors" with three more representative of the general data tag is used. Spearman correlation analysis was used because we have no parametric data; not all coefficients were written to obviate analyzes. The three main correlations of each variable are presented and indicate if there are any that are mostly related to the others. It indicates how a variable is correlated with the others. A high correlation will be used if they are significant at five percent and a very high correlation if there is a significant at one percent. The formula used to calculate the sample is suggested by Berenson & Levine. For the type of study conducted, based on the value that others have done in similar work studies the level of confidence we assume 95 percent and the error is willing to commit 5 percent. With this information the formula used is:

$$n = \frac{z^2 pq}{e^2} = \frac{1.96^2 (0.5)(0.5)}{0.05^2} = 384.16$$

Where: n= simple size; Z: desired confidence level 95% = 1.965; e: error, and p: represents success. As finite population has a formula that allows us to reduce some surveys applied to the total sample. The elements of this formula are specified according to the following: n_0 is the result just obtained recently by considering an infinite population, N is the total population, and n is the total survey. Applying the correction factor for finite population:

$$n = \frac{n_0 N}{N + n_0 - 1} = \frac{348.16(1979)}{1979 + 348.16 - 1} = 344$$

The collected data were obtained directly, through the application of a survey of 372 members of the UACA UAZ through a questionnaire of 24 multiple-choice and using the Likert scale. The questionnaire was applied in June 2013 to a position corresponding to the different segments that can be grouped existing players total stratified sample.

RESULTS AND DISCUSSION

In analyzing the results of social environmental factor we realize that the variables with greater results have to do with the questions listed below The question that the level of support between colleagues has as much help more frequently with 39%, this situation is repeated across sectors, programs and gender, varying only the percentages in each questioned case. Table 1 shows the frequencies obtained in first factor.

Table 1: Frequencies in Social Environment Factor

Variable	Nothing	Something	Intermediate	Enough	Much
The level of peer support is	6%	6%	17%	32%	39%
The level of peer support response is	3%	6%	19%	27%	44%
Fellowship factor influencing daily activities	5%	6%	15%	29%	45%
I let others take responsibility and initiative to solve problems	24%	18%	27%	21%	11%
Before addressing the points on which there is disagreement are highlighted those agreement	8%	9%	35%	33%	16%
Seeking solutions are convenient for the parties	5%	8%	24%	32%	31%
Provision shall be made to avoid unnecessary friction.	6%	8%	34%	28%	23%
Conflict situations that are unpleasant are avoided.	5%	11%	24%	31%	30%
Are known media available to the UACA	14%	17%	25%	24%	19%
Information usually flows by institutional means	13%	14%	32%	25%	16%
Organization matters are solved in group work	11%	14%	29%	26%	21%
It is comfortable working in a team	5%	4%	19%	31%	41%
Decisions taken at all agree	4%	6%	16%	31%	43%

In Table 1 clearly can see that most of data appear on the last two columns, where is shown most acceptance for factor

In analyzing the results obtained with respect to decision factor we find that the results are as follows. Table 2 shows frequencies obtained to Decisions factor

Table 2: Frequencies in Decisions Factor

Variable	Nothing	Something	Intermediate	Enough	Much
The decision aims to meet organizational goals	5%	5%	22%	35%	34%
Making decisions favorable affect on the institution	3%	6%	21%	38%	32%
The decisions made in the UACA, benefit the community	3%	7%	28%	35%	27%
UACA take into account your opinions and suggestions	9%	15%	30%	27%	20%
We meet to participate in making decisions UACA	6%	8%	24%	28%	34%
The results of the decisions team meet you	3%	6%	28%	34%	29%
The personal decision-making was successful	3%	7%	22%	35%	33%
In UACA decision it is	7%	9%	24%	30%	31%
Decisions are made collectively	8%	9%	26%	32%	24%
Decisions are evaluated periodically	9%	13%	25%	27%	26%

In Table 2 clearly can see that most of data appear on the last two columns, where is shown most acceptance for factor

The main correlations were found between the variables listed below: With respect to factor called social environment all variables have correlations with significance level higher than 99% to each other. The same situation applies to the factor decisions. The first factor we have variables "Having the right means" and "the institutional means" have the highest correlation 0.734, variables "Avoid conflicts" and "avoid friction" has the value of 0.725, "aid" and "response to help" variables correlate of 0.678. Con respecto a las variables que integran el factor toma de decisiones encontramos las correlaciones más altas en las variables en las que la toma de decisiones es evaluada y ésta se hace de manera periódica con 0.740, la siguiente correlación en grado más alto la generan las variables que miden el cumplimiento de las metas y lo favorable de la toma de decisiones con 0.677 y la correlación tercera más alta la dan las variables el beneficio de las decisiones y la mejora de la escuela con 0.629.

With respect to the variables that make up the factor decision making are the highest correlations in variables in which "decision making is evaluated", and "this is done on a regular basis" with 0.740, the following correlation highest degree generate variables measuring "compliance with the targets" and "favorable decisions" in 0.677 and the third highest correlation variables "benefits" and "school improvement" with 0.629

CONCLUDING COMMENTS

In general we see that the first factor is mostly favorable responses that support the organizational climate Similarly the data found in the second factor Decision making most of the data are favorable organizational climate for most. Most favorable response data for the social environment is perceived fellowship members The answer less favorably to any variable is the flow of information that does not by favorable channels. In the decision-making factor variable with mostly favorable data is the fulfillment of institutional goals In this variable factor less favorable data is the fact that decisions are taken collectively All variables have correlations with meanings under 1%, except variable responsibility is left to others for decision-making. We can mention that do not have statistical evidence to reject the hypothesis that the social environment and decision-making factors positively contribute to organizational climate.

REFERENCES

Becker F (2007) Organizational Ecology and Knowledge Networks. California Management Review Vol. 49, No. 2 Winter 2007

Berenson M, Levine D (1996) Estadística básica en administración, concepto y aplicaciones. Prentice Hall Hispanoamericana. México. 1996

Bierly P, Gallagher S, Spendery J (2014) Innovation decision making in high-risk organizations: A comparison of the US and Soviet attack submarine programs. Industrial and Corporate Change, Volume 23, Number 3, pp. 759–795 doi:10.1093/icc/dtt026

Davis T (1984) The Influence of the Physical Environment in Oflices. Academy of Management Review. 1984. Vol. 9, No. 2, 271-283.

Hess J, Bacigalupo A (2013) Applying Emotional Intelligence Skills to Leadership and Decision Making in Non-Profit Organizations. Adm. Sci. 2013, 3, 202–220; doi:10.3390/admsci3040202

Kupritz V, Hillsman T (2011) The Impact Of The Physical Environment On Supervisory Communication Skills Transfer. Journal of Business Communication, Volume 48, Number 2, April 2011 148-185

Marques Miragaia D, Ferreira J, Carreira A (2014) Do Stakeholders Matter In Strategic Decision Making Of A Sports Organization? Revista de Administração de Empresas. São Paulo, V. 54, n. 6, nov-dez 2014, 647-658

Mykkänen M, Tampere K (2014) Organizational Decision Making: The Luhmannian Decision Communication Perspective. Journal of Business Studies Quarterly 2014, Volume 5, Number 4

Pfeffer J (2010) Building Sustainable Organizations: The Human Factor. Academy of Management Perspectives. February

Tabak RG, Hipp JA, Marx CM, Brownson RC (2015) Workplace Social and Organizational Environments and Healthy-Weight Behaviors. PLoS ONE 10(4): e0125424. doi:10.1371/journal.pone.0125424

Tjosvold D, Peng A, Chen N, Fang S (2013) Individual Decision-Making in Organizations:Contribution of Uncertainty and Controversy in China. Group Decis Negot (2013) 22:801–821 DOI 10.1007/s10726-012-9294-6

BIOGRAPHY

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EXPORT VARIETY AND INTRA-INDUSTRY TRADE: THEORETICAL AND EMPIRICAL EVIDENCE

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ABSTRACT

This paper theoretically and empirically investigates the relationship between the number of product varieties and the extent of intra-industry trade (IIT). IIT provides more trade opportunities for countries in which differentiated products are produced. The model presented shows that the extent of bilateral IIT is higher the smaller the gap in the number of export varieties between two countries. The empirical analysis of Japan and twenty-five countries provides support for the theoretical model presented in this paper. The theory also shows that similar number of export varieties between two countries, that is, more IIT can be a tool to redress trade imbalance between two countries. The policy implication of the results is that promoting higher product variety will increase the opportunity for IIT regardless of country specific effects.

JEL: F00, F10, F14, F19

KEYWORDS: Export variety, Trade, Intra-industry trade

INTRODUCTION

This paper theoretically and empirically investigates the relationship between the number of product varieties and the extent of intra-industry trade (IIT). IIT provides more trade opportunities for countries in which differentiated products are produced, and has become to play a key role in the world in concert with the global economic integration. The model presented shows that the extent of bilateral IIT is higher the closer the number of export varieties between two countries. The empirical analysis of Japan and twenty-five countries for the electrical and optical equipment industry provides support for the theoretical model presented in this paper regardless of country specific effects. The theory also shows that more IIT can play a role in redressing trade imbalance between two countries. The remainder of the paper is organized as follows. The next section describes the theoretical model developed in this research. The empirical results are presented and discussed in the following section. The paper closes with some concluding comments.

Theoretical Model

This section, at first, summarizes the measure method of product variety developed by Feenstra and Kee (2004). The latter part of the section is used for theoretical discussion on the relationship between intra-industry trade and product variety, which is the contribution of the paper. Assume that country c （c = 1, ... , C） produces various varieties. The set of goods that is produced in country c in year t is $\mathbf{I}_t^c$ C {1,2,3, ... }. The quantity of product varieties i （i ∈ I_t^c） is q_{it}^c （$q_{it}^c > 0$） , and the vector of goods produced in country c in period t is denoted by $\mathbf{q}_t^c > \mathbf{0}$. The total output of country c, Q_t^c, is characterized by the following CES function (Feenstra (1994) and Feenstra et al.(1999) assume σ > 1. (Feenstra(1994) and Broda and Weinstien(2006) for further discussion under the assumption σ > 1.).

$$Q_t^c = f(\mathbf{q}_t^c, \mathbf{I}_t^c) = \left(\sum_{i \in \mathbf{I}_t^c} a_i \, (q_{it}^c)^{(\sigma-1)/\sigma} \right)^{\sigma/(\sigma-1)} \tag{1}$$

$$a_n > 0 \qquad c = 1, \dots, C$$

$-\infty < \sigma < 0$: elasticity of substitution among product varieties

The total production of the economy is constrained by the following transformation curve.

$$F[f(\mathbf{q}_t^c, \mathbf{I}_t^c), \mathbf{V}_t^c] = 0 \qquad (2)$$

$$\mathbf{V}_t^c = (v_{1t}^c, v_{2t}^c, \dots, v_{Mt}^c) > 0 : \text{the endowment vector of country c in year t}$$

Each country c obtains the value of output $P_t^c Q_t^c$ under the assumption of perfect competition and equation (1). P_t^c is denoted by the CES function of the prices of all product varieties as follows.

$$P_t^c \equiv c(\mathbf{p}_t^c, \mathbf{I}_t^c) = \left(\sum_{i \in \mathbf{I}_t^c} b_i (p_{it}^c)^{1-\sigma} \right)^{1/(1-\sigma)} \qquad (3)$$

$$b_i = a_i^\sigma > 0 \qquad c = 1, \dots, C \qquad \mathbf{p}_t^c > 0 : \text{domestic price vector of each coutry c}$$

$$\frac{P_t^{c_1}}{P_t^{c_2}} = \prod_{i \in \mathbf{I}_t} \left(\frac{p_{it}^{c_1}}{p_{it}^{c_2}} \right)^{w_{it}(\mathbf{I}_t)} \left(\frac{\lambda_t^{c_1}(\mathbf{I}_t)}{\lambda_t^{c_2}(\mathbf{I}_t)} \right)^{1/(\sigma-1)} \qquad (4)$$

$$c_1, c_2 = 1, \dots, C \qquad \mathbf{I}_t \equiv (\mathbf{I}_t^{c_1} \cap \mathbf{I}_t^{c_2}) \neq \emptyset$$

Equation (4) is equal to the ratio of the CES cost functions between countries c_1 and c_2. See Feenstra(1994), Diewert(1976), Sato(1976), and Vartia(1976) for details.

The weights $w_{it}(\mathbf{I}_t)$ in equation (4) is the revenue shares as follows.

$$w_{it}(\mathbf{I}_t) \equiv \left(\frac{s_{it}^{c_1}(\mathbf{I}_t) - s_{it}^{c_2}(\mathbf{I}_t)}{\ln s_{it}^{c_1}(\mathbf{I}_t) - \ln s_{it}^{c_2}(\mathbf{I}_t)} \right) \Big/ \sum_{i \in \mathbf{I}_t} \left(\frac{s_{it}^{c_1}(\mathbf{I}_t) - s_{it}^{c_2}(\mathbf{I}_t)}{\ln s_{it}^{c_1}(\mathbf{I}_t) - \ln s_{it}^{c_2}(\mathbf{I}_t)} \right) \qquad (5)$$

$$c_1, c_2 = 1, \dots, C$$

$$s_{it}^c(\mathbf{I}_t) \equiv p_{it}^c q_{it}^c \Big/ \sum_{i \in \mathbf{I}_t} p_{it}^c q_{it}^c \qquad (6)$$

$$c = c_1, c_2$$

$$\lambda_t^c(\mathbf{I}_t) = \frac{\sum_{i \in \mathbf{I}_t} p_{it}^c q_{it}^c}{\sum_{i \in \mathbf{I}_t^c} p_{it}^c q_{it}^c} = 1 - \frac{\sum_{i \in \mathbf{I}_t^c, i \notin \mathbf{I}_t} p_{it}^c q_{it}^c}{\sum_{i \in \mathbf{I}_t^c} p_{it}^c q_{it}^c} \qquad (7)$$

$$c = c_1, c_2$$

The term, $\left(\lambda_t^{c_1}(\mathbf{I}_t)/\lambda_t^{c_2}(\mathbf{I}_t) \right)^{1/(\sigma-1)}$, in equation (4) shows changes in product variety developed by Feenstra and Kee (2004). The complete set of the export varieties exported from the world (*) to the world (*) is $\mathbf{I}_t^* = \cup_{c=1}^C \mathbf{I}_t^c$, and the total export value of product variety i is $p_{it}^* q_{it}^*$. Comparing exports from country c to the world (*) and exports from the world (*) to the world (*), the common set of goods exported $\mathbf{I}_t$ is $(\mathbf{I}_t^c \cap \mathbf{I}_t^*) = \mathbf{I}_t^c$. Thus, the equations (8-1) and (8-2) are derived from equation (7).

$$\lambda_t^{c_1}(\mathbf{I}_t) \equiv \lambda_t^c(\mathbf{I}_t) = \lambda_t^c(\mathbf{I}_t^c) = \frac{\sum_{i \in \mathbf{I}_t} p_{it}^c q_{it}^c}{\sum_{i \in \mathbf{I}_t^c} p_{it}^c q_{it}^c} = \frac{\sum_{i \in \mathbf{I}_t^c} p_{it}^c q_{it}^c}{\sum_{i \in \mathbf{I}_t^c} p_{it}^c q_{it}^c} = 1 \qquad (8-1)$$

$$\lambda_t^{c_2}(\mathbf{I}_t) \equiv \lambda_t^*(\mathbf{I}_t) = \lambda_t^*(\mathbf{I}_t^c) = \frac{\sum_{i \in \mathbf{I}_t} p_{it}^* q_{it}^*}{\sum_{i \in \mathbf{I}_t^*} p_{it}^* q_{it}^*} = \frac{\sum_{i \in \mathbf{I}_t^c} p_{it}^* q_{it}^*}{\sum_{i \in \mathbf{I}_t^*} p_{it}^* q_{it}^*} = 1 - \frac{\sum_{i \in \mathbf{I}_t^*, i \notin \mathbf{I}_t^c} p_{it}^* q_{it}^*}{\sum_{i \in \mathbf{I}_t^*} p_{it}^* q_{it}^*} \qquad (8-2)$$

$$c = 1, \dots, C$$

$\left(\lambda_t^{c_1}(\mathbf{I}_t)/\lambda_t^{c_2}(\mathbf{I}_t)\right)^{1/(\sigma-1)} \equiv (\lambda_t^c(\mathbf{I}_t)/\lambda_t^*(\mathbf{I}_t))^{1/(\sigma-1)}$ in equation (4) can be rewritten as follows.

$$\left(\frac{\lambda_t^c(\mathbf{I_t^c})}{\lambda_t^*(\mathbf{I_t^c})}\right)^{1/(\sigma-1)} = \left(\frac{1}{\lambda_t^*(\mathbf{I_t^c})}\right)^{1/(\sigma-1)} = (\lambda_t^*(\mathbf{I_t^c}))^{1/(1-\sigma)} \tag{9}$$
$$c = 1, \dots, C$$

Therefore, export variety of country c can be measured as the export value from country c to the world (*) relative to the export value from the world (*) to the world (*), which is called Feenstra and Kee (2004) method. This paper measures the number of export varieties of each country c extending Feenstra and Kee (2004) empirical method as in Equation (9)' in the next section. In this paper, it is implicitly assumed that a certain portion η of the aggregate production is exported. The assumption is not explicitly explained in Feenstra and Kee(2004).This paper defines the degree of intra-industry trade (IIT) between countries a and b for product variety i as the value of trade overlap as follows

Several previous studies such as Fukao, Ishido and Ito (2003); Greenaway, Hine and Milner(1995); Fontagné, Freudenberg and Péridy(1997); Oguro, Fukao and Khatri(2008); and Oguro(2011) use the same definition of IIT. Another famous IIT measure is Grubel and Lloyd(1975) index.

$$IIT_{it}^{ab} = \frac{Min(EX_{it}^{ab}, EX_{it}^{ba})}{Max(EX_{it}^{ab}, EX_{it}^{ba})} \equiv \frac{Min(\sum_{i\in\mathbf{I}_t^a} p_{it}^{ab} q_{it}^{ab}, \sum_{i\in\mathbf{I}_t^b} p_{it}^{ba} q_{it}^{ba})}{Max(\sum_{i\in\mathbf{I}_t^a} p_{it}^{ab} q_{it}^{ab}, \sum_{i\in\mathbf{I}_t^b} p_{it}^{ba} q_{it}^{ba})} \tag{10}$$
$$a, b = 1, \dots, C$$

$EX_{it}^{ab} (= \sum_{i\in\mathbf{I}_t^a} p_{it}^{ab} q_{it}^{ab})$ shows the value of exports from country a to country b, and $EX_{it}^{ba} (= \sum_{i\in\mathbf{I}_t^b} p_{it}^{ba} q_{it}^{ba})$ shows the value of exports from country b to country a. IIT_{it}^{ab} takes a value between 0 and 1. IIT_{it}^{ab} is equal to zero when there is no IIT between country a and country b, whereas IIT_{it}^{ab} becomes one when the value of trade overlap is exactly the same between two countries. This paper now shows the relationship between IIT and product variety. Equation (10) can be developed as follows assuming $EX_{it}^{ab} < EX_{it}^{ba}$ and using equations (8) and (9). The paper defines exports from one country to another country as exports from an exporting country to the world times an importer's share in the world market as shown in Equation (11-1). Equation (11-1) can be rewritten as Equation (11-2) using two countries' export variety.

$$IIT_{it}^{ab}$$
$$= \left(\frac{\text{Value of exports from coutry a to country b}}{\text{Value of exports from coutry b to country a}}\right)$$
$$= \left(\frac{EX_{it}^{ab}}{EX_{it}^{ba}}\right)$$
$$\equiv \left[\frac{\left(\text{Value of exports from coutry a to the world }(*)\right)\cdot(\text{country b's share in the world market})}{\left(\text{Value of exports from coutry b to the world }(*)\right)\cdot(\text{country a's share in the world market})}\right]$$
$$\tag{11-1}$$
$$\equiv \left[\frac{EX_{it}^{a*}\cdot\left(\dfrac{\text{Value of exports from the world }(*)\text{ to country b}}{\text{Value of exports from the world }(*)\text{ to the world }(*)}\right)}{EX_{it}^{b*}\cdot\left(\dfrac{\text{Value of exports from the world }(*)\text{ to country a}}{\text{Value of exports from the world }(*)\text{ to the world }(*)}\right)}\right] = \left[\frac{EX_{it}^{a*}\cdot\left(\dfrac{EX_{it}^{*b}}{EX_{it}^{**}}\right)}{EX_{it}^{b*}\cdot\left(\dfrac{EX_{it}^{*a}}{EX_{it}^{**}}\right)}\right]$$

$$
= \left[\frac{\left(\frac{EX_{it}^{a*}}{EX_{it}^{**}}\right) \cdot \left(EX_{it}^{*b}\right)}{\left(\frac{EX_{it}^{b*}}{EX_{it}^{**}}\right) \cdot \left(EX_{it}^{*a}\right)} \right]
$$

$$
= \left[\frac{(\text{country a's export variety}) \cdot \left(EX_{it}^{*b}\right)}{(\text{country b's export variety}) \cdot \left(EX_{it}^{*a}\right)} \right] \tag{11-2}
$$

$$
= \left[\frac{(EX_{it}^{a*}) \cdot \left(EX_{it}^{*b}\right)}{(EX_{it}^{b*}) \cdot \left(EX_{it}^{*a}\right)} \right]
$$

$$
= \left[\frac{\left(\frac{\sum_{i \in I_t^a} p_{it}^* q_{it}^*}{\sum_{i \in I_t^*} p_{it}^* q_{it}^*}\right) \cdot (\sum_{i \in I_t^*} p_{it}^{*b} q_{it}^{*b})}{\left(\frac{\sum_{i \in I_t^b} p_{it}^* q_{it}^*}{\sum_{i \in I_t^*} p_{it}^* q_{it}^*}\right) \cdot (\sum_{i \in I_t^*} p_{it}^{*a} q_{it}^{*a})} \right] = \left[\frac{(\sum_{i \in I_t^a} p_{it}^* q_{it}^*) \cdot (\sum_{i \in I_t^*} p_{it}^{*b} q_{it}^{*b})}{(\sum_{i \in I_t^b} p_{it}^* q_{it}^*) \cdot (\sum_{i \in I_t^*} p_{it}^{*a} q_{it}^{*a})} \right] \tag{11-3}
$$

$$
a, b = 1, \dots, C
$$

Partial derivatives of Equation (11-2) with respect to country a's export variety are positive (Equation (12)). Thus, the extent of IIT between countries a and b is higher the higher the export variety of country a. That is, the theoretical model presented shows that IIT_{it}^{ab} approaches one as the number of export varieties between two countries gets closer.

$$
\frac{\partial IIT_{it}^{ab}}{\partial(\text{country a's export variety})} > 0 \tag{12}
$$

Consider the case $IIT_{it}^{ab} = 1$ using Equation (11-3). Equation (13-1) is the expanded form of Equation (11-3).

$$
\frac{\left(\frac{\sum_{i \in I_t^a} p_{it}^* q_{it}^*}{\sum_{i \in I_t^*} p_{it}^* q_{it}^*}\right)}{\left(\frac{\sum_{i \in I_t^b} p_{it}^* q_{it}^*}{\sum_{i \in I_t^*} p_{it}^* q_{it}^*}\right)} = \frac{\sum_{i \in I_t^*} p_{it}^{*a} q_{it}^{*a}}{\sum_{i \in I_t^*} p_{it}^{*b} q_{it}^{*b}} = \frac{\sum_{i \in I_t^a} p_{it}^* q_{it}^*}{\sum_{i \in I_t^b} p_{it}^* q_{it}^*} \tag{13-1}
$$

$$
a, b = 1, \dots, C
$$

$$
\frac{\text{country a's export variety}}{\text{country b's export variety}}
$$
$$
= \frac{\text{Value of exports from the world } (*) \text{ to country a}}{\text{Value of exports from the world } (*) \text{ to country b}} = \frac{(EX_{it}^{*a})}{(EX_{it}^{*b})}
$$
$$
= \frac{\text{Value of exports from coutry a to the world } (*)}{\text{Value of exports from coutry b to the world } (*)}
$$
$$
= \frac{(EX_{it}^{a*})}{(EX_{it}^{b*})} \tag{13-2}
$$

Equations (13-1) and (13-2) show that the theory developed in this paper also suggests that similar number of export varieties between two countries, that is, more IIT can be a tool to redress trade imbalance between two countries.

EMPIRICAL RESULTS AND DISCUSSIONS

Table 1 shows subject countries analyzed in this research. Twenty-five countries are selected based on the Industry-specific Real Effective Exchange Rate database produced by International Macroeconomics

Research Program at The Research Institute of Economy, Trade and Industry (RIETI). This paper empirically analyzes Japan and the twenty-five countries shown in Table 1.

Figure 1 shows the number of product varieties of Japan's and the twenty-five countries' exports in the electrical and optical equipment industry in 2012. The number of export varieties is measured using Equation (9)', that is, the value of exports from country c to the world (*) relative to the value of exports from the twenty-six countries to the world (*). Equation (9)' is the empirical measure, which is the application of Equation (9).

Table 1: Subject Countries
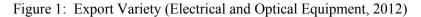
No.	Country	Code	No.	Country	Code
1	Australia	AUS	14	Malaysia	MYS
2	Belgium	BLX	15	Netherlands	NLD
3	Canada	CAN	16	Norway	NOR
4	China	CHN	17	Philippines	PHL
5	Germany	DEU	18	Russian Federation	RUS
6	Spain	ESP	19	Singapore	SGP
7	France	FRA	20	Sweden	SWE
8	Greece	GRC	21	Thailand	THA
9	Indonesia	IDN	22	Turkey	TUR
10	India	IND	23	United Kingdom	UK
11	Ireland	IRL	24	USA	USA
12	Italy	ITA	25	South Africa	ZAF
13	Rep. of Korea	KOR			

Source: http://www.rieti.go.jp/users/eeri/ Table 1 shows subject countries analyzed in this research. This paper empirically analyzes Japan and the twenty-five countries.

Empirical measure of country c's export variety

$$= \frac{\text{Value of exports from country c to the world } (*)}{\text{Value of exports from 26 subject countries to the world } (*)} \qquad (9)'$$

Figure 1: Export Variety (Electrical and Optical Equipment, 2012)

Data source: Comtrade HS 1996
This figure shows the number of product varieties of Japan's and the twenty-five countries' exports in the electrical and optical equipment industry in 2012. The number of export varieties is measured using Equation (9)'.
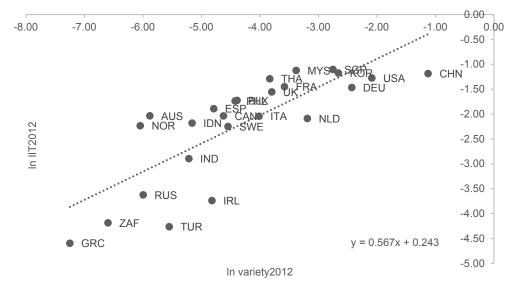
Figure 2: Plot of Export Variety and Intra-Industry Trade (Iit)(Electrical and Optical Equipment, 2012)

Data source: HS 1996 6-digit-based Comtrade database This figure shows the plot of the logarithm of export variety and the logarithm of IIT in 2012 for the electrical and optical equipment industry. IIT is measured as the bilateral trade between Japan and one of the twenty-five countries using Equation (10). The results confirm the theoretical model, especially Equation (12), since it demonstrates the positive correlation between the number of export varieties and IIT.

The value of exports data are taken from the Harmonized Commodity Description Coding System (HS) 1996 United Nations Commodity Trade Statistics Database (Comtrade database). China has the largest number of export varieties. Japan is the fourth largest among the twenty-six countries. Figure 2 shows the plot of the logarithm of export variety and the logarithm of IIT in 2012 for the electrical and optical equipment industry. IIT is measured as the bilateral trade between Japan and one of the twenty-five countries using Equation (10). The degree of IIT for each trading pair for the industry is calculated using the HS 1996 6-digit-based Comtrade database, which is the most detailed data available. The HS1996 6-digit-based extent-of-IIT data for each pair of countries are aggregated into the industry weighted by trade values. Table 2 shows the results of the OLS estimation of the data in Figure 2. This paper simply regresses the logarithm of IIT on the logarithm of export variety. The estimated coefficient of *ln IIT2012* is positive as expected, and is significantly different from zero at 1 percent level. Therefore, a one percent increase in the number of export varieties results in a 0.567 percent increase in the degree of IIT in 2012 for the electrical and optical equipment industry. The results of Figure 2 and Table 2 confirm the theoretical model, especially Equation (12), since it demonstrates the positive correlation between the number of export varieties and IIT regardless of country specific effects.

Table 2: Result of OLS (Electrical and Optical Equipment, 2012)

Dependent Variable: Ln IIT2012		
ln variety2012	0.567	***
	(6.23)	
Constant	0.243	
	(0.59)	
Number of obs	25	
R^2	0.628	
Adj. R^2	0.612	

***: significant at 1% level ( ): t value This table shows the results of the OLS estimation of the data in Figure 2. The estimated coefficient of ln IIT2012 is positive as expected, and is significantly different from zero at 1 percent level. A one percent increase in the number of export varieties results in a 0.567 percent increase in the degree of IIT in 2012 for the electrical and optical equipment industry.

CONCLUSION

The model presented shows that the extent of bilateral IIT is higher the smaller the gap in the number of export varieties between two countries. The empirical analysis of Japan and twenty-five countries provides support for the theoretical model presented in this paper. The theory also shows that similar number of export varieties between two countries, that is, more IIT can be a tool to redress trade imbalance between two countries. The policy implication of the results is that promoting higher product variety will increase the opportunity for IIT regardless of country specific effects.

REFERENCES

Broda, Christian and David E. Weinstein (2006) "Globalization and the Gains from Variety," *The Quarterly Journal of Economics* vol. 121(2): 541-585.

Diewert, W. E. (1976) "Exact and superlative index numbers," *Journal of Econometrics* vol. 4(2): 115-145.

Dixit, Avinash K. and Joseph E. Stiglitz (1977) "Monopolistic Competition and Optimum Product Diversity," *American Economic Review* 67(3): 297-308.

Feenstra, Robert C (1994) "New Product Varieties and the Measurement of International Prices," *American Economic Review* vol. 84(1): 157-177.

Feenstra, Robert C., Dorsati Madani, Tzu-Ha Yang, and Chi-Yuan Liang (1999) "Testing endogenous growth in South Korea and Taiwan," *Journal of Development Economics* vol. 60(2): 317-341.

Feenstra, Robert and Hiau Looi Kee (2004) "On the Measurement of Product Variety in Trade," *American Economic Review* vol. 94(2): 145-149.

Fontagné, Lionel, Michael Freudenberg, and Nicholas Péridy (1997) "Trade Patterns Inside the Single Market, " *Working Paper* 1997-07, Centre d'Etudes Prospectives et d'InformationS Internationales (CEPII).

Fukao, Kyoji, Hikari Ishido, and Keiko Ito (2003) "Vertical Intra-Industry Trade and Foreign Direct Investment in East Asia," *Journal of the Japanese and International Economies* 17(4): 468-506.

Greenaway, David, Robert C. Hine, and Chris Milner (1995) "Vertical and Horizontal Intra-Industry Trade: A Cross Industry Analysis for the United Kingdom," *The Economic Journal* 105(433): 1505-18.

Grubel, Herbert G. and P.J.Lloyd (1975) *Intra-Industry Trade: The Theory and Measurement of International Trade in Differenced Products*, New York: Wiley.

Oguro, Yoko (2011) "The Sensitivity of Export Quantities to Exchange Rates in the Context of Intra-Industry Trade," *Global COE Hi-Stat Discussion Paper Series* gd10-167, Institute of Economic Research, Hitotsubashi University.

Oguro, Yoko, Kyoji Fukao, and Yougesh Khatri (2008) "Trade Sensitivity to Exchange Rates in the Context of Intra-Industry Trade," *IMF Working Paper* 08/134.

Sato, Kazuo (1976) "The Ideal Log-Change Index Number," *The Review of Economics and Statistics* vol. 58(2), pages 223-28, May.

Vartia, Yrjö (1976) "Ideal log-Change Index Numbers," *Scandinavian Journal of Statistics* 1976; 3: 121-126.

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AN EVALUATION OF THE IMPACT OF CORRUPTION, TAX BURDEN, AND INCOME ON THE SIZE OF THE SHADOW ECONOMY

Ilir Binaj

ABSTRACT

The objective of this research is to examine the effect of corruption, tax burden, income, and tax administration efficiency on the size of the shadow economy. In this study, we have investigated the size of the shadow economy of 50 countries. We provide empirical evidence and explanation for the vicious circle of tax evasion and political corruption in which many developing countries, and sometimes even developed countries, often fall into. Also, an important relation between the level of income and tax evasion is identified. In the end, recommendations are made for policy makers. We find that standard prevention policies, that sometimes have a short-term effect, do not offer a real long-term solution for tax evasion and corruption; instead, policies and measures that impose a strong moral cost on corrupt politicians and on tax evaders can lead to a permanent reduction of both.

JEL: H26, D73, E62,

KEYWORDS: Corruption, Tax administration, Tax Evasion

INTRODUCTION

According to Litina & Palivos (2015), political corruption demonstrated by a sequence of scandals, together with substantial tax evasion and poor public services, has been a "Greek tragedy" for at least the last three decades. Shadow economy and corruption are a problem for most of developing countries and also for some developed countries that are European Union members. Shadow economy and tax evasion are closely related to each other. Tsakumis et. al (2007) mention that Greece's shadow economy is assessed to equal approximately 40% of its GDP and it is the largest in EU. Albanian finance authorities claim that tax evasion is estimated at least 50% (Tirana, 2015). Schneider (2004) defines shadow economy as an estimate of all market based legal production of goods and services (not including illegal products) that are intentionally hidden from public authorities.

Even though severe form of penalties, including harsh fines and imprisonment exist, tax evasion continues to thrive, especially in developing countries where also corruption is high. Moutos and Tsitsikas (2010), argue that corruption legitimizes the tax evasion since higher tax citizens are not provided with the public goods and services for which they are paying. Shadow economy and tax evasion have been analyzed using multidisciplinary perspective such as culture, economics, law, psychology, accounting and finance. Past studies have used mainly two schools of thoughts: the psychological approach and the economic approach.

The economy school relies on the idea of tax gap and offers economic theories and models to explain shadow economy and tax evasion, whereas the psychology school offers a psychology-based model in understanding tax evasion and shadow economy (Alley & James, 2006). These different approaches have lead researchers in shadow economy and tax evasion studies that explain them as either an economic problem or a behavioral issue of a certain society based on norms and culture. According to Jackson & Milliron (1986) and Richardson & Sawyer (2001), in the psychology model, factors such as social norms, attitude, and tax moral are used to explain tax compliance and tax evasion. However, in the economic models, tax evasion is motivated by the trade-off between benefits and costs, as argued by Allingham &

Sandmo (1972). Sandma (2005), defines tax evasion as a violation of fiscal law where the taxpayer refrains from reporting income which is taxable.

The aim of this paper is to analyze the relation that exists between tax evasion and corruption, level of income, tax administration efficiency and tax burden. This study explores the role that corruption, among other factors, plays in explaining shadow economy and tax evasion behavior. The data for corruption, shadow economy, and tax burden of 50 countries in different regions of the world are considered for this study. The results of this paper have implications for both research and practice purposes. Policy makers should consider the impact of corruption level in minimizing the fiscal reforms effects.　This paper is organized in the following manner. Section 2 discusses past studies related to the research question, Section 3 describes the research methods used, Section 4 presents the findings and discusses the outcomes, and Section 5 provides some conclusions and recommendations.

LITERATURE REVIEW

Shadow economy and tax evasion:　Several studies have analyzed tax evasion and shadow economy in an international setting. Porcano (1988) studied the effect of audit rates, penalties, and other variables on shadow economy and tax evasion. Alm et al. (1990) has tested tax behavior and income declaration using Jamaican data. Alm and Torgler (2006) have studied the tax declaration and tax morale differences between 15 European countries and the United States. The tax morale for these countries was evaluated based on responses of the World Values Survey questionnaire using the questions related to beliefs of participants if "cheating on tax is justified if you have the chance." They concluded that United States and Northern European countries had higher tax morale than Spain and other Romanic countries and the size of the shadow economy (as a percent of GDP) was negatively correlated to tax morale.

Riahi-Belkaoui (2004) studied the relation of tax moral and tax compliance with four variables in 30 countries. The views and perceptions of employees surveyed for the Global Competitiveness Report by the World Economic Forum (1996) were used to estimate the tax compliance behavior. The outcome of this study was that tax compliance and tax moral was related to economic freedom, competition laws, importance of equity market, and rate of violent crimes. The work of Riahi-Belkaoui's (2004) was extended by Picur and Riahi-Belkaoui (2006) that found that tax compliance behavior was also related to bureaucracy levels and tax moral, in 30 countries. The study of Riahi-Belkaoui's (2004) was expanded also by Richardson (2006) that analyzed the impact on tax evasion of noneconomic factors, in 45 countries. Similarly to Riahi-Belkaoui (2004), tax evasion was measured using Global Competitiveness Reports (years 2002–2004). According to this study tax evasion across countries was related to tax morale, perceived fairness, general education level, tax law complexity, and income source.

Tsakumis, Curatola, and Porcano (2007) used Hofstede's (1980) cultural dimensions, to investigate how tax evasion and shadow economy was influenced by the national culture. This study showed that culture has a significant influence on tax evasion. According to Tsakumis et al. (2007), actual tax evasion is very difficult to determine; so many studies on tax compliance behavior use substitute measures to evaluate the actual size of shadow economy and its related tax evaded. Some studies use government estimates on shadow economy to estimate tax evasion or vice versa. Similar Tsakumis et al. (2007), the terms 'tax evasion', 'and shadow economy', are used interchangeably throughout the study.

Corruption: According to Transparency International, corruption is defined as "the abuse of entrusted power for private gain" where the political decision makers manipulate policies, institutions and rules of procedure in the allocation of resources and financing, abusing so their position in order to maintain their power, status and wealth. According (Jain, 2001), there is a certain consensus that corruption refers to the act in which the power of public office is used for personal gain in a manner that contravenes the rules of the game. Corruption has been always a major issue for many developed and developing countries. Time

after times many scandals have shaken governments in Albania, Greece, Belgium, Italy, Spain and Japan as well. No country is immune from its dangerous consequences. Corruption can significantly affect the efficiency, fairness, and legitimacy of the state activities. The studies related to corruption have considered a broad array of factors including cultural, political, economic, and psychological ones.

Rose-Ackerman (1978) sees corruption as a public choice, making widespread corruption a symptom instead of a disease per se. Eliminating corruption makes no sense if the result is a rigid, unresponsive autocratic government. A transaction-cost interpretation of corruption in the third world countries is provided by Husted (1994). Macre (1982) considers corruption under the game theory approach concluding that although different methods might limit corruption there is no real solution to eliminate this problem. According to Husted (1999), corruption is strongly related to the cultural dimension developed by Hofstede (1997). Alam, (1995) and Macrae, (1982) relate the level of economic development and level of governance based on that economic development as an important contributor to corruption. Moutos and Tsitsikas (2010), argue that, in Greece, tax evasion is the answer to corruption considered that citizens are not provided with the public goods and services for which they have paid through taxes. Some key conclusions of the literature review are that, taxpayers who live in a community where tax evasion is a norm, have the tendency to evade taxes even more (Alm et al., 2013), on the other hand, tax compliant individuals view tax evasion as highly immoral. Furthermore, past research finds that, in societies with a stronger social and moral cohesion, tax avoidance and shadow economy is lower, also social norms are a critical factor of tax compliance.

Tax burden and tax admiration efficiency: There are two measures related to tax burden and tax administration efficiency in the model, that according to the study of Bame-Aldred, Cullen, Martin, and Parboteeah (2011), did not have significant influence on tax evasion in USA but should be considered on international level. The discussions on corruption, tax evasion, shadow economy, tax burden, and tax administration efficiency leads to the following hypotheses:

Hypothesis 1. The higher the corruption level (or the lower the quality of government in a country), the bigger is the size of the shadow economy (higher the level of tax evasion) in that country.

Hypothesis 2. The higher the tax burden in a country, the bigger is the size of the shadow economy (higher the level of tax evasion) in that country.

Hypothesis 3. The better (effective and efficient) tax administrations in a country, the smaller is the size of the shadow economy (lower the level of tax evasion) in that country.

DATA AND METHODOLOGY

Data

The data for this research are collected from different public sources such as: OECD Tax Administration report for 2010; Transparency International (2010). Corruption Perceived Index.; Tax Justice Network (2011). A briefing paper on the cost of tax evasion worldwide.
World Bank Data and Research.

Sample: The sample consists of 50 countries (see Table 1) including both developed and developing countries form different cultures and geography. The countries chosen, have all available scores for size of the shadow economy, corruption perception index (CPI), tax burden level, tax system evaluation by OECD and GDP per cap.

Table 1: List of Sample Countries (N=50) With Corruption Index Perception

Country	CPI	Country	CPI	Country	CPI
Albania	3.3	Italy	3.9	United States	7.1
Australia	8.7	Japan	7.8	Argentina	2.9
Austria	7.9	Korea (South)	5.4	Bulgaria	3.6
Belgium	7.1	Luxembourg	8.5	China	3.5
Canada	8.9	Mexico	3.1	Cyprus	6.3
Chile	7.2	Netherlands	8.8	India	3.3
Czech Republic	4.6	New Zealand	9.3	Indonesia	2.8
Denmark	9.3	Norway	8.6	Latvia	4.3
Estonia	6.5	Poland	5.3	Lithuania	5.0
Finland	9.2	Portugal	6.0	Malaysia	4.4
France	6.8	Slovakia	4.3	Malta	5.6
Germany	7.9	Slovenia	6.4	Romania	3.7
Greece	3.5	Spain	6.1	Russia	2.1
Hungary	4.7	Sweden	9.2	Saudi Arabia	4.7
Iceland	8.5	Switzerland	8.7	Singapore	9.3
Ireland	8.0	Turkey	4.4	South Africa	4.5
Israel	6.1	United Kingdom	7.6		
Max	**9.3**	**Max**	**9.3**	**Max**	**9.3**
Min	**3.3**	**Min**	**3.1**	**Min**	**2.1**

Source: http://www.transparency.org

The research design of Tsakumis et al. (2007) and Richardson (2008), that studied the relation between culture and tax evasion, were used as base models.

Independent Variables: The independent variables designated in this study are presented below: Corruption level (gl): measured by the corruption perception index (CPI) provided by Transparency International since 1995. The data of 2010 for CPI was used as presented in the Table 1 above. The highest scores which show better governance level (the least corrupt countries) are Denmark, New Zealand, and Singapore. Russia, Indonesia, and Argentina are the most corrupt. As independent variables are used tax burden (tb) measured by the report of Tax Justice Network (2011) and tax administration efficiency (ts) measured by the report of OECD (2011)

Control Variable: According to Tsakumis et al. (2007), the size of the shadow economy in a certain country is influenced by its level of economic development. Similar expectations were built also in this model for the level of income and tax evasion. GDP per capita was used similarly to Tsakumis et al. (2007), as a control variable.

Dependent Variable: Our hypotheses relate to the impact of corruption, tax burden, and tax system efficiency on the size of the shadow economy. In his study, Schneider (2004) defines the shadow economy, not including here the criminal activity, as all the legal production of goods and services that are intentionally hidden. The shadow economy measure for the countries being evaluated in this study is reported as a percentage of the gross domestic product (GDP). Countries with larger size of shadow economies are considered as less tax compliant countries. The estimations of Tax Justice Network (2011) for the shadow economies of each country were used.

Model Specification: The standard model consists of independent variables and control variables. According to the hypotheses, the following model was constructed:

$shadowecon = a_0 + a_1gl + a_2tb + a_3ts + a_4gdpcap + e_i$

RESULTS AND DISCUSSION

Descriptive statistics: The data for the complete sample of the 50 countries was analyzed using SPSS and the results of the descriptive statistics are shown on Table 2. Significant diversity with regard to corruption levels exists between countries. Also, the other variables of primary interest show considerable variance.

Table 2: Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
GDP per capita	50	1,429	107,643	28,590	21,592
Shadow economy	50	.09	.51	.2194	.08856
Tax burden	50	.07	.49	.3186	.10073
Governance level	50	2.10	9.30	6.0940	2.17288
Tax system	50	40.00	140.00	100.0000	21.66536
Valid N (listwise)	50				

The results of the multiple regression analysis are shown in Table 3. Based on this analysis, the model is considered significant ($F = 14.755$, $p < .0001$), the independent variables such as corruption and tax burden are able to explain a relatively high percentage of variation (adjusted R^2 of .529) in the dependent variable of shadow economy. Hypothesis 1 predicted that higher corruption is related to bigger size of shadow economy (tax evasion) across countries. The regression coefficient for governance level is negative and significant ($p = .002$). Therefore, I conclude that higher corruption level is related to higher tax evasion or to a bigger size of shadow economy.

Table 3: Regression Results

	Coefficients[a]				
	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
1 (Constant)	.389	.052		7.486	.000
Governance level	-.022	.006	-.538	-3.379	.002
Tax system	-.001	.000	-.179	-1.777	.082
Tax burden	.222	.101	.253	2.211	.032
GDP per capita	-1.185E-06	.000	-.289	-1.798	.079
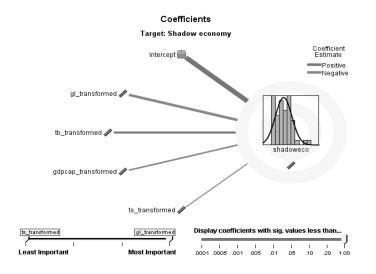
a. Dependent Variable: Shadow economy

Hypothesis 2 predicted that higher Tax burden is related to a bigger size of shadow economy (tax evasion) across countries. The regression coefficient for Tax burden is positive and moderately significant ($p = .032$). Results show that tax burden does influence tax evasion especially in developing countries or simply as a response to oppressive tax rates (Cebula, 1997). Hypothesis 3 predicted that better (effective and efficient)

Tax administration is related to a smaller size of shadow economy. The regression coefficient for Tax system is negative and not very significant (p = .082), showing that fiscal reforms and better fiscal tax administration will not drastically impact the shadow economy and tax behavior as long as also corruption behavior of government representatives remains unchanged.

Control variable: Figure 1 below, reports a relatively significant relation (p<.079) between the level of income per person (GDP/cap) and the size of the shadow economy in different countries. The coefficient of the regression for GDP/cap is negative, which indicates that a higher level of income is associated with a lower size of the shadow economy.

Figure 1: Predictors Effects

Discussion: Alm and Torgler (2011) recommend a comprehensive range of governmental policies (including fiscal and anti-corruption) that can contribute to a change in the tax compliance attitude of the tax payers, reducing the shadow economy of a certain country. These policies consist of the use of media in order to emphasize the ethical aspects of tax evasion and to increase the social and community pressure on tax evaders; putting an end to policies that send mixed signals on the acceptability of the tax evasion, such as tax amnesties; underlining the direct link between the public services, tax revenue and tax compliance; the active use of a number of governmental agencies and organizations in the fight against corruption in order to further strengthen compliance based on tax moral and ethical behavior; and addressing perceived inequalities between politicians and citizens.

These policies and measures have been implemented successfully in many countries. As mentioned by Lenter et al. (2003), in Norway, Sweden, and Finland personal tax filings are publicly available. In U.S., according to Gray (1999), the prosecutors issue a press release when a tax evader is convicted and sentenced in order to increase the awareness of the public for tax non-compliance. Additionally, in California, the names of the top 500 taxpayers that have been convicted for tax fraud are published online. Lenter et al. (2003), provide similar evidence from New Zealand, where the names of tax evaders are made public on the regular publications of the "Tax Evaders Gazette" by the Commissioner of Inland Revenue. Torgler, (2004) bring evidence from India that in 1997 engaged marketing companies to use moral appeal to decrease tax evasion. They also launched a web site to receive report for tax evasion or corruption cases that received approximately 22,500 reports from 2010 two 2012. This strategy was used to publicly reward honest officials and also increase arrests and convictions for non-compliant and corrupt behavior. In Philippines

were recruited 1 million scouts to conduct inspections and report tax evaders. The purpose of policies described above is to establish moral norms and enforce moral cost, using social pressure, and ultimately teach a culture of fiscal compliance. Normally, building tax morale through similar measures requires time to produce effects, but it will create lasting results, and it can also improve the effectiveness of standard enforcement practices.

CONCLUSION

This study investigated the influence of corruption on the size of the shadow economy across 50 countries. The results of this research support the general proposition that corruption is a significant factor in explaining shadow economy and tax evasion levels across countries. This research was motivated by difficulties that the Balkan Counties are experiencing with corruption and tax evasion problems. It was provided empirical evidence and explanation for the vicious circle of tax evasion and political corruption in which many developing countries and sometimes even developed countries often fall into. To this extent, it was revealed that effective tax administration has a certain effect over the rates of evasion, but cannot eliminate the problem. The results of this paper are in accordance with the arguments presented in literature by Alm (2012), that considers "trust" as one of the very important paradigms for governmental policies. Accordingly, individuals are more likely to respond either to enforcement or to tax services if they believe that the tax administration is honest; that is, "trust" in the authorities can have a positive impact on compliance. However, the process of establishing trust in countries with a high corruption level is very difficult in practice. Therefore, these results can explain the failure of standard polices in eliminating corruption and tax evasion and the difficulty that many governments meet when trying to face these issues.

REFERENCES

Alam, M.S. (1995). A theory of limits on corruption and some applications. Kyklos, 48: 419-35.

Alm, J., Bahl, R., & Murray, M. N. (1990). Tax structure and tax compliance. The Review of Economics and Statistics, 72, 603–613.

Alm, J., & Torgler, B. (2006). Culture differences and tax morale in the United States and in Europe. Journal of Economic Psychology, 27, 224–246.

Alm J., and Torgler, B., 2011. Do ethics matter? Tax Compliance and Morality, Journal of Business Ethics 101, 635-651.

Alm, J., (2012).Measuring, explaining, and controlling tax evasion: Lessons from theory, experiments, and field studies. International Tax and Public Finance 19, 54–77.

Alm J., Bloomquist, K. M., and McKee, M., 2013. When you know your neighbor pays taxes: Information, peer effects, and tax compliance," Working Papers 13-22, Department of Economics, Appalachian State University.

Alley, C., & James, S. (2006). Research into economic and behavioural approaches in tax compliance. In A. Sawyer (Ed.), Taxation Issues in Twenty-First Century (pp. 3-14). Christchurch: The Centre for Commercial and Corporate Law, School of Law.

Allingham, M. G., & Sandmo, A. (1972). Income tax evasion: a theoretical analysis. Journal of Public Economics, 1, 323-328.

Bame-Aldred, C. W., Cullen, J. B., Martin, K. D., & Parboteeah, K. P. (2011). National culture and firm-level tax evasion. Journal of Business Research, In press.

Cebula RJ. (1997). An empirical analysis of the impact of government tax and auditing policies on the size of the underground economy: the case of the United States, 1973–94. Am J Econ Social 1997;56(2): 173–85.

Gray, C., 1999. United States practices in estimating and publicizing tax evasion. Discussion Paper Number 15, Harvard Institute for International Development.

Hofstede, G. (1997). Cultures and organizations: Software of the mind. New York, NY: McGraw Hill.

Husted, Bryan W. (1994). Honor among thieves: A transaction-cost interpretation of corruption in the third world, Business Ethics Quarterly, 4 (1):17-27.

Husted, B. W. (1999). Wealth, Culture, and Corruption. Journal of International Business Studies , 30 (2), 339-359.

Jackson, B. R., & Milliron, V. C. (1986). Tax compliance research: findings, problems and prospects. Journal of Accounting Literature, 5, 125-161.

Jain, A. K. (2001). Corruption: A Review. Journal of Economic Surveys, 15(1), 71-121.

Lenter, D., Shackelford, D. and Slemrod, J., (2003). Public disclosure of corporate tax return information: Accounting, economics, and legal perspectives. National Tax Journal 56, 803-830.

Likhovski, A., (2011). Taxation without a state: Jewish voluntary taxes in mandatory Palestine, 1938-1948. Unpublished Manuscript.

Likhovski, A., (2007). Training in citizenship: Tax compliance and modernity. Law and Social Inquiry 32, 665-700.

Litina, A. and Palivos, Th.(2015). Corruption and Tax Evasion: Reflections on Greek Tragedy. Retrieved on 23.10.2015 from www.bankofgreece.gr/BogEkdoseis/Paper2015193.pdf

Macrae, J. (1982). Underdevelopment and the economics of corruption: A game theory approach. World Development, 10 (8): 677-87.

Moutos, T. and Tsitsikas, C., (2010). Whither public interest: The case of Greece's public finances. FinanzArchiv: Public Finance Analysis 66, 170-206.

OECD (2011), Tax Administration in OECD and Selected Non-OECD Countries: Comparative Information Series (2011); Retrieved on 23.10.2015 from http://www.oecd.org/tax/

Picur, R. D., &Riahi-Belkaoui, A. (2006). The impact of bureaucracy, corruption and tax compliance. Review of Accounting and Finance, 5, 174–180.

Porcano, T. M. (1988). Correlates of Tax Evasion. Journal of Economic Psychology., 9, 47–67

Riahi-Belkaoui, A. (2004). Relationship between tax compliance internationally and selected determinants of tax morale. Journal of International Accounting, Auditing and Taxation, 13, 135–143.

Richardson, G. (2006). Determinants of tax evasion: A cross-country investigation. Journal of International Accounting, Auditing and Taxation, 15, 150–169.

Richardson, G (2008). The relationship between culture and tax evasion across countries: Additional evidence and extensions. Journal of International Accounting, Auditing and Taxation, 17(2), 67-78

Richardson, M., & Sawyer, A. J. (2001). A taxonomy of the compliance literature: further findings, problems and prospects. Australian Tax Forum, 16(2), 137-320.

Sandmo, A. (2005). The theory of tax evasion: A retrospective view. National Tax Journal , 63, 643-663.

Schneider, F. (2004). The Size of the Shadow Economies of 145 countries all over the world: First results over the period 1999–2003. IZA Discussion Paper No. 143. Bonn, Germany: Forschungsiinstitut zur Zukunft der Arbeit (Institute for the Study of Labor (IZA)).

Tax Justice Network (2011). A briefing paper on the cost of tax evasion worldwide. Retrieved on 23.02.2015 from http://www.taxjustice.net/2014/04/01/cost-tax-abuse-2011/

Tirana, (2015, October). Ministry of Finance of Albania Report

Torgler, B., 2004. Moral suasion: An alternative tax policy strategy? Evidence from a controlled field experiment in Switzerland. Economics of Governance, 5, 235-253.

Tsakumis, G. T., Curatola, A. B., & Porcano, T. M. (2007). The relation between national cultural dimensions and tax evasion. Journal of International Accounting, Auditing and Taxation, 16(2), 131-147.

Transparency International (2010). Corruption Perceived Index. Retrieved on 23.10.2015 from http://www.transparency.org/cpi2010

World Bank. (2010). Data and Research. Retrieved on 23.10.2015 from http://econ.worldbank.org/

World Economic Forum. (1996). Global Competitiveness Report 1996. New York: Oxford University Press.

FACTORS AFFECTING THE SELECTION OF ACCOMMODATION BY THAI TOURISTS IN THE BANGKOK AREA

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ABSTRACT

The objective of this research study is to study mixed marketing factors and the correlation between these factors and decisions of Thai tourists in selecting accommodation services; mixed marketing factors; and the problems and recommendations that effect decision-making. Statistics used in data analysis included frequency, percentage, average, value, standard deviation, independent sample t-test, One Way ANOVA, Fisher's Least Significant Difference (LSD) test, and Pearson Correlation Co-Efficiency. The result showed that mixed marketing factors affect decision-making regarding the selection of accommodation services. These were organized from greater to smaller effects, namely: the aspect of the accommodation and quality of service; the aspect of site and distribution channel; the aspect of service personnel performance and physical characteristics; the aspect of service process, marketing campaign, and pricing. These factors greatly effect selections of accommodation service by Thai tourists. Personal factors that affect decision-making in selecting accommodations by Thai tourists were: gender, domicile, age, education level, occupation, marital status, and income of the tourists; lodging experiences by Thai tourists and mixed marketing factors related to accommodation and quality of services; site and channel of distribution; marketing promotion; service personnel; service process and physical characteristics were all correlated.

JEL: M00

KEYWORDS: Affecting Factors; Service Selection; Tourists; Hotels

INTRODUCTION

The tourism industry can be considered a main business that creates income for the country and widely benefits businesses, including both businesses directly related to tourism and those indirectly related. Examples include accommodations, transportation, tour and logistics, food, financial, souvenir and telecommunications business, as well as the production of agricultural products, OTOP products, handmade artifacts and products based on local knowledge. The tourism industry plays a prominent role in creating income and jobs, resulting in positive effects to the economy and society.

Bangkok, as the capital of Thailand, is the center of progress in every area and the central administrative seat, as well as serving as the center for economy, education, culture and good transportation, including international contact. For this reason, Bangkok is chosen as the first place to visit by tourists. Bangkok is a source of varied and plentiful tour sites, both during the day and night. Therefore, tourism can take place at all times without needing a large budget.

The hotel business is directly related to the tourism industry, and is important to creating income and jobs. The hotel business covers a wide variety of enterprises, such as hotels, resorts, guesthouses, condominiums, rented houses, apartments, motels bungalows, hostels, and campgrounds. Each form has many rates, depending on the size of the lodging, facilities, services, safety, and convenience in transportation. A tourist's choice of lodging depends on many factors, such as income, personal preference, and the intended destination. The hotel business creates a considerable amount of income for Thailand, gained through the accommodations and services chosen by the tourists. From 2010statistics, it was found that 7,216,577 foreign tourists lodged in Bangkok.

Objectives

1-To study the level of mixed marketing factors that affect the selection of accommodation services by Thai tourists in Bangkok.

2-To study the composition factors of the market that affect the selection of accommodation services by Thai tourists in Bangkok, categorized by personal factors of the tourists.

3-To study the correlation of the factor of lodging experience of foreign tourists and the selection of accommodation services according to compositions factors of the market.

4-To study problems and recommendations regarding the selection of accommodation services by Thai tourists in Bangkok.

RESEARCH METHODOLOGY

This study was made by quantitative research of a sample population of 400 people in the research area, namely, Thai tourists who are domiciled in other provinces whom have traveled to tour and lodge in Bangkok. The data was gathered by random sampling to distribute questionnaires that were divided into 4 sections. The first section was to record basic information of the respondent; the second section was made up of questions regarding the lodging experiences of the respondents; the third part contained questions about the decisions leading to a selection of accommodation services by the tourists, according to composition factors of the market; and lastly, the fourth section contained questions to study the problems and recommendations of the respondents.

After compiling the data gained from the questionnaires and checking for correctness and completeness, the researcher analyzed the data by using the SPSS program, descriptive statistics in the first section of the questionnaire and the lodging experience of the respondent in the second section, by finding the frequency and percentage; for the third section, the mean and standard deviation was found and the data analyzed by using inferential statistics to test the hypothesis and the variation between the two groups independently of each other by independent t-test and ANOVA. The correlation was tested and analyzed using regression analysis statistical value.

RESULTS

The researcher summarized and discussed the results from the study on factors affecting the selection of accommodation by Thai tourists in the Bangkok area, as well as offering recommendations as follows:

First section: in summary of the personal factors of the sample group, the majority of the sample group male, domiciled in the northern region, aged 25 – 35 years, having an education level higher than a bachelor's degree, were office employees, single and earned a salary of 40,001 – 50,000 THB.

Second section: from the study of the market composition factors that affect the selection of accommodations by Thai tourists in Bangkok, in order of greatest affecting factor to least affecting factor, it was found that the mean for the aspect of accommodations and services was 4.21; the mean for the aspect of site or channel of distribution was 4.16; the mean for the aspect of the aspect of service personal performance and physical character was 4.14; the mean for the aspect of service process was 4.13; the mean for the aspect of marketing campaign was 4.08; and the mean for the aspect of pricing was 4.07. Every aspect of market composition greatly affected the selection of accommodation services by Thai tourists.

Third section: regarding factors affecting the selection of accommodation by Thai tourists in the Bangkok area, the personal factors that affected the mean score of market composition factors affecting factors the selection of accommodation by Thai tourists in the Bangkok area were the gender, domicile, age, level of education, occupation, marital status and income of the tourists.

Fourth section: there was correlation between the factor of lodging experience of Thai tourists and the selection of accommodation services according to compositions factors of the market, lodging experience of foreign tourists and the selection of accommodation services according to compositions factors of the market in the aspect of accommodations and services, price, site or channel of distribution, marketing promotion, the aspect of service personnel performance, the aspect of service process, and the aspect of service personal performance and physical characteristics.

Fifth section: from the study on problems and recommendations of the respondents regarding the selection of accommodation by Thai tourists in the Bangkok area, the following was found: 1) there should be signs clearly stating the price of each service in order to prevent the tourist from being taken advantage of by the operator; 2) there should be standard prices for products, because currently accommodation prices skyrocket during holiday season; 3) the service by personnel should be improved appropriate to the lodging price; 4) the accommodations should have safety standards for the life and possessions of the tourists.

SUMMARY

Organized from greater to smaller effects, the market composition factors that affect the selection of accommodation by Thai tourists in the Bangkok area are namely: the aspect of the accommodation and quality of service; the aspect of site and distribution channel; the aspect of service personnel performance and physical characteristics; the aspect of service process, the aspect of marketing campaign, and the aspect of pricing. Every aspect of market composition greatly affected the selection of accommodation services by Thai tourists. This shows that the market composition factors affecting the selection of accommodation services vary. Fundamentally, there are 4 aspects; namely, product, price, channel of distribution and marketing promotion. However, for the service industry, market composition factors differ from market composition factors of general products, specifically, there must be emphasis on personnel, service process, and the physical surroundings. These three components are the main factors in service delivery. Therefore, the market composition factors of service are composed of the "7 P's": product and service, price, place, promotion of market, personnel, process of service and physical surroundings. The main factors in the aspect of accommodations and service most affect the selection of services by tourists are products, which are composed of form and characteristics, including the services related to those products. The most important part of the product aspect is determination to develop something to meets the needs of the consumer. The product market composition factors are given the most importance by tourists, and used to consider the selection of produce. If it is possible to create a product (which in this context means accommodations and services) that has quality, utility and value in the eyes of the client, the result will be successful sales of rooms.

RECOMMENDATIONS

1. Accommodation businesses and those involved should improve the method of determining the accommodation and service price to be standardized and clear, not raised and lowered according to the holiday or tourist season.

2. Accommodation businesses and those involved should improve all areas of service for the tourists, including manners, attention to the tourist and service ethic.

3. Accommodation businesses and those involved should continually develop marketing strategy by distinguishing various forms of service in order to completely and directly meet the demands of the consumers.

4. At the accommodations, there should be safety standards for the life and possessions of the tourists to protect them from harm and loss of possessions.

REFERENCES

National Statistic and Research Center of Thailand . 2002. Tourist expenditure survey 1999. Bangkok. Khajit Korbdej. 1999. Hotel jobs: Room division : housekeeping work in hotels and other institutions. 4th Ed. Bangkok: Printique.

Theerasak Kambaanarak. 1998. Fun Psychology. 2nd Ed. Thammasat University Press. Bangkok

hongchai Santiwong. 1999. Personnel management. Bangkok: Thai Wattana Panich.

Thanya Saehun. 1999. Introduction to Hotel Management.Nakhornpatom rajabhat Institute : Nakhornpatom.

Nongnuch SriThananand. 2004. Basic Hoteling. 3rd Ed. Bangkok: Durakijbundit University

Boonlert Jittangwatthana . 2005. Flight Business (1st Ed.). Bangkok: Press and design.

Preecha Dangroj. 2001. Tourism Industry into the 21st Century. Bangkok. Fire and Four Printing.

Pornthep Piyawattanamehtanakura (Editor) . Uishiro. 1993 Handbook on Solving Sales and Service Problems. Bangkok :H. N. Groups, Ltd.

Pornsiri Thiwalannawong. 2033. Lecture Notes on Management Principles , Faculty of Management, Khonkaen University.

Wachirapron Lohachala. 2002. Satisfaction of Foreign Tourists in Selecting Accommodation Services in the Municipality of Mae Rim. Independent Research. Master of Arts, Tourism Industry Management,

Chiang Mai University Graduate College. Bangkok Website. 2012 [online]. Accessable at: http://www.bangkok.go.th   [accessed on 20 January 2012]

Siriwan Serirat et al. 1998. Organizational Behaviour. Bangkok:Teerafilmm and Sytex Printing. The American Marketing Association-AMA.) [online]. Accessible at : http://www.idis.ru.ac.th/report/index.php?topic =263.0 [accessed on 20 January 2012.

Seri Wongmontha. 1999. Market Strategies: Market Planning. Bangkok: Theerafilm and Sytex Printing.

Anupont Kitjapanich. 1996. Professional Personnel manager. Bangkok: Human Heritage.
Kotler Philip & Aramstrong, Gary. 1996. Principles of Marketing 7th Ed . New Jersey: Prentice-Hall International.

Kotler Phillip. 1997. Marketing Management. New Jersey: Prentice - Hall.

Kotler, Philip. 2003. Marketing Management. 11th ed. Upper Sanddle River, New Jersey: Prentice-Hall.

Stanton, William J., Buskirk, Richard H. & Spiro, Rosam L. 1991. Sale Management. ed.Homewood, IL: Irwin.

THE EMPIRICAL RESEARCH ON RELATIONSHIP BETWEEN TRAFFIC COST AND REGIONAL GASOLINE DEMAND IN SOUTH KOREA

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ABSTRACT

This study examined the effect of traffic congestion costs on regional gasoline demand in South Korea based on gasoline demand function derived by a dynamic optimization. Considering endogeneity of gasoline price, 2SLS, GMM methods were compared with OLS. First, the estimated coefficients were as expected. The coefficient of congestion costs was negative because the higher congestion costs incur the lower gasoline demand. Second, the higher traffic congestion costs were associated with the higher price elasticity. While consumers in the Metropolitan area in South Korea confront high traffic congestion costs, they seem to react flexible on price changes because they can use other choices of transportation (bus, subway, etc.) except for their own cars. Third, endogeneity was found, and 2SLS and GMM was more reliable than OLS. Also, price elasticity in the model without holding traffic congestion costs was overestimated otherwise. The findings imply that considering endogeneity of price and congestion costs may improve estimates and predictions of gasoline demand.

JEL CLASSIFICATION: Q41; D12; C26

KEYWORDS: Traffic Congestion Costs, Gasoline Demand, Price Elasticity, 2SLS, GMM

INTRODUCTION

There are many studied of price and income elasticity on the gasoline demand. They study that the magnitude of demand responses as a results price changes and income changes. However, externalities such as traffic congestion costs have been overlooked for analyzing gasoline demand in South Korea. Traffic congestion costs(TCC) are type of external cost of transportation such as air pollution, noise, accident cost. It includes loss of time and unnecessary vehicle running costs due to traffic jam. Therefore, traffic congestion cost is proxy variables as traffic congestion(Cho and Lee, 2008). In addition, Gasoline demand and distance per vehicle varies depending on traffic congestion cost. When magnitude of traffic congestion cost is increasing, households prefer use of public transportation to use of own car. Since most of gasoline demand in South Korea is consumed by utilizing own vehicles(Kim and Kim, 2011), Increase in traffic congestion cost will ultimately reduce distance per vehicle and gasoline consumption(Baltagi and Griffin, 1983). This paper has three major objectives. First, we analyze the effect of traffic congestion costs on gasoline demand. Since estimating the gasoline demand without effect of traffic congestion cost has omitted variables problem, this paper will compare gasoline demand whether TCC exists or not. Second, we show changes to price elasticity with varying traffic congestion costs. In addition, we compare price elasticity in Metro area which has high level of traffic congestion costs to price elasticity in Non metro area. Finally, considering that the endogenity problem of gasoline price, we use Instrumental Variables estimator such as 2SLS(Two Stage Least Square) and GMM(Generalized Method of Moments) and compare to the results of OLS. Because this endogeneity will leads to a biased parameter estimates, we contribute to estimate gasoline demand appropriately utilizing Instrumental Variables methods. Almost previous studies analyze price and income elasticity on gasoline demand based micro-foundation. They examined that effect of

population, industry structure and characteristic of households. The remainder of the paper is organized follows: Section 2, we introduce gasoline demand function by a dynamic optimization, and provide the methodology. Section 3, we shows that results is estimated. Section 4, we concludes.

Gasoline Demand and TCC

Gasoline consumption is composed ot three separate determined. There are the relationship is given by equation (1) (Batagi and Griffin, 1983; Medlock and Soligo, 2002).

$$g_t = \frac{d_t}{\varepsilon_t} v_t \qquad (1)$$

Where g_t is gasoline consumption, d_t is distance(kilometer) per vehicle, v_t is number of vehicle. Assume that the energy efficiency is given by current technology, households consume gasoline for using vehicle. This study examined the effect of TCC on gasoline demand in South Korea based on gasoline demand function derived by a dynamic optimization. we assume utility to be concave twice–differentiable function of the gasoline(g_t) and all the other goods(c_t). and The consumer's problem is therefore formulated as(Medlock and Soligo, 2002):

$$\max \sum_{t=0}^{T} \beta^T U(c_t, g_t), \qquad 0 < \beta < 1 \qquad (2)$$

$$s.t \quad c_t + p_t g_t + \varphi_t a_t + s_t \leq w_t + (1 + R)s_{t-1} ; \qquad (3)$$

$$a_t = v_t - (1 - \delta)v_{t-1}; \qquad (4)$$

where c_t is all the other goods, s_t is financial saving bearing the rate of return R, a_t is purchases of vehicle stock, v_t, p_t is gasoline price, φ_t is vehicle price, w_t is wage income, is δ depreciates rate about vehicle stock. It is equivalent that consumers choose gasoline to maximize utility to that choose vehicle demand and distance per vehicle, since equation (1) is defined. When first order condition for a maximum for this consumer's problem is derived, optimal vehicle demand and distance per vehicle derived is affected User cost, μ_t (Medlock and Soligo, 2002).

$$\mu_t = p_t \left(\frac{d_t^{c*}}{\varepsilon_t}\right) + \varphi_t - \varphi_t \left(\frac{1 - \delta}{1 + R}\right) \qquad (5)$$

Where the star denotes an optimal value, in equation (5), user cost(μ_t) of vehicles is composed two part: one is gasoline price(p_t), The other is rental price of vehicle($\varphi_t - \varphi_t(1 - \delta/1 + R)$) We focus on first term at the right-hands side, $p_t(d_t^{c*}/\varepsilon_t)$. It consists of gasoline price(p_t), optimal distance(d_t^{c*}), and gasoline efficient(ε_t) Because of traffic congestion costs(TCC) due to road traffic congestion when traveling on the road by vehicle, TCC are closely associated with the distance(kilometer) per vehicle. Furthermore, with increasing TCC, households may find substitutes of vehicle such as, bus, subway etc. Since gasoline consumption in South Korea is consumed by using car(Kim and Kim, 2011), Increasing TCC will ultimately leads to reduce the gasoline consumption:

$$d_t^{Tc} = \left(1 - T(cost_t)\right)d_t^* \tag{6}$$

In equation (6), we assume relationship between real distance(d_t^{Tc}), optimal distance(d_t^{c*}) and TCC($T(cost_t)$). Increasing TCC causes reducing real distance than optimal distance. We can formalize user cost affected by TCC replacing d_t^{c*} in equation (5) with d_t^{Tc} in equation (6).

$$\mu_t^{Tc} = p_t \left(\frac{d_t^{c*}}{\varepsilon_t}\right) - p_t T(cost_t) \left(\frac{d_t^{c*}}{\varepsilon_t}\right) + \varphi_t - \varphi_t \left(\frac{1-\delta}{1+R}\right) \tag{7}$$

It can be shown that the general function for the user cost of equation (5), and equation (7)(Medlock and Soligo, 2002).

$$\mu_t = \mu\left(p_t, exp(r_t)\right) \tag{8}$$

$$\mu_t^{Tc} = \mu\left(p_t, -p_t T(cost_t), exp(r_t)\right) \tag{9}$$

μ_t in equation (8) is not included TCC and μ_t^{Tc} in equation (9) is included TCC, where Interest rates, $exp(r_t)$, is proxy variables about rental price($\varphi_t - \varphi_t(1 - \delta/1 + R)$) (It is two reasons that we use interest rates as proxy variables about rental price. First, rental price of vehicle is defined opportunity cost when households purchase vehicle(Diewert, 1974; Medlock and Soligo, 2002). Second, rental price of vehicle is theoretically equivalent to the marginal product revenue of vehicles(Felipe and McCombie, 2007).) user cost (8)-(9) plus the full set of first order conditions for consumer's problem can be solved vehicle demand and demand for distance travelled by car(Medlock and Soligo, 2002).

$$v_t^* = v(\mu_t, y_t) = v(p_t, exp(r_t), y_t) \tag{10}$$

$$d_t^* = d^*(\mu_t, y_t) = d^*(p_t, exp(r_t), y_t) \tag{11}$$

$$v_t^{Tc} = v^{Tc}(\mu_t^{Tc}, y_t) = v^{Tc}(p_t, -p_t T(cost_t), exp(r_t), y_t) \tag{12}$$

$$d_t^{Tc} = \left(1 - T(cost_t)\right)d^*(\mu_t^{Tc}, y_t) = d^{Tc}(p_t, -p_t T(cost_t), T(cost_t), exp(r_t), y_t) \tag{13}$$

Where y_t is total income as households wage income plus assets, equation (10) and equation (11) is implied vehicle demand and demand for distance that is not included TCC. Eq. (12) and eq. (13) is expressed as vehicle demand and demand for distance affected by TCC. Eq. (10)-(13) is depends on gasoline price(p_t), interest rate($exp(r_t)$), wealth(y_t), regardless of the presence TCC. We focus to find out how TCC affect demand for distance and vehicle, because they are influenced by TCC in different ways. Both vehicle(v_t^{Tc}) and distance(d_t^{Tc}) are affected by interaction term between TCC and gasoline price ($p_t T(cost_t)$). However, demand for distance(d_t^{Tc}) is affected by not only interaction term but also a direct impact on TCC. Because, we see equation (6), TCC directly reduces the real distance. By equation (1)'s identity, equation (10)-(13) allows us to write a general function describing gasoline demand as:

$$g_t^* = g(p_t, exp(r_t), y_t, \varepsilon_t) \tag{14}$$

$$g_t^{Tc} = g(p_t, -p_t T(cost_t), T(cost_t), exp(r_t), y_t, \varepsilon_t) \tag{15}$$

Equation (14) is gasoline demand unrelated to TCC. Equation (15) is gasoline demand related to TCC. Both are influenced by gasoline price(p_t), interest rate($exp(r_t)$), wealth(y_t) and energy efficient(ε_t). However, gasoline demand in equation (15) is affected by TCC such as interaction term($p_t T(cost_t)$) and a direct impact on TCC.

Regional Gasoline Demand Function

This paper estimates regional gasoline demand in South Korea. Equation (14)-(15) derive by a dynamic optimization is generalized gasoline demand function. we let their functions to take logarithm and to rearrange. They are expressed by equation (16) and equation (17)

$$lng_{i,t} = \alpha + \beta_1 \ln p_{i,t} + \beta_2 lny_{i,t} + \beta_3 r_t + \beta_4 ln\varepsilon_{i,t} + u_{i,t} \tag{16}$$

$$lng_{i,t} = \alpha + \beta_1 \ln p_{i,t} + \beta_2 lny_{i,t} + \beta_3 r_t + \beta_4 ln\varepsilon_{i,t} + \gamma_2 (lnp_{i,t} lncost_{i,t})$$
$$+ \gamma_1 lncost_{i,t} + u_{i,t} \tag{17}$$

where i is region in south Korea, t is time, $g_{i,t}$ is gasoline consumption per capita in region, $p_{i,t}$ is average gasoline price at gas station in region, $y_{i,t}$ is GRDP(Gross regional domestic product) per capita, $\varepsilon_{i,t}$ is energy efficient, r_t is interest rates as proxy variables of rental price, $cost_{i,t}$ is TCC, $u_{i,t}$ is a contemporaneous error term. In equation (16), coefficient of gasoline price, interest rate, and energy efficient shows negative signal, income is positive(Batagi and Griffin, 1988; Medlock and Soligo, 2002). In equation (17) related by TCC, expected on the coefficient of Income, interest rates and energy efficiency is the same as in equation (16). But price elasticity influenced by cross-term gasoline can be expressed as equation (18).

$$\frac{\partial lng_{i,t}}{\partial \ln p_{i,t}} = \beta_1 + \gamma_2 lncost_{i,t} \tag{18}$$

We expects $\beta_1 + \gamma_2 lncost_{i,t} < 0$, since gasoline price have negative(-) relationship on gasoline demand. Futhermore, The gasoline price elasticity varies with the TCC in equation (18). According to equation (15), cross-term between price and TCC has negative relationship with gasoline demand, so that $\gamma_2 < 0$ is expected. It is implied that increasing TCC increases magnitude of price elasticity due to use of public transport. It is expected to have a negative sign of the Traffic congestion cost elasticity ($\gamma_1 + \gamma_2 lnp_{i,t}$) also by the same reason.

Empirical Methodology

In order to estimating equation (16) and (17), There are potential econometric issues about endogeneity.

Estimating demand function occurs because price and consumption are jointly determined by the interaction of supply and demand curves(Lin and Zeng, 2013). This endogeneity will leads to a biased parameter estimates. Through DWH(Durbin-Wu-Hausman) Test, we will check the endogeneity of gasoline price empirically. An instrument should satisfy the two condition: it should be highly correlated with gasoline price and should not be correlated with $u_{i,t}$, contemporaneous error term. Batagi and Griffin(1997) used the lagged exogenous variables, Ramsey et al(1975) used gasoline inventory quantity, Lin and Zeng(2013) used diesel prices as instrumental variables. we use also exogenous variables, gasoline inventory quantity and diesel prices as instrumental variables. and see two conditions about instrumental variables using some test. For test instrumental variables unrelated with error term, we use Hansen J statistic. In order to strength of the instrumental variables, we use AR(Anderson-Rubin F Test). TSLS(Two Stage Least Square) and GMM(Generalized Method of Moments) is representative estimator as instrumental variables method. This study compares the estimated model with 2SLS and GMM, and the results of the regression equation and the fixed effects model was analyzed.

DATA AND RESULTS

Data

The data are panel data which range from 2005- 2012 for each region in South Korea. Gasoline consumption per capita ($g_{i,t}$) obtained from the petronet (www.pertronet.com) and Korea Statistical information service. Since gasoline consumption presented in Perronet is BbL basis, we will convert to liter. Gasoline price($p_{i,t}$) is also regional gas station price data from Petronet, Interest rate(r_t) and Income($y_{i,t}$) obtained from Korea Statistical information service. Finally, TCC(Traffic congestion cost ($cost_{i,t}$) per capita is from Korea Transport Database(www.ktdb.go.kr). All variables was adjusted to real variables through the regional CPI(The regional consumer price index in South Korea) from Korea Statistical information service. Energy efficient, $\varepsilon_{i,t}$ obtained from Survey of distance travelled by vehicle (Korea Transportation Safety Authority) from 2005 to 2012. Descriptive statistics of the variables are as follows Table 1.

Table 1: Descriptive Statistics

Variables	note	avg	std. error	source
$g_{i,t}$	regional gasoline consumption per capita.	3974.113	3861.83	Petronet
$p_{i,t}$	regional gasoline price at gas station in South Korea.	1475.081	256.3037	Petronet
$y_{i,t}$	regional GRDP per capita	19607.12	9256.259	Kosis
r_t	interest rate in South Korea	6.553	2.760968	Ecos
$\varepsilon_{i,t}$	energy efficient	10.113	2.200468	Petronet and Kosis
$cost_{i,t}$	TCC(Traffic congestion cost) per capita	556628	205313.2	Korea Transport DB

note: panel data From 2005 to 2012 at 16 provinces on South Korea

RESULTS

This paper estimate gasoline demand function using equation (16) and (17) The results of equation (16) which is disregarded TCC are in Table 2, where column (1) is results of OLS, column (2) is Fixed effect, column (3) is 2SLS and column (4) is GMM. We test presence of the endogeneity about price as Durbin-Wu-Hausman test and condition of ideal instrumental variables using Hansen J test and Anderson-Rubin test. The results of test is also reported in Table 2. According to results of Durbin-Wu-Hausman test, 'gasoline price is exogenous variables.' is rejected at 10% significance level. Therefore, gasoline price variables empirically have the endogeneity problem. We find out our Instrumental Variable is unrelated by error term using Hansen J statistics. The results follows that 'Instrumental Variable is exogenous variables.'

is mot rejected at 10% significance level. The results of test the strength of the instrumental variables such as Anderson-Rubin F shows that the null hypothesis which does not imply a correlation between the instrumental variables and endogenous variables were rejected at 1% significance level. Above results, OLS leads to a biased parameter estimate and our instrumental Variables are empirically appropriate. Therefore, 2SLS and GMM was more reliable than OLS. FE. The results of estimates equation (16) in Table 2 follows that, the estimates of coefficients about the main variable was consistent with expectations. Under OLS, 2SLS, GMM, coefficients of gasoline price, energy efficient, interest rate show negative(-) sign, and Income is positive(+) at 1% significance level. However, FE(Fixed effect) estimator shows that Income is negative(-) and gasoline price was not significant.

Table 2: the Mode without Holding Traffic Congestion Costs

Variables	OLS	FE	2SLS	GMM
$\ln p_{i,t}$	-0.801***	-0.030	-1.249***	-1.220***
	(0.229)	(0.118)	(0.270)	(0.249)
$lny_{i,t}$	0.166***	-0.039	0.168***	0.169***
	(0.033)	(0.106)	(0.023)	(0.022)
r_t	-0.034***	-0.033***	-0.041***	-0.042***
	(0.011)	(0.005)	(0.010)	(0.010)
$ln\varepsilon_{i,t}$	-0.682***	-0.470***	-0.704***	-0.705***
	-0.053	-0.045	-0.049	-0.047
constants	10.211***	7.448***	13.600***	13.385***
	(1.837)	(1.800)	(2.141)	(1.960)
obs.	128	128	128	128
R^2	0.764	0.786	0.749	0.741
DWH			12.514***	13.514***
Hansen J			10.024	10.024
AR F test			5.45***	5.45***
SW			22.41***	22.41***

*note: ***p<0.01, **p<0.05, *p<0.1 DWH is Durbin-Wu-Hausman. AR F test is Anderson-Rubin F test, SW is Stock-Wright test.*

The focus of this study is to analyze the effect of traffic congestion costs on gasoline demand and price elasticity. This study estimates the effect of traffic congestion costs on gasoline demand at equation (17), and examine model specific test, test of the endogeneity, and condition of instrumental variabels. All resluts are reported in Table 3. According to results of Durbin-Wu-Hausman test, 'gasoline price is exogenous variables.' is rejected at 5% significance level. Therefore, gasoline price variables empirically have the endogeneity problem. In order to check that our instrumental variables are empirically appropriate, we use Hansen J statistics as test bad IV and Anderson-Rubin F as test the strength of the instrumental variables. The results of test implied that Our instrumental variables are exogenous variables and not weak Instrumental Variable. It implies that 2SLS and GMM was more reliable than OLS, FE.

Table 3: The Mode with Holding Traffic Congestion Costs

Variables	OLS	FE	2SLS	GMM
$\ln p_{i,t}$	8.442 (7.217)	5.539 (3.858)	0.967*** (0.068)	0.991*** (0.056)
$lnp_{i,t}\ lncost_{i,t}$	-0.676 (0.548)	-0.422 (0.293)	-0.130*** (0.019)	-0.128*** (0.019)
$lny_{i,t}$	0.122*** (0.029)	-0.107 (0.114)	0.125*** (0.019)	0.117*** (0.017)
$ln\varepsilon_{i,t}$	-0.548*** (0.050)	-0.493*** (0.047)	-0.565*** (0.061)	-0.553*** (0.051)
r_t	-0.032*** (0.009)	-0.035*** (0.005)	-0.036*** (0.009)	-0.032*** (0.009)
$lncost_{i,t}$	4.841 (4.095)	3.229 (2.193)	0.781*** (0.152)	0.758*** (0.146)
constants	-55.682 (53.905)	-33.993 (28.268)	0.000 (0.000)	0.000 (0.000)
obs.	128	128	128	128
R^2	0.799	0.772	0.794	0.793
Specific test(χ^2)			98.29***	137.10***
DWH			7.358**	7.358**
Hansen J			7.955	7.955
AR F test			2.32**	2.32**
LM statistic			13.11*	13.11*

note: ***p<0.01, **p<0.05, *p<0.1 DWH is Durbin-Wu-Hausman. AR F test is Anderson-Rubin F test, SW is Stock-Wright test

The results of estimates equation (17) in table 2 follows that, coefficients of energy efficient, interest rate show negative(-) sign, and Income is positive(+) at 1% significance level, except to FE(Fixed effect). FE(Fixed effect) estimator shows that Income is negative(-) and gasoline price was not significant. second, estimates of price elasticity in OLS and FE are not significant. However, under 2SLS, GMM, estimates of price elasticity are significant at l% level. To analyze price elasticity, we show $\beta_1 + \gamma_2 lncost_{i,t}$, which is price elasticity in equation (17). It means that magnitude of price elasticity is changed with degree of TCC. The results is reported in <table 4>. For the Min value of Traffic congestion, The OLS and FE estimates results are positive sign. However, 2SLS, GMM estimates results are negative(–0.564~–0.792) with all interval of TCC, For 2SLS and GMM, Following results such as test of endogeneity and test of instrumental variables, 2SLS, GMM results are more empirically appropriate than OLS, FE’s.

Table 4: Price Elasticity ‘$\beta_1 + \gamma_2 lncost_{i,t}$’

$\beta_1 + \gamma_2 lncost_{i,t}$	Min	Mean	Max
OLS	0.228	-0.445	-0.975
Fixed effect	0.411	-0.009	-0.340
2SLS	-0.613	-0.742	-0.844
GMM	-0.564	-0.692	-0.792

The next issue concerns the difference in price elasticity and TCC elasticity between Metropolitan and Non-Metropolitan area in South Korea. <Table 5> is reported that price elasticity and TCC elasticity is estimated under GMM in <Table 3>. results follows that: first, TCC elasticity is similar between Metropolitan(-0.198) and Non-Metropolitan area(-0.197). Because there are no difference in gasoline price across region However, we see difference in price elasticity between Metropolitan(-0.739) and Non-Metropolitan area(-0.665) with TCC. It implies that as TCC increase the price elasticity increase. However, we shows that price elasticity is less than 1 under both Metropolitan and Non-Metropolitan area. It is different about results of <table 2>. The findings imply that price elasticity in the model without holding traffic congestion costs were overestimated otherwise and considering congestion costs may improve estimates and predictions of gasoline demand.

Table 5: Price and TCC Elasticity across Region

	$\beta_1 + \gamma_2 lncost_{i,t}$	$\gamma_1 + \gamma_2 lnp_{i,t}$
All region	-0.702	-0.197
Metro	-0.739	-0.198
Non Metro	-0.665	-0.197

CONCLUSIONS

This paper examined the effect of traffic congestion costs on gasoline demand. For analysis, we utilize gasoline demand function derived by a dynamic optimization. Allowing that distance per vehicle is influenced by traffic congestion costs, we analyze gasoline demand with holding traffic congestion costs. In addition, we deal with endogenity problem of gasoline price using 2SLS, GMM and compare their results to OLS's. The results follows that first, the estimated coefficients were as expected. Coefficient of price, energy efficient, interest rate and congestion cost shows negative sign and coefficient of income is positive sign. They are also significant. Second, A Model specific test rejects model without holding traffic congestion costs. It means that traffic congestion cost has important role of estimating gasoline demand. Third, we show that price is endogenous variables and our instrumental variables are empirically appropriate. Therefore, 2SLS and GMM was more reliable than OLS. Finally, he higher traffic congestion costs were associated with the higher price elasticity. While consumers in the Metropolitan area confront high traffic congestion costs, they seem to react flexible on price changes because they can use other choices of transportation (bus, subway, etc.) except for their own cars. In addition, price elasticity is less than 1. It means that price elasticity in the model without holding traffic congestion costs were overestimated otherwise. The findings imply that considering endogeneity of price and congestion costs may improve estimates and predictions of gasoline demand.

REFERENCES

Minsung Kim and Sungsu Kim, (2011) "Estimator of Price and income elasticities on gasoline demand and diesel demand", *Journal of Environment in Korea* Vol 50, p. 159~182.

SuKwan Jung, (2015) "Empirical Research on Regional Gasoline Demand Efficiency", Journal of the Korean Regional Development Association, Vol 27, p. 125~142.

Hanseon Cho and Dongmin Lee, (2008) "2007 Traffic Congestion Costs: Estimation and Trend Analysis", The Korea transport institute,.

Anderson, T. W., and H. Rubin. (1949) "Estimators of the Parameters of a Single Equation in a Complete Set of Stochastic Equations." The Annals of Mathematical Statistics, Vol 21, p. 570~582.

Baltagi, B. H., and J.s M. Griffin, (1983) "Gasoline demand in the OECD: An application of pooling and testing procedures," European Economic Review, Vol 22, pp. 117~137.

Baltagi, B. H., and J. M. Griffin, (1997) "Pooled estimators vs. their heterogeneous counterparts in the context of dynamic demand for gasoline," Journal of Economics, Vol 77, pp 303~327.

Espey, M., (1998) "Gasoline demand revisited: an international meta-analysis of elasticities,"Energy Economics, Vol 20,. 273~295.

Lin, C. Y. C., and J.J. Zeng, (2013) "The elasticity of demand for gasoline in China," Energy Policy, Vol 59, p. 189~197

Medlock Ⅲ, K. B. and R. Soligo, (2002) "Car ownership and economic development with forecasts to 2015," Journal of Transport Economics and Policy, Vol 36, p. 163~188.

Ramsey, J., R. Rasche, and B. Allen, (1975) "An Analysis of the private and commercial demand for gsoline." The Review of Economics and Statistics, 57, p. 502~507.

Stock, J. H., and Wright, J. H. (2000) "GMM With Weak Identification." Econometrica, Vol 68 , p. 1055–1096.

WHAT UNIVERSITIES CAN LEARN FROM BUSINESSES: A CRITICAL RESEARCH STUDY OF ADAPTING CORPORATE ORGANIZATIONAL DEVELOPMENT APPROACH IN UNIVERSITY ENVIRONMENT

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ABSTRACT

Universities are facing dramatic changes in their environment, affecting their strategic competitive positions and organizational effectiveness. High education is a big business, but business approach to strategic planning and organizational development in a university environment is still rarely used. Change management and organizational interventions are among best corporate practices in addressing external and internal strategic and organizational needs. Is it possible effectively using adapted corporate approaches for strategy-driven organizational development in universities? What are factual and perceived key problems and what are key success factors? What are result's logic, time-frame, and expected benefits? This critical research study is based on 128 structured interviews, followed by open-question interviews and employees' anonymous evaluations in five comprehensive organizational development projects in one university. The projects are focused on clusters of centralized business and financial services at a state-supported mid-size northwest university. This study is highlighting a successfully adapted model and a structured implementation framework for organizational development in a specific university environment. The purpose of the study is to help understanding and sharing challenges and practitioners' experience answering the overarching question: How to make organizational development project in university work?

JEL: L22, M19

KEYWORDS: Organizational Development, University Environment, Change Management, Strategic Planning, Organizational Interventions, Business Development, Results Logic, Implementation Framework

INTRODUCTION

High education becomes a big and global business, with growing competitive pressures from the game-changing factors. Competitive battles are emerging on the high education diversified markets, increasing needs for strategy-driven organizational development (OD). However, business approach and criteria in planning and implementing strategic and organizational changes in a university environment are still rarely used. Change management and organizational interventions are theoretically well founded, and OD techniques are already being used widely in business corporations. Addressing changes in universities is still on a mostly theoretical level, analyzing "Why?" and "What?" issues, but with very few studies focused on the generic question: How to make organizational development project in university work? In the last decade, there is an effort among a growing number of universities to address strategic and operational business challenges in a more effective way. Despite an academic and tradition based culture and driving forces, more and more universities are trying to find ways to overcome typically "glacial" approach in comparison to fast and substantial changes in the business world. The search for new OD approach and practices in high education is primarily conducted in universities with advanced Human Resources Management (HRM) capacities and functions. Accordingly, research questions emerged.

What are best corporate practices in addressing external and internal strategic and organizational needs and challenges? Is it possible to use adapted corporate models and business approach for strategic-driven organizational development in universities? What are factual and perceived key problems and what are key success factors? Are there adapted models and a structured framework for organization development in universities? What are result's logic and expected benefits? Those are issues and challenges that are receiving increasing attention from both practitioners and researchers – and this is the topic of this paper.

Relatively little is known about universities using organizational development in a comprehensive way, for strategy-driven changes. There is very few published research of specific attempts to adapt corporate techniques for university. Rare OD case studies (Torroco, 2005) are helping gaining initial insights into practical initiation and implementation problems. In practice, simply visiting universities' web sites across the country, the primary conclusion is that organizational development is still mostly reduced to the professional training program and coordinating external consulting services. This is especially case analyzing mid-size public and state-supported universities. However, in the last several years, there is growing number of universities assigning a more strategic role to their Human Resources departments. The approach is focused on adding OD as an advanced HRM function (for example, Rutgers University, 2012). It is easier to state this as a strategic intention then implementing an effective change. The purpose of this qualitative case study, combined with collected empiric data, is to indicate factors that contributed to OD project's initiations, implementations, and results logic. The presented OD model is developed adapting the theoretical foundation and proven corporate practices, aligned with the specific setting and influential factors in university environment. The paper is focused on providing the OD model overview and highlighting the practical implementation framework that may be adapted for use in other university environments for effective organizational development projects and interventions.

LITERATURE REVIEW

The organization development (OD) is an applied behavioral discipline. This is OD's theoretical foundation. Professional implementation of OD may simply be described as a methodology or technique used to affect change in an organization or section of an organization, with the overall goal of improving the organization's effectiveness. OD evolved through few strong research and practice waves (1950-ties, seventies, 1990-ties, and in the last decade). OD focus changed by time, but the main driving force remained: an economic environment where the goal was to improve business efficiency and management. Behavioral science knowledge and practices (as a foundation of applied OD), incorporate concepts such as leadership, group dynamics and teamwork, work design and approaches such as strategy, organization design and international relations (Cummings and Worley, 1997). Since OD has a multifaceted structure, and a reach applied history in the corporate world, there are myriad of theoretical references. However, there is no consensus of an overarching definition of OD. A literature review on the topic "organizational development in universities," reveals emphases on generic approaches, reflecting on theoretical foundations and implementation in the corporate environment (Scott, 2013). The related subtopics (organizational change, change management, organizational effectiveness, etc.) in university environment are also not significantly addressed by researchers so far. Some relatively recent studies are addressing the OD models in high education (Ashraf, 2011).

The case studies analyzing OD and change in university are very rare. Torraco (2005) and his team analyzed OD implementations in five universities, in various phases of building OD capacities and practices. Among universities with advanced OD positioning and published reports is Center for Organizational Development and Leadership in Rutgers University (2012). The literature on applied OD and change approach in the business world is a long list of books addressing OD principles, practices, perspectives, processes, and performances (for example, Johns, 2014, McLean, 2005). In the recent years, OD pays much more attention to the larger environment in which the business operates and aims at helping businesses accomplish their strategic objectives. Some researchers and practitioners were focused on applied OD as a part of an

advanced Human Resource (HR) Management, publishing handbooks for strategic HR and best practices in OD (Vogelsang, 2012, Cheung-Judge, 2011). In addition, many consulting companies published their own practitioners' guides for OD. Among topics related to OD, there are also many books focused on leadership and leading change (Kotter, 1996), leadership teams and team building, as well as achieving "organizational health" (Lencioni, 2012).

In summary, there are numerous research reports and books about OD theoretical aspects, and books and case studies about applied OD practices in the corporate world. OD in high education has very few research and case studies of OD models and implementation practices in university environment. This critical research study is addressing a series of OD projects, however, limited to only one university's OD experience, but may be a good reference for further research and applied practices.

METHODOLOGY

The objective of OD is to improve the organization's capacity to handle internal and external functioning and relationship, improving group dynamics, organization's structure, and effective and collaborative management of organizational culture. Accordingly, the methodology used in related OD projects and in this research study is aligned with the purpose and objective of OD concept and expected results. The OD projects were initiated in one Northwestern university, in the part that has the functions closest to the standard business practices. Five OD projects were focused on clusters of centralized business and financial services at this state-supported mid-size university. In initiating and conducting those complex OD projects, the goal was to reach higher results than with previous OD attempts, this time using and adapting proven best practices from corporate environment. This critical research study is based on 128 structured interviews, followed by open-questions interviews and employees' anonymous evaluations in five comprehensive organizational development projects. The study is an overview of an adapted OD model, highlighting implementation framework for OD projects in a specific university environment.

Following its strategic plan, the university leadership decided actively addressing the critical elements of the overall organizational effectiveness in business, financial and other services supporting the core function – education. In 2013, Human Resources (HR) department was reorganized and staffed to accept the strategic role as a strategic driving force and functional center for Organizational Development and Professional Development in this university. In comparison to some OD activities performed in previous years with mostly external support (consulting, experts), this time OD was based on a full-time internal capacity, providing in-house expertise and continuous support for OD projects. The OD projects are initiated and implemented in the following phases and steps:

Phase I: General Preparation Activities

1- Introducing OD to the university leadership team (vice presidents, provost, deans, directors). Through tailored presentations, meetings, and brief workshops, led by HR department and an assistant director for OD, OD methods and techniques were introduced to the university's top officials.

2- The university leadership team, based on strategic goals and various performance analyses, suggested which organizational units should be priorities for organizational comprehensive assessments and adequate organizational interventions.

3- The next step was a "buy-in" process involving the management team in chosen organizational unit. Meetings and presentations were focused on initial assessments, and explaining characteristics and dynamics of OD projects' framework, process, specific goals, roles, and implementation steps, expected change management challenges and OD benefits, as well as a project's suggested timeline.

Phase II: OD Project Realization Steps

4- In-depth presentation to all managers and supervisors, open to all unit's employees, explaining OD needs and assessments process, OD interventions planning, implementation steps, expected results, benefits, and especially transparent reviews and reports, with feedback and follow-up mechanism.

5- All employees in the unit are informed about planned project and related steps and schedules.

6- Structured one-on-one interviews, confidential, followed by open questions individual sessions.

7- After all interviews' results are systemized and analyzed, all employees are invited to the project presentation. The unit's core management team received just a brief summary prior the presentation.

8- After the presentation of project's finding suggested OD interventions and an initial action plan, employees were invited to form an OD Team. This team did not have top managers in it, and it was empowered to contribute to the project related overall coordination and communication.

Phase III: OD Continuous Support, Feedback, and Follow-up.

9- After the anonymous project evaluation from all employees, the ownership of the OD project is transferred to the organizational unit's OD team, with continuous monitoring and support from OD specialist, including team-building activities, OD-specific problem-solving assistance, etc.

10- Follow-up is scheduled and aligned with the OD interventions' steps and phases, and related interim reports. Continuous project and change management support included additional OD/HR services such as coaching, communication, team building workshops, and professional soft skills training, as well as assisted interpersonal conflict resolutions as needed.

Data collected during interviews are analyzed using content analysis utilizing rank scores. The most often-cited problems, challenges, and expectations raised by interviewees are summarized and grouped under 10 categories. Descriptive statistical method is used too. Those data are used to fine tune project's priorities and steps. Accordingly, the methodology comprises quantitative and qualitative elements.   Interviews identified trends and insights of the organizational culture, leadership and management stiles, communication issues, and what employees perceive as critical factors for organizational development. Coding answers, using pattern recognition, and descriptive statistic methods, the most frequent answers are systemized. Figure 1 presents the topics with the highest numbers of total votes.

One of the essential elements of OD projects and critical research study is the perception about team effectiveness. In the corporate world, research shows (Rosen, 2007) that CEOs misperceive their top teams' performance, thinking that things were going better (33-47%) than the non-CEOs did. This study reveals that perception gap at analyzed university is even significantly bigger. Figure 2 presents the team effectiveness perception gap between what employees think and what management and supervisors think.

Figure 1: the Most Important Topics from 128 Interviews

This figure shows the 10 category of topics with the highest numbers of total votes grouped and summarized from 128 structured interviews and followed open-question and deeper confidential discussion about what employees' perceive as critical factors for organizational development.

Figure 2: Team Effectiveness Perception Gap

This figure shows the perception gap about team effectiveness at the analyzed university. As the rating scores summarized from all interviews shows, the unit's management thinks that things were going much better than employees did.

After data were collected and analyzed during the OD projects' preparation, the OD team (members of HR and each unit's management), developed and presented the initial OD. Figure 3 presents the structural elements of the OD model adapted for implementation in the specific university environment setup.

Data collected through extensive interviews and cooperation with units' employees, management, and upper-level leadership provided insights and priorities to determine, in the first place, behavioral changes. The aims were organizational culture changes as enablers for further functional and structural changes. Those OD goals were projected into planned organizational interventions and change management plan.

Figure 3: Organizational Development Model in University

This figure shows the main structural elements of the initial OD model adapted for implementation in the specific university environment setup. The starting point is the university vision and strategy, projected to specific OD goals and interventions in core (educational) areas and support processes. Results are achieved through the OD interventions, leading and evaluating changes through the assessment-changes-feedback loop.

RESULTS AND DISCUSSION

The OD projects' expected results were based on projected immediate and long-term effects and benefits. After introducing OD concept, and enabling all employees and management to express their perceptions and expectations, the first and almost immediate result was achieved transparency related to OD projects. The next and very important result was increased awareness about actual and expected OD effectiveness. Figure 4 presents those basic and following layers of OD projects' expected results and effects.

Some of the business, financial and infrastructural services at this university have over 100 million dollars annual business values (contracting, purchasing, financial aids, campus safety, and other shared services). When in the early stage of the OD project improved efficiency by 1% was documented, it created a strong positive attitude: "We are one million team." From there, increased motivation and behavioral acceptance of changes become strong success factors. OD projects were accepted by most employees and managers. In the process, there were some personal changes too: new talents were discovered and promoted, while some employees, supervisors, and managers faced a last chance to improve their behaviors and skills. In further developing OD model and making its implementation successful, two strategies well used in the corporate world were adapted. First, OD model was built introducing strategy maps and performance measurement. Second, Results-based Management was used as the foundation for the results' logic model.

Figure 4: Organizational Development Expected Results and Effects

This figure shows layers of OD projects' expected results and effects. The inputs by itself were also important starting results: introduced OD concept, conducted extensive interviews, and presented OD findings and an initial OD interventions plan. This was followed by a very important results: increased awareness about OD needs, expected changes and benefits. The next results' level was achieving an organizational clarity, which led to improved team work and organizational efficiency. This positively affected both external customers (core educational departments, students) and internal interrelated services. Job satisfaction and productivity increased, supporting strategic goals and strengthening university.

Strategy maps were introduced in 2004 by Kaplan & Norton, as further development of their performance measurement system "Balanced Scorecard" (1992) and its transformation to a strategic management system ("The Strategy-Focused Organization," 2001). Strategy maps become used as a strategy development tool and greatly helped in describing and communicating the strategy among management teams and employees. In OD projects analyzed by this study, the strategy map approach was used to describe the logic of the OD strategy, showing the critical objectives for the four main perspectives: people, process, customers, and financial perspective/stakeholders perspective, customized for the university environment. OD projects were realized through a set of action programs (strategic initiatives).

Figure 5 presents the strategy map concept implemented in OD development at a case university, with combined and integrated critical activities, objectives and targets for each of four identified perspectives.

This OD strategy map helped communicating OD strategy and projects, and their critical activities, objectives, and targets. It provides an overview of OD activities that contribute to people's learning and growth, improve core and support processes at university, what is critical for customers (students, and other organizational units), and what the ultimate OD objectives from stakeholders' perspective are.

Figure 5: Organizational Development Strategy Map, Strategic Initiatives, and Critical Success Factors

This figure shows how the strategy map approach provides a single-page view of the logic of the OD strategy and projects. The map is visualizing the critical objectives for the four main perspectives: people, processes, customers, and financial results customized to the university environment. This model describes how two strategic OD initiatives are realized through a set of action programs, enabling, combining, and integrating critical activities, and their results. This map also helped to plan, assign, and use related resources: people, funding, and time.

CONCLUDING COMMENTS

The purpose of the study is to help understanding and sharing challenges and practitioners' experience answering the question: How to make organizational development project in university work? Universities are facing dramatic changes in their environment, affecting their strategic competitive positions and organizational effectiveness. High education is a big business, but proven and efficient business approach to strategic planning and organizational development in a university environment is still rarely used. University leadership and OD practitioners are asking: Is it possible effectively using adapted corporate

approaches for strategy-driven organizational development in universities? What are factual and perceived key problems and what are key success factors? What are result's logic, time-frame, and expected benefits? This critical research study is answering those questions highlighting elements of a successfully adapted model. It presents an overview of the implementation framework for OD focused on clusters of centralized business and financial services at a state-supported mid-size northwest university. Initiating and implementing organizational development projects, and maintaining achieved changes and results in various levels, is a complex undertaking. Figure 6 presents the interrelations among key OD dimensions (structure, process, people), and specialized management practices utilized to achieve strategic-driven organizational changes.

Figure 6: the Complex Nature of OD Projects

This figure shows OD projects' complex nature and implementation's dimensions. OD projects involve strategic management, change, and process management, as well as project management techniques and skills. An integrated approach, based on the proven business practices, is primarily aiming to the human, behavioral side of OD projects. Improving communication, teamwork, and conflict resolution became driving forces in enabling human resources to develop desired OD changes, especially building desired organizational culture. Those "soft" changes are fundamental success factors in developing the "hard" OD dimensions: organizational structure, technical systems, and work processes.

The OD projects initiations came from the university leadership. However, the power that lunched OD projects on the path of success came from the employees: in the first critical step, they expressed their opinions through confidential interviews and comprehensive communication about OD strategic initiatives, goals, and expected effects. The second vital step was sharing unbiased and transparent results, building trusts and increasing awareness about OD needs and priorities. The tipping point in efforts to initiate OD projects was "what-if" question, addressing the negative consequences of not changing critical elements in organizational cultures, structure, and processes, based on the university vision and strategy. Interviews identified topics that employees perceived as critical factors for organizational development. Effective communication was essential in trust building and clarifying organizational needs and goals. After analyzing topics emphasized in 128 interviews, Pareto distribution approach (80/20) was used to identify the list of topics with highest priority. Their improvements should resolve the most important problems and produce valuable and timely effects at various levels (individual, team, organizational units, the entire university). This approach defined the OD strategy and projects' targets, and it was agreed through the bottom-up process. The next step was focused on OD projects and expected results. The results-based management approach (United Nation Development Program, 2010) provided a tool to map expected results' logic, through the value chain: inputs, outputs, outcomes, and impact. Figure 6 presents the "results house" developed using expected results at various levels, from personal to the organizational unit, and based on the value chain from immediate OD outcomes to the long-term impact.

In conclusion, this study confirmed that universities can successfully adapt and use proven business methods in strategy-driven organizational development. Leadership support, internal change agent with related business, OD, and change management experience, and an effective communication are among the

key success factors. The first results are increased awareness about OD needs at personal, team, and organizational unit levels. The next overarching results are steps towards organizational clarity. Those are priorities in OD and planning and implementing organizational interventions. The study's results are implying needs and benefits for further research, and initiating OD projects at other universities.

Figure 6: Organizational Development Project Results Logic

This figure shows the value chain, starting from OD project's inputs and the immediate / short-term outputs at personal, team, and organization unit's level. Leveraging those outputs, OD projects are providing three main outcomes: increased performance (effective work), stability through productivity, and organizational adaptability for changes and growth. This should, on a mid-term to long-term basis, impact organizational capability at university, enabling effective operations and desired organizational culture at university – increasing competitiveness and growth.

REFERENCES

Ashraf, G. (2011). Review on the Models of Organizational Effectiveness: A Look at Cameron's Model in High Education. *International Education Studies*, Vol. 5, No.2; April 2012, pp. 80-87.

Cheung-Judge, M., Holbeche, L. (2011). Organization Development – A Practitioner's Guide for OD and HR. *Kogan Page Limited*.

Cummings, T., Worley, C., (1997). Organization Development and Change. *South-Western Publishing*.,

Johns, B., Brazzel, M., Editors (2014). The NTL Handbook of Organization Development and Change: Principles, Practices, and Perspectives. *NTL Institute. Published by Wiley*.

Kaplan R., Norton, D. (2004). Strategy Maps: Converting Intangible Assets into Tangible Outcomes. *Harvard Business School Publishing Corporation.*

Kaplan R., Norton, D. (2001). The Strategy-Focused Organization: How Balanced Scorecard Companies Thrive in the New Business Environment. *Harvard Business School Press.*

Kotter, P. John (1996). Leading Change. *Harvard Business Review Press.*

Lencioni, Patrick (2012). The Advantage: Why Organizational Health Trumps Everything Else in Business. Jossey-Bass, *A Wiley Imprint.*

McLean, G. (2005). Organization Development Principles, Processes, Performance. *Berrett-Koehler Publishers.*

Rosen, R., Adair, F. (2007). CEOs Misperceive Top Teams' Performance. *Harvard Business Review.* Retrieved October 10, 2015, from https://hbr.org/2007/09/ceos-misperceive-top-teams-performance

Rutgers University Center for Organizational Development and Leadership (2012), The ODL Approach, Retrieved October 10, 2015, from http://www.odl.rutgers.edu/the-odl-approach.html

Scott, W. Richard (2013). Organization Theory and Higher Education. *Stanford CEPA Publcations,* Retrieved July 10, 2015, from http://cepa.stanford.edu/content/organization-theory-and-higher-education

Torraco, R., Hoover, R., Knippelmeyer, S. (2005). Organization Development and Change in Universities. *ERIC Institute of Education Sciences*, Retrieved October 10, 2015, from http://eric.ed.gov/?q=Organization+Development+and+Change+&id=ED492396

United Nation Development Group (2010). Results-Based Management Handbook: Strengthening RBM Harmonization for Improved Development Results. *United Nation Development Group*, pp 10-12.

Vogelsang J., Townsend, M., Editors. (2012). Handbook for Strategic HR: Best Practices in Organization Development. *OD Network.*

BIOGRAPHY

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CRITICAL SUCCESS FACTORS OF BLACK FINANCIAL ADVISORS IN THE BROKERAGE INDUSTRY

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ABSTRACT

Critical success factor analysis has been used by managers in numerous professions: IT, knowledge sharing, organization development and training, Catholic schools, and the Atlantic Coast Conference to determine those factors that were critical for success. In 2010, the Bureau of Labor Statistics reported that there were approximately 466,000 financial advisors and financial analysts, of whom less than 7% were Black. Successful Black personal financial advisors employ activities that ensure they meet the expectations of both employer and clients. This qualitative study utilized Stroman's critical success factor category (CSFC) analysis to identify 243 critical success factors in eight areas: global or industry-related, external, internal, temporal or enduring, risk abatement, performance, cultural, and marketing, as defined by 15 successful Black personal financial advisors. A structural interview guide was used to determine the five most critical factors: organizational structure and support, work ethic and business processes, market analysis/target market, communications, and compliance activities. The researcher recommends further application of CSFC analysis on the financial advisor profession, on women financial advisors, and on successful Black women in the banking industry.

JEL : G01, M00

KEY WORDS: Financial Advisors, Critical Success Factor Theory, Qualitative Study, Social Capital Theory

INTRODUCTION

Critical success factors (CSFs) are viewed as those activities that when properly conducted will have a positive impact on the success of a firm in a particular industry (Amberg, Fischl, & Wiener, 2005). The use of critical success factor analysis can also be applied to individuals in order to identify those activities that are necessary for success within a particular occupation. Several methods have been proposed to identify critical success factors. These techniques include "environment scanning, industry structure analysis, industrial expert's opinions, competitors' analysis, best practice analysis, assessment of the company's internal feeling or judgment, and gathered data or profit impact of market strategy" (Eid, Trueman, & Ahmed, 2002, p. 111). This study utilized critical success factor analysis using the industrial expert opinion technique in order to determine critical success factors of successful Black personal financial advisors.
First proposed in 1961, the use of critical success factor analysis, within the information systems arena, was used to determine the information needs of upper management (Daniel, 1961). By 2001, the definition of critical success factor analysis was expanded for broader application to identify skills and resources for an individual to be successful in a given market (Grunert & Ellegaard, 1992). It is this final description in which critical success factors (CSFs) were utilized in this study.

Within the brokerage industry, there are varying criteria for success. However, there are factors that are included by all firms, such as assets under management, length of service, and revenue generated. Consequently, success as a financial advisor is determined by the accomplishment of several factors: production, assets under management, and length of service in the industry. The personal financial advisor's attainment of a combination of these variables determines promotion to the level of vice president or above in the financial services industry. For this study, career success was defined by the achievement of the vice

president title or above. According to the Bureau of Labor Statistics the number of personal financial advisors is expected to increase more than any other occupation it is projected the number of financial analysts and advisors from 223,400 in 2012 to 283,700 by 2022. This increase has prompted financial services firms to implement a variety of workforce diversity initiatives, to attract talent.

These firms recognize that clients expect to see individuals who look like them when conducting business with large financial institutions. Consequently, minorities within these institutions must hold more than entry-level positions. Firms with management representation that closely mirrors U.S. demographics send a clear message that anyone can reach leadership ranks (Trebilcock, 2007). However, the number of Black personal financial advisors at major brokerage firms still remains at approximately 2% (McGeehan, 2006). Paikert (2014) states that at independent advisory firms, the number drops to between 1% and 2%. The majority of literature addressing career success portrays success as being a simple process of linking personal traits/characteristics with workplace requirements (Kahnweiler, 2006b). The problem addressed in this study was the limited research concerning the critical success factors of Black personal financial advisors. The implementation of diversity initiatives continues to experience challenges with regards to recruiting and retaining minorities (U.S. Government Accountability Office [GAO], 2008). McKay and Avery (2005) found that brokerage firm participation in various forms of diversity recruitment may not be enough to ensure retention of Black personal financial advisors, due to organizational realities such as "poor advancement opportunities, exclusion from key job assignments and general discriminatory treatment" (p. 332). The research questions for this study were What are the critical success factors within the critical success factor categories (CSFCs) as defined by Black personal financial advisors in the financial services industry? What are the five most frequently identified critical success factors within the eight critical success factor categories (CSFCs) as defined by Black personal financial advisors?

LITERATURE REVIEW

A 2008 GAO report stated that the financial services industry plays a key role in the U.S. economy by providing employment (over 3 million persons), credit to individuals and businesses, and protection from certain financial risk. Even with the size of the financial services industry, the percent of minorities employed (15.5%) is significantly lower than Whites (84.5%). To illustrate the role of financial markets in the world's economy, Bogle (2008) stated that the "world's GDP is about $60 trillion, while the global financial derivatives is estimated at $600 trillion, approximately 10 times all the net goods and services produced by the entire world" (p. 37). The brokerage industry has typically been described as a White-male-dominated industry. In an October 2005 *Black Enterprise* article, Elton Ndoma-Ogor (one of the founders of MBA JumpStart), stated, "when you walk into an investment bank or trading floor, you can count on one hand the number of minorities" (as cited in T. M. Robinson, p. 1). The dominance of White men in the brokerage industry presents a challenge in that persons of color must conform to organizational norms formed by White men in order to survive (Giscombe & Mattis, 2002). To facilitate the entrance and retention of women and minorities into the financial services industry, companies have implemented diversity programs. Given that the most successful personal financial advisors are employed by major corporations, they can be more specifically defined as corporate entrepreneurs.

Christensen (2004) defined *corporate entrepreneurship* as a "process whereby an individual or a group creates a new venture within an existing organization, revitalizes and renews an organization or innovates" (p. 305). Brazeal, Schenkel, and Azriel (2008) defined corporate entrepreneurship as "the use of proactive behaviors to stimulate innovation" (p. 10). This definition is appropriate for the personal financial advisor who must conduct business within the confines of a larger organizational context. Career success can be impacted by numerous factors: "organizational culture and structural, attitudinal, and personal barriers" (Palmer & Johnson-Bailey, 2005, p. 11). Green (2003) agreed with this position, but argued that a major impediment from a cultural perspective is subtle discrimination, incorporated into the procedures and

practices of the organization. Discrimination in the Brokerage Industry There have been numerous lawsuits filed against major brokerage firms in the

United States. American Express, Gruntal Corp., Lew Lieberman, Merrill Lynch, Morgan Stanley, Olde Discount Brokerage, Smith Barney, US Bancorp, and Piper Jaffrey all had class-action lawsuits filed against them between 1993 and 2002 (Selmi, 2005). For years the brokerage industry was insulated from litigation regarding discrimination because employees were required by the New York Stock Exchange and the National Association of Securities Dealers to settle such cases through arbitration (Mulligan, 2001). This requirement was challenged with a class-action lawsuit filed against Smith Barney in 1996 by more than 1,900 women alleging the firm discriminated against women with regards to hiring, assignments, pay, and promotions, and permitted pervasive sexual harassment in some of its branches. The class-action status allowed members of the plaintiff class to avoid mandatory arbitration proceedings. Most of the cases were settled successfully and Smith Barney was required to spend $15 million toward various diversity initiatives (Selmi).   In 2000, another lawsuit was brought against Smith Barney, by four ethnic minority employees. The suit alleged that Smith Barney paid ethnic minority employees desperate wages, denied salary increases and promotions, and created a hostile work environment. Merrill Lynch was sued by female brokers in 1976 for sex discrimination and ordered to implement initiatives to hire more female financial advisors. In 1996, the company was again the focus of a class-action discrimination suit, this time alleging that women were systematically discriminated against with regards to pay and promotions, specifically due to the subjective manner in which business opportunities were funneled to male financial advisors. The merger between Bank of America and Merrill Lynch has once again placed the largest U.S. brokerage firm as the subject of a lawsuit. In 2008, Black and women advisors alleged that the retention package being offered provides a more generous retention package to White men than to women and minorities (Kelly, 2008).

 Only a few of the lawsuits levied against brokerage firms have been discussed in this study; however, a consistent factor among them is that minority groups seek equal pay and equal opportunities for advancement. To overcome this, brokerage firms have begun in earnest to implement diversity initiatives and training programs that enable minorities to advance within the organization. Identifying critical success factors for Black personal financial advisors may promote the development of training programs and diversity initiatives, hopefully reducing the number of discrimination lawsuits in the industry.

Critical Success Factor Analysis

 Dwyer, Hill, and Martin (2000) defined *critical success factors* as the "skills, tasks and/or behaviors that influence an employee's performance" (p. 151). Critical success factor analysis has been used in numerous industries to determine those areas in which management must concentrate or identify as areas that should be isolated in order to move the organization forward. Prior to the development of CSF methods, Rockart (1979) identified four possible means of disseminating information to top executives: total study, null approach, key indicators, and by-product. Rockart (1979) stated that "critical success factors are the limited number of areas in which if results are satisfactory will ensure successful competitive performance for the organization" (p. 85) and must be tied to the goals of the organization (Cherian et al., 2008). Critical success factors require constant monitoring and changes due to the changes in the organization. There are four prime sources of CSFs: structure, competitive, environment, and temporal (Rockart, 1979). Structure factors are those things that are determined by the characteristics of the industry. Competitive strategy refers to such things as market niche, location, distribution of key resources, and managerial support. Environmental factors refer to areas associated with the economy, political factors, and demographic issues. Temporal factors are those items that are critical for a period of time (i.e., staffing issues, loss of management, etc.; Stein & Voehl, 1997). Work conducted by Amberg et al. (2005) extended previous research regarding CSFs by determining that CSFs have different dimensions. Critical success factors can be hierarchal versus group, temporary versus ongoing, internal versus external, building versus monitoring, strategic versus tactical, or perceived versus actual (Amberg et al.).

Social Capital Theory

Social capital theory is "the ability of actors to secure benefits by virtue of membership in social networks or other social structures" (Portes, as cited in Akdere, 2005, p. 1). Social capital provides individuals access to resources that can enhance the probability of success. From a business perspective, *social capital* refers to "resources such as information, ideas, business opportunities, financial capital, power, emotional support, goodwill, trust and cooperation" (Baker, as cited in Akdere, p. 3).   Access to social capital provides individuals with a competitive advantage only if information is not readily available (Burt, 2007). Harris et al. found that workplace social capital support through mentoring, collegial support, and task support predicted job tenure.   Social capital theory links employees with information. Viewing social capital from a structural perspective focuses on relationships and connections between actors, such as friendship and trust. Per Kase and Zupan (2007), the structural lens results in "opportunities for access to diverse resources and information, and to enjoying greater autonomy due to less strict normative control" (p. 217). According to Kase and Zupan, organizations that are knowledge-intensive provide an informational environment that helps employees solve complex and often ambiguous problems that significantly contribute to job performance. The access to knowledge was highlighted in lawsuits as being critical to opportunities for success in the brokerage industry. However, within the financial services sector, competition for fewer positions has eroded the traditional model of social capital (Tempest, McKinlay, & Starkey, 2004). Tempest et al. determined that there exists a limited number of studies that evaluate how individual careers can benefit from social capital. The researchers argued that the "traditional financial services career is associated with 'strong and unified' organizational social capital that encourages cooperation at the expense of innovation" (p. 1524).

Implications of the Literature

A review of the literature indicated that EEO laws and diversity initiatives alone are ineffective for eliminating disparities in the workplace. Organizations and individuals must work in conjunction to facilitate career success. The brokerage industry is just one of many that have experienced financial assessments due to the lack of advancement of women and minorities. The literature indicated that there is a definite need for additional information with regards to critical success factors within the personal financial services industry. Additional career factor analysis could be instrumental in resolving retention issues that are prevalent in the brokerage industry. Although there have been numerous diversity initiatives, there remain areas in which scholarly research may have a valuable impact. The literature review indicated that an evaluation of factors affecting career success can be determined through the use of critical success factor research.

METHODOLOGY

The sample for this study consisted of 15 Black personal financial advisors who have obtained the position of vice president or above in the brokerage industry. These personal financial advisors were considered highly successful based on assets under management, revenue generated, and length of service in the industry. In order to obtain the desired number of participants, the researcher employed a nonprobability sampling technique, collecting names from the public documents that list the corporate officers. The study was conducted using theoretical sampling, which allows for the selecting and studying of a homogeneous sample of individuals (Creswell, 2007) such as Black personal financial advisors. The introduction to the study was accomplished through an invitation to participate. Each respondent was given the opportunity to express his or her understanding and role in the study. Once participants had signed and returned the Informed Consent letter, the researcher made arrangements to interview each individual respondent using the structured interview guide, for data collection. To protect participants, the researcher assigned identification numbers to all documents regarding participants. The interview guide was designed as an

expansion of the literature from Pinto and Slevin (as cited in Stroman, 2007), Dobbins (2002), Warriner (2005), and Stroman. The resulting CSFC categories extended Rockart's (1979) research, and addressed external factors such as political, environmental, cultural, and external relationships. The researcher modified Stroman's (2007) structured interview guide for the study of personal financial advisors. The modifications included specific language that defines success, eliminated categories that were unrelated to being a personal financial advisor, and added categories that are relevant to investigating the personal financial services industry. The new categories were cultural and marketing influences. The CSFCs for this study of personal financial advisors were as follows:

Global or Industry-Related
External Influences
Internal Influences
Temporal and Enduring
Risk Abatement
Performance
Cultural Influences
Marketing Influences

Data Collection and Analysis

The population for this case study consisted of 15 Black personal financial advisors at the vice president level (or above), employed or previously employed at a major U.S. brokerage firms. The group consisted of 2 women and 13 men. Respondents represented seven different major brokerage firms and capital management companies. All persons interviewed were practicing on the East Coast of the United States.
The purpose of the structured interview was to request potential CSFs from each of the 15 Black personal financial advisors. After the data collection interviews, the information was transcribed to an electronic word processing format for accuracy, coding, and analysis. Then each interview was analyzed to determine the CSFs. The analysis was a four-part process administered to each respondent's category data. The researcher: (1) Compiled a list of all the factors for each category; (2) Determined whether the factors were used in the proper context related to the particular category: (3) Counted the number of times a factor appeared for each category and (4) Sorted and ranked the factors in descending order for each category. Conversations with participants were recorded and transcribed for accuracy. Consent of the participants was obtained prior to tape recording of the interview. A professional stenographer was hired to transcribe the information for analysis.

The researcher sought to identify critical success factors of Black personal financial advisors at major brokerage firms. The data were coded by category and analyzed. Analysis for this study was accomplished by counting the factors named by the 15-person sample. The researcher compiled a list of all the factors for each category, determined whether the factors were used in the proper context related to the particular study, counted the number of times a factor appeared for a category, sorted, and ranked in descending order the factors for each category. This study utilized a cross-referral, indexing, abstraction, and pagination (Miles & Huberman, 1994) to ensure the proper presentation of data. The determination of the CSF for each category was completed by contextual examination of the statements. Each interview resulted in potential CSFs in each of the eight CSFCs. Applying CSFC analysis, the filtration process resulted in the reduction of factors to indicate the relative importance, or criticalness, of the stated activity.

RESULTS, CONCLUSIONS, AND RECOMMENDATIONS

The answers to the research questions were obtained by gathering data from 15 successful Black personal financial advisors. The researcher developed an eight-category model, designed from Stroman's critical success factor category analysis, and utilized a structured interview guide to solicit feedback. The

participants provided 243 responses. Due to the fact that each interview provided appropriate responses, it supports the position that CSFCs can be applied to the personal financial advisor profession. This research appears to be the first in which critical success factor category analysis was applied to successful Black personal financial advisors. The five most frequently identified critical success factors in the eight CSFCs were

Organization structure and support
Work ethic and business processes
Market analysis/target market
Communications
Compliance activities

CONCLUSION

The main research questions were "What are the critical success factors within the critical success factor categories (CSFCs) as defined by Black personal financial advisors in the financial services industry?" and "What are the five most frequently identified critical success factors within the eight critical success factor categories (CSFCs) as defined by Black personal financial advisors?" These questions were answered by applying CSFC theory and analysis to the responses provided by 15 successful Black personal financial advisors. The research resulted in five critical success factors, which supports using CSFC analysis as a method to determine success strategies in the personal financial advisor profession. The results suggest that the essential factors to success as a Black personal financial advisor are dependent upon the resources and support provided by the advisor's firm and having a personal work ethic that produces business processes that lead to consistent results. The results of this study support the arguments presented in discrimination cases that have been filed by women and minorities in the financial services and brokerage industries stating that organizational support is essential for success. Access to resources and support from the organization in such areas as management, clerical, training, funding, and product availability are critical to being successful. Time spent handling administrative issues distract the Black personal financial advisor from essential business development activities. Given the results of this study, financial institutions must continue to evaluate resource allocation and implement measures to ensure that employees are receiving the necessary resources to be successful.

REFERENCES

Akdere, M. (2005). Social capital theory and implications for human resource development. *Singapore Management Review, 27*(2), 1–24.

Amberg, M., Fischl, F., & Wiener, M. (2005). *Background of critical success factor research* (Working Paper No. 2/2005).

Avery, D. R., McKay, P. F., Wilson, D. C., & Tonidandel, S. (2007). Unequal attendance: The relationships between race, organizational diversity cues, and absenteeism. *Personnel Psychology, 60*(4), 875–902.

Bogle, J. C. (2008). Black Monday and black swans. *Financial Analyst Journal, 64*(2), 30–40.

Boynton, A. C., & Zmud, R. W. (1984). An assessment of critical success factors. *Sloan Management Review (pre-1986), 25*(4), 17–27.

Brazeal, D. V., Schenkel, M. T., & Azriel, J. A. (2008). Awakening the entrepreneurial spirit: Exploring the relationship between organizational factors and perceptions of entrepreneurial self-efficacy and desirability in a corporate setting. *New England Journal of Entrepreneurship, 11*(1), 9–25.

Breland, J. W., Treadway, D. C., Duke, A. B., & Adams, G. L. (2007). The interactive effect of leader–member exchange and political skill on subjective career success. *Journal of Leadership & Organizational Studies, 13*, 1–14.

Bureau of Labor Statistics. (2006). *Financial analysts and personal financial advisors*. Retrieved August 13, 2008, from http://www.bls.gov/oco122.htm#nature

Bureau of Labor Statistics. (2008). *Financial analysts and personal financial advisors*. Retrieved August 13, 2008, from http://www.bls.gov/oco122.htm#nature

Burt, R. S. (2007). Secondhand brokerage: Evidence on the importance of local structure for mangers, bankers and analysts. *Academy of Management Journal, 50*(1), 119– 148.

Callahan, G. A. (2003). What price career success? *Career Development International, 8*(3), 126–133.

Cassell, C., Symon, G., Buehring, A., & Johnson, P. (2006). The role and status of qualitative methods in management research: An empirical account. *Management Decision, 44*(2), 290–303.

Cepeda, G., & Martin, D. (2005). A review of case studies publishing in *Management Decision* (Guides and Criteria for achieving quality in qualitative research) 2003– 2004. *Management Decision, 43*(5/6), 851–876.

Cherian, M., Flores, M., & Srinivasan, G. (2008). *Critical success factors to collaborate in cross border alliances: Experiences of Indian manufacturing enterprises*. Paper presented at the SMF Conference 08: Indian Institute of Technology-Madras Kanpur.

Christensen, K. S. (2004). A classification of the corporate entrepreneurship umbrella: Labels and perspectives. *International Journal Management Enterprise Development, 1*(4), 301–315.

Cooper, D. R., & Schindler, P. S. (2006). *Business research methods* (9th ed.). Boston: McGraw Hill Irwin.

Cornell University Law School. (n.d.). *Equal Employment Opportunity Commission*. Retrieved November 20, 2008, from http://topics.law.cornell.edu/wex/equal_ employment_opportunity_commission

Creswell, J. W. (2007). *Qualitative inquiry & research design: Choosing among five approaches* (2nd ed.). Thousands Oaks, CA: Sage.

Daniel, D. R. (1961, September/October). Management information crisis. *Harvard Business Review*, 111–121.

Delton, J. (2007). Before the EEPOC: How management integrated the workplace. *Business History Review, 81*(2), 269–296.

Denyer, D., & Tranfield, D. (2006). Using qualitative research synthesis to build an actionable knowledge base. *Management Decision, 44*(2), 213–227.

Dobbins, J. (2002). Critical success factor (CSF) analysis for DoD risk management. *Program Management, 31*(3), 40–45.

Downes, J., & Goodman, J. E. (2003). *Dictionary of finance and investment terms* (6th ed.). Hauppauge, NY: Barron's.

Dwyer, S., Hill, J., & Martin, W. (2000). An empirical investigation of critical success factors in the personal selling process for homogeneous goods. *The Journal of Personal Selling & Sales Management, 20*(3), 151–159.

Dyrhaug, Q. X., Andersen, E. S., & Rolstadas, A. (2003, June). *A generalized critical success factor process model for managing offshore development projects in Norway*. Paper presented at the 17th World Congress on Project Management, Moscow, Russia.

Eid, R., Trueman, M., & Ahmed, A. M. (2002). A cross-industry review of B2B critical success factors. *Internet Research: Electronic Networking Applications and Policy, 12*(2), 110–123.

Eisenhardt, K. M. (1989). Building theories from case study research. *Academy of Management Review, 14*(4), 532–550.

Friedman, R., Kane, M., & Cornfield, D. B. (1998). Social support and career optimism: Examining the effectiveness of network groups among Black managers. *Human Relations, 51*(9), 1155–1177.

Fry, R. (2000). Unlimited cooperation. *New Zealand Management, 47*(1), 46–47.

Genzuk, M. (2001). *A synthesis of ethnographic research*. Retrieved from www-rcf.usc .edu/~genzuk/Ethnographic_Research.html.pdf

Given, L. (2006). Qualitative research in evidence-based practice: A valuable partnership. *Library Hi Tech, 24*(3), 376–386.

Grunert, K. G., & Ellegaard, C. (1992). *The concept of key success factors: Theory and method* (MAPP Working Paper No. 4).

Hall, J., & Hammond, S. (1998). *What is appreciative inquiry?* Retrieved April 16, 2008, from http://www.thinbook.com/docs/doc-whatisai.pdf

Horsburg, D. (2003). Evaluation of qualitative research. *Journal of Clinical Nursing, 12*, 307–312.

Johnson, G., & Leavitt, W. (2001). Building on success: Transforming organizations through an appreciative inquiry. *Public Personnel Management, 30*(1), 129–136.

Johnson, R. B., & Onwuegbuzie, A. J. (2004). Mixed methods research: A research paradigm whose time has come. *Educational Researcher, 33*(7), 14–26.

Kahnweiler, W. M. (2006a). The development of OD careers: A preliminary framework for enacting what we preach. *Organization Development Journal, 24*(1), 10–21.

Kahnweiler, W. M. (2006b). Sustaining success in human resources: Key career selfmanagement strategies. *Human Resource Planning, 29*(4), 24–31.

Kase, R., & Zupan, N. (2007). HRM as a means of shaping relational networks within a company: A comparison of two knowledge-intensive companies. *Economic and Business Review for Central and South-Eastern Europe, 9*(3), 213–234.

Kelly, B. (2008). *BofA–Merrill retention plan raises serious legal concerns*. Retrieved November 18, 2008, from http://www.investmentnews.com/apps/pbcs.dll/article?AID=/20081102/REG/311039965&fromRSS=true&template=printart

Logan, J. (2004). *Appreciative inquiry*. Retrieved June 13, 2008, from http://www.exinfm.com/pdffiles/appreciative.pdf

McGeehan, P. (2006, July 14). On Wall Street, a question of bias. *The New York Times*. Retrieved May 7, 2008, from http://travel12.nytimes.com/2006/07/14/business/14 bias.html?n=Top/Reference/Timestopics/Subjects/R/Race&pagewanted=print

McKay, P. F., & Avery, D. R. (2005). Warning! Diversity recruitment could backfire. *Journal of Management Inquiry, 14*(4), 330–336.

McMillan-Capehart, A. (2005). A configurational framework for diversity: Socialization and culture. *Personnel Review, 34*, 488–503.

McPherson, M., & Nunes, M. B. (2006). Organisational issues for e-learning: Critical success factors as identified by HE practitioners. *International Journal of Educational Management, 20*(7), 542–558.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Mitchel, J. O. (2002). Comparison of sales performance across financial service sectors. *Journal of Financial Services Marketing, 7*(2), 178–185.
Morrison, J. L., Oladunjoye, G. T., & Rose, D. (2008). Effects of gender of executive leadership in management perceptions related to enhancing workforce diversity. *Journal of American Academy of Business, Cambridge, 13*(1), 79–85.

Mulligan, T. S. (2001, September). EEOC sues brokerage in gender bias case. *Los Angeles Times*, p. C-1. Retrieved November 20, 2008, from http://articles.latimes.com/2001/sep/11/business/fi-44358

O'Neil, P. (2005). The ethics of problem definition. *Canadian Psychology, 46*, 13–20.

Patton, E., & Appelbaum, S. H. (2003). The case for case studies in management research. *Management Research News, 26*(5), 60–71.

Peelle, H. E., III. (2006). Appreciative inquiry and creative problem solving in crossfunctional teams. *The Journal of Applied Behavioral Science, 42*(4), 447–467.

Pincus, L., & Grossman, E. (2001). *EEOC files sex discrimination lawsuit against Morgan Stanley* (The U.S. Equal Employment Opportunity Commission Press Release). Retrieved May 7, 2008, from http://www.eeoc.gov/press/9-10-10.html

Plummer-D'Amato, P. (2008). Focus group methodology, Part 2: Considerations for analysis. *International Journal of Therapy and Rehabilitation, 15*(3), 123–129.

Resnik, D. B. (2007). *What is ethics in research & why is it important?* Retrieved September 5, 2007, from http://www.niehs.nih.gov/research/resources/bioethics/ whatis.cfm

Riege, A. M. (2003). Validity and reliability tests in case study research: A literature review with "hands-on" applications for each research phase. *Qualitative Market Research, 16*(2), 75–86.

Robinson, T. M. (2005, October 1). Jump-starting careers: Pre-M.B.A. program prepares students for life after school. *Black Enterprise*.

Robson, C. (2002). *Real world research* (2nd ed.). Malden, MA: Blackwell.

Rockart, J. F. (1979, March/April). Chief executives define their own information needs. *Harvard Business Review*, 81–92.

Rockart, J. F. (1982). The changing role of the information systems executive: A critical success factors perspective. *Sloan Management Review (pre-1986), 24*(1), 3–13.

Roth, L. M. (2007). Women on Wall Street: Despite diversity measures, Wall Street remains vulnerable to sex discrimination charges. *Academy of Management Perspectives, 21*(1), 24–35.

Santomero, A. M., & Eckles, D. L. (2000). The determinants of success in the new financial services environment: Now that firms can do everything, what should they do and why should regulators care? *Economic Policy Review–Federal Reserve Bank of New York, 6*(4), 11–23.

Schultz, S. (2007). *African-American investors remain behind in retirement savings*. Retrieved September 12, 2008, from http://www.financial-planning.com/asset/ article-print/528487/printPage.html

Selmi, M. (2005). Sex discrimination in the nineties, seventies style: Case studies in the preservation of male workplace norms. *Employee Rights and Employment Policy Journal, 9*(1), 1–50.

Stein, M., & Voehl, F. (1997). *Macrologistics management: A catalyst for organizational change*. Boca Raton, FL: CRC Press.

Stroman, D. L. (2007). *The critical success factors of the Atlantic Coast Conference: A case study from the perspective of the conference leadership*. Ann Harbor, MI: ProQuest Information and Learning Company.

Tellis, W. (1997). Introduction to case study. *The Qualitative Report, 3*(2), 1–11.

Tempest, S., McKinlay, A., & Starkey, K. (2004). Careering alone: Careers and social capital in the financial services and television industries. *Human Relations, 57*(12), 1523–1545.

Trebilcock, B. (2007). *Financial-services firms leaders of diversity*. Retrieved June 13, 2008, from http://www.diversityinc.com/pdf/specialsections/Financial-Services% 20Firms%20SS.pdf

Trochim, W. M. (2006). *The research methods knowledge base* (2nd ed.). Retrieved June 13, 2008, from http://www.socialresearchmethods.net/kb/

U.S. Department of Labor. (2006). *Innovative workforce solutions to help the financial services industry address hiring, training, and retention challenges*. Retrieved July 29, 2007, from http://www.doleta.gov/print=pagee.cfm?URLpath=

U.S. Government Accountability Office. (1991). *Using structured interviewing techniques*. Retrieved November 24, 2008, from http://www.gao.gov/special .pubs/pe1015.pdf

U.S. Government Accountability Office. (2008). *Financial services industry. Overall trends in management diversity initiatives, 1993–2006*. Retrieved June 13, 2008, from http://www.gao.gov/new.items/d08445t.pdf

Warriner, R. (2005). *Applying critical success factor theory to Catholic school management*. Unpublished doctoral dissertation, Capella University, Minneapolis, MN.

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Dr. Hibbler-Britt has over 24 years of experience in corporate America in both the defense and financial services industries. In 2009 she launched her own financial services company, The Focus Investment Team. In July 2012 she left corporate America and accepted the position of Campus College Chair for the School of Business at the University of Phoenix Jersey City Campus. Dr. Hibbler-Britt has taught both graduate and undergraduate Human Resources courses and is involved in the Human Resources Curriculum development committee and is a Research Fellow for the University of Phoenix.

She is member of Sigma Gamma Rho Sorority, Inc., Fountain Baptist Church and served as a UNCF volunteer. She was also recognized by the UNCF as a Dr. Maya Angelou Woman Who Leads. Dr. Hibbler-Britt also served as a Human Relations Commissioner for the City of York, PA. She enjoys photography, golfing, fishing, writing, painting and walking.

In 2011 Dr. Hibbler published her first literary work: River Voices: Breaking the Silence: a social political ideology of issues affecting the African American community through commentary, poetry and photography. She is currently working on her second book.

Dr. Hibbler-Britt has two daughters: Randalyn Cyncere and Treysure Denise.

INFLUENCE OF COMPUTING COMPETENCE ON LECTURERS' PREPAREDNESS FOR E-LEARNING AT THE UNIVERSITY OF NAIROBI, KENYA

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ABSTRACT

The objective of this study was to determine the relationship between lecturers' computing competence and preparedness to function in an electronic learning (eLearning), focusing on software tools such as word processing, spreadsheets, presentation, statistical analysis, Internet browsing and e-mail. A cross-sectional survey design with both quantitative and qualitative approaches was applied to source data from 212 lecturers and 108 administrative staff. Quantitative analysis yielded descriptive statistics, cross tabulation with Chi square (χ^2) statistic, as well as odds ratios and beta co-efficients. The study found that participants whose competence in working with word processing tools was above average had about 5.7 the odds of being prepared for eLearning as those whose competence was below average. Again, preparedness for eLearning significantly related to competence in applying spreadsheet tools, where participants whose competence was above average were about 2.2 times as likely to be prepared for eLearning as those whose competence was below average. Participants whose competence in presentation tools was above average had about 5.1 times the odds of being prepared for eLearning as those whose competence was below average. Those whose competence in statistical analysis tools was above average were about 1.7 times as likely to be prepared for eLearning, as those whose competence was below average. Investing in appropriate training programmes is essential for improving lecturers' preparedness to function in an eLearning setting. Besides, structuring the training programme and harmonising its schedules with academic semesters is one of the critical measures that should be considered to enable lecturers have time to access training. Making the University training programme continuous is also likely to take care of refresher needs as well as staff attrition, while a comprehensive programme for change management should enable lectures overcome uncertainty and anxiety associated with transition from the traditional mode to an eLearning environment.

KEYWORDS: Computing competence, eLearning, Preparedness, Software tools, Training, Change Management

INTRODUCTION

The unprecedented improvement of Information and Communication Technology (ICT) and the Internet after the Second World War has significantly influenced the delivery of university education, both in developing and developed countries (Naidu, 2006; Datuk & Ali, 2008). Over the past two decades, many institutions of higher learning have increasingly integrated ICT to support course delivery. The interest in ICT has been necessitated by the need to expand access to university education, particularly for corporate sector workers by creating a flexible mode that results to minimal or no inconveniences to their work schedule (Naidu, 2006). The application of ICT and the Internet to support course delivery is collectively referred to as Electronic Learning (eLearning) (Farahani, 2003; Omwenga, 2004).

Various terminologies are often used in place of eLearning; for instance, *online learning*, *virtual learning*, *distributed learning*, *network* or *web-based learning*. Whatever the terminology used, the primary connotation is the application of ICT tools, including the Internet, Intranet, satellite broadcast, audio or video tapes, interactive

television or CD-ROMs (Trombley & Lee, 2002; Tavangarian, Leypold, Nölting & Röser, 2004). ELearning is applauded for various reasons, including providing an alternative for learners who want to improve their skills but are unable to attend training centres situated away from their usual residence (Garrison & Anderson, 2003; Shephard, 2008). The method provides access to resource materials round the clock; implying that learners can access and use such materials at the most convenient time, place and pace. Again due to its flexibility, institutions of higher learning are often able to meet learning needs of their students and lecturers at a time, place and pace that are most convenient (Becta, 2003; Oblinger & Oblinger, 2005; Naidu, 2006).

ELearning improves teaching and learning processes by encouraging the use of modern instructional methods supported by Information and Communication Technology (ICT) tools (Selim, 2007). As part of preparedness for eLearning, institutions of higher learning must put in place appropriate ICT infrastructure and develop human resource (Oblinger & Oblinger, 2005). This makes its necessary for all lecturers to build their computing skills in order to function effectively in an eLearning environment. Instruction over the Internet is perceived by many education scholars to be a significant breakthrough in teaching and learning, particularly at the institutions of higher learning (Keller & Cernerud, 2002; Abbad, Morris & Nahlik, 2009). Being a mode that is Internet-driven, the stability and reliability of internet connectivity is a crucial part of infrastructural requirement for the adoption of eLearning.

ELearning has four distinct modalities; namely, individualised self-paced online, individualised self-paced offline, group-based synchronously and group-based asynchronously (Romiszowski, 2004; Naidu, 2006). Under the individualised self-paced online modality, a learner accesses learning resources through the Internet or Intranet. The modality is appropriate for learners in contexts where Internet infrastructure is reliable. A typical example is a learner studying alone or conducting some research through the Internet or a local network (Naidu, 2006). Contrastingly, the individualised self-paced offline modality refers to situations where an individual learner accesses learning resources without connection to the Internet or Intranet. The modality is suited for learners in contexts where Internet infrastructure is unreliable or non-existent, with an example being a learner working alone off a hard drive, a CD or DVD (Romiszowski, 2004; Naidu, 2006).

The group-based synchronously modality reflects a situation where groups of learners work together in real time via the Internet or Intranet; for instance, through videoconferencing. The synchronous mode is appropriate within contexts where Internet is stable. It may include text-based conferencing, and one or two-way audio and videoconferencing. Examples of this include learners engaged in a real-time chat or an audio-videoconference (Naidu, 2006). The group-based asynchronously modality refers to a situation where groups of learners work over the Internet or Intranet but where feedback occurs later; for instance, communication through electronic mail (Romiszowski, 2004; Naidu, 2006). The asynchronous mode is commonly applied in countries, where the Internet infrastructure is too weak or unreliable. Typical examples of this kind of activity include on-line discussions via electronic mailing lists and text-based conferencing within learning management systems (Romiszowski, 2004; Naidu, 2006).

Over the past two decades, eLearning has been gaining momentum in developed and developing countries alike, especially in response to the rapid advancement of ICT. The ability of new ICT facilities to support multimedia resource-based teaching and learning is fundamental to the growing interest in eLearning, world over (Farahani, 2003; Omwenga, 2004). The revolution in ICT continues to stimulate the design of eLearning courses, which in turn, influences the substance of university education. Statistical projections indicate that enrolment for university education through eLearning was expected to grow consistently from about 900,000 in 2003 to about 15.2 million learners by the end of 2012 (MENON Network, 2007).

The growing interest in eLearning seems to be coming from several directions. First, institutions of higher learning that have traditionally offered distance education perceive eLearning as a logical extension of their

distance education activities. Such institutions also consider eLearning as an avenue for improving access to and expanding the market base for their academic programmes (Rosenberg, 2001), while the corporate sector views eLearning as a cost-effective way for staff training and development (Oblinger & Oblinger, 2005; Naidu, 2006). As noted by Kihara (2005), eLearning is fast becoming the ideal mode of university education in this age of knowledge-based economies and globalisation. To remain relevant, universities all over the world will have to redefine their mission and review their curriculum to integrate the use of technology. Similarly, Dunn (2000) asserts that the integration of eLearning is inevitable for institutions of higher learning that wish to remain relevant in the era of technology, while Volery (2000) emphasises the importance of eLearning to the future relevance and survival of universities across the globe.

The group-based synchronously eLearning modalities can be used to engage learners in active discussions, sharing ideas and passing information, with fast and accurate feedback (Koo, 2008). Besides, the advancement of ICTs has provided a wide range of software applications and computer conferencing technologies, which enable learners and lecturers to engage in synchronous as well as asynchronous interaction across space, time and pace for collaborative inquiry among students (Oblinger & Oblinger, 2005; Naidu, 2006). The application of multimedia machines, software packages and the internet motivates learners, resulting in better academic performance (Kerka, 2002; Ya-Ching, 2006), while ICTs facilitate the capture and storage of various types of information, including print, audio and video materials, which may not be possible within the spatial and temporal constraints of conventional educational settings (Kerka, 2002).

ELearning has the potential to transform the nature of university education, particularly regarding where and how learning takes place. In this regard, it brings a number of changes in the roles of lecturers (Farahani, 2003; Naidu, 2006). As noted by Naidu (2006), the transition to eLearning in universities prompts changes such as chart rooms replacing lecture halls and electronic discussions boards replacing black boards, which necessitate the mastery of new skills and competencies (Lu, Liu & Liao, 2005). However, in most institutions of higher learning, transition from the traditional mode of course delivery to eLearning is constrained by inadequate computing competence among lecturers (Farahani, 2003; Ya'acob, 2005). This challenge is real for many institutions in developing countries, including Kenya (Omwenga, 2004; Kihara, 2005). Computing competence is the ability to use a wide range of computer applications with minimal effort and constraints, to achieve a particular purpose. A high level of computing excellence is necessary for effective use of computers in an eLearning environment (van Braak, 2004). According to Albirini (2006), computing competence refers to user's beliefs about their computer skills and it forms a key component of institutional preparedness for eLearning.

The relationship of computing competence among lecturers/teachers and preparedness for eLearning has been a subject of empirical investigation in many countries. A review of empirical literature reveals two sets. The first set comprises of literature that details lecturers' competence in general while the second set focuses on lecturers' competence in specific software tools including word processing, spreadsheets, database, presentations, statistical analysis, Internet and e-mailing tools. Highlighted in the subsequent paragraphs are key findings of selected studies.

Luan, Aziz, Yunus, Sidek and Bakar (2005) investigated gender differences in ICT competencies among the academic staff at the Universiti Putra Malaysia in terms of eight software tools, including word processing, spreadsheets, databases, presentations, electronic mail, World Wide Web, multimedia and virtual class applications. The study noted that female lecturers were more competent in the application of most tools than their male counterparts. For instance, in the application of word processing tools, up to 85% of the female lecturers against 64% of their male colleagues rated themselves as 'excellent' in the insertions and editing of texts in word processing. Again, a higher proportion of women than men (96% and 87%, respectively) rated their competence in the application of e-mailing tools as 'excellent'. Overall, 64% of the lecturers were above average in terms of computing competence (Luan et al., 2005). Marcinkiewicz

(1994) found that the level of computing competence significantly associated with computer use among public university lecturers in the United States. Berner (2003) also found that self-perceived ICT competence was the key determinant of computer use by lecturers, especially to support teaching activities. The studies concluded that developing the ICT competence among lecturers remains crucial for enhancing institutional preparedness for eLearning. In another study, Sime and Priestley (2005), found a positive correlation between computing competence and computer use frequency among Argentine middle-level college instructors. The study further reported that computing competence accounted for up to 7.2% of variance in the preparedness for eLearning and was the third most important factor after access to computers at the workplace and internet reliability.

In Malaysia, Koo (2008) reported that up to 85% of lecturers in public universities were limited in terms of computing skills, which in turn, affected their application of computers in their teaching. The functionality of such lecturers was significantly constrained by skill limitations in computing, which delayed the adoption of eLearning by more than half of public Malay universities. Still in Malaysia, a study conducted by Selim (2007) noted that due to inadequacy of computing skills, more than 80% of Malay lecturers in public universities lacked confidence in computer use. In Bahrain, Al-Ammari and Hamad (2007) found that the perceived usefulness of computers and the perceived ease of use were significantly associated with lecturers' intention to integrate ICT in their teaching activities. The study also found that computer self-efficacy positively influenced lecturers' intention to use computers in their work. The perceived usefulness, perceived ease of use and self-efficacy regarding computer use among lecturers are critical elements of institutional preparedness for eLearning.

Still in Asia, Lu et al. (2005) found that the intention to use eLearning websites among university lecturers in Taiwan significantly associated with lecturers' competence in using computers. The study further noted that competent lecturers were more regular in visiting eLearning websites than those lacking computing skills. The study emphasised the role of universal training for academic staff to facilitate transition to an era of technology-aided university education. Nanayakkara and Whiddett (2008) noted that the decision of lecturer's to embrace eLearning significantly correlated with the level of computing skills in online content design. In relation to this finding, the study revealed that about two-thirds of lecturers at the Bay of Plenty Polytechnic in New Zealand reported a low level of computing skills. Yet again, ICT training was identified as the most crucial avenue through which institutions of higher learning can improve computing skills among their academic staff.

In the United Kingdom, Thomas and Stratton (2006) revealed a strong positive relationship between ICT training, computing competence and computer use. Lecturers who had had some training in ICT applications were more competent than those lacking training. Besides, up to 70% of trained lecturers were of the opinion that the manipulation of ICT tools was easy. In this regard, the frequency of computer use was higher among those who perceived the manipulation of ICT tools to be easy. The study also found that trained lecturers were consistently using computers to support course delivery than those who were yet to undergo such training. In relation to institutional preparedness for eLearning, the study reported a strong relationship between the proportion of ICT competent lecturers and the number of departments that had integrated eLearning.

In Africa, studies relating computing competence and institutional preparedness for eLearning remain scarce. The few existing documentations are concentrated in the south and western parts of the continent. For instance, Thurab-Nkhosi et al. (2004) found that inadequate computing competence among lecturers was one of the key constraints to eLearning at the University of Botswana (UBeL initiative). In this regard, the study revealed that only 20% of the surveyed participants rated their computing proficiency as excellent, the majority expressed discomfort with computers. In Namibia, Mpofu (2004) reported that more than two-thirds of lecturers were not using computers to facilitate course delivery, despite the motivational support provided by the universities, which include ICT training, universal access to computers at the workplace

and higher allowances for trained lecturers. Low computing competence significantly associated with negative attitudes towards ICT, which affected the level of computer use. In Nigeria, Tella (2007) found that low level of computing skills was the key factor influencing the confidence to utilise ICT equipment and software tools to support course delivery. The study found a significant relationship between computing skills and fear regarding computer use. In this regard, teachers lacking computing skills expressed a low level of confidence in computer use.

Kenya is one of the countries experiencing a dearth of academic literature on lecturers' computing competence and preparedness for eLearning. Although the University of Nairobi has been a leading icon in Open and Distance Learning (ODL) activities within the East African region, eLearning is still at the early stages of development. A study conducted by Gakuu (2006) revealed that the use of ICT-based instructional modes was limited at the University of Nairobi; however, lecturers expressed a positive attitude towards computer use and eLearning. Moreover, lecturers' attitude towards computers and eLearning was not significantly different across University colleges. Key deficiencies noted in Gakuu's study included inadequate linkage between infrastructural facilities, lecturers' computing competence and preparedness for eLearning. Besides, the study did not bring out the extent of ICT training needs among lecturers at the University. The objective of this study was to determine the relationship between computing competence and lecturers' preparedness for eLearning at the University of Nairobi.

METHODOLOGY

This study was founded on the positivist philosophy of social research, holding that in social sciences, information derived from sensory experience is the exclusive source of all authoritative knowledge. Besides, the world is external and objective; and that the observer is independent of the phenomena being observed. The positivist thought assumes that valid knowledge can only be found in scientific knowledge (Ashley & Orenstein, 2005). Based on the positivistic thinking, a cross-sectional survey design with both quantitative and qualitative approaches was applied to guide the research process (Babbie, 1973; Fowler, 1993). Whereas, the quantitative approach elicited information used for descriptive and inferential purposes using self-administered questionnaires, the qualitative approach obtained in-depth information through key informant interviews.

Primary data was collected in May 2011 from lecturers and administrative staff at the University of Nairobi. Although the study focused on lecturers' preparedness for eLearning, the inclusion of administrative staff was based on their crucial role in policy formulation, implementation and enforcement, which influence the work environment in which lecturers operate. Their inclusion in the study was purposed to identify policy gaps regarding ICT strategies, plans, budgetary allocations and ICT development, which are likely to influence lecturers' preparedness to function in an eLearning environment. Unpublished data from the office of Deputy Vice Chancellor, Finance and Administration showed that the University had 958 academic and 108 administrative staff at the time of the study.

With a finite population of lecturers, one of Fisher's formulae for sample size determination was applied to obtain a sample size of 213 participants. Stratified random sampling was applied to select the lecturers, with the stratification being based on colleges, gender and cadre. This ensured proportionate representation of all colleges; male and female lecturers; as well as assistant lecturers, lecturers, senior lecturers, associate professors and professors. Proportionate samples from each stratum were obtained by first, calculating the sampling fraction, as a quotient of the sample size (n_i) and the population (N_i). Table 1 shows the proportionate sample sizes from each college.

From each stratum, simple random sampling was applied to select respondents. In addition, purposive sampling procedure was applied to select administrative staff, based on their availability and accessibility at the time of the study. The sample included 6 principals, 6 deputy principals, 6 registrars, 21 assistant registrars, 20 deans and directors, 13 associate deans and deputy directors; as well as 36 administrative

assistants. Three sets of instruments, including a self-administered survey questionnaire for lecturers, a key informant interview schedule for administrators and an observation schedule were used to source the data. The tools were pretested on 20 lecturers and 10 administrators, which was equivalent to about 10% of the computed sample sizes for each category. Data was obtained by issuing questionnaires to lecturers, which were collected after two weeks. Administrators were interviewed at their places of work; the investigator sought informed consent from each participant. In this regard, participants were briefed about the study, purpose, potential benefits and that participation was on voluntary terms.

Table 1: Proportionate samples of academic staff for each college

Colleges	Sampling frame	Sample size
Humanities and Social Sciences	412	92
Biological and Physical Sciences	170	38
Health Sciences	52	12
Education and External Studies	125	28
Agriculture and Veterinary Sciences	94	21
Architecture and Engineering	105	23
Total	**958**	**213**

Both quantitative and qualitative techniques were applied to process and analyse. Quantitative data were analysed at three levels, namely univariate, bivariate and multivariate. Univariate analysis yielded frequency distributions and percentages; bivariate analysis obtained cross tabulations with Chi square (χ^2) tests; while multivariate applied binary logistic regression to obtain beta co-efficients and odds ratios. All the quantitative analyses were performed using the Statistical Package for Social Sciences (SPSS) and Ms-Excel packages. In addition, qualitative data were organised and summarised in line with the thematic areas; described to produce summary sheets; followed by systematic analysis and interpretation. Details about the methods applied in this study have been described in various publications, including Babbie (1973), Fowler (1993), Aldrich and Nelson (1984), Nachmias and Nachmias (1996), Mugenda and Mugenda (1999), Wuensch (2006), as well as Best and Khan (2004).

RESULTS

The study covered 212 lecturers from all the colleges of the University of Nairobi, including 104 (49.1%) from the College of Humanities and Social Sciences (CHSS); 19 (9.0%) from the College of Biological and Physical Sciences (CBPS); 24 (11.3%) from the College of Health Sciences (CHS); 29 (13.7%) from the College of Education and External Studies (CEES); 20 (9.44%) from the College of Agriculture and Veterinary Sciences (CAVS); and 16 (7.5%) from the College of Architecture and Engineering (CAE). In terms of gender, lecturers from CHSS included 56 (53.8%) men and 48 (46.2%) women; from CBPS were 16 (84.2%) men and 3 (15.8%) women; while from CHS were 20 (83.3%) men and 4 (16.7%) women. The CEES provided 23 (79.3%) men and 6 (20.7%) women; at CAVS 17 (85.0%) men and 3 (15.0%) women participated; while lecturers from CAE included 14 (87.5%) women and 2 (12.5%) women. In addition, the study involved 96 administrative staff, including 34 (35.4%) administrative assistants, 6 (6.3%) college registrars and 15 (15.6%) assistant registrars; 10 (10.4%) departmental chairpersons; 10 (10.4%) faculty deans and 6 (6.3%) associated deans; as well as 8 (8.3%) directors and 7 (7.3%) deputy directors. The administrative staff included 64 (66.7%) men and 32 (33.3%) women.

ELearning preparedness

Lecturers' preparedness for eLearning was measured in terms of perceived computing competence, referring to the ability to execute commands and manipulate a range of software applications for various purposes. In this regard, participants were requested to rate their competence on each of the following computing software tools on a scale of 1-10: word processing, spreadsheets, presentation, statistical analysis, internet browsing and e-mailing. The participants' ratings for each software tool were summed

and mean scores determined. Resultant quotients were then rated on a scale of 0-49% and 50-100%. Participants whose mean scores were less than 50% were considered to be below average; thus, were likely to be unprepared to function in an eLearning environment. Conversely, those whose mean scores were above 50% were considered to above average, and likely to be prepared for eLearning. Based on the principle, out of 212 participants, 103 (48.6%) had a mean score of 50 percent or higher; while 109 (51.4%) scored less than 50 percent; suggesting that slightly more than one-half of the lecturers were below average in terms of computing competence.

Lecturers' background profile and eLearning preparedness

The results presented in Table 2 show that out of 212 participants, 97 (45.8%) were in the 40 to 49 years age bracket; 4 (25.5%) were aged between 50 and 59 years, while 22 (10.8%) were in the 30 to 39 years bracket. Besides, another 22 (10.8%) reported to be 60 years or higher, while 8 (3.9%) were aged below 30 years. Table 2 further shows that the proportion of lecturers unprepared for eLearning in the 50+ age category was more than the proportion of those prepared in the same age category. Conversely, the proportion of staff prepared for eLearning aged below 40 years was higher than the proportion of those unprepared. The pattern suggests that younger academic staff were likely to be more competent in working with software tools; hence, likely to be better prepared for eLearning than their relatively older colleagues.

Based on this, bivariate analysis obtained a computed Chi-square (χ^2) value of 18.026, with 4 degrees of freedom and a p-value of 0.001, which is significant at 0.01 error margin; suggesting up to 99% chance that lecturers' preparedness for eLearning significantly associated with age. Similar findings on the link between age and computing competence were reported by Venkatesh and Morris (2000) who assessed the role of gender and social influence on technology acceptance behaviour among academic staff of Indian public universities. The study found that younger lecturers were more receptive to new technologies than their older counterparts. In Jordan, Abbad, Morris and Nahlik (2009) found a negative correlation between lecturers' age and eLearning delivery methods.

Table 2: Background profile and preparedness for eLearning

Background attributes	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Age						
<30 yrs	8	8.3	0	0.0	8	3.9
30-39 yrs	12	12.5	10	9.3	22	10.8
40-49 yrs	45	46.9	52	48.6	97	47.8
50-59 yrs	23	24.0	31	29.0	54	26.7
60+ yrs	8	8.3	14	13.1	22	10.8
Total	**96**	**100.0**	**107**	**100.0**	**203**	**100.0**
Gender						
Male	69	67.0	77	70.6	146	68.9
Female	34	33.0	32	29.4	66	31.1
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Education level						
Bachelors	1	1.0	4	3.7	5	2.4
Masters	36	35.0	20	18.3	56	26.4
PhD	66	64.0	85	78.0	151	71.2
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Average monthly income						
<KES 50,000	4	3.9	0	0.0	4	1.8
KES 50,000-59,000	0	0.0	3	2.8	3	1.4
KES 60,000-69,000	7	6.8	4	3.7	11	5.2
KES 70,000-79,000	10	9.7	7	6.5	17	8.1
KES 80,000-89,000	9	8.7	12	11.1	21	10.0
KES 90,000+	73	70.9	82	75.9	155	73.5
Total	**103**	**100.0**	**108**	**100.0**	**211**	**100.0**

Results in Table 2 further show that 146 (68.9%) participants were men and 66 (31.1%) were women. Besides that proportion of women lecturers prepared for eLearning 34 (33.0%) was marginally higher than

the proportion of those unprepared 32 (29.4%). However, the proportion of men prepared for eLearning 69 (67.0%) was lower than the proportion of those unprepared 77 (70.6%). However, the analysis did not find a significant relationship between lecturers' gender and preparedness for eLearning [computed $\chi^2 = 1.039$ (corrected for continuity), df = 1 and p-value = 0. 243]. This suggests that no gender was more competent in computing than the other; hence, none was likely to be more prepared than the other. This is however, inconsistent with the findings of Luan, Aziz, Yunus, Sidek and Bakar (2005), who investigated gender differences in ICT competence among academicians at the Universiti Putra Malaysia. The study noted that female and male academicians were significantly different in the application of software packages such as word processing, spreadsheets and presentation tools. However, in Egypt, Houtz and Gupta (2001) found that male lecturers were more confident and had a greater usage of computers compared to their female counterparts. Besides, Venkatesh and Morris (2000) noted that male lecturers were more likely to accept new technological innovation than their female colleagues.

Up to 151 (71.2%) academic staff reported holding PhD degrees, 56 (26.4%) held masters certificates, while 5 (2.4%) had bachelor's degree qualifications. Besides, the results summarised in Table 2 show that the proportion of PhD holders unprepared for eLearning was higher than the proportion of those prepared. Conversely, the proportion of masters' degree holders prepared for eLearning was higher than the proportion of those unprepared. Based on this pattern, a computed Chi-square (χ^2) value of 11.031 was obtained, with 2 degrees of freedom and p-value of 0.004, which is significant at 0.01 error margin; suggesting up to 99% chance that lecturers' preparedness for eLearning significantly associated with educational attainment. Thus, masters' degree holders, being relatively younger people, were likely to be more competent in computing; hence, better prepared for eLearning than PhD holders. These findings are consistent with those reported by Roberts, Hutchinson and Little (2003) who assessed barriers to the use of technology for teaching among Dutch universities. The study noted that professors and associate professors were less likely to use ICT tools in their teaching than junior lecturers.

The results in Table 2 further indicate that most participants, 155 (73.1%), were earning KES 90,000 or more; 21 (9.9%) were in the KES 80,000 to 89,000 bracket; 17 (8.0%) averaged at between KES 70,000 and 79,000, while 11 (5.2%) reported an income of KES 60,000 to 69,000. In addition, the proportion of lecturers unprepared for eLearning in the top income bracket was higher than the proportion of those prepared. Contrastingly, the proportion prepared for eLearning in the category of less than KES 60,000 was higher than those unprepared. The analysis yielded a computed Chi-square (χ^2) value of 11.707, with 5 degrees of freedom and p-value of 0.039, which is significant at 0.05 error margin; suggesting up to 95% chance that preparedness for eLearning varied significantly across the income categories. More specifically, top earners were less competent in computing than low earners. Similarly, Venkatesh and Morris (2000) found a positive correlation between the frequency of computer use and lecturers' average income. The study noted that although lecturers in higher income brackets had a greater access to personal computers than those in lower income scales, more than one-half did not use computers consistently to support their work due to limited ICT skills.

Lecturer's Computing Competence & Preparedness for ELearning

Computing competence is the ability to handle a wide range of computer applications for various purposes and can be enhanced through appropriate training programme, covering the application of basic software packages for word processing, spreadsheets, presentation, statistical analysis, internet browsing and e-mailing (van Braak, 2004). This subsection focuses on the training in software tools, training duration, funding sources for training, competence in using software tools and challenges associated with computing competence. Out of 212 participants, 156 (73.6%) had accessed training in word processing tools; 119 (56.1%) had trained in spreadsheets; while 135 (63.7%) had accessed training in presentation tools. The results further show that 102 (48.1%) had trained in statistical analysis tools; 127 (59.9%) had trained in internet browsing tools; while 107 (50.5%) had undergone training on the use of e-mailing tools. In addition,

Table 3 shows that among participants who had accessed training in all the software tools, the proportion of those prepared for eLearning was higher than the proportion unprepared. The study found that most participants, 156 (73.6%) were trained in word processing tools, followed by presentation tools, 135 (63.7%), Internet browsing, 127 (59.9%) and spreadsheets, 119 (56.1%). Only about one-half, 50.0% and 48.1% of the participants had accessed training in e-mailing and statistical analysis tools, respectively. The pattern suggests that training was a critical component lecturer's preparedness for eLearning.

Table 3: Proportion of participants trained on software tools

Software tools	Prepared		Unprepared		Total		Summary of χ^2 results		
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*	*Computed χ^2*	*df*	*p-value*
Word processing									
Yes	88	85.4	68	62.4	156	73.6	13.316	1	0.000***
No	15	14.6	41	37.6	56	26.4			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			
Spread sheets									
Yes	66	64.1	53	48.6	119	56.1	4.528	1	0.033**
No	37	35.9	56	51.4	93	43.9			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			
Presentation									
Yes	75	72.8	60	55.0	135	63.7	6.482	1	0.011**
No	28	27.2	49	45.0	77	36.3			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			
Statistical analysis									
Yes	57	55.3	45	41.3	102	48.1	3.647	1	0.056*
No	46	44.7	64	58.7	110	51.9			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			
Internet									
Yes	71	68.9	56	51.4	127	59.9	6.084	1	0.014**
No	32	31.1	53	48.6	85	40.1			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			
Emailing									
Yes	58	56.3	49	45.0	107	50.5	2.297	1	0.130
No	45	43.7	60	55.0	105	49.5			
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**			

*Note: ***, ** & * Significance at 0.01, 0.05 & 0.1 error margins, respectively*

The results summarized in Table 3 show that lecturers' preparedness for eLearning significantly associated with training in various tools including word processing, presentation, Internet browsing, spreadsheets and statistical analysis. The results suggest that training in all the software tools, except emailing was likely to have significant influence on lecturers' preparedness for eLearning. Notably, emailing tools were considered as a means for communication for personal and academic purposes, which had become more important than surface mail. This explains why there was no significant variation in preparedness for eLearning based on competence in working with emailing tools. The results amplify the importance of training in software tools. In this regard, participants who reported having some training were better prepared for eLearning than those who had not trained. Similar findings were obtained by Son et al. (2007) who noted that teachers who had some prior training in software packages were using computers in the classrooms more than their colleagues who had not undergone such training. The study further noted that among factors influencing teachers' computing skills were previous training was the most important, accounting for up to 80% of variance in computing competence.

The duration of training is also a critical factor likely to influence computing competence and preparedness for eLearning; the longer the duration, the better the competence and vice versa. For this matter, those who had trained in various software tools were requested to indicate the duration for which training was received. The results show that the duration of training for word processing tools averaged at 3.3 weeks (95% CI 2.3-4.4); presentation tools averaged at 2.0 weeks (95% CI 1.1-2.9); while the training for Internet browsing averaged at 1.7 weeks (95% CI 0.9-2.5). More still, mean duration of training for spreadsheets tools was 2.4 weeks (95% CI 1.2-3.6); statistical analysis tools was 2.2 weeks (95% CI weeks (95% CI 0.5-4.0); and

e-mailing, 2.04 weeks (95% CI 0.9-3.2). The results show that mean duration of training in word processing tools was the longest at 3.3 weeks, while the shortest training duration was in internet browsing at 1.7 weeks. Although there was no significant variation in the duration of training across the software tools, the common denominator is that the trainings were too short for a beginner; and barely matched the scope of software programmes such as Microsoft Word, Microsoft Excel and statistical analysis tools such as *SPSS*, *Epi info*, *SAS* or *CSpro*.

Compared to the guidelines provided by the Computer Society of Kenya (CSK), the reported durations of training are way below the recommended standards. For instance, training in word processing packages should take between 4-6 weeks; suggesting that participants who had accessed training in word processing tools will require further training to effectively cover the curriculum. One-way Analysis of Variance was performed to determine if there was any significant variation in the duration of training between participants prepared for eLearning and those unprepared. The results revealed lack of significant variation in the training duration for all the software tools, suggesting that training duration was standard for all participants, regardless of whether they were prepared for eLearning or not. Key informant interviews revealed that training for most software tools were obtained from commercial colleges, whose curricula were standardised to suit their commercial interests. However, reduction of course contents to a period of two weeks, rather than 6 weeks, means that trainees with little or no prior computing experience are seriously disadvantaged.

Most participants sponsored themselves for training in the software tools. More specifically, 108 (69.2%) participants sponsored themselves for training in word processing tools; only 40 (25.6%) were sponsored by the employer (University of Nairobi). For spreadsheet tools, up to 84 (70.6%) participants sponsored themselves, while 29 (24.4%) were sponsored by the employer. In the case of presentation tools, 102 (75.6%) sponsored themselves, while 28 (20.7%) had been facilitated by the employer. The pattern was similar for training in statistical analysis, internet and e-mailing tools. Furthermore, Table 4 shows that among self-sponsored trainees, the proportion of participants unprepared for eLearning was higher than the proportion prepared; contrastingly, among those sponsored by the employer; the proportion of those prepared for eLearning was higher.

This suggests that training facilitated by the employer was likely to be more intensive than the training acquired through self-sponsorship. However, given that only about one-third of the participants had benefited from employer-sponsored training in software tools, key informant interviews revealed that the University training programme for academic staff was not supportive. Based on previous training or lack of training and experience, participants were requested to rate their competence in working with various software tools, indicative of their preparedness to operate in an eLearning environment.

Competence in using software tools

The purpose of training is to help beneficiaries develop their skills and competence. For this reason, participants were requested to rate their competence in applying each of the software tools on a scale of 0 to 10, which was them transformed into a scale of <50% and 50% or more. Those whose scores for all the tools averaged below 50% were considered to be less competent and unprepared to work in an eLearning environment; while those whose scores averaged at 50% or more were considered competent and prepared for eLearning. Based on this principle, up to 139 (65.6%) participants were found to be below average in applying word processing tools; another 73 (34.4%) were above average. In the case of spreadsheets, 121 (57.1%) participants were below average; 91 (42.9%) reported a score above average. For presentation tools, those below average were 122 (57.5%), while 90 (42.5%) were above average. In statistical analysis tools, those above average were 53 (25.0%); the majority (75.0%) were below average.

Table 4: Sponsorship for training in software tools

Software tools	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Word processing						
Self	56	63.6	52	76.5	108	69.2
Employer	26	29.5	14	20.6	40	25.6
Others	6	6.8	2	2.9	8	5.1
Total	**88**	**100.0**	**68**	**100.0**	**156**	**100.0**
Spread sheets						
Self	42	63.6	42	79.2	84	70.6
Employer	18	27.3	11	20.8	29	24.4
Others	6	9.1	0	0.0	6	5.0
Total	**66**	**100.0**	**53**	**100.0**	**119**	**100.0**
Presentation						
Self	52	69.3	50	83.3	102	75.6
Employer	19	25.3	9	15	28	20.7
Others	4	5.3	1	1.7	5	3.7
Total	**75**	**100.0**	**60**	**100.0**	**135**	**100.0**
Statistical analysis						
Self	33	57.9	30	66.7	63	61.8
Employer	19	33.3	14	31.1	33	32.4
Others	5	8.8	1	2.2	6	5.9
Total	**57**	**100.0**	**45**	**100.0**	**102**	**100.0**

In addition, 168 (79.2%) were above average in working with internet browsing tools; only 44 (20.8%) were below average. For e-mailing, those above average were 167 (78.8%). These findings suggest that most participants were relatively more competent in working with internet, e-mailing and word processing tools than presentation, spreadsheets and statistical analysis tools. Furthermore, Table 5 shows that among those who were above average in working with word processing tools, the proportion prepared for eLearning, (84.5%) was higher than the proportion unprepared (47.7%).

Based on the result, bivariate analysis obtained a calculated Chi-square (χ^2) value of 30.089 (corrected for continuity), with 1 degree of freedom and a p-value of 0.000, which was significant at 0.01 error margin. This suggests that lecturers' preparedness for eLearning significantly associated with their competence in working with word processing tools. Consequently, participants whose competence in working with word processing tools was above average were likely to be better prepared for eLearning than those whose competence was below average. This prompted rejection of the null hypothesis *(H₀1),* stating that *lecturers' competence in word processing has no significant relationship with their preparedness for eLearning* for not holding true to empirical evidence.

In the case of spreadsheet tools, up to 121 (57.1%) were below average, including 50 (48.5%) participants who were prepared and 71 (65.1%) who were unprepared for eLearning. In connection to this finding, the analysis obtained a computed Chi-square (χ^2) value of 5.294 (corrected for continuity), with 1 degree of freedom and a p-value of 0.021. This finding was significant at 0.05 error margin, suggesting up to 95% chance that lecturer's preparedness for eLearning significantly related to competence in applying spreadsheet tools. Consequently, the null hypothesis *(H₀2),* stating that *there is no significant relationship between lecturers' competence in spreadsheet tools and their preparedness for eLearning* was rejected.

For presentation tools, Table 5 shows that 122 (57.5%) were below average; this included 48 (46.6%) participants who were prepared for eLearning and 74 (67.9%) who were unprepared. The analysis obtained a computed Chi-square (χ^2) value of 8.971 (corrected for continuity), with 1 degree of freedom and a p-value of 0.003, which is significant at 0.01 error margin; suggesting up to 99% chance that lecturers' preparedness for eLearning significantly related to their competence in applying presentation tools. In this regard, the null hypothesis *(H₀3)* stating that *lecturer's competence in using presentation tools has no significant relationship with their preparedness for eLearning* was also rejected.

Table 5 further shows that 159 (75.0%) participants were below average in the application of statistical analysis tools; this included up to 67 (65.0%) who were prepared for eLearning and 92 (84.4%) who were unprepared. Here, bivariate analysis obtained a computed Chi-square (χ^2) value of 9.574 (corrected for continuity), with 1 degree of freedom and a p-value of 0.002, which was significant at 0.01 error margin. This suggests up to 99% chance that competence in working with statistical analysis tools was one of the factors likely to influence lecturer's preparedness to function in an eLearning environment. This led to rejection of the null hypothesis *(H₀4),* which stated that *there is no significant relationship between lecturers' competence using in statistical analysis tools and their preparedness to apply eLearning.*

Table 5: Competence in software tools

Software tools	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Word processing						
Below average	16	15.5	57	52.3	73	34.4
Above average	87	84.5	52	47.7	139	65.6
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Spread sheets						
Below average	50	48.5	71	65.1	121	57.1
Above average	53	51.5	38	34.9	91	42.9
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Presentation						
Below average	48	46.6	74	67.9	122	57.5
Above average	55	53.4	35	32.1	90	42.5
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Statistical analysis						
Below average	67	65.0	92	84.4	159	75.0
Above average	36	35.0	17	15.6	53	25.0
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Internet						
Below average	17	16.5	27	24.8	44	20.8
Above average	86	83.5	82	75.2	168	79.2
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Emailing						
Below average	19	18.4	26	23.9	45	21.2
Above average	84	81.6	83	76.1	167	78.8
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**

The software tools most applied by participants included the internet browsing tools such as *Mozilla Firefox* and *Google Chrome,* as well as e-mailing tools such as *Yahoo mail, Gmail, Eudora* and *Microsoft Outlook.* More specifically, Table 5 shows that 168 (79.2%) participants were above average in applying Internet browsing tools, including 86 (83.5%) who were prepared for eLearning and 82 (75.2%) who were unprepared. Bivariate analysis for competence on Internet browsing yielded a computed Chi-square (χ^2) value of 1.726 (corrected for continuity), with 1 degree of freedom and a p-value of 0.189, which was not significant. Consequently, the null hypothesis *(H₀5)* stating that *the relationship between lecturers' competence in using internet tools and their preparedness to apply eLearning is not statistically significant* was not rejected due to insufficiency of empirical evidence.

For e-mailing tools, 167 (78.8%) were above average; including 84 (81.6%) and 83 (76.1%) who were prepared and unprepared for eLearning, respectively. The bivariate analysis obtained a computed Chi-square (χ^2) value of 0.631, with 1 degree of freedom and a p-value of 0.427, which was also not significant. Consequently, those prepared and those unprepared for eLearning were not significantly different in terms of competence in using e-mailing tools. This implies that competence in using e-mailing tools was less likely to influence lecturer's preparedness for eLearning.

Impediments to computing competence & preparedness for eLearning

Computing competence and preparedness for eLearning are influenced by lack of formal training, inadequacy of time and financial resources to pursue training. Computing competence is also hindered by the ineffectiveness of ICT training programme targeting academic staff, which is perceived to be underfunded, selective and unclear selection criteria. Even those already trained need refresher sessions to catch with technological changes. For instance, those who trained in *Microsoft DOS* could not affectively work with programmes based on new operating systems such as *Windows 7*, *Windows 8,* or *Linux*.

Computing competence was also hindered by lecturers' engagement with administrative duties, which consumed the time that could be used to acquire new or improve ICT skills. The heavy workload was exacerbated by mass enrolment in regular and self-sponsored programmes. Work-related pressure and desire to make extra income from self-sponsored programmes were gradually diverting the lecturers' interest from developing ICT skills. The available time is utilised for teaching various groups of students, marking and performing administrative duties. Lack of opportunity to enhance computing competence was also linked to uncertainty, anxiety and fear of going through the transition to an eLearning mode. Worse still, anxiety is perpetuated by the expectation to try new ideas as well as technological changes and advancement. Consequently, some software tools are perceived to be too complicated; prompting lecturers to stick to the traditional modes, such as pen-paper or chalk-black wall. Similarly, some lecturers perceive the transition to eLearning as threat to their career. Some informants linked the fear and anxiety to lack of consistent technical support and post-training guidance, particularly at the departmental level.

Shortage of modern and efficient computers at the workplace was also a key factor impeding lecturers' computing competence. Obsolete machines are not only time wasting but also reinforcing fear and anxiety about their ability to cope with teaching and learning challenges that are likely to come with eLearning. To cope with shortage of computers, some staff members are using their personal computers to undertake University work. Still on infrastructure, computing competence and preparedness for eLearning is impeded by unreliable internet connectivity. Computing competence and preparedness for eLearning was further influenced by lack of ICT centres at the departmental level, where academic staff could go for quick consultation. This was particularly necessary because of staffing shortage, which makes it difficult for lecturers to access technical support at the shortest notice. Given that some lecturers are loaded with administrative duties and classes, delays in technical support only widen distance between them and computers.

In addition, computing competence and preparedness for eLearning is affected by lack or inadequacy of eLearning resources. Also critical is the shortage of specialised eLearning facilities, particularly online learning management systems (LMS) such as Blackboard*, WebCT, FirstClass, Moodle* and *Lotus Learning Space*, among others. LMS have the potential to save costs, time and can help to improve the effectiveness of learning processes. Other resource materials that should be considered by the University include specialised libraries where lecturers can access information to help them improve skills, as well as videoconferencing facilities.

SUMMARY AND CONCLUSIONS

The purpose of this study was to determine the influence of computing competence in various software tools on lecturers' preparedness for eLearning. The study found that participants whose competence in working with word processing tools was above average were likely to be better prepared for eLearning than those whose competence was below average (computed χ^2=30.089; df=1; p-value=0.000). Multivariate analysis indicated that participants who competence in word processing tools was above average had about 5.7 the odds of being prepared for eLearning as those whose competence was below average. Preparedness for eLearning significantly related to competence in applying spreadsheet tools (computed χ^2=5.294; df=1;

p-value=0.02. Participants whose competence on spreadsheets was above average were about 2.2 times as likely to be prepared for eLearning as those whose competence was below average.

Lecturers' preparedness for eLearning significantly associated with competence in working with presentation tools (computed χ^2=8.971; df=1; p-value=0.003). In this regard, those whose competence was above average had about 5.1 times the odds of being prepared for eLearning as those whose competence was below average. Competence in working with statistical analysis tools was one of the factors likely to influence lecturer's preparedness to function in an eLearning environment (computed χ^2=9.574; df=1; p-value=0.002). In this regard, participants whose competence in statistical analysis tools was above average were about 1.7 times as likely to be prepared for eLearning, as those whose competence was below average. Finally, lecturer's preparedness for eLearning and competence in Internet browsing tools was not significant (computed χ^2=1.726; df=1; p-value=0.189).

Training in computing skills is essential for lecturers' preparedness for eLearning. Although up to 73.5% of the participants had accessed some training in various software tools, more than two-thirds had not benefitted from training provided by the University. Most participants financed their own training in commercial colleges; however, basic computer training in Kenya has been commercialised to the extent that most commercial institutions barely meet the minimum threshold for curriculum delivery. Consequently, even those who had trained were still not competent enough to function in an eLearning setting. At the University of Nairobi, computing competence training is provided by the School of Computing and Informatics. However, most academic staff were yet to benefit from the initiative, on account of issues such as funding constraints, lack of awareness, as well as preoccupation with academic and administrative duties.

Lack of time to undergo training is a reality that should also be considered to create room for academic staff. This is particularly critical for departments experiencing over-enrolment in self-sponsored programmes. Structuring the training programme and harmonising its schedules with academic semesters is one of the critical measures that should be considered to enable lecturers acquire skills necessary for an eLearning environment. Other critical options include making the University training programme continuous to take care of refresher needs as well as staff attrition.

The effort to prepare academic staff to function in an eLearning setting should consider issues such as uncertainty and anxiety of going through the transition process from traditional modes of delivery to the eLearning mode. Anxiety is particularly perpetuated by the fear of trying out new ideas as well as technological changes. Unmanaged feeling of anxiety is likely to precipitate reluctance and resistance to transit to eLearning. Anxiety is also likely to prevent academic staff from accepting training, as well as influence negatively the perception on the ease of using technology in teaching and learning processes. This calls for change management to help lecturers adjust accordingly in favour eLearning.

Change is a fearful process that is also filled with anxiety. People fear that change may bring new challenges or deprive them of certain opportunities or privileges. To ensure that all lecturers share in the vision of eLearning and walk along with the change process, sustained sensitisation and education is an indispensable pre-requisite. Sustained sensitisation is particularly necessary because changing mindset takes time and cannot be achieved over night. Besides academic staff, the change process should target top leaders of the University. As a matter of fact, change can be realised faster when leaders and administrators become role models. They should undergo training in computing and eLearning processes to inspire their junior colleagues.

Considering the requirements for an effective eLearning system, there is no doubt that it is a costly initiative, particularly to resource-poor countries. However, eLearning remains important for lecturers and learners to develop competencies necessary for tackling social and economic development challenges experienced in

the 21ˢᵗ century. In other words, eLearning has the potential to enhance digital literacy skills and creating knowledge-based economies required for socio-economic development as envisaged in international and national blueprints.

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REFERENCES

Abbad, M., Morris, D. and Nahlik, C. (2009). "Factors Affecting Student and Lecturer Use of E- Learning Systems in Jordan", *International Review of Research in Open and Distance Learning.* Vol. 10, No. 2, pp. 1-22.

Al-Ammari, J. and Hamad, S. (2007). "Factors Influencing the Adoption of ELearning at the University of Bahrain". *Computers and Education*, Vol. 45, No. 4, pp. 199-207.

Albirini, A. (2006). "Teachers' Attitudes toward Information and Communication Technologies in Syrian Tertiary Institutions", *Journal of Computer and Education".* Vol. 47, No. 1, pp. 373-398.

Aldrich, S.T. and Nelson, P.D. (1984). *Advanced Quantitative Techniques for Social Sciences, 2ⁿᵈ Edition*. New York: Routledge.

Ashley, D. and Orenstein, D.M. (2005). *Sociological theory: Classical statements (6th ed.)*. Boston: Pearson Education.

Babbie, E. R. (1973). *Survey Research Methods*. Belmont, CA: Wadsworth Publishing Company.

Becta (2003). "The Impact of Information and Communication Technologies on Pupil Learning and Attainment – Full report, March 2003. http://www.becta.org.uk/research/reports/impact2 Accessed in April 13 2010

Berner, J. E. (2003). *A Study of Factors That May Influence Faculty in Selected Schools of Education in the Commonwealth of Virginia to Use Computers in the Classroom.* A PhD Dissertation submitted at the George Mason University, U.S.

Best, J.W. and Khan, J.V. (2004). *Research in Education, 7ᵗʰ Edition.* New Delhi: Prentice Hall of India.

Datuk, T.S. and Ali, A. (2008). Issues and Challenges in implementing eLearning in Malaysia", *Australian Journal of Educational Technology*, Vol. 4, No. 1, pp. 23-39.

Dunn, S. L. (2000). "The Virtualization of Education", *Futurist.* Vol. 34, No. 1, pp 34-39.

Farahani, G.O. (2003). *Existence and Importance of Online Interaction.* A PhD Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University, Virginia, USA.

Fowler, F. (1993). *Survey Research Methods.* Beverly Hills, CA: Sage.

Gakuu, C.M. (2006). *An Analysis of Factors that Influence Lecturer's Attitude towards the Use of Distance Education and the Use of eLearning in Teaching.* A PhD Thesis submitted to the School of Continuing and Distance Learning, University of Nairobi. Nairobi

Garrison, D. and Anderson, T. (2003). *ELearning in the 21st Century.* London: Routledge Falmer.

Houtz, S. and Gupta, P. (2001). "Gender Roles, Computer Attitudes and Dyadic Computer Interaction Performance among University Lecturers in Egypt". *Journal of Organisational Behaviour.* Vol. 20, No. 3, pp. 1-9.

Keller, C. and Cernerud, L. (2002). "Students' Perception of ELearning in University Education", *Learning, Media and Technology.* Vol. 27, No. 1, pp. 55-67.

Kerka, S. (2002). "Enticing Online Consumers: An Extended Technology Acceptance Perspective", *Information and Management.* Vol. 39, No. 8, pp. 705-719.

Kihara, J. (2005). "Challenges Facing University Education". *Daily Nation Special Journal*, July 28, 2005. Nairobi: Nation Media Group.

Koo, A. C. (2008). "Factors Affecting Lecturers' Perceived Preparedness for Online Collaborative Learning: A Case Study in Malaysia", *Educational Technology & Society.* Vol. 11, No. 1, pp. 266-278.

Lu, H.P., Liu, S.H. and Liao, H.L. (2005). "Factors Influencing the Adoption of ELearning Websites: An Empirical Study". *Issues in Information System*, Vol. 6, No. 1, pp. 190-196.

Luan, W.S., Aziz, S., and Yunus, A.S. (2005). "Gender Differences in ICT Competencies among Academicians at Universiti Putra Malaysia", *Online Journal of Instructional Technology,* Vol. 2, No. 3, pp. 62-69.

Mpofu, S. (2004). "Factors Supporting or Impeding the Acceptance and Use of Technology in Teaching at the University of Namibia". *Journal of Asynchronous Learning Networks,* Vol. 4, No. 1, pp. 115-127.

Mugenda, O.M. and Mugenda, A.G. (1999). *Research Methods: Quantitative and Qualitative Approaches.* Nairobi: Acts Press.

Nachmias, C.F and Nachmias, D. (1996). *Research Methods in the Social Sciences, 5ᵗʰEdition*. London: Arnold.

Naidu, S. (2006). *ELearning: A Guidebook of Principles, Procedures and Practices*. New Delhi: Commonwealth Educational Media Center for Asia.

Nanayakkara, C. and Whiddett, D. (2006). "A Model of User Acceptance of ELearning Technologies: a Case Study of a Polytechnic in New Zealand". *Educause Quarterly, Vol. 5, No.* 31, pp. 180-189.

Oblinger, D., and Oblinger, J. (2005). "Educating the Net Generation". *EDUCAUSE E-Book*, http://www.educause.edu/eductingthenetgen, Accessed on July 2, 2010.

Omwenga, E. (2004). "A Model for Introducing and Implementing ELearning for Delivery of Educational Content within the African Context". *African Journal of Sciences and Technology,* Vol. 5, No. 1, pp. 35-48.

Roberts, N., Hutchinson, W. and Little, G. (2003). "Barriers to Using Technology for Teaching and Learning in Dutch Universities", *Educase Quarterly*. Vol. 25, No. 2, pp. 22-28.

Romiszowski, A. (2004). "Factors Leading to Success or Failure of an Educational Technology Innovation". *Educational Technology,* Vol. 44, No. 1, pp. 5-27.

Rosenberg, M. J. (2001). *ELearning: Strategies for Building Online Learning in the Digital Age*. New York: McGraw-Hill

Selim, H. (2007). "An Empirical Investigation of Student Acceptance of ELearning". *Computers and Education*, Vol. 40, No. 1, pp. 343-360.

Shepard, M. (2008). "Use of Online Teacher Education in Remote, Indigenous Areas Central", *American Journal of Indigenous Education*. Vol. 1, No. 2, pp. 54-70.

Son, J., Robb, T. and Sangyo, K. (2007). "Computer Literacy and Competency: A Survey of Indonesian Teachers of English as a Foreign Language", *The CALL English Journal*, Vol. 12, No. 1, pp. 26-42.

Tavangarian, D., Leypold, M., Nölting, K., and Röser M., (2004). "Is ELearning the Solution for Individual Learning?" *Journal of eLearning*, Vol.1, No. 1, pp. 1-15.

Tella, A. (2007). "An Assessment of Secondary School Teachers Uses of ICTs: Implications for Further Development of ICT's Use in Nigerian Secondary Schools". *The Turkish Online Journal of Educational Technology,* Vol. 6, No. 3, pp. 12-28.
The MENON Network, (2007). ELearning for Innovation. HELIOS Annual Report, Helsinki, 2007.

Thomas, A. and Stratton, G. (2006). "A National Audit of ICT Equipment Use, Attitudes, Support and Training Needs of Lecturers in Middle-Level Colleges," *British Journal of Educational Technology,* Vol. 37, No. 4, pp. 617-632.

Trombley, K.B. and Lee, D. (2002), "Web-based Learning in Corporations: Who is Using it and Why, Who is not and Why not?" *Journal of Educational Media*, Vol. 27, No. 3, pp. 137-146.

Van Braak, G. (2004). "Academic staff development in online learning and teaching: developing online pedagogies", *AusWeb05*, Gold Coast, Australia.

Venkatesh, V. and Morris, M.G. (2000). "Gender, Social Influence and their Role in Technology Acceptance Behaviour among Academic Staff in Public Universities, India", *Management Information Systems Quarterly*. Vol. 24, no. 1, pp. 115-139.

Volery T. (2000). "Critical Success factors in Online Education", *The International Journal of Educational Management,* Vol. 23, No. 2, pp. 321-334.

Wuensch, K.L. (2006). *Logistic Regression with SPSS*. http://core.ecu.edu/psyc/wuenschk/spss/logistic.sav Accessed in April 4, 2010.

Ya'acob, A. (2005). "Implementation of the Malaysian Smart School: An Investigation of Teaching-Learning Practices and Teacher-Student Preparedness", *Internet Journal of e-Language Learning and Teaching,* Vol. 2, No. 2, pp. 16-25.

Ya-Ching, L. (2006). "An Empirical Investigation into Factors Influencing the Use of an ELearning System". *Online Information Review*, Vol. 30, No. 5, pp. 517-541.

INFLUENCE OF WORKPLACE INFRASTRUCTURE ON LECTURERS' PREPAREDNESS FOR E-LEARNING: THE CASE OF UNIVERSITY OF NAIROBI, KENYA

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ABSTRACT

This study was conducted to identify infrastructural gaps and support needs among lecturers at the University of Nairobi, which should be addressed to improve their preparedness to function in an electronic learning (eLearning) environment. A cross-sectional survey design was applied to source data from 212 lecturers and 108 administrative staff. Both quantitative and qualitative techniques were applied to process, analyse and interpret the data. Quantitative analysis was done at the univariate, bivariate and multivariate levels. Hypotheses were tested using cross tabulations with Chi square (χ^2) statistic, while Binary Logistic Regression was used to determine the influence of access to workplace computers, reliability of internet connectivity and timeliness of technical support on the preparedness for eLearning. The study found that participants having access to computers at their workplace were likely to be more competent in computing; thus, better prepared to function in an eLearning environment than those who lacked such access. More specifically, participants having access to computers at the workplace were about 2.8 times more likely to be competent and better prepared for eLearning than their colleagues lacking such access. Participants having reliable internet connectivity were likely to have better computing skills, which put them at a better position for eLearning. More still, those who indicated that workplace internet connectivity was very reliable were about 6.8 times more likely to be prepared for eLearning than their colleagues reporting that internet connectivity was very unreliable. Preparedness for eLearning was significantly associated with the timeliness of technical support. Consequently, enhancing access to computers at the workplace is likely to help lecturers improve skills and overcome fears and anxiety associated with computer use; ensuring adequate and timely access to technical support is likely to discourage apprehensiveness to technology facilities, while reliable internet connectivity remains a key requirement for eLearning.

KEYWORDS: Workplace, Infrastructure, eLearning, Preparedness, Access, Internet reliability, Technical support

INTRODUCTION

ELearning is a mode of instruction that involves the application of electronic media, including the Internet, Intranet, satellite broadcast, audio or video tapes, interactive television or CD-ROMs (Trombley & Lee, 2002; Tavangarian, Leypold, Nölting & Röser, 2004). ELearning improves teaching and learning processes by encouraging the use of modern instructional methods supported by Information and Communication Technology (ICT) tools (Selim, 2007). As part of preparedness for eLearning, institutions of higher learning must put in place appropriate ICT infrastructure and develop human resource (Oblinger & Oblinger, 2005). This makes its necessary for all lecturers to build their computing skills in order to function effectively in an eLearning environment.

Various terminologies are often used in place of eLearning; for instance, *online learning*, *virtual learning*, *distributed learning*, *network* or *web-based learning*. Whatever the terminology used, the primary connotation is the application of ICT tools, including the Internet to mediate asynchronous as well as synchronous teaching

and learning activities (Naidu, 2006). Instruction over the Internet is perceived by many education scholars to be a significant breakthrough in teaching and learning, particularly at the institutions of higher learning (Keller & Cernerud, 2002; Abbad, Morris & Nahlik, 2009). Being a mode that is Internet-driven, the stability and reliability of internet connectivity is a crucial part of infrastructural requirement for the adoption of eLearning.

ELearning has four distinct modalities; namely, individualised self-paced online, individualised self-paced offline, group-based synchronously and group-based asynchronously (Romiszowski, 2004; Naidu, 2006). Under the individualised self-paced online modality, a learner accesses learning resources through the Internet or Intranet. The modality is appropriate for learners in contexts where Internet infrastructure is reliable. A typical example is a learner studying alone or conducting some research through the Internet or a local network (Naidu, 2006). Contrastingly, the individualised self-paced offline modality refers to situations where an individual learner accesses learning resources without connection to the Internet or Intranet. The modality is suited for learners in contexts where Internet infrastructure is unreliable or non-existent, with an example being a learner working alone off a hard drive, a CD or DVD (Romiszowski, 2004; Naidu, 2006).

The group-based synchronously modality reflects a situation where groups of learners work together in real time via the Internet or Intranet; for instance, through videoconferencing. The synchronous mode is appropriate within contexts where Internet is stable. It may include text-based conferencing, and one or two-way audio and videoconferencing. Examples of this include learners engaged in a real-time chat or an audio-videoconference (Naidu, 2006). The group-based asynchronously modality refers to a situation where groups of learners work over the Internet or Intranet but where feedback occurs later; for instance, communication through electronic mail (Romiszowski, 2004; Naidu, 2006). The asynchronous mode is commonly applied in countries, where the Internet infrastructure is too weak or unreliable. Typical examples of this kind of activity include on-line discussions via electronic mailing lists and text-based conferencing within learning management systems (Romiszowski, 2004; Naidu, 2006).

ELearning has been gaining momentum in developed and developing countries alike over the past two decades, especially in response to the rapid advancement of ICT. The ability of new ICT facilities to support multimedia resource-based teaching and learning is fundamental to the growing interest in eLearning, world over (Farahani, 2003; Omwenga, 2004). The revolution in ICT continues to stimulate the design of eLearning courses, which in turn, influences the substance of university education. Statistical projections indicate that enrolment for university education through eLearning was expected to grow consistently from about 900,000 in 2003 to about 15.2 million learners by the end of 2012 (MENON Network, 2007).

The growing interest in eLearning seems to be coming from several directions. First, institutions of higher learning that have traditionally offered distance education perceive eLearning as a logical extension of their distance education activities. Such institutions also consider eLearning as an avenue for improving access to and expanding the market base for their academic programmes (Rosenberg, 2001), while the corporate sector views eLearning as a cost-effective way for staff training and development (Oblinger & Oblinger, 2005; Naidu, 2006). As noted by Kihara (2005), eLearning is fast becoming the ideal mode of university education in this age of knowledge-based economies and globalisation. To remain relevant, universities all over the world will have to redefine their mission and review their curriculum to integrate the use of technology. Similarly, Dunn (2000) asserts that the integration of eLearning is inevitable for institutions of higher learning that wish to remain relevant in the era of technology, while Volery (2000) emphasises the importance of eLearning to the future relevance and survival of universities across the globe.

Despite a high level of interest in eLearning, its integration in developing countries is constrained by inadequacy of necessary workplace infrastructure, including access to computers, reliability of Internet connectivity and access to ICT technical support, due to prohibitive establishment and operational costs.

Consequently, transition from traditional modes of delivery to eLearning is gradual and requires heavy investments, not only on the necessary infrastructure but also in the development of human resource for technical backing (Naidu, 2005). ELearning is applauded for various reasons, including providing an alternative for learners who want to improve their skills but are unable to attend training centres situated away from their usual residence (Garrison & Anderson, 2003; Shephard, 2008). The method provides access to resource materials round the clock; implying that learners can access and use such materials at the most convenient time, place and pace. Again due to its flexibility, institutions of higher learning are often able to meet learning needs of their students and lecturers at a time, place and pace that are most convenient (Becta, 2003; Oblinger & Oblinger, 2005; Naidu, 2006).

The group-based synchronously eLearning modalities can be used to engage learners in active discussions, sharing ideas and passing information, with fast and accurate feedback (Koo, 2008). Besides, the advancement of ICTs has provided a wide range of software applications and computer conferencing technologies, which enable learners and lecturers to engage in synchronous as well as asynchronous interaction across space, time and pace for collaborative inquiry among students (Oblinger & Oblinger, 2005; Naidu, 2006). The application of multimedia machines, software packages and the internet motivates learners, resulting in better academic performance (Kerka, 2002; Ya-Ching, 2006), while ICTs facilitate the capture and storage of various types of information, including print, audio and video materials, which may not be possible within the spatial and temporal constraints of conventional educational settings (Kerka, 2002).

Preparedness for eLearning at institutions of higher learning is a function of various infrastructural elements, including access to computers at the workplace, reliability of Internet connectivity as well as availability of technical support, just to mention a few. According to Ngai, Poon and Chan (2007), the fundamental obstacle to the growth of eLearning is lack of access to necessary technological workplace infrastructure. Poor or insufficient infrastructure may restrict access to ICT facilities by lecturers, learners and administrators. Similarly, limited access to ICT infrastructure is likely to impair practice, efficiency and effectiveness of eLearning initiatives. Also crucial is the cost of system support and maintenance, as well as the appropriate training of staff to enable them make the most of technology (Ngai et al., 2007). Studies conducted by Hitt and Hartman (2002), Gulbahar (2005) and Albirini (2006) suggest that preparedness for eLearning significantly associates with access to functional computers at the workplace, which often influences the proportion of lecturers using computers to support delivery of their lessons. Besides, the adequacy of appropriate computers is also critical in determining the preparedness of lecturers to operate in an eLearning environment.

The linkage between Internet access and preparedness for eLearning has been documented in various studies, including Volery (2000) and Mercado (2008). Access to a stable Internet connectivity and a dependable computer is crucial for successful integration of eLearning. However, in developing countries, internet reliability remains a critical challenge primarily due to weak bandwidths (Ndume, Tilya & Twaakyondo, 2008). Preparedness for eLearning is influenced by the availability and adequacy of ICT technical support for lecturers. Without such support, those who may not be sure of where to turn for technical assistance may remain apprehensive in using ICT facilities (Preston, 2000). Lecturers operating in environments that are deficient of technical support often cite lack of such as the most critical obstacle to the application of ICT tools in teaching activities (Butler & Sellbom, 2002). A study conducted by Saekow and Samson (2011) also found that technical support was one of the key requirements for successful integration of eLearning initiatives.

The relationship between workplace infrastructure and lecturers' preparedness for eLearning has been a subject of empirical investigation in many countries. However, very little documentation of the subject has been done in African countries, particularly in Kenya; leading to a dearth of academic literature to inform policy processes and programming. Although the University of Nairobi has been a leading icon in Open

and Distance Learning (ODL) activities within the East African region, eLearning is still at the early stages of development. Transition from the traditional mode to eLearning is constrained by various issues such as limited access to computers by lecturers, weak internet connectivity, inadequate technical support (Kariuki, 2006).

The eLearning idea has been nurtured for more than a decade; however, no academic initiative has fully investigated the influence of workplace infrastructure on lecturers' preparedness for eLearning. A recent study conducted by Gakuu (2006) noted that although the application of ICT-based instructional modes was limited at the University of Nairobi, lecturers were positive about the integration of eLearning. However, the study did not establish the linkage between workplace infrastructure and lecturer's preparedness for eLearning. The key purpose of this study was to highlight infrastructural gaps, as well as ICT support needs among lecturers at the University of Nairobi. More specifically, the study was expected to determine the influence of access to workplace computers reliability of internet connection and timeliness of technical support on lecturers' preparedness for eLearning.

METHODOLOGY

This study was founded on the positivist philosophy of social research, holding that in social sciences, information derived from sensory experience is the exclusive source of all authoritative knowledge. Besides, the world is external and objective; and that the observer is independent of the phenomena being observed. The positivist thought assumes that valid knowledge can only be found in scientific knowledge (Ashley & Orenstein, 2005). Based on the positivistic thinking, a cross-sectional survey design with both quantitative and qualitative approaches was applied to guide the research process (Babbie, 1973; Fowler, 1993). Whereas, the quantitative approach elicited information used for descriptive and inferential purposes using self-administered questionnaires, the qualitative approach obtained in-depth information through key informant interviews.

Primary data was collected in May 2011 from lecturers and administrative staff at the University of Nairobi. Although the study focused on lecturers' preparedness for eLearning, the inclusion of administrative staff was based on their crucial role in policy formulation, implementation and enforcement, which influence the work environment in which lecturers operate. Their inclusion in the study was purposed to identify policy gaps regarding ICT strategies, plans, budgetary allocations and ICT development, which are likely to influence lecturers' preparedness to function in an eLearning environment. Unpublished data from the office of Deputy Vice Chancellor, Finance and Administration showed that the University had 958 academic and 108 administrative staff at the time of the study.

With a finite population of lecturers, one of Fisher's formulae for sample size determination was applied to obtain a sample size of 213 participants. Stratified random sampling was applied to select the lecturers, with the stratification being based on colleges, gender and cadre. This ensured proportionate representation of all colleges; male and female lecturers; as well as assistant lecturers, lecturers, senior lecturers, associate professors and professors. Proportionate samples from each stratum were obtained by first, calculating the sampling fraction, as a quotient of the sample size (n_i) and the population (N_i). Table 1 shows the proportionate sample sizes from each college.

From each stratum, simple random sampling was applied to select respondents. In addition, purposive sampling procedure was applied to select administrative staff, based on their availability and accessibility at the time of the study. The sample included 6 principals, 6 deputy principals, 6 registrars, 21 assistant registrars, 20 deans and directors, 13 associate deans and deputy directors; as well as 36 administrative assistants. Three sets of instruments, including a self-administered survey questionnaire for lecturers, a key informant interview schedule for administrators and an observation schedule were used to source the data. The tools were pretested on 20 lecturers and 10 administrators, which was equivalent to about 10% of the

computed sample sizes for each category. Data was obtained by issuing questionnaires to lecturers, which were collected after two weeks. Administrators were interviewed at their places of work; the investigator sought informed consent from each participant. In this regard, participants were briefed about the study, purpose, potential benefits and that participation was on voluntary terms.

Table 1: Proportionate samples of academic staff for each college

Colleges	Sampling frame	Sample size
Humanities and Social Sciences	412	92
Biological and Physical Sciences	170	38
Health Sciences	52	12
Education and External Studies	125	28
Agriculture and Veterinary Sciences	94	21
Architecture and Engineering	105	23
Total	**958**	**213**

Both quantitative and qualitative techniques were applied to process and analyse. Quantitative data were analysed at three levels, namely univariate, bivariate and multivariate. Univariate analysis yielded frequency distributions and percentages; bivariate analysis obtained cross tabulations with Chi square (χ^2) tests; while multivariate applied binary logistic regression to obtain beta co-efficients and odds ratios. All the quantitative analyses were performed using the Statistical Package for Social Sciences (SPSS) and Ms-Excel packages. In addition, qualitative data were organised and summarised in line with the thematic areas; described to produce summary sheets; followed by systematic analysis and interpretation. Details about the methods applied in this study have been described in various publications, including Babbie (1973), Fowler (1993), Aldrich and Nelson (1984), Nachmias and Nachmias (1996), Mugenda and Mugenda (1999), Wuensch (2006), as well as Best and Khan (2004).

RESULTS

The study covered 212 lecturers from all the colleges of the University of Nairobi, including 104 (49.1%) from the College of Humanities and Social Sciences (CHSS); 19 (9.0%) from the College of Biological and Physical Sciences (CBPS); 24 (11.3%) from the College of Health Sciences (CHS); 29 (13.7%) from the College of Education and External Studies (CEES); 20 (9.44%) from the College of Agriculture and Veterinary Sciences (CAVS); and 16 (7.5%) from the College of Architecture and Engineering (CAE). In terms of gender, lecturers from CHSS included 56 (53.8%) men and 48 (46.2%) women; from CBPS were 16 (84.2%) men and 3 (15.8%) women; while from CHS were 20 (83.3%) men and 4 (16.7%) women. The CEES provided 23 (79.3%) men and 6 (20.7%) women; at CAVS 17 (85.0%) men and 3 (15.0%) women participated; while lecturers from CAE included 14 (87.5%) women and 2 (12.5%) women. In addition, the study involved 96 administrative staff, including 34 (35.4%) administrative assistants, 6 (6.3%) college registrars and 15 (15.6%) assistant registrars; 10 (10.4%) departmental chairpersons; 10 (10.4%) faculty deans and 6 (6.3%) associated deans; as well as 8 (8.3%) directors and 7 (7.3%) deputy directors. The administrative staff included 64 (66.7%) men and 32 (33.3%) women.

ELearning preparedness

Lecturers' preparedness for eLearning was measured in terms of perceived computing competence, referring to the ability to execute commands and manipulate a range of software applications for various purposes. In this regard, participants were requested to rate their competence on each of the following computing software tools on a scale of 1-10: word processing, spreadsheets, presentation, statistical analysis, internet browsing and e-mailing. The participants' ratings for each software tool were summed and mean scores determined. Resultant quotients were then rated on a scale of 0-49% and 50-100%. Participants whose mean scores were less than 50% were considered to be below average; thus, were likely to be unprepared to function in an eLearning environment. Conversely, those whose mean scores were

above 50% were considered to above average, and likely to be prepared for eLearning. Based on the principle, out of 212 participants, 103 (48.6%) had a mean score of 50 percent or higher; while 109 (51.4%) scored less than 50 percent; suggesting that slightly more than one-half of the lecturers were below average in terms of computing competence.

<u>ELearning preparedness and background profile</u>

The results presented in Table 2 show that out of 212 participants, 97 (45.8%) were in the 40 to 49 years age bracket; 4 (25.5%) were aged between 50 and 59 years, while 22 (10.8%) were in the 30 to 39 years bracket. Besides, another 22 (10.8%) reported to be 60 years or higher, while 8 (3.9%) were aged below 30 years. Table 2 further shows that the proportion of lecturers unprepared for eLearning in the 50+ age category was more than the proportion of those prepared in the same age category. Conversely, the proportion of staff prepared for eLearning aged below 40 years was higher than the proportion of those unprepared. The pattern suggests that younger academic staff were likely to be more competent in working with software tools; hence, likely to be better prepared for eLearning than their relatively older colleagues.

Based on this, bivariate analysis obtained a computed Chi-square ($\chi2$) value of 18.026, with 4 degrees of freedom and a p-value of 0.001, which is significant at 0.01 error margin; suggesting up to 99% chance that lecturers' preparedness for eLearning significantly associated with age. Similar findings on the link between age and computing competence were reported by Venkatesh and Morris (2000) who assessed the role of gender and social influence on technology acceptance behaviour among academic staff of Indian public universities. The study found that younger lecturers were more receptive to new technologies than their older counterparts. In Jordan, Abbad, Morris and Nahlik (2009) found a negative correlation between lecturers' age and eLearning delivery methods.

Results in Table 2 further show that 146 (68.9%) participants were men and 66 (31.1%) were women. Besides that proportion of women lecturers prepared for eLearning 34 (33.0%) was marginally higher than the proportion of those unprepared 32 (29.4%). However, the proportion of men prepared for eLearning 69 (67.0%) was lower than the proportion of those unprepared 77 (70.6%). However, the analysis did not find a significant relationship between lecturers' gender and preparedness for eLearning [computed $\chi^2 = 1.039$ (corrected for continuity), df = 1 and p-value = 0. 243]. This suggests that no gender was more competent in computing than the other; hence, none was likely to be more prepared than the other. This is however, inconsistent with the findings of Luan, Aziz, Yunus, Sidek and Bakar (2005), who investigated gender differences in ICT competence among academicians at the Universiti Putra Malaysia. The study noted that female and male academicians were significantly different in the application of software packages such as word processing, spreadsheets and presentation tools. However, in Egypt, Houtz and Gupta (2001) found that male lecturers were more confident and had a greater usage of computers compared to their female counterparts. Besides, Venkatesh and Morris (2000) noted that male lecturers were more likely to accept new technological innovation than their female colleagues.

Table 2: Background profile and preparedness for eLearning

Background attributes	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Age						
<30 yrs	8	8.3	0	0.0	8	3.9
30-39 yrs	12	12.5	10	9.3	22	10.8
40-49 yrs	45	46.9	52	48.6	97	47.8
50-59 yrs	23	24.0	31	29.0	54	26.7
60+ yrs	8	8.3	14	13.1	22	10.8
Total	**96**	**100.0**	**107**	**100.0**	**203**	**100.0**
Gender						
Male	69	67.0	77	70.6	146	68.9
Female	34	33.0	32	29.4	66	31.1
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Education level						
Bachelors	1	1.0	4	3.7	5	2.4
Masters	36	35.0	20	18.3	56	26.4
PhD	66	64.0	85	78.0	151	71.2
Total	**103**	**100.0**	**109**	**100**	**212**	**100.0**
Average monthly income						
<KES 50,000	4	3.9	0	0.0	4	1.8
KES 50,000-59,000	0	0.0	3	2.8	3	1.4
KES 60,000-69,000	7	6.8	4	3.7	11	5.2
KES 70,000-79,000	10	9.7	7	6.5	17	8.1
KES 80,000-89,000	9	8.7	12	11.1	21	10.0
KES 90,000+	73	70.9	82	75.9	155	73.5
Total	**103**	**100.0**	**108**	**100.0**	**211**	**100.0**

Up to 151 (71.2%) academic staff reported holding PhD degrees, 56 (26.4%) held masters certificates, while 5 (2.4%) had bachelor's degree qualifications. Besides, the results summarised in Table 2 show that the proportion of PhD holders unprepared for eLearning was higher than the proportion of those prepared. Conversely, the proportion of masters' degree holders prepared for eLearning was higher than the proportion of those unprepared. Based on this pattern, a computed Chi-square (χ^2) value of 11.031 was obtained, with 2 degrees of freedom and p-value of 0.004, which is significant at 0.01 error margin; suggesting up to 99% chance that lecturers' preparedness for eLearning significantly associated with educational attainment. Thus, masters' degree holders, being relatively younger people, were likely to be more competent in computing; hence, better prepared for eLearning than PhD holders. These findings are consistent with those reported by Roberts, Hutchinson and Little (2003) who assessed barriers to the use of technology for teaching among Dutch universities. The study noted that professors and associate professors were less likely to use ICT tools in their teaching than junior lecturers.

The results in Table 2 further indicate that most participants, 155 (73.1%), were earning KES 90,000 or more; 21 (9.9%) were in the KES 80,000 to 89,000 bracket; 17 (8.0%) averaged at between KES 70,000 and 79,000, while 11 (5.2%) reported an income of KES 60,000 to 69,000. In addition, the proportion of lecturers unprepared for eLearning in the top income bracket was higher than the proportion of those prepared. Contrastingly, the proportion prepared for eLearning in the category of less than KES 60,000 was higher than those unprepared. The analysis yielded a computed Chi-square (χ^2) value of 11.707, with 5 degrees of freedom and p-value of 0.039, which is significant at 0.05 error margin; suggesting up to 95% chance that preparedness for eLearning varied significantly across the income categories. More specifically, top earners were less competent in computing than low earners. Similarly, Venkatesh and Morris (2000) found a positive correlation between the frequency of computer use and lecturers' average income. The study noted that although lecturers in higher income brackets had a greater access to personal computers than those in lower income scales, more than one-half did not use computers consistently to support their work due to limited ICT skills.

Workplace ICT Infrastructure

This thematic area focuses on the key workplace infrastructure variables, including access to computers at the workplace, quality of computers at the workplace, frequency of computer use, availability and reliability of Internet connectivity, as well as availability and timeliness of ICT support programme.

Access to computers at the workplace and frequency of use: The results in Table 3 shows that out of 212 participants, 194 (91.5%) had access to functional computers at their workplace; only 18 (8.5%) did not. The proportion of staff prepared for eLearning was higher among those who had access to computers at the workplace [99 (96.1%)], as opposed to those who did not [95 (87.2%)]. Bivariate analysis revealed a significant relationship between lecturers' preparedness for eLearning and access to functional computers at the workplace [computed χ^2 value = 9.380 (corrected for continuity), df = 1 and p-value = 0.036]. This suggests that participants having access to computers at the workplace were likely to be more competent in computing; thus better prepared to function in an eLearning environment than those lacking such access. Based on this, the null hypothesis (H01), stating that there is no significant relationship between access to computers at work and lecturers' preparedness for eLearning, was rejected for inconsistency with empirical results.

Table 3: Access to computers at the workplace and frequency of use

Workplace computers	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Owns a functioning computer at work place?						
Yes	99	96.1	95	87.2	194	91.5
No	4	3.9	14	12.8	18	8.5
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Frequency of use						
Never	0	0.0	1	1.1	1	0.5
Occasionally	12	12.1	32	33.7	44	22.7
Weekly	20	20.2	24	25.2	44	22.7
Daily	67	67.7	38	40.0	105	54.1
Total	**99**	**100.0**	**95**	**100.0**	**194**	**100.0**

The analysis found that lecturers having access to computers at the workplace were about 2.8 times as likely to be prepared for eLearning as those not having access. Participants noted that access to computers at the workplace provides opportunity for practice and skill improvement, which in turn, enhances discourages anxiety and negative attitudes that may be associated with computer use. Furthermore, although up to 91.5% of the participants reported having access to computers at the workplace, about two-thirds were using personal computers as those provided by the University were inadequate. Access to computers at the workplace has been assessed by various scholars, including Albirini (2006), Gulbahar (2005) and Blankenship (1998). For instance, a study conducted by Albirini (2006) in Syria found that only 33% of the lecturers had access to computers at their places of work, which in turn, influenced the proportion using computers to support teaching activities. The study also indicated that the adequacy of appropriate computers was a key factor influencing lecturers' preparedness to operate in an eLearning environment.

Regarding the frequency of use, Table 3 shows that 105 (54.1%) participants use workplace computers daily, 44 (20.8%) use them at least once a week; while another 44 (20.8%) do so occasionally. Observation of computer use revealed that 64 (42.1%) participants were consistently using computers for literature search as well as for compiling notes, 47 (30.9%) were using computers occasionally, 12 (7.9%) were rarely using computers, while about one-fifth, 29 (19.1%) were not using computers at all. The analysis showed that frequent computer users were likely to be more competent in computing and better prepared to function in an eLearning environment than infrequent users. In this regard, the analysis obtained a computed Chi-

square (χ^2) value of 18.389, with 3 degrees of freedom and a p-value of 0.000, which was significant at 0.01 error margin; suggesting up to 99% chance that consistent computer users were likely to be better prepared for eLearning than their inconsistent colleagues.

More still, workplace computers were used to accomplish various tasks, including communication, 122 (26.6%); data analysis, 105 (22.9%); developing teaching materials, 98 (21.4%); manuscript preparation, 61 (13.3%); personal business, 36 (7.9%); as well as report writing, 36 (7.9%). Word processing and internet browsing software tools were used daily by the largest proportion of participants, 139 (65.6%) and 148 (69.8%), respectively. Contrastingly, the least applied were statistical analysis tools, 13 (6.1%); presentations, 51 (24.1) and spreadsheets, 53 (25.0%), irrespective of the preparedness for eLearning. The results suggest that preparedness for eLearning significantly associated with the utilisation frequency of all the software tools, including word processing, spreadsheets, presentation, statistical analysis, Internet and emailing.

Participants were requested to indicate their perception about the adequacy and quality of computers at the workplace. In this regard, the results show that 77 (36.3%) felt that the computers were 'very inadequate', 79 (37.3%) believed that the computers were 'inadequate', 44 (20.8%) hinted that the facilities were 'adequate', while 12 (5.7%) indicated 'very adequate'. The analysis yielded a computed χ^2 value of 2.573, with 3 degrees of freedom and a p-value of 0.462, which was not significant; suggesting lack of significant relationship between lecturers' preparedness for eLearning and perception on the adequacy of workplace computers. Shortage of functional computers was a critical issue cited by most participants, regardless of their competence and preparedness for eLearning. Inadequacy of computers for lecturers may have significant influence on their computing competence and preparedness to function in an e-learning environment, which concurs with the findings of Blankenship (1998) who noted that the integration of eLearning is a function of the number of workplace computers available and accessible to lecturers, learners and the administrative staff.

Even though the University had initiated a programme intended to provide computers to each lecturer, for better quality teaching, the programme was still in its infancy stage, as many departments were yet to realize universal access to modern and efficient computers. Regarding the quality of computers, the results show that most workplace computers were of the *Pentium IV* generation, which was among the latest models at the time of the study. In this regard, 41 (27.0%) participants indicated that their computers were in 'excellent condition', 56 (36.8%) stated condition to be 'good'. However, 43 (28.3%) respondents noted that the condition was 'poor', while 12 (7.9%) described the condition as 'very poor'. The results further revealed lack of significant association between lecturer's preparedness for eLearning and perceived quality of workplace computers, leading to rejection of the null hypothesis *(H$_0$2)* stating that *the relationship between quality of computers and lecturers' preparedness for eLearning is not statistically significant,* due to insufficiency of empirical evidence to warrant such action.

These findings are consistent with those reported by Blankenship (1998), who notes that successful integration of eLearning depends on the quality of computers available, particularly in terms of power to process information and navigate through resourceful websites. Hitt and Hartman (2002) also reported that computers of the right specifications are fundamental in supporting the integration of eLearning activities, including course development, delivery and evaluation. In Singapore, a study conducted by Gulbahar (2005) indicated that access to up-to-date hardware, software and network resources is fundamental for successful integration of ICT in the teaching process.

Availability and reliability of Internet connectivity

Of the 194 participants having access to computers at the workplace, 185 (95.4%) were connected to the internet. The results presented in Table 4 show that among those having Internet connection, 21 (11.3%)

indicated that it was 'very reliable', while 103 (55.7%) stated that it was 'reliable'. Contrastingly, 52 (28.1%) participants hinted that Internet connectivity was 'unreliable', while 9 (4.9%) hinted that it was 'very unreliable'. Based on this pattern, the analysis obtained a computed χ^2 value of 9.052, with 3 degrees of freedom and a p-value of 0.030, which is significant at 0.05 error margin; suggesting up to 95% chance that lecturer's preparedness for eLearning significantly associated with perceived reliability of Internet connectivity. The analysis further indicated that participants perceiving Internet reliability to be 'very reliable' had about 6.8 times the odds of being prepared for eLearning as those indicating that Internet connectivity was 'very unreliable'.

Variation between the two groups was significant at 0.05 error margin, again suggesting a probability of up to 95% that the reliability of workplace internet connectivity significantly influenced the odds than an individual was prepared for eLearning or not. Furthermore, results suggest that the more reliable the internet connectivity, the better the odds that an individual was prepared for eLearning. Weak or unreliable Internet connectivity is not only time-consuming but also frustrating to users; thus, discouraging consistent utilization to support academic activities.

Table 4: Availability and reliability of internet connectivity

Internet connectivity	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
Internet connection at the workplace?						
Yes	97	98.0	88	92.6	185	95.4
No	2	2.0	7	7.4	9	4.6
Total	**99**	**100.0**	**95**	**100.0**	**194**	**100.0**
Reliability of internet at workplace						
Very reliable	6	6.2	15	17.1	21	11.3
Reliable	61	62.9	42	47.7	103	55.7
Unreliable	26	26.8	26	29.5	52	28.1
Very unreliable	4	4.1	5	5.7	9	4.9
Total	**97**	**100.0**	**88**	**100.0**	**185**	**100.0**

Furthermore, the study found that University Internet was unreliable and unstable in some campuses. Based on this challenge, sometimes it takes as long as five minutes to open certain URL links, which demoralizes and discourages consistent use by academic staff. In addition, key informants pointed out that the University's webpage for eLearning is too shallow and some URL links are permanently inaccessible. Studies conducted in various contexts have also noted that Internet reliability is critical for lecturers' preparedness for eLearning. More specifically, Mercado (2008) reported that although a stable Internet connectivity and a dependable computer are critical requirements for eLearning, these factors remain a key challenge to the adoption of eLearning in developing countries. In their study, Ndume et al. (2008) assessed the challenges of adaptive eLearning in institutions of higher learning in Tanzania and noted that the availability of reliable Internet connectivity was a critical part of preparation for eLearning; however, unreliability of connectivity was linked to unreliability of internet service provision in Tanzania. Slow and unreliability connectivity makes internet access too expensive and difficult to access information.

Availability and timeliness of technical support: Participants were requested to indicate their knowledge about the availability of an ICT technical support programme for enabling lecturers to overcome ICT-related challenges. The results presented in Table 5 show that out of 212 respondents, 125 (59.0%) affirmed that a support programme was in place, which included 61 (59.7%) participants prepared for eLearning and 64 (58.7%) who were unprepared. However, 81 (38.2%) participants reported lack of knowledge on whether such programme existed or not. Notably, most participants affirming the availability of a technical support programme were those who had access to functional computers at the workplace. Based on this finding, the Chi square test obtained a computed χ^2 value of 0.878, with 2 degrees of freedom and a p-value of 0.645, which was not significant; suggesting lack of significant association between lecturers' preparedness for eLearning and awareness about the availability of an ICT support programme.

Another important dimension of technical support for lecturers is its timeliness. How soon the technical team is able to respond to issues raised by lecturers is a critical determinant of positive attitude towards eLearning. Inadequacy or untimely access to technical support is likely to encourage detachment between lecturers and their ICT facilities, including computers. Similarly, Butler and Sellbom (2002) found that lack of or delay in providing technical services by the University was often stressful to lecturers, leading to low acceptance of technology for teaching. In this study, 63 (50.4%) participants stated that the support provided was 'timely', 43 (34.4%) felt that the support was 'untimely', while 12 (9.6%) indicated that it was 'very untimely'. In addition, Table 5 shows that 42 (68.9%) participants who were prepared for eLearning compared to 28 (43.8%) who were unprepared expressed satisfaction about the timeliness of technical support provided by the University.

Table 5: Availability and timeliness of ICT technical support to lecturers

Technical support	Prepared		Unprepared		Total	
	Frequency	*Percent*	*Frequency*	*Percent*	*Frequency*	*Percent*
University has an ICT support programme for lecturers?						
Yes	61	59.2	64	58.7	125	59.0
No	4	3.9	2	1.8	6	2.8
Don't know	38	36.9	43	39.5	81	38.2
Total	**103**	**100.0**	**109**	**100.0**	**212**	**100.0**
Timeliness of support to address ICT-related issues						
Very timely	4	6.6	3	4.7	7	5.6
Timely	38	62.3	25	39.1	63	50.4
Untimely	16	26.2	27	42.2	43	34.4
Very untimely	3	4.9	9	14.0	12	9.6
Total	**61**	**100.0**	**64**	**100.0**	**125**	**100.0**

Contrastingly, majority [36 (56.3%)] of those unsatisfied with the timeliness of technical support were unprepared for eLearning. The analysis indicated up to 99% chance that lecturer's preparedness for eLearning significantly associated with their perceptions about the timeliness of technical support provided by the University (computed χ^2 = 18.572, df = 3 and p-value = 0.000). Based on this finding, the null hypothesis *(H_03)* stating that *there is no significant relationship between the timeliness of technical support and lecturers' preparedness for eLearning* was rejected for being inconsistent with empirical data.

Multivariate analysis indicated that participants perceiving that technical support was 'very timely' had about 5 times the odds of being prepared for eLearning as those not indicating that support was 'very untimely'. Given that variation between the two groups was significant at 0.05 error margin, it consequently implies that timeliness of technical support significantly influenced the chances of an individual being prepared for eLearning or not. Better still, more punctual the technical support the better the chances that an individual was prepared to work in an eLearning setting. Discussions with key informants revealed that the timeliness of technical support to academic staff was unpredictable; sometimes technical staff respond to reported issues in a matter of minutes, while other times they delay for as long as a week. Besides, technical support teams seemed to be faster in responding to issues affecting departmental administrative units than to issues reported by lecturers. Participants advocated for the decentralisation of ICT support centres to each department for timely response to issues affecting lecturers.

The adequacy of technical staff links to the timeliness of technical support provided to academic staff. In view of this, participants were requested to indicate their opinion on the adequacy of technical support staff at the University. In response, 49 (39.2%) participants stated that such staff were 'adequate', 42 (33.6%) believed that technical support staff were 'inadequate', 26 (20.8%) were of the view that they were 'very inadequate'. In addition, more than half of those prepared for eLearning [33 (54.8%)] believed that technical

staff were either 'adequate' or 'very adequate'; while 41 (64.1%) who were unprepared for eLearning hinted that technical staff were either 'inadequate' or 'very inadequate'. This implies that opinion about the adequacy of technical staff was divided among the participants; thus, suggesting that some departments were better served by the ICT technical staff than others. Based on the perceived adequacy of technical support staff, bivariate analysis obtained up to 90% chance that lecturers' preparedness for eLearning significantly related to the perceived adequacy of technical support staff (computed $\chi2 = 6.628$, df = 3 and p-value = 0.085), leading to rejection of the null hypothesis (H04) stating that there is no significant relationship between the adequacy of technical staff and lecturers' preparedness for eLearning for not being correct.

SUMMARY AND CONCLUSIONS

The objective of this study was to determine the influence of workplace ICT infrastructure on lecturers' preparedness for eLearning, focusing on access to computers at the workplace, adequacy and quality of workplace computers; availability and reliability of Internet connectivity; as well as availability and timeliness of ICT technical support. Participants having access to computers at their workplace were likely to be more competent in computing; thus, better prepared to function in an eLearning environment than those who lacked such access ($\chi2=9.380$; df=1; p-value=0.036). More specifically, participants having access to computers at the workplace were about 2.8 times more likely to be competent and better prepared for eLearning than their colleagues lacking such access. Modern and efficient computers make work easier, less stressful and timesaving. Based on this, efficient computers are encouraging and motivating to users. Access to computers at the workplace is one of the factors significantly associated with preparedness for eLearning. This gives academic staff ample time to practice and improve their computing skills, which in turn, is crucial for them to become familiar with computers; thus, help them overcome fears, anxiety and negative attitudes associated with computer use.

In view of this, ensuring that each academic staff is able to access at least a functional computer at their workstations remains one of the most important undertakings for any institution of higher learning committed to helping academic staff to prepare for eLearning. Even though the University had earlier initiated an ambitious project to ensure universal computerisation, many departments and academic staff were yet to benefit from the initiative. Some academic staff coped with the challenge by using their own computers to undertake University work, but at their own risk and cost of maintenance. Nevertheless, universal computerisation should be fast-tracked to reinforce University's infrastructural requirements for eLearning. Fast tracking is also necessitated by the fact that technology is changing rapidly and may overtake the computerisation initiative.

The quality of computers assigned to academic staff did not necessarily influence their preparedness for eLearning *($\chi^2=3.303$; df=3; p-value=0.347)*. Although the quality of computers was not significantly associated with lecturers' preparedness for eLearning, logically speaking, working with obsolete machines is not only time wasting but also frustrating and may have far-reaching health implications. Such machines also reinforce fear and anxiety about their ability to cope with teaching and learning challenges that are likely to accompany the eLearning system. Modern and efficient computers make work easier, less stressful and timesaving. Based on this, efficient computers are encouraging and motivating to users.

Access to computers at the workplace is one of the factors significantly associated with preparedness for eLearning. This gives academic staff ample time to practice and improve their computing skills, which in turn, is crucial for them to become familiar with computers; thus, help them overcome fears, anxiety and negative attitudes associated with computer use. Although the quality of computers was not significantly associated with lecturers' preparedness for eLearning, logically speaking, working with obsolete machines is not only time wasting but also frustrating and may have far-reaching health implications. Such machines

also reinforce fear and anxiety about their ability to cope with teaching and learning challenges that are likely to accompany the eLearning system.

Participants having reliable internet connectivity were likely to have better computing skills, which put them at a better position for eLearning *(χ^2=9.052; df=3; p-value=0.030)*. More still, those who indicated that workplace internet connectivity was very reliable were about 6.8 times more likely to be prepared for eLearning than their colleagues reporting that internet connectivity was very unreliable. ELearning is an educational mode that is entirely supported by the internet. Its success, therefore, depends on the availability and stability of the internet. As pointed out by key informants and up to 32.3% of the academic staff internet connectivity at the University is not available always. Besides, peripheral campuses experience difficulties accessing the University website or specific URL links. Frequent disappointment in accessing the internet is likely to reinforce user apprehensiveness, which in turn, discourages academic staff from developing their skills in searching for information to update their notes, communicate through e-mails or support their research activities. Given the nature of eLearning, stable and reliable internet connectivity is indispensable; making it one of the key infrastructural systems that must be strengthened as a precursor to eLearning.

Lecturers are more likely to be prepared for eLearning where technical support for ICT-related challenges were addressed in time; thus, preparedness for eLearning was significantly associated with the timeliness of technical support *(χ^2=18.572; df=3; p-value=0.000)*. Furthermore, participants who felt that technical support was very timely were about 5 times more likely to be prepared for eLearning than their colleagues in the reference category. Providing computers and other ICT hardware may not be adequate without a strong, ubiquitous and omnipresent back-up support. At the time of the study, the technical support system in place is unpredictable; sometimes technicians respond very fast, other times they take as long as a week to address reported issues. Besides, some administrative units are readily supported more than the academic staff. This however, is attributed to shortage of technical support staff and centralization of support services.

The timeliness of technical support is one of the factors significantly associated with lecturers' preparedness for eLearning. Inadequacy or untimely access to technical support is likely to encourage detachment between academic staff and their ICT facilities, including computers. In other words, lack of support encourages user apprehension in accepting technology to support and improve their work. Thus, some academic staff find it comfortable concentrating on traditional methods of teaching. In view of this, strengthening and decentralising ICT support to the departmental level is a key intervention that should be considered by the University to ensure that technical support to academic staff is readily available to help them open-up to technology and build confidence.

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REFERENCES

Abbad, M., Morris, D. and Nahlik, C. (2009). "Factors Affecting Student and Lecturer Use of E- Learning Systems in Jordan", *International Review of Research in Open and Distance Learning.* Vol. 10, No. 2, pp. 1-22.

Albirini, A. (2006). "Teachers' Attitudes toward Information and Communication Technologies in Syrian Tertiary Institutions", *Journal of Computer and Education".* Vol. 47, No. 1, pp. 373-398.

Aldrich, S.T. and Nelson, P.D. (1984). *Advanced Quantitative Techniques for Social Sciences, 2nd Edition*. New York: Routledge.

Ashley, D. and Orenstein, D.M. (2005). *Sociological theory: Classical statements (6th ed.)*. Boston: Pearson Education.

Babbie, E. R. (1973). *Survey Research Methods*. Belmont, CA: Wadsworth Publishing Company.

Becta (2003). "The Impact of Information and Communication Technologies on Pupil Learning and Attainment – Full report, March 2003. http://www.becta.org.uk/research/reports/impact2 Accessed in April 13 2010

Best, J.W. and Khan, J.V. (2004). *Research in Education, 7th Edition*. New Delhi: Prentice Hall of India.

Blankenship, W. (1998). *Factors related to Computer Use by Teachers in Classroom Instruction*, Doctorate Dissertation submitted to Virginia State University.

Dunn, S. L. (2000). "The Virtualization of Education", *Futurist.* Vol. 34, No. 1, pp 34-39.

Farahani, G.O. (2003). *Existence and Importance of Online Interaction.* A PhD Dissertation submitted to the Faculty of the Virginia Polytechnic Institute and State University, Virginia, USA.

Fowler, F. (1993). *Survey Research Methods*. Beverly Hills, CA: Sage.
Gakuu, C.M. (2006). *An Analysis of Factors that Influence Lecturer's Attitude towards the Use of Distance Education and the Use of eLearning in Teaching.* A PhD Thesis submitted to the School of Continuing and Distance Learning, University of Nairobi. Nairobi

Garrison, D. and Anderson, T. (2003). *ELearning in the 21st Century.* London: Routledge Falmer.

Gulbahar, Y. (2005). "Technology Planning: A Roadmap to Successful Technology Integration in Schools", *Journal of Computers and Education*. Vol. 33, No. 2, pp. 324-366.

Hitt, C. and Hartman, L. (2002). "Distributed Learning: New Challenges and Opportunities for Institutional Leadership. *American Council of Education/EDUCAUSE,* Vol. 25, No. 4, pp 134-156.

Houtz, S. and Gupta, P. (2001). "Gender Roles, Computer Attitudes and Dyadic Computer Interaction Performance among University Lecturers in Egypt". *Journal of Organisational Behaviour*. Vol. 20, No. 3, pp. 1-9.

Kariuki, J. (2006). ELearning in Kenya Universities: Random Reflections about ELearning in Africa. http://unesdoc.unesco.org/images/0014/001419/141952e.pdf. Accessed on June 14, 2010.

Keller, C. and Cernerud, L. (2002). "Students' Perception of ELearning in University Education", *Learning, Media and Technology.* Vol. 27, No. 1, pp. 55-67.

Kerka, S. (2002). "Enticing Online Consumers: An Extended Technology Acceptance Perspective", *Information and Management*. Vol. 39, No. 8, pp. 705-719.

Kihara, J. (2005). "Challenges Facing University Education". *Daily Nation Special Journal*, July 28, 2005. Nairobi: Nation Media Group.

Mercado, C. A. (2008). "Readiness Assessment Tool for An eLearning Environment Implementation", a paper presented during the 5th International Conference on eLearning for Knowledge-Based Society, December 11-12, 2008, Bangkok, Thailand

Mugenda, O.M. and Mugenda, A.G. (1999). *Research Methods: Quantitative and Qualitative Approaches*. Nairobi: Acts Press.

Nachmias, C.F and Nachmias, D. (1996). *Research Methods in the Social Sciences, 5thEdition*. London: Arnold.

Naidu, S. (2005). "Evaluating Distance Education and ELearning". *Encyclopaedia of Distance Learning,* Vol. 1, No. 1, pp. 857-864.

Naidu, S. (2006). *ELearning: A Guidebook of Principles, Procedures and Practices*. New Delhi: Commonwealth Educational Media Center for Asia.

Ndume, V., Tilya, F.N. and Twaakyondo, H. (2008). "Challenges of Adaptive eLearning at Higher Learning Institutions: A Case Study in Tanzania". *International Journal of Computing and ICT Research*, Vol. 2, No. 1, pp. 47 - 59.

Ngai, E.W., Poon, J.K. and Chan, Y.H. (2007). "Empirical Examination of the Use of WebCT using TAM, *Computers & Education*. Vol. 48, No. 2, pp. 250-267.

Oblinger, D., and Oblinger, J. (2005). "Educating the Net Generation". *EDUCAUSE E-Book*, http://www.educause.edu/eductingthenetgen, Accessed on July 2, 2010.

Omwenga, E. (2004). "A Model for Introducing and Implementing ELearning for Delivery of Educational Content within the African Context". *African Journal of Sciences and Technology,* Vol. 5, No. 1, pp. 35-48.

Preston, B.J. (2000). "ELearning Policy Issues: Global Trends, Themes and Tensions". *Journal of eLearning*, Vol.33, No. 1, pp. 44-52.

Roberts, N., Hutchinson, W. and Little, G. (2003). "Barriers to Using Technology for Teaching and Learning in Dutch Universities", *Educase Quarterly*. Vol. 25, No. 2, pp. 22-28.

Romiszowski, A. (2004). "Factors Leading to Success or Failure of an Educational Technology Innovation". *Educational Technology,* Vol. 44, No. 1, pp. 5-27.

Rosenberg, M. J. (2001). *ELearning: Strategies for Building Online Learning in the Digital Age*. New York: McGraw-Hill

Saekow, A. and Samson, D. (2011). "E-learning Readiness of Thailand's Universities Comparing to the USA's Cases". *International Journal of e-Education, e-Business, e-Management and e-Learning,* Vol. 1, No. 2, pp. 554-567.

Selim, H. (2007). "An Empirical Investigation of Student Acceptance of ELearning". *Computers and Education*, Vol. 40, No. 1, pp. 343-360.

Shepard, M. (2008). "Use of Online Teacher Education in Remote, Indigenous Areas Central", *American Journal of Indigenous Education*. Vol. 1, No. 2, pp. 54-70.

Tavangarian, D., Leypold, M., Nölting, K., and Röser M., (2004). "Is ELearning the Solution for Individual Learning?" *Journal of eLearning*, Vol.1, No. 1, pp. 1-15.

The MENON Network, (2007). ELearning for Innovation. HELIOS Annual Report, Helsinki, 2007.

Trombley, K.B. and Lee, D. (2002), "Web-based Learning in Corporations: Who is Using it and Why, Who is not and Why not?" *Journal of Educational Media*, Vol. 27, No. 3, pp. 137-146.

Venkatesh, V. and Morris, M.G. (2000). "Gender, Social Influence and their Role in Technology Acceptance Behaviour among Academic Staff in Public Universities, India", *Management Information Systems Quarterly*. Vol. 24, no. 1, pp. 115-139.

Volery T. (2000). "Critical Success factors in Online Education", *The International Journal of Educational Management,* Vol. 23, No. 2, pp. 321-334.

Wuensch, K.L. (2006). *Logistic Regression with SPSS*. http://core.ecu.edu/psyc/wuenschk/spss/logistic.sav Accessed in April 4, 2010.

Ya-Ching, L. (2006). "An Empirical Investigation into Factors Influencing the Use of an ELearning System". *Online Information Review*, Vol. 30, No. 5, pp. 517-541.

INFORMATION SYSTEMS PROJECT RISK MANAGEMENT

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ABSTRACT

Project risk management has been recognized as a means for analyzing and responding to risks in complex, multi-stage undertakings. However, in spite of the critical role that information systems have played in recent organizational life, there has been slowly increasing research literature currently available as to the practice of project risk management in relation to information system (IS) development. The reasons for the lack of attention paid to IS development project risk management remain unknown. This paper revisits this topic (Snyder, 2011) to evaluate future progress in the success of IS projects. One of the key recent changes in risk management is addressing Cloud Computing.

JEL: D81

KEYWORDS: Risk Management, Project Management, Cloud Computing

INTRODUCTION

Organizations today are much more concerned about the effects of competition than they were in the past; therefore, no organization would like to stand the risk of being overtaken by other competitors on the same playing ground with equal opportunities (Achimuga, Babajide, Oluwaranti, Oluwagbemi, Gambo, 2010). Project risk management has increasingly received attention as a critical process in responding to ongoing failures in project management. According to a study by Wet and Visser (2013) "global research indicates that the success rate of software projects worldwide is currently low, and has been low for the past few decades. The application of risk management has improved the success rate of software projects worldwide."

With significant business now done via the cloud, several vendors (SAP, 2015; Innotas, 2015; Intaver, 2015) have now developed solutions to manage IS project risk management. This paper provides a review of current literature on information system development that may prove useful for management professionals interested in initiating project risk management efforts within IS projects. An overview is provided of the underlying philosophies and principles of IS development, followed by a brief overview of the literature on risk mature organizations/projects. This body of knowledge may be useful in future efforts to investigate and document current practices in IS development project risk management.

NEED FOR SYSTEMS RISK MANAGEMENT

The role of IT in business activities has been more and more important; besides, the amount of its investment is also increasing. The key of operating businesses more effectively is to base on the operating principles and to play the role of IT systems. The application of IT systems can not only apply to business operations and maintenance, but also to social services and business competition (Zhe, Yunfei, Maosheng, 2010).

With the proliferation of computers and near universal network connectivity, the field of information technology has continued to shift from a focus on standalone personal computing to developing solutions to support people and the systems within which they work in collaboration activities. Network technology and global information systems have provided the opportunity for people to conduct work

in a variety of locations continuing to further increase the appeal of IT initiated collaboration and communication. As well, organizational systems have expanded, moving from a localized to an increasingly global presence.

According to Laudon and Laudon (2014) organizations should take actions that produce the least harm or the least potential con (Risk Aversion Principle). Some actions have high failure costs like building a nuclear plant in an urban area. They recommend avoiding high-failure cost actions, paying greater attention to high-failure-cost potential of moderate to high probability.

The unpredictable and nature of software development creates risks to organizations. The Standish Group (2009) reports that only 32 percent of information systems projects are successful base on success criteria of:

1. Completed on time
2. Completed within budget
3. Completed with the required functionality

Laudon and Laudon (2014) state to develop an effective systems development plan an organization must have a clear understanding of both its short and long term information requirements. Companies should look at the portfolio of their projects in terms of benefit verses risk. Certain projects should be developed rapidly while others should be avoided.

According to Turbit (2013) risk need to be quantified in two dimensions. The impact of the risk needs to be assessed. The probability of the risk occurring needs to be assessed. For simplicity, rate each on a 1 to 4 scale. The larger the number, the larger the impact or probability.

The figure below by Laudon and Laudon (2014) show a method of doing Portfolio Analysis.

Project Risk

Benefits to the firm	**High**	**Low**
High	Cautiously examine	Identify and Develop
Low	Avoid	Routine projects

Laudon and Laudon (2014) also state a scoring model can be useful where many criteria must be evaluated. The model assigns weights to features of the system then calculates the weighted totals. According to Turbit (2013) risk need to be quantified in two dimensions. The impact of the risk needs to be assessed. The probability of the risk occurring needs to be assessed. For simplicity, rate each on a 1 to 4 scale. The larger the number, the larger the impact or probability.

The current direction of the risk management field is to promote learning and creative ways to conduct project risk management for organizational learning. Project management efforts have led to a growing

conceptualization and understanding of the process of assessing and identifying risks to be used in the introduction of experience-based solutions for avoiding and preventing risk damage. According to these authors, the risk knowledge bases are expected to grow as experience about risks and potential risk responses are recorded during project executions. The resulting knowledge base will eventually provide assimilated information to organizations and those engaged in project risk management with access to information and understanding about risks in real time.

DEVELOPMENT PRINCIPLES

According to Achimuga, Babajide, Oluwaranti, Oluwagbemi, Gambo (2010) the outcomes of an IS project are identified as the success of 1) IS implementation, 2) IS investment, and 3) IS functionality. IS Evaluation should not work only as a justification mechanism but as a tool for experience learning. During the IS development process, feedback from the evaluation process should lead to corrective actions if necessary. These actions might include, for example, a change in the information system development or procurement strategy, or a change in the resources that are given to the project.

As IT has continued to grow rapidly, there has been an increasing demand for IS development innovation to be driven by inter-disciplinary research. This need, according to Rasegard (1997), has been brought about by the desire to achieve higher usability. As such, information systems need to be able to satisfy requirements in several dimensions, including:

1. Appropriate functionality: the system solves the right problems, communicate its purpose, and performs the work that has to be carried out.
2. Ergonomic: appropriate physical fit, feel, shape and size.
3. Cognitive fit: the product provides functionality, feedback, support for learning, and accessible understanding.

According to IEEE Standard 1540 for software management (2001) to evaluate the risk management process this activity should include the capture of risk management information, have the ability to access and improve the process and create lessons learned.

DEVELOPMENT APPROACHES

According to Laudon and Laudon (2014) information technology can promote various degrees of organizational change. The four types include: automation, rationalization, redesign and paradigm shifts. "The most common forms of organizational change are automation and rationalization. These are relatively slow moving and slow changing strategies present modest returns but little risk. Faster and more comprehensive change – such as redesign and paradigm shifts – carries high rewards but offers substantial chances of failure.

With the growing recognition that IS plays a major role in insuring the success of virtually all organizations in business, government, and defense, awareness has also increased that such success is dependent on the availability and correct functioning of large-scale networked information systems of astonishing complexity. Consequently, the SDLC model has become the context for further development of IS development requirements that focus on system survivability (i.e., end products that survive).

The Carnegie Mellon Software Engineering Institute (2002) has developed an IS development approach, the Survivable Systems Analysis (SSA) method (formerly the Survivable Network Analysis method), that focuses on the application of requirements in development and implementation to insure an end product capable of survivability. According to the Institute, SSA is a practical engineering process that permits systematic assessment of the survivability properties of proposed systems, existing systems, and modifications to existing systems. As delineated by the Institute, the SSA process is composed of four steps, as follows:

1. System Definition: developing an understanding of mission objectives, requirements for the current or new system, structure and properties of the system architecture, and risks in the operational environment
2. Essential Capability Definition: identification of (as based on mission objectives and failure consequences) essential services (i.e., services that must be maintained during attack) and essential assets (i.e., assets whose integrity, confidentiality, availability, and other properties must be maintained during attack) as characterized by usage scenarios, which are traced through the architecture to identify essential components whose survivability must be ensured
3. Compromisable Capability Definition: selection of intrusion scenarios based on assessment of environmental risks and intruder capabilities and identification of corresponding compromisable components (components that could be penetrated and damaged by intrusion)
4. Survivability Analysis: analysis of IS components and the supporting architecture for the key survivability properties of resistance, recognition, and recovery; the production of a survivability map that enumerates, for every intrusion scenario and corresponding compromised component effects, the current and recommended IS architecture strategies for resistance, recognition, and recovery.

One such model is that known as the Prototyping model. According to the CTG (1998), the Prototyping model was developed as a means to compensate for some of the problems identified as associated with the SLDC model. The Prototyping model is based on the assumption that it is often difficult to know all IS requirements during the beginning phases of a project. Through the application of the Prototyping model in IS development, the developer builds a framework of the proposed system and presents it to the customer for consideration as part of the development process. The customer in turn provides feedback to the developer, who goes back to refine the prototype to incorporate the additional information. This collaborative process continues until the prototype is developed into a system that can be implemented. As

reported by the CTG, the Prototyping model is probably the most imitated IS development. Variations of the model include: Rapid Application Development (RAD) and Joint Application Development (JAD).

According to Jutte (2015) there are 10 golden rules of project risk management. The benefits of risk management in projects are huge. You can gain a lot of money if you deal with uncertain project events in a proactive manner. The result will be that you minimize the impact of project threats and seize the opportunities that occur. This allows you to deliver your project on time, on budget and with the quality results your project sponsor demands. Also your team members will be much happier if they do not enter a "fire fighting" mode needed to repair the failures that could have been prevented.

The 10 golden rules to apply risk management successfully in your project (Jutte, 2015):

Rule 1: Make Risk Management Part of Your Project
Rule 2: Identify Risks Early in Your Project
Rule 3: Communicate About Risks
Rule 4: Consider Both Threats and Opportunities
Rule 5: Clarify Ownership Issues
Rule 6: Prioritize Risks
Rule 7: Analyze Risks
Rule 8: Plan and Implement Risk Responses
Rule 9: Register Project Risks
Rule 10: Track Risks and Associated Tasks

Other vendors like Intaver (2015) have solutions for organizations IS project risk management RiskyProject: Project Risk Management and Schedule Risk Analysis that work independently or with Microsoft Project. Their project risk management software has the following capabilities:

Project scheduling with risks and uncertainties
Risk Register: threats, opportunities, and issues
Monte Carlo schedule risk analysis
Integrated schedule and cost risk analysis
Risk probability vs. impact matrix
Risk mitigation analysis, waterfall charts
Integration with Microsoft® Project and Oracle® Primavera
Sensitivity Analysis: critical Risks and crucial Tasks
Risk correlations, probabilistic branching, probabilistic calendars

Intaver (2015) RiskyProject schedule risk analysis software has the following capabilities:

Schedule Risk Analysis is a method of analysis of uncertainties in the project schedules. RiskyProject a comprehensive and easy to use schedule risk analysis software and integrates cost and schedule risk analysis and risk management in one package.

Includes Event Chain Methodology which is a project schedule risk analysis technique. Event chain methodology is the next advance beyond Critical Path Method and Critical Chain Project Management.

KNOWLEDGE AND STANDARDS

Conflict is a pervasive phenomenon during the information systems (IS) development process. The sources of conflict during the IS development process include hostility and jealousy, poor communication, user

resistance, frustration and low morale, lack of trust and understanding, personality diversity, and different expectations. The critical role played by conflict in IS development projects is widely acknowledged in the IS. Unfortunately, our understanding of the impact of conflict on IS project outcomes is still limited due to conflicting results reported in the literature (Liu, Chen, Klein Jiang, (2009).

Systems differ in their size, scope and complexity as well as their organizational and technical components (Laudon and Laudon (2014). The level of project risk is influenced by size, structure and technical expertise of the IS staff and project team.

According to Feldman (2010), the practice of enterprise project management is finally getting broad respect, not just lip service. Seven out of 10 companies use formal project management methodologies, our new InformationWeek Analytics survey finds. Pay for project managers was on the rise last year, even as pay for most IT pros was flat. Sixty-one percent of the managers we surveyed see the Project Management Institute's project management professional - PMP - certification as important to their companies. Most companies have some project management methodology in place, and that's part of the problem - if you're not actively questioning your approach, looking for weak spots, and comparing it with other options, it'll creep along in whatever direction it's already headed.

According to Bataller (2011), while just 3% of respondents to our survey say a CRO is the primary owner of the IT risk management program within their companies, we think that within a few years, the role will be commonplace, especially in large enterprises. However, to bring everyone together, the CRO must be able to form an agile organization that can dodge and weave and evolve with the regulatory climate, attacker landscape, budgetary cycles, and industry dynamics. The CRO must have a vision compelling enough to silence the inevitable naysayers and gain cooperation from people with many different priorities.

The PMBOK Guide (2000) provides the most extensive body of knowledge and standards regarding project risk management. As defined within the guide, risk management represents the systematic process of identifying, analyzing and responding to potential project risk. The risk management process provides opportunity to maximize the probability and impact of positive project outcomes while minimizing the probability and consequences adverse outcomes. As further explained within the guide, project risk is an uncertain event or condition that, if it occurs, has a positive or negative effect on a project objective. Additionally, as suggested within the guide, it is important to recognize that a risk has a cause and, if it occurs, an impact.

According to information provided in the PMBOK Guide (2000), the major processes associated with risk management include the following:

1. Risk Management Planning: the process by which a plan is developed as to how to approach and implement risk management activities for a project.
2. Risk Identification: the process by which risks that may potential impact the project are identified and characterized.
3. Qualitative Risk Analysis: the process by which a qualitative analysis of risks and conditions is conducted with the results being used to prioritize the effects of risks on project objectives.
4. Quantitative Risk Analysis: the process by which the probability and impact of risks are measured with results being used to estimate implications for project outcomes.
5. Risk Response Planning: the process by which procedures and techniques to enhance opportunities and to reduce threats to the project's objectives are identified and/or developed.
6. Risk Monitoring and Control: the process by which residual risks are monitored while identifying new risks, executing risk reduction plans and evaluating their effectiveness through the project life cycle.

As indicated within the report provided by RMRDPC (2002), the RMM is based on the assumption that the maturity of risk management processes within projects/organizations can be categorized into groups that range from those who have no formal process to those in which risk management is fully integrated into all aspects of the project. As clearly emphasized within the report, the expectations of RMRDPC in designing the model were such that it was not expected that all projects/organizations would fit neatly into these categories. However, as explained within the report, the RMMM levels were defined sufficiently different to accommodate the diversity found in most projects/organizations. The four levels of the RMMM are found within the following table:

The Four Levels that identify the level of an organization's Risk Management Maturity.

There are four things you can do about a risk (Turbit, 2013). The strategies are:

- Avoid the risk. Do something to remove it. Use another supplier for example.
- Transfer the risk. Make someone else responsible. Perhaps a Vendor can be made responsible for a particularly risky part of the project.
- Mitigate the risk. Take actions to lessen the impact or chance of the risk occurring. If the risk relates to availability of resources, draw up an agreement and get sign-off for the resource to be available.
- Accept the risk. The risk might be so small the effort to do anything is not worth while.

Finally, as further suggested by Hulett (2001), risk maturity is truly reflected in projects/organizations that are willing to share working risk management approaches and practices. Through the visible exchange of ideas, project risk management as a discipline is provided the opportunity to grow in the development, improvement and application of more effective risk management skills, tools, concepts and practices.

CONCLUSION

In the words of a fellow Chicagoan, never let a good crisis go to waste. A unique convergence of circumstances makes this the perfect time to bring IT and business units together under the flag of a risk-oriented approach to security. Economic stress and cutthroat competition on a global scale mean every dollar you spend on security had better matter. Plus, the money is there. Thirty-five percent of the 563 respondents to our InformationWeek Analytics IT Risk Management Survey say their companies' IT risk management programs will get more funding in 2011 than they did last year (Bataller (2011).

As was reflected in the preceding review, there is at present an extensive knowledge base on IS development. However, there is no evidence or documentation of efforts to study and investigate project risk management as it applies to IS development projects. This may be a consequence of the fact that both IS development and project risk management are relatively new and still emerging fields of study and practice. In spite of the sparseness of theoretical frameworks and discussions integrating the two disciplines as well as the lack of research investigating project risk management in IS development projects, the results of the literature review clearly provide documentation of the need for research in this area.

IS development projects can be expected to remain critical to complex modern organizations and, as the knowledge base and skills associated with IS development will certainly continue to expand at a rapid pace, it is critical to engage in efforts to study the nature of project risk management and the degree to which it occurs in IS development projects. The current information available on risk maturity in organizations appears to offer a strong basis for planning and developing research in this area. The risk maturity knowledge base could very well serve as a critical tool in aiding IS development project managers to establish effective and ongoing project risk management practices.

REFERENCES

Achimuga, P, Babajide, A., Oluwaranti, A., Oluwagbemi, O., Gambo, I. (2010). *Towards an Efficient Information Systems Development Process and Management: A Review of Challenges and Proposed Strategies.* Journal of Software Engineering and Applications. Irvine: <u>Oct 2010</u>. Vol. 3, Iss. 10; pg. 983, 7 pgs

Artto, K. A. (1997). Fifteen years of project risk management applications - Where are we going? K. Kahkronen & K. Artto (Eds.), *Managing risks in projects* (pp. 3-14). London, United Kingdom: E & FN Spon.

Artto, K.A., & Hawk, D.L. (1999). *Industry Models of Risk Management and their Future*. Philadelphia, PA: PMI.

Artto, K. A., & Hawk, D. L. (October, 1999). *Industry models of risk management and their future*. Philadelphia, PA: PMI. Bataller, E. (2011) *Risk Avengers*. InformationWeek. Manhasset: Jan 31, 2011. , Issue. 1289; pg. 32, 6 pgs.

Birnbaum, J. Pervasive information systems. (1997). *Communications of the ACM, 40*, 40-43. Cano, A., & Cruz, M. P. (1998). On the management of risks in construction projects. *Project Management, 4*(1), 54-61.

Carnegie Mellon Software Engineering Institute (2002). *Survivable Systems Analysis Method*. Retrieved July 02, 2002 from http://www.cert.org/archive/html/analysis-method.html

Center for Technology in Government (1998). *A Survey of System Development Methods* (1998). Albany, NY: University at Albany, CTG Publication.

Clemente, C. (1998). *State of the net:The new frontier.* New York, NY: McGraw-Hill.

Davenport, T. H., & Prusak, L. (1998). *Working knowledge: how organizations manage what they know.* Boston, MA: Harvard Business School Press.

Drori, O. (1997). From theory to practice or how not to fail in developing information systems. *SIGSOFT* Newsletter, ACM SEN (Software Engineering Notes), 22, 85-89.

Drucker, P. (1999). Beyond the information revolution. *Atlantic Monthly, 284*(4), 47-57.
Feldman, J. (2010). *The New Project Management.* InformationWeek. Manhasset: Oct 18, 2010, Issue. 1283; p. 14.

Hillson, D.A. (1997). Towards a risk maturity model. *Journal of Project and Business Risk Management, 1*(1), 35-45.

Hoffman, J., & King, J. (1997). Project management ills costs businesses plenty. *Computer World*. Retrieved July 10, 2002, from http://www.computerworld.com/managementtopics/management/project/story/0,10801,00.html

Hulett, D.T. (2001). *Key Characteristics of a Mature Risk Management Process* (Fourth European Project Management Conference, June 6-7, 2001). London, UK: PMI Europe.

IEEE Standards Association. (2001). IEEE 1540-2001. *IEEE standard for software life cycle processes - Risk management*. The Institute of Electrical and Electronics Engineers, Inc.

Innotas (2015). *Enterprise Class Project Portfolio Management Software*. Retrieved August 27, 2015, from http://solutions.innotas.com/project-portfolio-management-software-ppc?utm_campaign=Project_Management_General_Search&utm_source=bing&utm_medium=cpc&utm_term=+project%20+management%20+software&utm_content=Project%20Management%20Software&k_clickid=6a3d3b11-c16c-2309-4b6a-000052d06839

Intaver (2015). Project Risk Management and Schedule Risk Analysis. Retrieved August 27, 2015, from http://www.intaver.com

Jutte, B. (2015). *10 Golden Rules of Project Risk Management*. Retrieved August 28, 2015, from https://www.projectsmart.co.uk/10-golden-rules-of-project-risk-management.php

Kanabar, V. (1997). *Project risk management.* Action, MA: Copley Custom Publishing Group.

Kharbanda, O. P., & Pinto, J. K. (1996). *What made Gertie gallop? Lessons from project failures.* New York, NY: Van Nostrand Reinhold.

Kharbanda, O. P., & Stallworth, E. A. (1983). *How to learn from project disasters: True life stories with a moral for management.* Hampshire, United Kingdom: Gower Publishing Company.

Laudon and Laudon (2014).Management Information Systems: Managing the Digital Firm. Pearson: Upper Saddle River, New Jersey.

Liu, J., Chen, J., Klein, G., Jiang, J. (2009). *The Negative Impact of Conflict on the Information System Development Process, Product, and Project*. The Journal of Computer Information Systems. Stillwater: Summer 2009. Vol. 49, Iss. 4; pg. 98, 7 pgs.

McManus, S. M., & Grushka, M. J. (1999.). *Risk driven project planning with critical risk paths* (Proceedings fo the 30th Annual PMI 1999 Seminars and Symposium). Philadelphia, PA: PMI.

NUA, Ltd. (2002, February). *How many online*. Retrieved July 13, 02, from Scope Communications Group Web   Site: http://nua.ie/surveys/how_many_online/world.html

Pinto, J. K. (1997). Twelve ways to get the least from yourself and your project. *PM Network, 11*(5), 29-31.

Processes, techniques and insights. London, United Project Management Institute (PMI) (2000). *A guide to the Project Management Body of Knowledge.* Newton Square, PA: Project Management Institute.

Rasegard, S. (1997). Science and society - the need of promoting interdisciplinary research. *International Journal System Research and Information Science, 7*, 189-211.

Risk Management Research and Development Program Collaboration (2002). *Risk management maturity level development.* (Provisional Draft). PMI. Retrieved July 10, 2002, from http://www.risksig.com/projects/report.htm

Snyder, R. (2011). *Risk Management Within Information Systems Development*. Association for Global Business Annual Proceedings: Newport Beach, CA. November 17-19, 2011. ISBN: 1050-6292

Standish Group (1995). The Standish Group Report. Retrieved July 1, 2002 from http://www.scs.carleton.ca/~beau/PM/Standish-Report.html

SAP (2015). Preserve and grow your business value – with our risk management software.   Retrieved August 28, 2015 from http://www.sap.com/pc/analytics/governance-risk-compliance/software/risk-management/index.html

The Standish Group. 2009. *Standish chaos report*. www.projectsmart.co.uk/docs/ chaos-   report.pdf [Accessed on November 11, 2010].

Turbit, N. (2013) *Basics of Managing Risks*. Retrieved October 31, 2013 from http://www.projectperfect.com.au/info_risk_mgmt.php

Ulfelder, S. (2001, June). Project management: The dirty half-dozen. *Darwin*. Retrieved July 10, 2002, from http://www.darwinmag.com/read/060101/dirty.html

Walsham, G. (1993). *Interpreting Information Systems in Organizations*. Chichester, UK: John Wiley.

Wet, B. and Visser, J.K. (2013). An evaluation of software project management in South Africa. Retrieved October 31, 2013 from http://repository.up.ac.za/handle/2263/31778

Zhe Y., Yunfei G., Maosheng L. (2010) *The Research of Risk Management in Two Non-Independent IT System*. Journal of Service Science and Management. Vol. 3, Iss. 2; pg. 181

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APPROPRIATION OF INVESTMENTS AND INNOVATION BENEFITS IN U.S. CHINA TRADE RELATIONSHIP

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ABSTRACT

China's swift rise from one of the poorest countries in the world to the second-largest economy is the subject of much discussion and inquiry across a broad dispersion that extends from the more absorbed academic and media spheres to the occasionally interested observer. There is an acceptance that the 1978 market-oriented economic reforms set the stage for China's phenomenal growth. While the reforms were carried out in two phases, each with specific programs and timelines, this study's inquiry mostly features the opening up of the country to foreign investment, privatization and contracting out of state-owned industry, and the lifting of protectionist policies, all of which have aided the flow of knowledge and skills into China. Such flows have been known to help deepen human capital which results in productivity increases when combined with improvements in physical capital and resources. It is supposable that these advantages are primarily channeled through international commerce, with investment and innovation choices affecting the nature of productivity increases in close trading relationships. This paper is a preliminary empirical analysis of the U.S.-China trade experience with the aim of identifying how such choices by U.S. firms may be impacting innovation productivity increases in China.

JEL: F14; F20; F23

KEY WORDS: Trade, Technology Spillovers, Productivity, Foreign Direct Investment

INTRODUCTION

China's swift rise from one of the poorest countries in the world to the second-largest economy is the subject of much discussion and inquiry across a broad dispersion that extends from the more absorbed academic and media spheres to the occasionally interested observer. There is an acceptance that the 1978 market-oriented economic reforms set the stage for China's phenomenal growth. While the reforms were carried out in two phases, each with specific programs and timelines, much of our inquiry largely features the opening up of the country to foreign investment, privatization and contracting out of state-owned industry, and the lifting of protectionist policies, all of which have aided the flow of meaningful knowledge and skills into China. Several studies have demonstrated that such flows help deepen human capital which results in productivity increases when combined with improvements in physical capital and resources.

According to the new growth theory, increasing returns associated with new knowledge, ideas, and technology spillovers offer important insights in understanding gains in productivity (Romer 1986, Lucas 1988, Rebelo 1991). This study is premised on the idea that China's market-oriented reforms paved the way for dissemination of knowledge, ideas and technology spillovers through trade and foreign direct investments (FDIs). Therefore, it can be taken that China's accelerated growth is partly explained by these factors. A 1997 IMF study report by Zuliu and Moshin examined the sources of China's growth and concluded that although important, the accumulation of physical capital and labor stock alone does not offer sufficient explanation. According to the study, during 1979-94 productivity gains accounted for more than 42 percent of China's growth and by the early 1990s had overtaken capital as the most significant source of that growth.

In the decades that followed the economic reforms of 1978, China has seen its FDI annual inflows increase from USD109 million in 1979 to USD13, 841 million in 2007. This amount constituted about half of all FDI inflows to all developing countries in the 1990s (Dmitrios K., Kostas V. *et al*,). The productivity advantages of multi-national enterprises (MNEs) over domestic firms are well documented (Blomstr¨om and Sj¨oholm, 1999; Markusen, 2002). An important argument presented by Helpman *et al* (2004) suggests that the high costs associated with FDIs in effect makes them a preserve of the most efficient firms. Accordingly, there is a lot of potential for diffusion of knowledge from MNE affiliates to relatively backward local firms (Smeets and de Vaal, 2011).

This study sets to examine extent to which productivity increases in China can be explained by its trade with the U.S., by virtue of spillovers of technology and knowledge disseminated through R&D efforts by U.S. companies. The rest of the paper includes a review of literature, explanation of methodology, empirical analysis, discussion of results, and a statement of future research.

LITERATURE REVIEW

Connections between International Trade & Growth

Early attempts at making connections between international trade and economic growth date back to 1776 when Adam Smith's published his inquiry into the nature and causes of the wealth of nations. Several others who pursued this line of inquiry have helped improve our understanding of the role of international trade in spurring economic growth among nations using both classical approaches and more current adaptations. In any case, there is a consensus that international trade and economic growth are two concepts that are paired together. It is not uncommon to find that entire economies are primarily sustained by their exports. The oil rich Middle Eastern countries offer some appropriate examples. Clearly, economic growth has always been a central concern for governments, enterprises, and people in all nations. An argument can be made that international trade is the framework upon which economic wellbeing rests globally. The logical consequence is a movement towards more openness in trade across the globe.

As previously stated, the 1978 economic reforms in China amounted to more openness in trading internationally. Yao and Zhang (2003) cite the absorption of foreign capital as a respectable indicator of openness following the reforms. They point out that by 1995, only the U.S. surpassed China as the largest recipient of FDI. As global FDIs continue to grow in excess of both world output and world trade, China is by far the largest recipient having surpassed the U.S as host destination in 2004 (Shaukat and Wei, 2005). China is also trading more than it has in past years. In 1978 prior to the economic reforms, China's total imports ranked 32nd globally, accounting for a measly 1% of global trade compared to its present status as the world's largest commodity exporter and importer since 2013 (Xiaojun).

Role of International Trade China's Growth

According to an IMF study on how trading partnerships impact economic growth among partners, Arora and Vamvakidis (2004) found that United States is the most important trading partner for other countries. This indeed is the case for China at this point in time. It is therefore conceivable that a significant level of China's economic endowments from trade is likely from its trade with the United States and FDIs from U.S. firms. A large literature documents that trade and investment flows into less-advanced economies could bring about important technological spillovers that boost firm-level productivity and bolster their long-term economic prospects. Undoubtedly, there are cases when spillovers are confined among other multinationals, and in some cases end up crowding out domestic firms (Caves, 1996; De Backer and Sleuwaegen, 2003).

In China's case, overall, existing literature seems to indicate mixed conclusions on the effects of FDI in particular, on domestic firms. While increases in productivity among Chinese firms since the economic reforms are undisputed, the mixed outcomes from previous studies suggest caution in attributing such increases to FDI inflows. For example, a study by Hale and Long (2007) failed to find any significant FDI spillover effects on productivity for domestic firms in the same upstream or downstream industries. They suggest that domestic firms may be assuming a more passive role in innovation, and focusing providing inputs and intermediate goods for multinational firms instead.

With respect to international trade, previous studies concur that it is a major channel of international technology spillovers. Coe and Helpman (1995) lend support to the idea of trade-related spillovers when they show that countries exhibit higher productivity levels as a result of importing goods from countries that are more technologically advanced. Acharya and Keller's (2009) study offer other insights; they show that non-trade channels play a larger role for the U.S., Japan and Canada. Past limitations in appropriate comparative measures of openness (to trading internationally) have limited conclusions about the relationship between openness and productivity. However, there is a broad consensus on the productivity increases that are familiar to economies that trade more internationally. In China's case, the combination of privatization and trade liberalization had strong effects on productivity growth in both the state and none-state sectors, averaging 5.50 percent and 3.67 percent respectively from 1998 to 2007 (Zhu, 2012).

Productivity and Its Trade-Related Sources

It is taken for granted that capital intensity is one of the main determinants of productivity as measured by total factor productivity (TFP). Governments and organizations regularly device policies that encourage investments in capital because of their positive impact on TFP. Meanwhile, while any list of measurements of productivity can cover a substantial number of factors, it is important to recognize that no list can be exhaustive. Even so, the suitability of TFP measurement resides in its usefulness as a residual measure of changes in total output not accounted for by total factor input changes after the output of the weighted sum of all inputs have been determined. In addition (assuming combination with a fixed factor), TFP measurement is not subject to diminishing returns, unlike increments of capital and labor. The implication is that any residual increases in output that are not accounted for by total factor input changes after the weighted sum of all inputs has been determined can be thought of as an outcome of innovativeness and technological advancements (Mutsune, 2010).

In effect, the connections between TFP and innovativeness reiterate the conclusions by Zuliu and Moshin (1997); the accumulation of physical capital and labor stock alone do not fully account for growth increases in China. Several studies have concluded that most differences in output among countries are attributed to TFP (Porter, 1990; Ezeala-Harrison, 1995; Krugman, 1996; Aiyar and Dalgaard, 2004). According to a United Nations Industrial Development Organization (UNIDO) study by Anders Isaksson (2007), knowledge has a direct effect on TFP. Even with factor inputs, one still needs to possess knowledge on how best to organize factor input combinations for optimum production. Superior knowledge allows for optimum organization of inputs. It is also understood that knowledge tends to be regenerative; it combines in new and dynamic ways that can amount to innovation. However, several studies have also pointed out that, the link between TFP and knowledge is considerably weakened by factors such as institutional quality, degree of openness and flexibility of the economy, government policy actions, and financial infrastructure among several others.

 The Role of Technology and Knowledge Transfers

A 2010 *China Business Review* article by Jarret and Wenthold on technology transfers to Chinese firms discloses that technology transfer has been a focus of China's growth plans for decades. This focus became

prominent when former leader Deng Xiaoping, inspired by the advanced technology he witnessed during trips abroad, enacted policies in the 1980s that allowed foreign firms to access China's market in exchange for advanced technology. They add that Chinese companies have benefited from advanced technologies with relatively little capital expenditure, which expedites the process of achieving organic growth. However, a 2015 Congressional Research Report by Wayne Morrison, expressed concerns about the policies arguing that they are constitute pressure by government entities to transfer technology to a local partner as a part of the cost of doing business in China, and are also contradict China's obligations to the WTO.

Other channels for knowledge transfers into China are less contentious. For example, in a move aimed at promoting technical improvements in local companies, especially innovation of small and medium-sized enterprises, Chinese authorities have outlined policies that use tax breaks to encourage local enterprises to upgrade their equipment and increase research and R&D efforts to improve the manufacturing industry. The arrangement particularly favors an array of high-tech equipment and product imports that are intermediate in the manufacture of IT products and software. According to a 2014 OECD Science, Technology and Industry Outlook Report, China already spends a lot more on R&D than Japan, and is poised to overtake the EU and also surpass the United States by 2019.

Griliches (1988) and Coe and Moghadam (1993) show that there is sufficient empirical evidence to support the idea that cumulative domestic R&D is important for productivity. Coe and Helpman (1993) go even further by proposing that in the context of the entire international trade construct, which encompasses trade in goods and services, FDI, the exchange of information, and dissemination of knowledge, a country's productivity depends on its own R&D as well as the R&D efforts of its trade partners. They argue that own R&D enhances a country's benefits from overseas technical advances which lead to productivity increases.

METHODOLOGY

Model Design

This paper's attempt to examine the extent to which productivity increases in China are linked to its trade with the U.S. embraces the ideas presented by Coe and Helpman (1993, 1995) in their study of international R&D spillovers among OECD countries and Israel, and adapts them to a bi-lateral trade scenario. Their approach is predicated on new theories of growth which emphasize links between investments in R&D and TFP increases. In it, they develop a framework for examining how a countries investment in R&D affects TFP of its trade partners.

This paper's empirical framework is a follows the Coe and Helpman version of empirical equations based on theoretical models of innovation-driven growth, which we have broadly discussed in or literature review. However, there are a few modifications suited to the objective of the study. A more elaborate description of the full model can be found in Coe and Helpman (1995).A simplification assumes an economy manufactures final output Y from an assortment of intermediate inputs.

Our simplest equation has the following specification:

$$Log\ F_i = \alpha_i^0 + \alpha_i^d log\ s_i^d + \alpha_i^f\ log\ s_i^f \qquad (1)$$

Where *i* specifies a country, 1og *F* is the log of TFP and is estimated as follows:

$$TFP = log\ Y - [\beta 1og\ K - (1 - \beta)\ log\ L] \qquad (2)$$

Where L stands for labor inputs, K for capital inputs, and β for share of capital inputs.

S^d in (1) represents the domestic R&D capital stock, and S^f represents the foreign R&D capital stock defined as the import-share-weighted average of the domestic R&D capital stocks of trade partners. The specification (1) allows the coefficients α to vary across respective countries; in our case China and the U.S. Some reasons offered in Coe and Helpman (1995) for varying the constant α^0 are: there may be country-specific effects on productivity that are not captured by the variables used in the equations; and, variables TFP is measured in country specific currencies whereas both R&D capital stocks are in US dollars. In our case, for TFP estimates, an index approach is used instead of currencies. Details are discussed in the section that follows.

The specification of (1) can be thought of as an extension of models relating TFP to only the domestic R&D capital stock, to include foreign R&D efforts ($\alpha^f \neq 0$). Coe and Helpman (1995) acknowledge that the specification of may not capture fully the role of international trade. They explain that although the foreign stock of knowledge S^f consists of import-weighted foreign R&D capital stocks, these weights are fractions that add up to one and therefore do not properly reflect the level of imports. For these reason a modified specification of (1) that accounts for the interaction between foreign R&D capital stocks and the level of international trade seems preferable in the case of this study, along with other plausible arguments presented by Coe and Helpman. A modified version of (1) follows:

$$\text{Log } F_i = \alpha_i^0 + \alpha_i^d \log s_i^d + \alpha_i^f m_i \log s_i^f \tag{3}$$

Where *m* represents the fraction of imports as a share of the GDP. In this equation the elasticity of TFP with respect to the domestic R&D capital stock equals α^d while the elasticity of TFP with respect to the foreign R&D capital stock equals $\alpha^f m$. It follows that whenever α^f is the same for both China and the U.S. the latter elasticity will vary in both countries in proportion to their import shares.

Preliminary Data & Empirical Testing

A preliminary empirical analysis is conducted using appropriate data for years 1996-2014. Sources used include the World Bank and WTO Statistical databases, and the U.S. Census Bureau. TFP estimates obtained were only available as percentage growth changes for the period covered. An index estimate was used, with a base index of 1000. R&D spending estimates for both China and the U.S. used were extrapolated from respective current dollar value GDPs (Data obtained from databases represented these as a percentage of the GDP). The import-weighted R&D spending data for China utilizes U.S. export data to China for physical goods. The selection of goods data is an attempt to approximate the role of intermediate goods imports and minimize the challenges associated with accurate estimation of cross-border trade in services.

The data obtained (see appendix section) is applied to equation (2), modified to accommodate to accommodate TFP estimates otherwise obtained as changes in (TFP) growth rates. A regression analysis follows, using appropriate statistical software. Preliminary outcomes indicate that the model equation is only partially effective in explaining the link between changes in China's productivity, own R&D stock and R&D stock in the U.S. The regression output indicates the model is significant and 95% confidence level. Even though all explanatory variables show significance, the intercept and domestic R&D variables had large standard errors. Table 1 is a partial representation of the regression results.

Table 1: Select Regression Results of Equation (3)

Variable		Coeff.	Std. Error	t-Statistic	P-value
(Constant)		860.1894	49.7301	17.2971	0.0000
Domestic R&D		85.3912	24.203	3.5281	0.0030
Import-share foreign					
R&D		-0.0004	0.0001	-3.5191	0.0031
R-squared	0.4561				
Adj. R-square	0.3836				
S.E. of regression	27.0302				
F-Statistic	6.2906				
p-Value	0.0104				

Dependent variable: TFP growth Index. Sample (adjusted): 1996-2014. Included observations: 18
Number of cross sections: 2. Total panel observations (balanced): 36

Discussion of Limited Results

Forbearing limited size of the data and scope of the paper, the results give us useful insights in the formulation of a more complete study in the dispensation of trading in U.S. and China trade. From the results, we can obtain that domestic R&D spending likely plays a larger role in productivity increases in China compared to foreign R&D stock of capital in the U.S. However, while theory does not necessarily quantitatively define the impact of the latter, most of those that we have examined suggest a positive connection between productivity increases and both domestic and foreign R&D expenditures among trade partners. In this study, this variable is estimated by the import-share weighted R&D expenditure. The results indicate a negative correlation in the case of U.S.-China trade. The problem may indicate some problems with model specification or choice of estimates. While China's productivity increases may not be solely explained by its trade relations with the U.S. (several other countries traded and invested directly in China over the same study period), there is evidence of transfers of knowledge and technical know-how. Additional statistical testing and theoretical support for the variable choices may be necessary in developing the study. The large standard errors for both the explanatory variables seem to endorse. Given that China traded with several other technologically advanced countries which also invested directly in China, we estimate that even with improvements in data and model framework, the R-square values will likely improve only modestly.

FUTURE RESEARCH

In this paper, variable estimates used are not necessarily specific to sectors that have a propensity for technology-based products and innovative ideas. In this regard, a focus on variables estimates from to technology-driven sectors such as capital equipment manufacturing, electronics, and telecommunication among others would better serve the objective of the study. Also, a narrower focus is likely to offer more meaningful insights that can form the foundation for similar studies across multi-sectors. We also anticipate that sector specific data for China may not be easily accessible and may make the case for a narrower scope that may hold more realistic data options. In addition, future research will seek to effectively isolate the influence of trade and R&D expenditures with trading partners other than the U.S. Finally, the size of the data set will be expanded to include the immediate year's following China's economic reforms. The U.S.-

China trade relationship is one of the most important in the world and deserves a better understanding as an important gauge for global trade dynamics.

APPENDIX

Table A: Data Variables for China

Year	TFP % growth	TFP Index	China GDP ($Billions)	China GR&D Expenditure ($Billions)	China Goods Imports from the U.S.
1996	-4.3	957	860.8	4.9066	11,992.60
1997	-0.9	991	958.2	6.1325	12,862.20
1998	-5.5	945	1025.3	6.6645	14,241.20
1999	0.7	1007	1089.5	8.2802	13,111.10
2000	3.4	1034	1205.3	10.8477	16,185.20
2001	4.8	1048	1332.2	12.6559	19,182.30
2002	6.2	1062	1461.9	15.6423	22,127.70
2003	8.0	1080	1649.9	18.6439	28,367.90
2004	2.9	1029	1941.7	23.8829	34,427.80
2005	3.8	1038	2268.6	29.9455	41,192.00
2006	5.1	1051	2729.8	37.9442	53,673.00
2007	7.6	1076	3523.3	49.3262	62,936.90
2008	3.0	1030	4558.9	67.0158	69,732.80
2009	1.8	1018	5059.7	86.0149	69,496.70
2010	7.0	1070	6039.5	106.2952	91,911.10
2011	2.7	1027	7492.5	137.8620	104,121.50
2012	0.0	1000	8461.5	167.5377	110,516.60
2013	0.1	1001	9490.8	180.3252	121,721.10
2014	-0.1	999	10356.5	207.1300	123,675.70

Sources: WTO, World Bank Statistical databases; U.S. Bureau of Census

Table B: Data Variables for the U.S.

Year	TFP growth %	TFP Index	U.S. GDP ($Billions)	U.S. R&D Expenditure ($Billions)	U.S Goods Imports from the China ($millions)
1996	1.3	1024	860.8	197.64	51,512.80
1997	0.7	1025	958.2	212.63	62,557.70
1998	0.4	1025	1025.3	227.23	71,168.60
1999	1.1	1025	1089.5	245.38	81,788.20
2000	0.8	1026	1205.3	269.46	100,018.20
2001	-0.2	1026	1332.2	280.42	102,278.40
2002	0.9	1026	1461.9	279.93	125,192.60
2003	1.8	1026	1649.9	293.52	152,436.10
2004	2.0	1025	1941.7	305.65	196,682.00
2005	1.3	1025	2268.6	328.65	243,470.10
2006	0.2	1026	2729.8	353.33	287,774.40
2007	-0.2	1026	3523.3	380.76	321,442.90
2008	-0.1	1028	4558.9	407.71	337,772.60
2009	-0.2	1028	5059.7	406.61	296,373.90
2010	2.1	1027	6039.5	410.02	364,952.60
2011	0.1	1028	7492.5	428.29	399,371.20
2012	0.5	1028	8461.5	450.73	425,619.10
2013	0.6	1028	9490.8	466.57	440,434.30
2014	0.1	1028	10356.5	486.75	466,754.50

Sources: WTO, World Bank Statistical databases; U.S. Bureau of Census

REFERENCES

Acharya, Ram C. and Wolfgang Keller, "Technology transfer through imports." *Canadian Journal of Economics*, 2009 Vol. 42(4).

Aiyar, Shekar and Dalgaard, Carl-Johan (2004). "Total Factor Productivity Revisited: A Dual Approach To Development Accounting, EPRU Working Paper Series, ISSN 0908-7745 Available at: http://www.econ.ku.dk/epru/files/wp/wp-04-07.pdf

Arora, Vivek and Vamvakidis, Athanasios, "How Much Do Trading Partners matter for Economic Growth?" IMF working paper WP/04/26, 2004.

Blomstr¨om, Magnus and Sj¨oholm, Frederik. 1999. 'Technology transfer and spillovers: Does local participation with multinationals matter?' *European Economic Review* 43(4-6), 915– 923.
Caves, R., 1974. Multinational Firms, Competition, and Productivity in Host-Country Industries, Econometrica 41: 176-193

Coe, David and Elhanan Helpman, "International R&D spillovers." *European Economic Review*, 1995, Vol. 39(5).

Coe, David and Elhanan Helpman, "International R&D Spillovers." NBER Working Paper Series, No. 4444, 1993.

Coe, David and Moghadan, Reza. "Capital and Trade as Engines of Growth in France: An Application of Johansen's Cointegration Methodology," IMF Working Paper 93/11, February 1993.

De Backer, Koen and Sleuwaegen, Leo, "Does Foreign Direct Investment Crowd Out Entrepreneurship?" *Review of Industrial Organization*, 2003, Vol. 22 (1).

Dmitrios K., Kostas V. *et al*, "What Causes Inflows of Foreign direct Investment to China: Some Empirical Evidence," available at: www.eefs.eu/conf/Warsaw/Papers/569a.doc

Ezeala-Harrison, F. (1995). "Canada's global competitiveness challenge: Trade Performance Versus Total Factor Productivity Measures." *The American Journal of Economics and Sociology*, *54*(1).

Griliches, Zvi, "Productivity Puzzles and R&D: Another Nonexplanation,"*Journal of Economic Perspectives,* 2, 1988.

Hale, Galina and Long, Cheryl, "Is There Evidence of FDI Spillover on Chinese Firms' Productivity and Innovation?" Available at: http://www.econ.yale.edu/growth_pdf/cdp934revised.pdf

Helpman, Elhanan, Melitz, Marc and Yeaple, Stephen. 2004. "Exports versus FDI with Heterogeneous Firms." *American Economic Review* 94(1).

Isaksson, Anders. "Determinants of Total Factor Productivity: A Literature Review," A UNIDO Staff Working Paper 02/2007.

Jarett, K. and Wendholt A. "Transferring Technology to Transform China- Is It Worth It?" *China Business Review*, March 1, 2010.

Krugman, P. (1996). *Pop Internationalism,* Cambridg*e*, MA: MIT Press.

Lucas, R. E. (1988). "On The Mechanics of Economic Development,*"Journal of Monetary Economics* 22.

Markusen, James R. 2002. *Multinational Firms and the Theory of International Trade*. MIT Press, Cambridge MA.

Morrison, Wayne. "China-U.S. Trade Issues," Congressional Research Service Report, March 17, 2015. Available at: https://www.fas. Gtx org/sgp/crs/row/RL33536.pdf

Mutsune, Tony, "Sustaining Competitiveness in a Global Economy: Insights Offered by Total Factor Productivity Indicators for the U.S." *International Journal of Management and Marketing Research,* Vol. 3(2), 2010.

OECD, Science, Technology and Industry Outlook Report, 2014.
Porter, M, E. (1990). *The Competitive Advantage of Nations*, London: Macmillan

Rebelo, Sergio (1991). "Long-Run Policy Analysis and Long-Run Growth," *Journal of Political Economy* 99(3).

Romer, P. M. (1994) "The Origins of Endogenous Growth". *The Journal of Economic Perspectives* 8 (1): 3–22

Shaukat, A., Wei G., "Determinants of FDI in China," *Journal of Global Business and Technology,* Vol. 1, No. 2, Fall 2005.

Shujie Y., Zongyi Z., "Openness and Economic Performance: A Comparative Study of China and the Asian NIEs," *Journal of Chinese Economic and Business Studies,* Vol. 1, No. 1, 2003.

Smeets R., deVaal A.(2011), "Knowledge Diffusion from FDI and Intellectual Property Rights," CPB Netherlands Bureau for Economic Policy Analysis Discussion Paper No. 168.

Xiaojun, Li, "China as a Trading Superpower," available at:
http://www.lse.ac.uk/IDEAS/publications/reports/pdf/SR012/li.pdf

Zhu, Xiaodong. "Understanding China's Growth: Past, Present, and Future," *Journal of Economic Perspectives,* Vol. 26(4), 2012.

Zuliu H., Mohsin K., "Why is China Growing So Fast?" IMF Economics Issues (8), June 1997

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PERCEPTION OF INBOUND TOURIST TO GREEN HOTEL

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ABSTRACT

This research aims to study the perception of Inbound Tourist to Green Hotel or Friendly environment hotel and to study the level of tourist requirements in green hotel. The sample of this research was 200 inbound tourists in Bangkok, Thailand. The constructed instrument was a questionnaire and SPSS. The questionnaire is divided into five parts which are general information of inbound tourist, attitude and perception to sustainable tourism, public awareness, opinion to activity/service/ Green hotel operation and suggestion to hotel entrepreneurs. The study revealed that overall of all five main topics was "much'' significant awareness to green hotel principal. Moreover, hotel business entrepreneur can utilize the basic research outcome to create differentiate of promoting and improving marketing strategy, apply green activity, or environment policy from inbound tourist requirement of lodging business to improve physical development and green hotel operation in order to be competitive advantages among hotel in Asean.

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KEYWORDS—Tourist Perception, Green concept, Green Hotel

INTRODUCTION

Tourism industry plays important role to Thailand especially in economic and social development. Moreover, tourism and lodging business generate huge income to the country every year. Therefore, it's very important to study and analyze all factors that impact to hotel and resort business such as environment and business operation in order to awareness to define the measure and efficiency improvement their business. (Hotel and Resort Business Analysis Journal 2010, Technology Thai-Japan Association 2013)
Green Concept or friendly environment is taken interesting ideal worldwide which obviously see from increasing number of green product in market such as organic vegetable, green electrical product, high bridge car and green hotel.

Increasing numbers of natural disaster, green house effect, global warming, and animal extinction are the factors to change human consumption. Environment awareness trend impact to human behavior of " To be part" to preserve and sustain environment for themselves and next generation. Regarding to human consumption behavior, once they change and want to preserve environment, it creates "demand" in markets. People are more conservative by using green product, energy saving, waste separation or 3 R concepts: Reduce Reuse Recycle. Therefore, if there is high demand of friendly environment consumer in the industry, the business responding should be conducted and facilitate consumers to be part of environment conservation. (Hongsakul Mesnukul)

Regarding to consumer behavior changing above, environment preserving concept affects to ways of consumptions of goods and services. If the entrepreneurs do not follow the trend of demanding, they probably lose their business opportunity.

Therefore, the research of perception of inbound tourist to green hotel is focusing on how tourist awareness about Green hotel or knowledge, understanding, idea, ways of green hotel. This study will be benefits to lodging business entrepreneur in order to use the data to apply and plan in their business including marketing strategy to be competitive advantages. Green activities in hotel will assist entrepreneur to be success in business operation and sustainable.

Hypothesis

Hypothesis 1: Difference of population feature bring differently opinion, activity expectation/ service/ and operation of green hotel
Hypothesis2: Difference level of perception to tourism sustainability relevant to green activity expectation/ service and operation of green hotel
Hypothesis3: Difference level of awareness and alertness to environment preservation trend relate to green activity expectation/ service and operation of green hotel

LITERATURE REVIEW

Consumer Behavior Concept

Seree Wongmontha (2546: 33) defined the consumer behavior that means to study the decision making process and action of customer which concern purchasing and using of products or activity related to buying and using of goods and service in order to response their need and consumer satisfy. There are the process of decision making before and after purchasing or its behavior of consumer for searching, purchasing, using, evaluating and disposing products and service.

Ranee Amarinrat (2543: abstract) studied the factors that impact to customers satisfaction of hotel in Bangkok. The research revealed that the customer satisfy was " much" degree from the service of the hotel. The satisfaction of service was different depended on personal characteristics of age, and education. The main factor to empower customer satisfaction was cleanliness of employee, environment, atmosphere and beauty of hotel.

Concept and Theory of Hotel and Green Hotel

Asian Green hotel standard is standard of Green Hotel in Asian member in which agreed to manage physical resources to preserve and maintain the building, well trained staff both providing services and promoting the participation of tourism officer and local people in community to conserve environment, job and local product which affects community development, sustainable and customers requirement responding. (Tourism Department,2012).

The Green Leafs Association (Green Leaf Foundation) is another association to promote green. The Green Leaf Foudation has purposes to provide knowledge about lodging business to entrepreneur to understand ways of environment conservation and promotion including development hotel business in term of service efficiency and energy saving conforming to tourist demands. Tourists feel being a part of preserving environment with hotel in order to advertise being a part of hotel business, participating, caring, including hotel service in efficiency. (Green Leaf Foundation, 2012).

Regarding to study of Ayuso (Ayuso,2006) about idea and method, environment conservation has been used about to manage and operate 30 hotels (grounded theory) in Spain which covered Balearic and Cotalonia. The views of the executive agreed that tourism sustainable is to develop tourism product in which respect to natural resources. That means the least destroy natural as possible by preserving and competitive advantage in tourism market and benefit to economic in long term too. Moreover, the advantages of green and sustainable concept create the different and selling point to hotel industry as following.

Improve image of hotel
Special service offering
Long term cost saving
Improve relationship with government sector
Employees motivation improving
Conform to the law and regulation requirement

Statement above can refer to be different and competitive advantage to hotel significantly.

RESEARCH METHODOLOGY

Sampling: 200 of Inbound Tourist in Bangkok area were sample group.
A research tools: Questionnaire has been used as a tool to collect data from 200 inbound tourists in Bangkok area.
Questionnaire Process
> Study on theory, principle and literature review
> Study the method how to produce questionnaire by checklist and rating scale which cover specific terms.
> Checking questionnaire reliability of content and language from advisor in case of having comments in order to improve and edit.
> After edited, questionnaire should be reviewed the with by expert in case of having comment in order to improve.

Questionnaire characteristic
There are 4 parts of the questionnaires divided for inbound tourist.

Part1: General information of inbound tourist
Part2: Attitude and perception degree to green hotel
Part3: Public awareness to friendly environment trend
Part4: Opinion to activity/service/ Green hotel operation

Questionnaire Criteria Evaluation
Information of questionnaire part 3 and 4 will use average score on opinion and satisfy of inbound tourist to Green Hotels in Bangkok by following criteria.
> Class Interval = Highest score – lowest score/ number of class = 5-1/5= 0.8
> As following criteria of transfer definition
> Average 4.20-5.00 means Opinion degree/ most satisfy
> Average 3.40-4.19 means Opinion degree/ much satisfy
> Average 2.60-3.39 means Opinion degree/ medium satisfy
> Average 1.80-2.59 means Opinion degree/ less satisfy
> Average 1.00-1.79 means Opinion degree/ least satisfy

Data Collection

After collecting questionnaire data, researcher has process by following.
1. Checking data and use only completed questionnaire and remove errors questionnaire.
2. Create code and key data in SPSS for Window 7 Version 19

Research statistic

Data analysis had used SPSS for Window 7 Version 19 that there were steps as following:

1. Reliability questionnaire test by using Coefficient Alpha and Cronbach

2. Analyzing population characteristic was gender, age, status, nationality which will be defined as frequency and basic statistic for example, percentage and standard deviation.
     Percentage
     Arithmetic Mean
     Standard Deviation

Research Finding

The perception of inbound tourist to green hotel or friendly environment hotel about Reuse in overall was " much" significant. When studying into each element, it found that Reducing usage of energy, raw material and solid waste, including its use in activities that do not pose an added value was the most importance. The expanding life usage, maintenance, repair and recycling to compensate for the changes and Improving process efficiency, activity together with an increase in operational productivity were medium awareness level equally.

Public awareness to friendly environmental trend-Reuse/ Recycle in overall was " much" significant.When studying into each element, it found that Recovery of gas energy from discard material and solid waste, Installing treatment systems to reuse and recycle the resources, and Sorting of waste for reuse and recycling opportunities were " much" awareness level.

Inbound tourist inquiry to green hotel can be applied for environment policy in hotel.
The degree of opinion and importance of green activity/ service and green hotel operation-product in overall was "Much". When studying elements of product/service, found that the cleanliness, hygienic Food and beverage of local products were the most significant. In room facilities and equipment from local communities were second significant. For fast Internet provided to customer was medium significant.

The degree of opinion and importance of green activity/ service and green hotel operation-price in overall was "Medium". When studying element of price, it found that Part of revenue and profits are used to develop local community, environment and nearby areas was much significant. The point of Being able to check price and expenses including receipts or financial documents and Price is fixed and does not depend on seasons were medium level.

The degree of opinion and importance of green activity/ service and green hotel operation-place in overall was " Much". When studying element of place, found that the location at a safe location away from natural disaster or less risky from the invasion of public space and national forest was most significant. The point of Convenience to enter main roads, public transportation and transfer service was second significant and the third was convenience to enter main roads, public transportation and transfer service.

The degree of opinion and importance of green activity/ service and green hotel operation-promotion in overall was "much".When studying element of promotion, found that Supporting and promoting environmental conservation activities within the local or community was the most significant. And participating and supporting conservation activity, local art, traditional and cultural was the second significant. Using advertising and media tools to promote traditional, cultural and intelligence of locality was the third significant.

The degree of opinion and importance of green activity/ service and green hotel operation- employee (people) in overall was "much". It found that Open employment opportunity to the community members to join the organization was the most significant. Having officers/staffs who provide the information to visitors was much significant and the last Collaboration with local tour guides to provide transportation to visitors was medium significant.

The degree of opinion and importance of green activity/ service and green hotel operation- physical Evidence in overall was " Much". It found that Beautiful architectural design harmonizes and relevant to the local environment was much level which equally to the place which is furnished and designed to show the local identity. Promotes the local costume that reflects the local life was also much level.

The degree of opinion and importance of green activity/ service and green hotel operation- process in overall was " Much". When the process was analyzed, found that the effective waste management and sanitary systems was secondly significant. Operation and management which are designed for environmentally friendly (3 R) was much significant. Provide an effective occupational health management system and safety to visitors and staffs was also much significant degree.

CONCLUSION

The researcher has 2 suggestions from the study which divided into two parts for tourist (customer) and hotel entrepreneur (Service provider/hotel entrepreneur).

From the research revealed clearly that in bound tourist (Service user) has perception and understanding concept of green hotel. They are environment friendly concerned and awareness to preserve environment efficiency and satisfy if they can be part of green activity in hotel.

Hotel business entrepreneur (Service provider) should have seriously policy of preserving natural and environment and sustain operation in order to have real green hotel. Moreover, they should promote awareness about how to conserve natural resources, consume them wisely and efficiency in which conform to green platform. Last, the hotel should provide training course for employees to understand about environment concern activity and they can provide knowledge and perception to service user. In additional, the customer will receive new experience and impression of green hotel service from service provider.

REFERENCES

Department of Tourism (2012). Tourism development plan for annually liberalization tourism service in 2012-2017. *Bangkok: Department of tourism of Ministry tourism and sport.*

Department of Tourism (2012). Green hotel standard of Asian in Thai vision. Bangkok: Tourism Department of Ministry of Tourism and Sports.

Treethip Bootyam. *Green Tourism for world sustainable and guideline for entrepreneur*, executive journal 189.Bangkok University.

Sompong Sotharak, Dr.Kongkoon Tochaiwat, *THREE-STAR HOTEL DEVELOPMENT PROCESS UNDER THE ASEAN GREEN HOTEL STANDARD FOR THAI ENTREPRENEURS.,Build Environment Research Associates Conference, BERAC 4, 2013* Faculty of Architecture and Planning, Thammasat University, May 23, 2013,

Arunee Lomsetthi(2011) *FACTORS AFFECTING SELECTING ACCOMMODATION OF FOREIGN VISITORS BANGKOK AREA*. Rajamangala Technology University of Thayaburi.

Green Hotels Association.(2007). What Are Green Hotels. Retrieved from http://www.greenhotels.com/whatare.htm Ying-Chang Chen & Yu-Ta Chen. *The Advantages of Green Management for Hotel Competitiveness inTaiwan*: In the Viewpoint of Senior Hotel Managers. Journal of Management and Sustainability; Vol. 2, No. 2; 2012

APPROACHES AND METHODS IN ENGLISH SKILLS DEVELOPMENT FOR JOB INTERVIEWING IN TOURISM INDUSTRY: CASE STUDY OF TOURISM INDUSTRY AND HOSPITALITY MANAGEMENT STUDENTS, SUAN SUNANDHA RAJABHAT UNIVERSITY

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ABSTRACT

The end of 2015, the ASEAN Economic Community will come into being; they are working on The ASEAN Mutual Recognition Arrangement on Tourism Professionals (MRA-TP) which is one forward-looking initiative designed to enable the mobility of employment for skilled tourism labor within each Member State. Importantly, English will become the official language of ASEAN community because English is one of global language which uses to communicate around the world. Wherever you travel, you can see English words everywhere such as signs, news, advertisements, internet, especially in tourism industry. So, the objectives of the research are 1.) To find knowledge kit to enhance English skills for job interview and more opportunity to get a job in tourism industry, 2.) To enhance knowledge kit of English content for developing potential new graduate student in order to response labor market efficiency, 3.) To experiment and evaluate knowledge kit after developed of Tourism and Hospitality students, 4.) To investigate students' satisfaction with the training program. Pre-experimental research method will be applied in this study by using One-group-pretest-posttest-design as a instrument. The sample for this research will be purposively selected to be 50 of the fourth year undergraduate students, Tourism Industry and Hospitality Management major, Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University, as of 2015. It will be conducted in 5 days (40 hours) in total.

JEL: M00

KEYWORD: Approaches in English Skills, English job interview, Tourism Industry

INTRODUCTION

As you know, English is an international language that is spoken in worldwide including Thailand. Although English language is not a mother tongue of Thai people, but in nearly future Thailand will be a part of ASEAN Economic Community Member. ASEAN nations will open all border gates to welcome international visitors for entry and exit especially migrant workers who cross the land border to Thailand. Importantly, English will become the official language of ASEAN community because English is one of global language which uses to communicate around the world. Wherever you travel, you can see English words everywhere such as signs, news, advertisements, internet, especially in tourism industry.

Tourism industry is crucial in Thailand's economy because of not only generates high income to our country, but also indirectly in sectors such as lodging business, restaurant, souvenir shop, and transportation. By the end of 2015, the ASEAN Economic Community will come into being; they are working on The ASEAN Mutual Recognition Arrangement on Tourism Professionals (MRA-TP) which is one forward-looking initiative designed to enable the mobility of employment for skilled tourism labor within each Member State. Are Thai students ready for AEC? Thai students will be the important role for

Tourism Industry as resource of the country, they still need to improve and develop their English language competency. Many researchers found that the Thai students are lack of confident to speak English with their teachers and classmates because of their ability of pronunciation especially the influence from the mother tongue. They also have no chance to speak English in their daily life. Many Thai students could not use English Skills effectively, especially listening and speaking (Jaiyai, Torwong, Usaha, 2005).

As a above, researcher realize that Thai language teachers at all levels should find knowledge kit to enhance English skills for job interview and more opportunity to get a job in tourism industry, use knowledge kit of English content for developing potential new graduate student in order to response labor market efficiency, and to experiment and evaluate knowledge kit after developed of Tourism and Hospitality students.

METHODOLOGY

Pre-experimental research method will be applied in this study by using One-group-pretest-posttest-design as a instrument. The Purposive Sampling of this research will be selected to be 50 of the fourth year undergraduate students, Tourism Industry and Hospitality Management major, Faculty of Humanities and Social Sciences, Suan Sunandha Rajabhat University, as of 2015. It will be conducted in 5 days (40 hours) in total with English Camp Training, Interview role play, Classroom activities, Pre-test and Post-test, Activity Test kit, and satisfaction survey.

FINDINGS

Approaching in English Skills Development for job interviewing in Tourism Industry, the results of the study found that the knowledge kit as a tool for training program such as English camp, classroom activities, interviewing role play, games, and practices for 5 days (40 hours) assisted students feel more confident to speak English to teachers and classmates. English camp activity is the first rank of activity that most of students believed it can assist them to improve their speaking skill due to English-speaking environment. Also they think that this kind of activity made them happy. The researcher found that the average scores of knowledge of English camp activity in post-test were significantly higher than pre-test scores at .05 level and its effect size was very large. Based on the survey, the students' overall satisfaction with the English camp activity was at the highest level, followed by interviewing role play.

DISCUSSION

After implementation of knowledge kit as a tool, most of students were able to speak English effectively and they were more confident to speak out if compare with pre-test. After depth interview of 50 respondents, the native speaker and Human Resources Manager (the researcher as a observer) interviewed students and found that female students were more able to speak with more detail than male students when they gave the real situations (always happened in Tourism and Hospitality Industry), but if the criteria of the decision-making with real situation (case study) during English job interview many male students performed better than females. Therefore, the knowledge kit is one of the useful approaches in English Skills Development for job interviewing in Tourism Industry. Students need to practice and stay in English-speaking environment as much as they can. If they were familiar with English job interview or able to use English effectively in every situation, this helps students have more opportunity to get a job in tourism industry, and for developing potential new graduate student in order to response labor market efficiency.

REFERENCES

Chutima K. (2013). Implementation of English Speaking Skill in Tourism by Using Pictures of Tourist Attractions in Petchbun and Simulation for students of Petchabun Rajabhat University.
Petchabun Rajabhat University

Harmer, J. (1984). The Practice of English Language Teaching. London: Longman.

Harmer, J. (1998). How to Teach English. Harlow: Longman

Kanyapilai Kunchonsirimongkon (2015). Enhancing Basic English Writing from experiences out of the classroom: a case of 1st year Ailine Business students, Suan Sunandha Rajabhat University. Suan Sunandha Rajabhat University

Khamkhien, A. (2010). Teaching English Speaking and English Speaking Tests in the Thai Context: A Reflection from Thai Perspective. English Language Teaching Journal, 3(1), 184-200.

Manussanun S. and Suksan S. (2012). Developing English Speaking Skills of Thai Undergraduate Students by Digital Storytelling through Websites. Suranaree University of Technology

Sxuneeta K. (2013). Development of an English Camp Training Program to Enhance English Speaking Skills, English Camp Activity Knowledge and Social Skills for English Major Students, Faculty of Education, Silpakorn University. Silpakorn University

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BUSINESS CONTINUITY PLANNING FOR ECONOMIC RESILIENCE IN HAWAII

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ABSTRACT

A major disaster in the US state of Hawaii could precipitate a drop or stoppage of a majority of business activities in the islands. As the most isolated island in the chain in the world, Hawaii has special needs for business continuity planning and supply chain management: Transportation travel times and import costs to Hawaii are significant (nearly all food, fuel, and building materials are shipped by boat), the island's critical infrastructure is self-contained, the island's economy is dependent on a handful of sectors and much commerce and business activity occurs in low-lying areas subject to coastal risks and hazards. Accordingly an business continuity planning architecture is put forth to better understand how disasters impact Hawaii's businesses, how they recover, and how they might better prepare for unexpected, extreme events under conditions of climate change. In-depth interviews with logistics managers, security professionals, governmental officials and environmental economists were undertaken to investigate how companies in Hawaii perceive climate risks and supply chain disruptions and what they are doing to respond and address them.

JEL: G2; H84; M21

KEYWORDS: Supply Chain, Disaster Aid, Financial Crisis, Business Continuity, Business Economics

INTRODUCTION

As the most isolated island chain in the world, Hawaii has special needs for disaster preparedness and recovery. Transportation travel times and import costs to Hawaii are significant (nearly all food, fuel, and building materials are shipped by boat), the island's critical infrastructure is self-contained and much commerce and business activity occurs in low-lying areas subject to coastal risks and hazards. Accordingly a major disaster could precipitate a drop or stoppage of a majority of business activities in the islands. Knowing the challenges to post-disaster business sector recovery, UHWO DPEM faculty seek to better understand how disasters impact Hawaii's businesses, how they recover, and how they might better prepare for unexpected and extreme events (whether a natural, health related, human-induced or technologic disaster).

The authors have contributed to a Business Recovery Center (BRC) proposal which is a collaboration among the Economic Development Agency (US Department of Commerce), the State Civil Defense (Hawaii Emergency Management agency) and University of Hawaii-West Oahu (UHWO). This designated business recovery hub will provide both outreach and dissemination of business recovery resources in addition to serving as a center for business continuity information, education and leadership. The center will help inform businesses of the importance of disaster preparedness; assist with post-disaster business recovery efforts; and create a robust business recovery network that shares the highest-level of management and governance and strives for continuous improvement.

It is proposed that state funding be used to construct a new facility for the BRC at UHWO to serve as a home for the "Institute" (or consider facility improvements/renovated space) that will include storage,

conference and operational facilities. The State of Hawaii Emergency Management Agency (HI-EMA) may also provide technical support for systems integration and liaison with other State Agencies such as State Procurement (SPO) and DBEDT. The BRC will enhance the capacity of Hawaii businesses to promote disaster preparedness by contributing their personnel, materials, technical and management advice to businesses, organizations, communities, and agencies. The BRC will provide both outreach and dissemination of business recovery resources, in addition to serving as a hub for post-disaster logistic support, technologic innovation and information sharing.

Specifically, the BRC will engage local commercial and non-profit Hawaii businesses in a mutually supporting role to:

fulfil resource needs of the County and State agencies

strengthen connections between local businesses and these agencies to satisfy resource needs

better understand the capabilities and limitations of local businesses and what assistance businesses may require to satisfy those needs.

The UHWO Disaster Preparedness and Management (DPEM) program faculty PI expect to contribute to various roles on the BRC proposal with responsibility for the following roles:

assemble and manage the Business Recovery Team

establish best practice business recovery procedures in collaboration with all entities and strengthen public-private partnerships

develop operational practices to engage the private sector in disaster recovery

liaise with other State Agencies such as State Procurement (SPO) and the Department of Business, Economic Development and Tourism (DBEDT)

conduct the necessary outreach, seminars/webinars and training support for disaster preparedness

LITERATURE REVIEW

Small businesses (those with less than 50 employees) constitute a critical component of Hawaii's economy, accounting for 94% of all businesses in the state: 86% of Hawai'i businesses have less than 20 employees (DBEDT Research & Economic Analysis, 2012) While researchers in the field of disaster and emergency studies have systematically examined business sector recovery for only a short time (Alesch, Holly, Mittler, and Nagy 2001; Chang and Falit-Baiamonte 2002; Dalhamer and Tierney 1998; Flynn 2007; Furlong and Scheberle 1998; Graham 2007; Kroll, Landis, Shen, and Stryker 1991; Runyan 2006; Tierney 1997; Yoshida & Deyle 2005) they present a sobering picture of how disasters impact businesses, particularly smaller enterprises: a quarter of small businesses which experience a disaster never reopen --- and a third of the remaining businesses can be expected to close within two years of the disaster (Insurance Institute of Business and Home Safety, 2012). Particularly vulnerable are businesses with less than 20 employees and those that work from home (DBEDT 2012). According to the DBEDT Natural Disaster Economic Recovery Plan (2014) 38% of businesses surveyed in Hawaii did not have a Business Continuity Plan: those Hawaiian companies without plans were primarily smaller companies of less than 25 employees.

Larger businesses tend to fare better than smaller businesses in the event of a disaster, due to their increased access to resources and economy of scale. The smallest of Hawaii's businesses are not well informed about available disaster recovery resources or the benefits of disaster preparedness: some depend on land owners or property managers for recovery, disaster preparedness training is not common, most companies do not have emergency supplies at their office location, data back-ups are often on-site and are not regularly updated (DBEDT, 2014). Specifically, a small business affected by an economic disruption has fewer financial resources (line of credit, cash reserves, capital assets, short term operating funds), lacks an extended network of employees and technical services located outside of the area of impact (to provide

response assistance), and often depends upon a very small number of individuals to assist with emergency operations (and make other critical business decisions) in a crisis environment.

Interruptions of critical utility functions and the supply chain are the major impacts felt by Hawai'i businesses. These are magnified by Hawai'i's dependence on imported resources, including fuel and food. The loss of customers resulting from closures of airports and harbors could have a devastating effect, especially for the visitor industry. Neighbor islands are concerned about the vulnerability of O'ahu's infrastructure since their supplies come through harbors on O'ahu. There is a demand for reliable, credible, and accessible information on preparedness that is tailored to small business. There is also a need for localized, up-to-date information on road closures and the status of recovery efforts. Businesses in high risk hazard areas need critical support in their preparedness, evacuation, response, and recovery. Many businesses anticipate insurance as their primary means of recovery assistance. However, less than half have business interruption insurance and many have incomplete or no disaster coverage. Some have difficulty finding recovery assistance and resources, or complying with the documentation requirements for insurance claims. This is intensified for those that do not speak English or that have other barriers to receiving information and support.

In the 2001 Nisqually earthquake in Washington state, large corporations such as Boeing were able to rely upon their extensive emergency plans, including the use of backup generators, activation of internal emergency operation centers, and the option to switch computing control to locations outside the region. Although Starbucks' Seattle headquarters was evacuated, it was able to continue operations because of its multiple locations outside the area of strong ground motion (Freitag 2002). Often smaller businesses do not have these same options. Small businesses have more difficulty absorbing costs associated with seeking expert advice and engaging in structural mitigation and risk reduction strategies. Businesses that develop and implement a disaster recovery plan are more likely to survive a disaster --- and typically sustain less damage, loss, and downtime --- than those that do not (FEMA, 2010).

Tierney (1997) found that the single location of a small business leaves an owner's investments more vulnerable to total destruction when compared to a chain, where risks are spread. Often, recovery aid guidelines put subtle pressure on business owners to remain at their same location, despite changes in the economic and risk landscape (Graham 2007; Vale and Campanella 2004). Yoshida and Deyle (2005) found that small businesses were less likely to be knowledgeable about hazard mitigation and specialized insurance. Furthermore, retail businesses that rent their floor space are more vulnerable to loss than those that do not rent (Chang and Falit-Baiamonte 2002). In studying small businesses, researchers have also sought factors that increase the probability of small business recovery. Smith and Welsh (2007) found that past experience with the hazard, knowledge of how to run a business and having ran one in the past, having a business continuity plan, and knowledge of taxes and regulations were significant. In researching the 1994 Northridge earthquake, Tierney (1997) found that business that rent their space were typically less able than building owners to engage in mitigation and preparedness activities. However, businesses that were relatively larger, older and financially stable, or had previous disaster experience were more likely to have engaged in preparedness activities prior to the earthquake. Following the earthquake, newer businesses and better-prepared firms were more likely to increase preparedness levels post-earthquake.

UHWO CONTRIBUTION TO BUSINESS CONTINUITY IN HAWAII

There is clearly a need to enhance ongoing, short-term (days), intermediate term (weeks-month) and long-term (months-years) recovery for Hawaii businesses. The authors of this paper are examining comprehensive, all-hazards, integrated and risk-based business continuity planning strategies for Hawaii's businesses which involves preparing, mitigating, responding and recovering from all possible threats and perils including natural, health-related, human-induced, hazardous materials and other technologic hazards. As shown in Figure 1, our business recovery work will examine the three dimensions of in order to shorten the recovery time in the event of a business disruption and minimize financial losses.

Business Recovery Team (BRT)

UHWO DPEM has begun to assemble a disaster recovery team with members from the private sector, trade associations, public sector and non-profit organizations with a primary focus primarily on economic recovery (most emergency operations plans are primarily focused on health and safety issues). There is a need to effectively engage and pro-actively recruit the appropriate local businesses representatives from across Hawaii in activities that will protect their business assets and expedite the recovery of the local economy in the event of a disaster. A mix of strategic public and private sector representatives will be invited to participate in the business recovery team. To ensure that economic recovery decision making contains the business recovery team will include economic development stakeholders (Economic Development Officers, chambers of commerce officials, business & trade association professionals, special districts), public and elected officials (including emergency management personnel) as well as a significant representation of the business community. Team members will be selected based on their articulated position of authority (to provide proper support to the team) and knowledge of the needs of the private sector. For example, the Community Economic Development Officer (EDO) will have understanding and knowledge of their community's long term economic development resources, goals and plans, zoning laws, permitting processes and any laws or ordinances around the financing of various economic development plans.

It is important to understand the economic impacts of each post-disaster recovery action. Even the seemingly harmless decision of closing a few streets can slow recovery, force businesses to relocate or close, and drive residents and customers away – thereby affecting the resilience of the workforce and economy. Accordingly, our business recovery team will establish agendas, facilitate participation, discussion and information exchange from all representatives; delegate business recovery tasks and follow-up; and evaluate objectives and outcomes in an expedited yet comprehensive decision making process.

The business recovery team could specifically address the major pre and post-disaster economic recovery issues that businesses and communities face such as:

> understanding the capabilities and limitations of businesses;
> providing assistance for business continuity plans;
> selection of redevelopment priorities;
> identification and implementation of disaster mitigation strategies;
> development of post-disaster recovery financial and technical assistance programs; and
> expansion of response and recovery coordination between small businesses, the public sector and their surrounding communities

Best Practices for Business Recovery Procedures

It is recommended that the Business Recovery Center (together with local economic development authorities) conduct a business survey to better understand the disaster services and capabilities that local Hawaii businesses provide and the type of equipment they have on hand in the event of a disaster to be used in cleanup, debris removal, emergency response, as well as long-term rebuilding efforts. Future preparedness and disaster response activities will be strengthened by documenting the capabilities, essential services, and equipment of local businesses. Understanding the vulnerabilities and weaknesses of Hawaii's businesses before disaster strikes will also help to identify emergency management gaps in the community. Local and state government agencies should also work closely with the Business Recovery Center to effectively communicate and educate local businesses on disaster recovery and other preparation activities.

Figure 1: UHWO Contribution to Business Recovery Activities in Hawaii: Business Recovery Continuum Phases, Hawaii Business Threats and UHWO Business Recovery Leadership roles.

Pre-disaster planning is a critical element in the success of long-term economic and community recovery as many businesses will be negatively impacted by a disaster event (and some may never reopen). For example, a 2004 Gallop organization poll commissioned by the National Federal of Independent Businesses (NFIB) found that at least thirty percent of the surveyed small businesses had been closed 24 hours or longer at least once within the last three years while the the U.S. Bureau of Labor Statistics reports that 93% of businesses that suffer a significant data loss are out of business within five years

However, many small businesses lack a plan which helps them highlight the natural, health-related, technologic or human-induced threats that can disrupt their supply chains and viability. Business continuity plans constitute a sine qua non tool for disaster resilience because they help businesses to limit the effects from potential hazards and identify critical processes or operations that must remain open after disaster impact. Backing up and storing data off-site is very important but many small businesses fail to back-up important documents (such as legal information, key customer contacts, and financial records) in a remote location.

The BRC will bring together leading business continuity professionals in Hawaii from both the public and private sector to share best practices and participate in continuing education and creating the business continuity professionals of tomorrow. UHWO DPEM program will introduce students and faculty to this rapidly-growing field through regular networking and educational programs. As a recognized business recovery expert resource, UHWO DPEM will act in an advisory capacity to organizations and government institutions throughout Hawaii, helping to provide technical support for systems integration, to create industry disaster recovery standards and promote business resiliency through public-private partnerships.

These private-public sector partnerships will ensure that communication flows between these two groups to reveal any potential conflicts and/or duplication of effort in the recovery process. The public sector should be informed of the private sector's priorities for re-investment and redevelopment. Governments must also carefully consider the implications of decisions that could possibly delay the recovery effort. Trust and collaboration will be strengthened as stakeholders cooperate in the pre-planning phase so that these relationships can be relied on when the disaster strikes.

Operational Practices to Engage the Private Sector in Disaster Recovery

Improved operational practices are herein proposed to help the private sector recover effectively and efficiently after a disaster event. The Business Recovery Team at UHWO has thoroughly reviewed existing business continuity operations, emergency management and mitigation plans that exist with a special focus on the impacts to the business community and the local economy. The proposed Business Recovery Center could help to establish a tiered system of re-entry for relevant individuals into the disaster stricken area. The Business Recovery Center should partner with the State of Hawaii Emergency Management Agency (HI-EMA) and other State Agencies such the Department of Business, Economic Development and Tourism (DBEDT) to coordinate re-entry pass distribution to all businesses requiring Tier 1 and Tier 2 clearance in the parish. The Business Recovery Center could be responsible for crafting a Hawaii business re-entry plan as it relates to businesses so that the plan prioritizes critical businesses which will restore essential services after a disaster. The Business Recover Center could create an online website for qualifying businesses to apply for re-entry vehicle passes, learn about Hawaii's evacuation re-entry plans and connected with the Business Recovery Center's business continuity network (a main point of contact for businesses and clients in the event of an evacuation). The plan should indicate which businesses qualify for each re-entry tier based on the type of specific service(s) they provide in disaster response and recovery).

Following a wide-scale evacuation, managers, owners and employees of local businesses may be restricted from returning to their property/operations depending on the nature of the incident. The longer the delay in granting individuals access safely back into to their community, the more devastating the effects on the businesses and the affected community including decreased employment opportunities for residents and a significant decline in the tax revenue base, thereby extending the recovery time. Specifically, as a result of re-entry delay, perishable inventory may spoil, employees may find alternative work and business closures can disrupt the operation of critical businesses needed to restore infrastructure, provide essential services and goods in the impacted area (i.e. food and water, gas, daycare, health services, sustainable living conditions, etc.) and jumpstart the local economy. As an example, 60% of the businesses within the police perimeter of the 1995 Oklahoma City bombing closed permanently (even those without physical damage) due in part to limited or no access to the area following the event.

To respond to this issue, the Business Recovery Center will work with city and county emergency management personnel to develop a tiered system of re-entry following a disaster. The purpose of this tiered system is to allow for the expedited, safe, orderly return of re-entry of:

tier 1 agencies/groups involved in emergency response and restoring normal operations following a disaster (search and rescue; emergency healthcare staff; utilities and infrastructure repair personnel; damage assessment teams; and pre-designated government staff and other critical personnel);

tier 2 groups such as relief workers; healthcare agencies and suppliers; insurance agents; business operators such as important food and building material retailers, fuel distributors and stations, debris management, financial institutions (not allowed under tier 1). This would likely include This may include financial institutions, business anchors for key industries, employers with a large

workforce, and/or a major tax revenue source for the community and select businesses with unique circumstances (fragile inventory, hazardous waste, large workforce, global distribution, etc.)

remaining tier 3 residents and business operators (not allowed under tier 2) that can prove they live, own, rent, or lease in the restricted area; licensed contractors and other repair service providers; and possibly family and friends who re-enter with an eligible resident

While not guaranteeing re-entry, a credentialing program with ID cards or passes as well as training for local law enforcement to recognize the cards/passes (and allow access when the appropriate 'tier' is activated) can facilitate the timely re-entry of critical businesses and emergency personnel to assist in the community's recovery effort. Working proactively with the business community in advance of a disaster is important for making the re-entry plan relevant to business considerations. There should be clear procedures of securing a re-entry ID cards or passes such as requiring that only business owners, operators, and managers apply for such cards/passes for their employees. Partnering closely with emergency management and local law enforcement personnel to garner support of this plan will help to ensure its adoption by the public sector. Preparing a tiered/phased re-entry system which accommodate business re-entry needs assists community leaders and emergency personnel in administering recovery efforts in a more timely and organized manner; without a re-entry plan, local businesses may suffer further challenges to reopen in a timely manner, thereby hampering the local economic recovery engine.

Staggering business re-entry after a disaster and evacuation when conditions on the ground include damaged infrastructure (roadway, sewer, water and electricity lines) promotes safety and ensures expedited re-entry for the critical businesses. Once safety concerns are addressed, the remaining legitimate business operators should be allowed to quickly return to their community to secure property and re-establish business operations, thereby facilitating recovery and promoting the economic vitality of the local community.

CONCLUSION

It was shown that a major disaster in the US state of Hawaii could precipitate a drop or stoppage of a majority of business activities in the islands. As the most isolated island in the chain in the world, Hawaii has special needs for business continuity planning and supply chain management: Transportation travel times and import costs to Hawaii are significant (nearly all food, fuel, and building materials are shipped by boat), the island's critical infrastructure is self-contained, the island's economy is dependent on a handful of sectors and much commerce and business activity occurs in low-lying areas subject to coastal risks and hazards. Accordingly a business continuity planning architecture is put forth to better understand how disasters impact Hawaii's businesses, how they recover, and how they might better prepare for unexpected, extreme events under conditions of climate change. In-depth interviews with logistics managers, security professionals, governmental officials and environmental economists were undertaken to investigate how companies in Hawaii perceive climate risks and supply chain disruptions and what they are doing to respond and address them.

The UHWO DPEM program has assembled a disaster recovery team with members from the private sector, trade associations, public sector and non-profit organizations with a primary focus primarily on economic recovery. There is a need to effectively engage and pro-actively recruit the appropriate local businesses representatives from across Hawaii in activities that will protect their business assets and expedite the recovery of the local economy in the event of a disaster. A mix of strategic public and private sector representatives will be invited to participate in the business recovery team. To ensure that economic recovery decision making contains the most experienced professionals the business recovery team will include economic development stakeholders (Economic Development Officers, chambers of commerce officials, business & trade association professionals, special districts), public and elected officials (including emergency management personnel) as well as a significant representation of the business

community. Team members will be selected based on their articulated position of authority (to provide proper support to the team) and knowledge of the needs of the private sector. For example, the Community Economic Development Officer (EDO) will have understanding and knowledge of their community's long term economic development resources, goals and plans, zoning laws, permitting processes and any laws or ordinances around the financing of various economic development plans.

REFERENCES

Alesch, D. J., and Holly, J.N. (2004), Surviving extreme events: A guide to help small businesses and not-for-profit organizations prepare for and recover from extreme events. Washington, D.C.: Public Entity Risk Institute.

Alesch, D. J., Holly, J.N. Mittler, E. and Nagy, R. (2001), When small businesses and not-for-profit organizations collide with natural disasters. Paper presented at the First Annual IIASA-DPRI Meeting on Integrated Disaster Risk Management: Reducing Socio-Economic Vulnerability.

Chang, S. E., and Falit-Baiamonte, A. (2002), Disaster vulnerability of businesses in the 2001 Nisqually Earthquake. Environmental Hazards, 4 (2-3): 59-71.

Dalhamer, J. M., and Tierney, K.J. (1998), Rebounding from disruptive events: Business recovery following the Northridge earthquake. Sociological Spectrum 18: 121-141.

DBEDT Research & Economic Analysis. (2012). 2012 State of Hawaii Databook http://dbedt.hawaii.gov/economic/databook/db2012/

Office of Planning Department of Business, Economic Development & Tourism State of Hawaii (DBEDT) (2014), Natural Disaster Economic Recovery Strategy. Retrieved from: http://files.hawaii.gov/dbedt/op/spb/2014_nders_final.pdf

FEMA, (2010), "Businesses With Preparedness Plans More Likely To Survive Disasters," September 2010

Flynn, D. T. (2007), The impact of disasters on small business disaster planning: A case study. Disasters 31 (4): 508- 515.

Freitag, R. (2002), The business of earthquakes—What we learned from the Nisqually Earthquake. Paper presented at the CREW Conference.

Furlong, S. R., and Scheberle, D. (1998), Earthquake recovery—Gaps between norms of disaster agencies and expectations of small businesses. *American Review of Public Administration* 28 (4): 367-389.

Graham, L. T. (2007), Permanently failing organizations? Small business recovery after. *Economic Development Quarterly* 21 (4): 299-314.

Insurance Institute of Business and Home Safety. (2012), https://www.disastersafety.org/commercial_maintenance/commercial-vulnerability-assessment_ibhs/ Accessed Aug 20, 2015.

Kroll, C. A., Landis, J.D., Shen, Q. and Stryker, S. (1991), Economic impacts of the loma prieta earthquake: A focus on small business. Berkeley, CA: The University of California Transportation Center.

Miles, S. B., and Chang, S.E. (2006), Modeling community recovery from earthquakes. Earthquake Spectra 22 (2): 439- 458. Northwest River Forecast Center. 2007. December 2007 flood in northwest Oregon and western Washington. http://www.nwrfc.noaa.gov/floods/dec_2007/dec2007flood_part1.htm.

Pierzga, K., and Harris.A.M. (1999), Flood policy on the Chehalis River in Lewis County, Washington: Who makes the decisions? Olympia, WA: The Evergreen State College.

Runyan, R. C. (2006), Small business in the face of crisis: Identifying barriers to recovery from a natural disaster. *Journal of Contingencies and Crisis Management* 14: 12-26.

Szmanski, J. (2007), Businesses weigh whether to rebuild of leave Centralia. The Olympian, December 12.

Tierney, K. J. (1997), Business impacts of the Northridge earthquake. *Journal of Contingencies and Crisis Management* 5 (2): 87-97.

Vale, L. J., and T.J. Campanella, eds. 2004. The resilient city: How modern cities recover from disasters. Oxford: Oxford University Press.

Washington State Department of Community, Trade and Economic Development, Washington State Employment Security, Washington State Department of Labor and Industries and, Washington State Department of Revenue. 2007. Small business survival: A joint report to the governor. http://dor.wa.gov/docs/reports/BusinessSurvivalReportOct2007.pdf.

Yoshida, K., and R.E. Deyle, R. E. 2005. Determinants of small business hazard mitigation. Natural Hazards Review 6 (1): 1-12.

THE ART AND SCIENCE OF PUBLISHING PEER-REVIEWED RESEARCH

Terrance Jalbert, The University of Hawaii-Hilo

ABSTRACT

GETTING AN IDEA
1. Maintain a running list of your ideas.
2. Every time you have a few minutes, go to your list and ask yourself, in the next 30 minutes how can I advance one of these ideas.

RESEARCH PARTNERS
Selecting a Partner

1. There are advantages to working on your own.
2. Select someone with the right characteristics
   a. Hard Worker
   b. Willing to do their share of the work
   c. Someone with time to conduct research
   d. Intelligent
   e. Mutual Interests
   f. Cooperative
   g. Likely to reciprocate
3. Good research partners are hard to find. Don't abuse a good research partner.

Working with a Partner
1. Start only one paper at a time with a new research partner.
2. Be patient with your research partner. They have a life and due to births, illnesses and other life events, they may not be on your schedule.
3. Recognize on some projects you will do most of the work. On others, your partner may do most of the work.
4. Use caution when selecting one of the professors from your Ph.D. program as a research partner.

How Many Authors on a Paper?
1. Two or three authors are good.
2. Four authors is not good but can be ok.
3. More than four authors looks bad.

WRITING YOUR MANUSCRIPT
Writing your Manuscript

1. Use only Microsoft Word to type your document.
2. Using free Word clones causes significant problems in the publication process.
3. Files created in another program and copied or saved as a Microsoft Word file cause significant problems in the publication process.
4. Unless the journal specifically requests otherwise, use the standard Microsoft Word equation editor.
5. Use only Microsoft spreadsheets and Microsoft
6. drawing programs.
7. Back up your files on a daily basis.

Organizing your paper
1. Organization
2. Abstract
3. Introduction
4. Literature Review
5. Data and Methodology
6. Results
7. Concluding Comments

Title
1. Descriptive and no more than 15 words.
2. Write a strong title

   a. Strong Words:
      i. Empirical, Evidence
   b. Weak Words:
      i. Analysis, Case
      ii. Use Key Words from your Discipline

3. Think about what will look good on your vita.

Abstract
1. General Introduction to your paper
2. The goal is to precisely communicate to the reader what the paper is about.
3. Not more than 200 words
4. Do not use acronyms
5. Generally do not cite other papers in the abstract

Introduction
1. A brief introduction to the problem being addressed.
2. Include some summary statistics of the magnitude of the problem.
3. One paragraph discussion of the general state of the literature.
4. What you are going to do in the paper to advance the literature.
5. A few lines indicating how the remainder of the document is organized.

Literature Review
1. As a general rule do not cite magazines.
2. Use scholar.google.com
3. Narrow your literature review down to those articles that directly relate to the issue you are addressing in your paper.
4. Make sure that everything that you cite in the text is included in your reference section.
5. Make sure that everything you reference is cited in the body of the text.

Data and Methodology
1. Where the data was obtained from?
2. Time period covered in the analysis?
3. Frequency of the data observations?
4. Variables that the data were collected for?
5. Summary statistics.
6. Hypotheses that are being tested.
7. For regressions, specify the equation being estimated in the text of the document.
8. For Surveys indicate
   a. Questions included in your survey? (Consider including the survey instrument as an appendix to the paper)
   b. When was the survey conducted?

    c.   Where was the survey conducted?
    d.   What was the response rate?
    e.   What are the total number of usable observations?
    f.   Did you receive human subject research permission from your University?

Results

1. Make sure to introduce each table and figure you present in the text of your document.
2. Walk the reader through the results.
3. Select an observation in your table and explain that observation to the reader.
4. Incorporate data into MS Word tables.
5. Segregate your data when possible to get additional results,
    a.   by gender, age, country, region, year, industry, before and after a crises.

Tables

1. Don't create small one or two line tables.
2. Include information directly in the document text.
3. Combine several small tables into a single table with multiple panels.
4. Do not use exponential notation (3.2E-5).
5. Display appropriate precision
    a.   0.0021, 1.134, 10.22, 100.6, 1,049.1, 10,432

Table Description

1. Make sure to include a 3-6 line description below your tables. The reader should be able to understand what is contained in the table without referring back to the text of the document.
2. This description is not to replace the discussion in the text, but to supplement the discussion in the text.
3. Redundancy is ok in this case.
4. Example of Table Description
    This table shows the results of the regressions on CEO compensation using data from 2004. The estimated equation is: CEO Compensation=a + b1(CEO age) + b2(years with company). The first figure in each cell is the regression coefficient. The second figure in each cell is the t-statistic. ***, ** and * indicate significance at the 1, 5, and 10 percent levels respectively.

Concluding Comments

1. Reiterate the goal of your paper.
2. Briefly describe the test methodology and data.
3. Briefly summarize your major findings.
4. Discus how managers might benefit from the results.
5. Discuss any limitations of your work.
6. Provide suggestions for future research.

Acknowledgements

1. Do acknowledge anyone that has helped you with the paper.
    Colleagues, Administrators, Funding Agencies, Assistants, Reviewers, Editors.
    It is a nice courtesy to the reviewers and editor.
2. It subtly communicates to colleagues the journal is peer reviewed.
3. Few people will be insulted if you acknowledge them but should not have.
4. Many will be insulted if you do not acknowledge them but should have.
5. Acknowledgments-Make sure to indicate that any remaining errors are the authors responsibility.
6. If someone has contributed substantially to your paper consider making them a co-author on the paper rather than just acknowledging them.

Biography

1. Your biography should indicate your employer, your publication history, contact information and any other important information.

> Tom Tetertall, Ph.D. is Professor of Management at the University of East Hawaii. He is also an arbitrator for the Human Ethics Commission. His research appears in journals that include: Diversity Review, Management Styles, and Latino Business Review. He can be contacted at: University of East Hawaii, COB, 400 W. 2nd St., Kauai Hawaii, 96333, USA, email: tomt@NHI.edu.

2. Do not make your biography excessively detailed.

FORMATTING

1. Editors are looking for papers that are high quality. But they also look for papers that will not add an excessive burden to their work load.
2. They look for authors that will be pleasant to work with on revisions and in the publication process.
3. A properly formatted and written paper communicates to the editor that you will be pleasant to work with, thereby increasing your chance of publication.
4. Check the journal style guidelines to make sure you have the paper formatted properly.
5. Be sure figures and tables are editable in Word
6. Anything created or imported as an image is problematic.
7. Anything that is scanned needs to be recreated.
8. Make sure that figures and tables are legible.
9. If you are unable to edit it in MS Word it should be recreated.
10. When copying from Excel into word make sure to use the "Paste Special", "Paste as Chart" Command so it can be edited in MS Word.
11. Avoid one-sentence paragraphs.
12. Avoid one-paragraph sections.
13. If you have subsections underneath a main section, start the main section by indicating how the subsections are laid out.
14. Bullet lists do not appear well in journals.
    a. Longer lists should be placed in a table. Then reference the table in the text of the document.
    b. Shorter lists should be incorporated directly into the text.
15. Make sure your references are formatted according to journal guidelines.
16. Do not use text boxes
17. Do not use section breaks.
18. Do not use text levels

WRITING QUALITY

1. Use the grammar checker in MS Word.
2. Use an advanced writing editor:
   a. Stylewriter **
   b. Whitesmoke.
3. Write in third person active voice when possible.
4. Give it to a friend to read.

WORKING WITH THE EDITOR

Submissions

1. Leave your document set for 1-2 weeks between completion and submission. Give the document

a final read before submission.
2. Indicate in your submission correspondence that the paper is not under review elsewhere and has not been published elsewhere.
3. Never EVER submit a document to two journals simultaneously.

Correspondence

1. Don't ask the editor every week for a status update. (every 2-3 months is sufficient)
2. If you are close to a tenure or promotion decision, do let the editor know. Editors are human and will commonly try to get the review completed prior to the promotion decision date.
3. Use submission numbers in all correspondences.
4. Be courteous when corresponding with the editor.
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SPANISH PROCEEDINGS

LA CAPACITACIÓN EN LAS EMPRESAS AGRÍCOLAS EN EL VALLE DE SAN QUINTÍN, BAJA CALIFORNIA

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RESUMEN

Las empresas agrícolas del Valle de San Quintín son de gran importancia, debido a que son las que generan el mayor número de empleos en la zona agrícola, cabe mencionar que este gran número de empleos contribuye a la economía del Valle así como a su municipio correspondiente, es importante analizar la importancia que tiene la capacitación en las empresas agrícolas y como esto beneficia al desarrollo y crecimiento de las empresas, por esta razón se decidió hacer una investigación abordando el tema, unos de los principales resultados obtenidos son que al capacitar a los trabajadores se cumplen tanto las expectativas esperadas para el desempeño de la empresa compara sus trabajadores, hoy en día estas empresas se preocupan por motivar a sus trabajadores con la finalidad que mejoren su desempeño dentro de sus áreas de trabajo. Lo que contribuye a que las empresas adopten tecnología de punta, utilicen semillas mejoradas, aplicación y uso de sistemas de riego computarizados, así como la optimización del uso del agua en cada uno de los cultivos de la región.

PALABRAS CLAVE: Capacitación, Eficiencia, Valle De San Quintín, Empresas Agrícolas y Jornaleros Agrícolas

JEL: D21, M1, M12 AND N5

ABSTRACT

Agricultural enterprises of the Valle de San Quintín are of great importance, because they are the ones that generate the most jobs in the agricultural area, it is noteworthy that this large number of jobs contributes to the economy of the Valle as well as their corresponding municipality it is important to analyze the importance of training in agricultural enterprises and how this benefits the development and growth of companies, which is why we decided to do some research addressing the issue, one of the main findings are that the train Workers are met both expectations for the expected performance of the company compares its workers, today these companies are concerned about motivating their workers in order to improve their performance in their work areas. Which helps companies to adopt technology, use improved seeds, application and use of computerized irrigation systems and the optimization of water use in each of the crops in the region.

KEYWORDS**:** Training, Efficiency, Valle de San Quintin, Farms and Farm Laborers

JEL**:** D21, M1, M12 AND N5

INTRODUCCIÓN

Baja California, es un estado de gran importancia en la agricultura comercial, cuenta con tres zonas agrícolas: El Valle de Mexicali, la de la Costa del Pacífico que la integran el Valle de San Quintín, San Vicente y Maneadero, y la Zona Central que comprende al Valle de la Trinidad, Ojos Negros y Valle de Guadalupe (Moreno, 1999). La región del Valle de San Quintín se ubica a 185 km., al sur de la ciudad de Ensenada perteneciente al mismo municipio del mismo nombre, estado de baja california, siendo su

extensión territorial de 36, 941 km2, La superficie agrícola que comprende la región del Valle de San Quintín es de 43,062 hectáreas, de las cuales 27,000 son de temporal y 16,062 son de riego (SAGARPA, 2009). Es importante resaltar que en el Valle de San Quintín las empresas agrícolas son de gran importancia, debido a que son las que generan el mayor número de empleos, ya que al ser una zona rural la agricultura es la actividad que predomina en el Valle de San Quintín, así mismo es una de las principales fuentes de ingresos para las familias que residen o que viven de manera temporal y que migran de la zona sureste del país. La agricultura y sus productos agrícolas son exportados al vecino país, mientras que un porcentaje menor es distribuido en los mercados nacionales. Es importante considerar los estudios sobre la capacitación de los jornaleros agrícolas en el Valle de San Quintín, principalmente porque es la actividad que predomina en esta región, así mismo por la gran importancia que tiene el Valle de San quintín con sus productos agrícolas y el nivel de competitividad que mantiene con respecto a zonas agrícolas de otras regiones del país.

De acuerdo con los datos recabados en el 2004 por el IMCO, México enfrenta un grave problem relacionado con la capacitación de sus trabajadores, este no es el principal problema, la percepción de los empresarios es que cada vez se tiene menos interés por capacitar a sus trabajadores mexicanos, por ello es importante analizar la situación que se tiene en el Valle de San Quintín. Existe una gran rigidez en los sistemas de capacitación, la forma de operación de la actual la oferta de capacitación prácticamente obligaría a cambiar programas enteros para poder incorporar nuevos conocimientos. Al existir un vínculo débil entre la capacitación y el trabajo con el desarrollo profesional y personal, deben crearse áreas de oportunidad para la capacitación técnica, aun cuando se considere de calidad inferior a la académica (Ibarra, 1996).

REVISIÓN LITERARIA

La capacitación está orientada a la transmisión de conocimientos que requiere un trabajador para tener un desempeño eficiente, por tal razón se debe de considerar como un proceso integral de todas las actividades de la organización y está constituida con un sistema de diagnóstico, intervención y evaluación (Siliceo, 1993). La capacitación compone uno de los campos más dinámicos de lo que en términos generales se le ha llamado educación no formal. Además la capacitación está orientada a satisfacer las necesidades que las organizaciones tienen de incorporar conocimientos, habilidades y actitudes en sus miembros, como parte de su proceso de cambio, crecimiento y adaptación a nuevas circunstancias internas y externas (Blake, 1997). La capacitación se ha ido transformando cada día más y esto beneficia tanto a los trabajadores y empresarios, por ellos es importante resaltar las aportaciones de Sweetland (1996), en la teoría del capital humano, en el cual se sugiere que los individuos y la sociedad derivan beneficios económicos de la inversión en las personas. Como toda formación de capital humano, la capacitación en la empresa es el resultado de decisiones costo-beneficio tomadas por el trabajador y el empleador. Los retornos esperados de la capacitación dependen de los costos, el horizonte de inversión, los incrementos esperados en la productividad y el incremento en salarios (Blunch y Castro, 2005).

METODOLOGÍA

Actualmente en la región se cuentan con 97 productores de los cuales, 82 son empresas privadas y 15 son sociales, las cuales cuentan con un potencial productivo y económico, la población empleada en esta región es de 25, 000 trabajadores. La muestra seleccionada para realizar esta investigación está compuesta por 30 empresas agrícolas ubicadas en el Valle, así mismo el tipo de muestreo es no probabilísticos, ya que la muestra se seleccionó a criterio del investigador y en función al problema a investigar. Así mismo se considera una investigación descriptiva, es decir, únicamente pretenden medir o recoger información de manera independiente o conjunta sobre los conceptos o las variables a las que se refieren. Para efectos de la recolección de datos se utilizó un instrumento tipo cuestionario, contenido de 39 preguntas y 7 dimensiones respectivamente, con alternativas de respuestas con una escala de Likert.

RESULTADOS

Figura Número 1: ¿Qué Tanto Se Cumple las Expectativas del Fin de la Capacitación?

¿Qué tanto se cumple las expectativas del fin de la capacitación?

Figura número 1: Fuente: Elaboración propia de acuerdo a los datos obtenidos. Como se observa en la figura los datos obtenidos el 63.3% de los encuestados opino que las expectativas que se persiguen al capacitar a los trabajadores se están cumpliendo, lo que permite seguir detectando las necesidades de capacitación, así como el desarrollo de los nuevos planes y programas dirigidos a los trabajadores, así mismo el 30% de los encuestados respondió que las expectativas alanzadas son demasiadas, de acuerdo a la opinión que ellos ofrecieron fue que esto les permite mejorar las habilidades y capacidades de sus trabajadores, los beneficios que se persiguen al capacitar es tener mayor participación en el mercado y mejorar el nivel de competitividad que se tiene, estos resultados permiten que la empresa pueda competir e incursionar con sus productos en mercados nacionales y extranjeros.

Figura Número 2: ¿Con Qué Frecuencia se Analiza el Desempeño de los Jornaleros Después de la Capacitación

¿Con qué frecuencia se analiza el desempeño de los jornaleros después de la capacitación?

Figura número 2. Fuente: Elaboración propia de acuerdo a los datos obtenidos. Como ya se mencionó anteriormente en el marco teórico el análisis del desempeño de los trabajadores es de vital importancia, ya que gracias a esta actividad se puede determinar el nivel de avance y de crecimiento que tienen los trabajadores al asistir a la capacitación, Cabe mencionar que los encuestados opinan que analizar el desempeño es positivo para las empresas agrícolas puesto que les permite realizar la retroalimentación y poder aprovechar al máximo los programas de capacitación con que cuentan. De acuerdo a los datos recabados cabe mencionar que el 53.3% opino que ellos muy frecuentemente evalúan el desempeño de sus trabajadores, mientras que el 30% de los encuestado lo analiza el desempeño de manera muy frecuentemente.

Figura Número 3: ¿Con Qué Frecuencia Se Ofrece la Capacitación Dentro de las Áreas de Trabajo?

¿Con qué frecuencia se ofrece la capacitación dentro de las áreas de trabajo?

Figura número 3. Fuente: Elaboración propia de acuerdo a los datos obtenidos. Como se puede apreciar en la gráfica, el 60% de los encuestados respondió que la frecuencia con que ofrece la capacitación dentro de las áreas de trabajo es mucha, y esto se debe principalmente a que la capacitación consiste en transmitir información tanto teórica como práctica para la realización de sus actividades, incluso para los trabajadores es más conveniente que la capacitación sea en sus áreas de trabajo ya que de esta manera se pueden visualizar las actividades futuras que se deberán realizar, es más el 23.3% dice que es regular la frecuencia de capacitar a los trabajadores dentro de sus áreas de trabajo, ellos opinan que en ocasiones es mejor tener a las personas en áreas más cómodas con la finalidad que los trabajadores se centren más en los temas que se imparten, el 13.4% respondió que para ellos es demasiado frecuente capacitarlos en sus áreas de trabajo y el 3.3% dice que es poco frecuente capacitarlos en sus áreas de trabajo.

Figura Número 4: ¿Qué Tanto se Motiva a los Empleados Con Incentivos Monetarios Para Que Proporcionen Mayor Rendimiento En Sus Labores?

¿Qué tanto se motiva a los empleados con incentivos monetarios para que proporcionen mayor rendimiento en sus labores?

Figura número 4. Fuente: Elaboración propia de acuerdo a los datos obtenidos. Como se aprecia en la siguiente grafica el 43.3% de las empresas agrícolas encuestadas opinó que se le motiva mucho con incentivos monetarios a los trabajadores para que estos proporcionen mayor rendimiento, el 30% de respondió que es demasiado lo que se les motiva a los trabajadores y con un porcentaje bajo del 26.7% opinan que la motivación monetaria se realiza de manera regular pero sin dejar de tomar en cuenta la importancia que esta tiene para los trabajadores.

Tabla número 1: Fuente: Elaboración propia de acuerdo a los datos obtenidos. Como se puede apreciar en la tabla la capacitación le ayuda a las empresas agrícolas productoras de pepinos a tener mayor participación en el mercado; esto es, de acuerdo a que el 60% de los participantes afirman que les ayuda demasiado, mientras que el 85.7% de los agricultores tomateros afirma que al capacitar a los trabajadores su participación dentro del mercado es demasiado, y finalmente el 45.5% de los encuestados productores de fresas afirma que les ayuda mucho a participar en el mercado.

Tabla Número 1: Tabla de Contingencia de Productos Que Se Cultivan ¿Qué Tanto le Ayuda la Capacitación Para Competir Dentro del Mercado?

	¿Qué Tanto le Ayuda la Capación Para Competir Dentro del Mercado?		
Productos que cultivan	Mucho	Demasiado	Total
Otros	50%	50%	100%
Calabaza	40%	60%	100%
fresas	45.5%	54.5%	100%
tomate	14.3%	85.7%	100%
Pepinos	40%	60%	100%

CONCLUSIÓN

De acuerdo a la investigación realizada es importante resaltar que la capacitación juega un papel importante dentro de las empresas agrícolas del Valle de San Quintín, ya que los productores hoy en día tienen una nueva perspectiva de la capacitación , lo cual hoy en día lo ven como una inversión y no como un gasto. Esto se ve reflejado al ver los resultados esperados antes de ofrecer la capacitación y comprobar que sus expectativas se están cumpliendo, así mismo hoy en día estos productores motivan a sus trabajadores a capacitarse, cabe mencionar que las sesiones de capacitación se ofrecen dentro de las áreas de trabajo, esto contribuye a que los trabajadores refuercen cada uno de los temas que se les imparten y de los cuales están relacionados con sus áreas de trabajo.

BIBLIOGRAFÍA

Blake, O. (1997). *La capacitación Un Recurso dinamizador de las organizaciones*. Ediciones Macchi. Argentina. 2da Edición.

Blunch, N. H. y P. Castro (2005), Multinational enterprises and training revisited: do international standards matter?, Social Protection Discussion Paper Series, Banco Mundial, Washington, D.

Silíceo A. (1993). *Capacitación y Desarrollo de Personal. México* D.F.: Limusa   Noriega Editores.

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DESARROLLO SUSTENTABLE Y COMPETITIVIDAD EN EL VALLE DE SAN QUINTIN, BAJA CALIFORNIA, MEXICO

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RESUMEN

En este trabajo de investigación se abordan los temas de desarrollo sustentable y su influencia en la competitividad de las empresas agrícolas de la región del valle de San Quintín, Baja California, México, principalmente por la crisis de agua que se ha manifestado en los últimos años, y la producción agrícola que no ha favorecido el desarrollo sustentable de la región, pues se han enfocado en incrementar la productividad apegándose a las tendencias de globalización. México al ser el principal exportador de tomate en el mundo y el valle de San Quintín como principal productor del Estado, necesita fomentar estrategias que propicien la implementación de alternativas de desarrollo sustentable, buscando la optimización en el aprovechamiento de recursos limitados de la región.

PALABRAS CLAVES: Desarrollo Sustentable, Competitividad, Agricultura.

SUSTAINABLE DEVELOPMENT AND COMPETITIVENESS IN THE VALLEY OF SAN QUINTIN, BAJA CALIFORNIA, MEXICO

ABSTRACT

In this research the issues of sustainable development and its influence on the competitiveness of agricultural enterprises in the region of the valley of San Quintin, Baja California, México, mainly because the water crisis that has emerged in recent years are addressed, and agricultural production has not favored the sustainable development of the region, as they have focused on increasing productivity adhere to trends in globalization. Mexico to be the main exporter of tomato in the world and the Valley of San Quentin as the main producer of the state, needs to promote strategies that encourage the implementation of sustainable development alternatives, seeking to optimize the use of limited resources of the region.

JEL: M20, R58, Q13, Q27

KEY WORDS: Sustainable Development, Competitiveness, Agriculture

INTRODUCCIÓN

En la región del valle de San Quintín se desarrollan las actividades agrícolas como principales motores económicos de la zona, destacan la producción de tomate y fresa contribuyendo como segundo productor nacional y en aproximadamente el 90% para el mercado de exportación, la competitividad de estas empresas es un tema prioritario ya que necesitan incrementar el nivel competitivo y buscar el desarrollo sustentable de la región.

REVISIÓN LITERARIA

El valle de San Quintín como zona agrícola se encuentra ubicado al sur del municipio de Ensenada, Baja California, se destaca su producción agrícola en hortalizas y es el segundo productor a nivel nacional en productos como tomate y fresa, destinando alrededor del 90% a su exportación. La competitividad definida como la capacidad de alcanzar el éxito en mercados internacionales (Sánchez y Avilés, 2012) es para las empresas agrícolas un asunto prioritario, puesto que enfrentan grandes retos al tratar de sobresalir en un sector que atraviesa por dificultades debido a los problemas de disponibilidad de agua, problemas laborales y presiones internacionales en materia de inocuidad. Lo que ha obligado a los agricultores a buscar incrementar la productividad para satisfacer las demandas de productos de exportación.

Para el mejor uso económico y social del agua se requieren de métodos para evaluar su productividad, a fin de tomar mejores decisiones en cuanto a políticas y estrategias de utilización de manera sostenible (González, et. al., 2014). El desarrollo sustentable ha generado aparentemente una visión innovadora a la humanidad en este nuevo siglo; toda vez que es un concepto que propone la protección de la naturaleza, además de la equidad social presente y futura. El desarrollo sustentable no pone a debate ni discute sobre sistemas políticos ni económicos sino que, a partir del medio ambiente, postula un cambio social pacífico y gradual, que de manera organizada y planificada modifique nuestra relación con la naturaleza, con nosotros mismos y con la sociedad. De esta manera, el desarrollo sustentable ha creado una gran adhesión a su favor porque en su discurso ofrece puntos centrales de consenso imposibles de rechazar; sin embargo, esto se debe a una razón muy simple: hace falta análisis por lo que no se observa que la definición quede muy amplia para ser puesta en práctica. El concepto se acepta como propuesta social pero no puede aplicarse fácilmente a procesos de trabajo específicos; no obstante, es su amplitud lo que permite que existan múltiples interpretaciones en torno a la sustentabilidad (Ramírez, Sánchez y García, 2003).

METODOLOGIA

A continuación se presenta un estudio de carácter descriptivo sobre la productividad como factor de competitividad en la producción de tomate en el valle de San Quintín, Baja California, con el propósito de identificar su relación con el uso eficiente de agua que favorezca un desarrollo sustentable.

RESULTADOS

La producción agrícola delo valle de San Quintín se encuentra en el segundo lugar a nivel nacional en productos como el tomate. Con información obtenida de la Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA) y de la Subsecretaría de Alimentación y Competitividad durante 2012, y con datos publicados en el Atlas Agroalimentario 2013, se elaboró la siguiente tabla 1 por tipo de cultivo.

Tabla 1: Producción de Tomate Rojo en Ensenada, B.C

Indicadores	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL	TOTAL
Superficie sembrada (hectáreas)	5,608.20	6,187.05	5,672.00	4,728.00	3,331.80	3,712.70	3,210.75	3,534.80	2,750.66	2,932.80	2,759.50
Superficie cosechada (hectáreas)	5,608.20	6,179.05	5,631.00	4,645.00	3,278.80	3,625.20	3,206.75	3,524.80	2,684.66	2,913.80	2,758.50
Produccion obtenida (toneladas)	250,446.62	293,325.56	261,033.52	209,351.74	194,653.03	205,297.11	179,008.19	220,754.18	161,941.92	188,969.72	195,463.90
Rendimiento obtenido (ton/ha)	44.74	46.50	44.66	44.47	58.68	54.79	56.20	64.41	64.98	73.07	73.23
Precio medio rural (pesos)	8,876.14	13,753.85	9,994.69	9,843.96	4,623.54	5,009.86	8,371.72	12,114.79	16,453.96	7,007.95	9,364.10
VALOR DE LA PRODUCCION (Miles de Pesos)	1,575,898.90	4,323,361.09	1,562,621.73	1,947,355.05	1,128,110.76	1,075,986.03	1,677,829.75	2,522,824.94	956,440.92	1,473,597.76	1,703,926.45

Fuente: Elaboración propia con datos de la SAGARPA-SIACAP 2013, SEFOA 2014.

México se ubica en el primer lugar de exportadores de Tomate Rojo a nivel mundial, con una producción de 2,838,370 tons., los estados que encabezan las exportaciones de tomate rojo son Sinaloa con 1,039,378 tons., seguido por Baja California con 189,636 tons., donde el Valle de San Quintín aporta el 99.4% de la producción de la entidad (SEFOA 2014). La productividad que se ha obtenido desde 2003 a 2013 presenta un incremento significativo ya que partiendo de un rendimiento por hectárea de 44.74 Tons/Ha ha llegado a 73.23 Tons/Ha lo que representa un aumento del 64% en productividad. Asimismo destaca la reducción de superficie sembrada y cosechada con datos que van desde las 5,608.2 Has hasta 2,758.5 Has alcanzando el 51% de reducción. El valor de la producción alcanzó un máximo en 2004 de $4,323,361.09 por una producción obtenida de 293,325.55 Toneladas.

CONCLUSIONES

Si bien es muy importante mejorar la productividad en agricultura debemos considerar las implicaciones que tiene en el medio ambiente buscando alcanzar un desarrollo sustentable de la región, que propicie el aprovechamiento de los recursos naturales cada vez más limitados como lo es el agua.

BIOGRAFIA

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ADVERGAMING, COMO HERRAMIENTA DE POSICIONAMIENTO DE LAS UPL DEL MUNICIPIO DE AYAPANGO, ESTADO DE MÉXICO

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RESUMEN

En los procesos de globalización donde los ambientes virtuales tecnológicos han tenido un rol importante y han servido como herramientas de posicionamiento y competencia de las organizaciones. Ahora existe una nueva herramienta que permite que las organizaciones posicionen sus productos en la mente del consumidor mediante los videojuegos, dicha herramienta es conocida como: "Advergaming", que en la práctica no es más que el crear videojuegos para publicitar una marca, producto, organización o idea. Esto produce una tendencia a la combinación de contenidos y a la búsqueda de medios alternativos para la difusión de anuncios. Los advergames son nuevas herramientas de la mercadotecnia y comunicación que sirven para promocionar un producto, una organización o una idea. Son videojuegos que permiten una exposición continua del usuario ante la marca publicitada, el cual puede sentir de manera inmersita y discreta los valores de dicha marca. Desde el 2003 la industria del Advergame ha venido creciendo en las promociones de películas cinematográficas se les sumaron las de series televisivas y en 2005 comienzan a revivirse también películas clásicas. Para el 2006 esta modalidad publicitaria alcanza su madurez. Estudios de marketing reconocen su eficacia y ello lleva a una mayor demanda. Por lo que el objetivo de la investigación es determinar como el Advergaming, es utilizado como herramienta de posicionamiento de las Unidades de Producción Rural de los productos agrícolas y ganaderos del sector primario de la Zona Oriente del Estado de México.

PALABRAS CLAVES: Advergaming, Unidades de Producción Rural, Sector Primario

ADVERGAMING, AS A TOOL FOR POSITIONING OF THE UPL IN THE MUNICIPALITY OF AYAPANGO, MEXICO STATE

ABSTRACT

In the process of globalization where technology virtual environments have played an important role and have served as positioning tools and competence of organizations. Now there is a new tool that allows organizations positioned their products in the consumer's mind through video games, this tool is known as "Advergaming" which in practice is just to create video games to advertise a brand, product, organization or idea. This produces a tendency for the combination of content and the search for alternative means of dissemination of advertisements. Advergames are new tools of marketing and communication that serve to promote a product, organization or idea. They are games that allow continuous exposure of the user to the advertised brand, which can feel immersive and discreetly values that mark. Since 2003 the industry has been growing Advergame promotions films were joined by the television series and in 2005 also begin to revive classic films. For 2006 this type of advertising reaches maturity. Marketing studies recognize its effectiveness and this leads to increased demand. So the aim of the research is to determine how the Advergaming, is used as a tool positioning Rural Production Units of agricultural products and livestock from the primary sector of the East Zone of the State of Mexico.

KEYWORDS: Advergaming, Rural Production Units, Primary Sector

INTRODUCCIÓN

El sector publicitario está experimentando grandes transformaciones derivadas de los cambios sociales del consumidor, de la emergencia de nuevos valores y necesidades y muy específicamente, del desarrollo de las nuevas tecnologías de la información y la comunicación (TIC´s) que dotan de una dimensión digital a los soportes y canales comunicativos. En este contexto, el advergaming ha ampliado las posibilidades interactivas de los medios publicitarios, sumándose a la tendencia de crear conexiones con los consumidores para entretener antes que vender en la línea que marca el branded content (publicidad menos intrusiva, personaliza y que aporta valor a través de la generación de contenidos. Esos contenidos, más allá de intentar vender 24 horas al día y 7 días a la semana, lo que pretenden es conectar a la marca con el consumidor y hacerlo un "amigo" más que un cliente.). Por ese motivo se considera al advergaming una herramienta eficaz para lograr posicionar a las UPL del municipio de Ayapango, en el mercado. Desafortunadamente el gobierno local no apoya a estos micros y pequeñas empresas, así que se pretende que con ayuda del advergaming, se logre posicionar en el mercado y en la mente de los consumidores todos los productos lácteos del municipio de Ayapango, Estado de México.

REVISIÓN LITERARIA

Es difícil determinar el momento concreto en el que las marcas comenzaron a introducirse en los videojuegos. Sin embargo los datos recogidos por el internet Pinball Machine Database (2004-2011) determinan que, en 1964, la casa americana Chicago Coin, lanzó al mercado Mustang Machine, un juego recreativo que incluía imágenes del coche deportivo. Se desconoce la implicación de Ford en la acción, pero resulta curioso que un mes después del estreno del juego, la marca automovilística lanzara un nuevo modelo idéntico al vehículo que aparecía en el juego. La aparición del advergaming en formato digital tuvo lugar a finales de los años setenta, con la aparición de juegos rudimentarios cuya distribución estaba limitada un número escaso de copias en formato disquete, distribuidos como promociones (Clemente y Abuín, 2009: 1). A principios del siglo XX, el desarrollo del internet, la banda ancha y tecnologías como Macromedia Flash y Shockwave, desencadenaron la proliferación de advergames online y motivaron el proceso de consolidación del advergaming como herramienta de comunicación publicitaria (Selva Ruíz, 2009: 149). Desde entonces se han desarrollado varias definiciones de advergaming, entre las que destacan. "El advergaming es una nueva técnica de comunicación orientada a promocionar un producto o idea de un ambiente lúdico, bajo el formato de un videojuego interactivo o advergame" (González Díaz, 2009: 2). "El advergaming es aquella herramienta de marketing y comunicación que sirve para promocionar marcas, organizaciones o ideas, a través de videojuegos interactivos que permiten una exposición continuada del usuario ante aquello que se publicita" (Clemente y Abuín, 2009: 1).

El termino advergame fue acuñado por Anthony Giallourakis en enero de 2000 y desarrollado en la columna Jargon Watch de la revista Wired Magazine´s 2001 (Ayalon, 2007: 2). A partir de ese momento, el uso del advergame se generaliza para promocionar productos de diversas marcas por internet (Clemente y Abuín, 2009: 1). Las acciones más destacadas de advergame se han llevado a cabo en el contexto online, en gran medida, a consecuencia de la mejor distribución de tales formatos por la popularización de las conexiones de banda ancha. Sin embargo se han desarrollado exitosas acciones de advergame offline, como el "King Games Serie", Comercializado por Burger King o "Dr. House Game", distribuido por NBC Universal junto A Legacy Interactive (Martí Parreño, 2010: 79). Se dice que los advergames conllevan un proceso de producción con un mayor protagonismo de la marca, un mayor control sobre el contexto de inserción de la misma y una mayor conexión entre experiencia del juego y mensaje publicitario (Selva Ruíz, 2009: 148). Por lo tanto podemos concluir que el advergame es un videojuego producido específicamente para una marca que es la protagonista principal de la marca, y cuyo fin principal es crear un vínculo emocional y participativo más profundo con el consumidor para lograr fidelizarse.

Los advergames son muy populares en la actualidad y se pueden encontrar muchas campañas publicitarias de varias empresas con productos diversos que presentan a su público la opción de participar en estos juegos online en sus páginas web, en sus perfiles oficiales en redes sociales o descargando aplicaciones creadas para mobile apps, algunas veces incentivando esta participación con la posible obtención de premios, a fin de afianzar lazos y atraer a nuevos clientes, convirtiéndola en una práctica publicitaria que va en aumento. Ahora no sólo son las empresas las que empiezan a preferir el uso del advergaming. Los usuarios de Internet también han expresado un fuerte aumento en la demanda de estos juegos, ya que no se trata del producto o la publicidad en sí, sino de la posibilidad de divertirse de forma individual o compartiendo momentos de ocio con sus amistades en la red. Por esto no es extraño ver muchos casos donde empresas de consolas como Wii o PlayStation se unen a distintas marcas reconocidas como Coca Cola, Nike, Red Bull, entre otras para crear desde grandes juegos para consolas hasta mini juegos gratuitos para plataformas iOs o Android que los usuarios pueden descargar desde sus dispositivos móviles y disfrutar de versiones más extensas por un pago mínimo. También es muy común que en videojuegos de sagas famosas y muy reconocidas se puedan encontrar los logos o 29 productos de las marcas que patrocinan la realización de estos juegos, que viene a ser lo mismo que la compra de espacios de publicidad.

La utilización de videojuegos y publicidad como técnica publicitaria se divide en dos ramas. La primera rama, llamada In-games, comprende juegos en los que se pueden encontrar marcas insertadas a modo de product placement. Además, los In-games pueden clasificarse como estáticos, fijos y sin variaciones, muy común en juegos de consolas; o pueden ser dinámicos, que son más complejos puesto que dependen de softwares que pueden determinar qué anuncios son de interés para cada jugador a partir del estudio de diversas variables como la localización geográfica, edad, hora de ingreso, páginas por las que llega al videojuego, entre otras. La segunda rama la denomina directamente advergaming, o la acción de crear videojuegos para las específicas necesidades de comunicación de una marca. En esta rama podemos encontrar los advergames y el Virtual World Advertising, o publicidad que se inserta en mundos virtuales o juegos conocidos como MMORPG (Multimedia Online Role Playing Game) donde grandes cantidades de usuarios experimentan otra realidad y participan de aventuras en mundos virtuales, presentándose ante otros jugadores con personajes diseñados de acuerdo a sus especificaciones, llamados avatars. La particularidad de estos juegos que presentan la posibilidad de participar de otro mundo virtual, como SecondLife, World of Warcraft, o Ragnarok Online, es que las empresas pueden participar activamente comprando publicidad o entrando en el mundo, mediante la compra de edificios, abrir locales virtuales, establecer lugares de reunión o realizar eventos con los clientes a través de ese mundo, crear y ofrecer objetos especiales de colección relacionados con la marca que los usuarios pueden adicionar a sus avatares, y otras diversas actividades Por su público objetivo también pueden clasificarse como infantiles y adultos.

El advergame infantil está claramente dirigido hacia los niños. Se caracterizan por tener un ritmo rápido de juego donde la atención del jugador está focalizada en la acción, no obstante son sencillos y carentes de estrategia. Este tipo de advergame, como Spongebob's Big Adventures de la caricatura Bob Esponja o el juego FrootLoops de la marca de cereales Kellogs, se pueden encontrar mayormente en las páginas de juegos para niños y canales infantiles como Nickelodeon, Disney Channel, Cartoon Network, entre otros. Los advergames adultos buscan generar adicción y la publicidad que presentan es posicionada adecuadamente para no molestar. Normalmente mediante product placement. Estos juegos se caracterizan por su componente viral, y son presentados online con la posibilidad de compartir la experiencia con amistades compartiendo logros y mediante colaboración para avanzar, como el juego de la popular serie de AMC, AMC's The Walking Dead Social Game, disponible para jugar a través de Facebook.

Por último, están los advergames según su finalidad. Unos son estrictamente comerciales, que es el fin más común y recurrente. Otros tienen como fin divulgar información sobre causas sociales y crear conciencia o para servicio público. Los autores ejemplifican este último tipo mencionando el advergame Weather de la ONG ecologista Green Peace, creado para concientizar a los jugadores de las consecuencias del cambio

climático (Méndiz Noruego, 2010). Ventajas del advergame, según la Asociación de Marketing Directo e Interactivo de Argentina (AMDIA, 2013)

A través de un advergame las compañías pueden acercarse a sus potenciales consumidores durante sus momentos de ocio, lo que 44 promueve un buen nivel de engagement o fidelización y recordación de la marca. Es ideal a la hora de segmentar el público objetivo de la campaña puesto que el juego puede configurarse en base a gustos y tendencias que respondan a las necesidades de un cierto segmento al cual se busque apuntar, aumentando aún más las posibilidades de fidelización y agregando más valor a la relación con los usuarios-clientes. El uso de advergames permite viralizar los contenidos gracias a las múltiples formas de compartir los juegos que ofrece la Internet y sus diversas plataformas.

A diferencia de otras herramientas de marketing, el advergame es característico por ser uno de los pocos medios de publicidad que son demandados y buscados por el cliente. A estas estrategias se las conoce como comunicación pull, del verbo jalar en inglés. Su contraparte serían las comunicaciones push, del verbo empujar, que reúnen a las publicidades intrusivas e impuestas por el anunciante. Entre las herramientas de marketing pull, el advergame tiene un efecto especial en su audiencia: las sensaciones que produzca al jugador son relacionadas de inmediato con la marca o el producto. Por ello es muy importante tener en cuenta qué es lo que se busca comunicar al cliente y cómo hacerle llegar esta impresión mediante el diseño y la jugabilidad del advergame (Selva Ruiz, 2009). Entonces, el advergame viene a ser un portador de los valores de la marca o producto que se buscan hacer llegar al usuario.

METODOLOGÍA

La investigación es de tipo cualitativa ya que ha sido llevada a cabo mediante la recolección de datos que permiten conocer el significado y características primordiales del advergaming como herramienta de publicidad para las UPL del municipio de Ayapango Estado de México. Es descriptiva ya que el objetivo principal es llegar a situaciones predominantes a través del advergaming como herramienta de publicidad puede ser considerada como una ventaja de competitividad particularmente en las UPL. La investigación es de tipo no experimental ya que se basa exclusivamente en la observación de hechos ya existentes, su diseño es transversal debido a que las observaciones y análisis del fenómeno se llevan a cabo en un momento determinado del tiempo. En el sector secundario el Municipio de Ayapango Estado de México está dedicado a la elaboración de productos lácteos entre quesos, cremas y una gran variedad de alimentos de leche de vaca.

RESULTADOS

Como resultado se encuentra que los factores claves del éxito de una organización son aquellos que, le permiten sobrevivir y prosperar en un mercado competitivo. Para lograr este objetivo, se deben cumplir dos condiciones: Proporcionar a los consumidores lo que necesitan y la otra es sobrevivir a la competencia. Para dar a los consumidores lo que quieren, las UPL deben conocer en primer lugar quienes son sus clientes, y considerarlos la base de su supervivencia. Una vez que saben cuáles son los clientes, deberá estudiar sus necesidades y sus comportamientos, es decir, las causas por las que deciden escoger una oferta en lugar de otra. A partir de ese momento, la empresa podrá trazar su estrategia para lograr la ventaja competitiva que le haga lograr el objetivo de la supervivencia. En el Municipio de Ayapango existen 81 UPL, de las cuales 19 tienen venta directa de sus productos y el resto son productores de leche y transformadores de la misma en productos lácteos

CONCLUSIONES

Todas las UPL trabajan con familiares con un promedio de tres (3) empelados contratados, el 50% de estas micro empresas no reciben apoyo gubernamental, y desconocen los tipos de programas de apoyo que otorga

el gobierno. Pues esta es una actividad familiar que se ha heredado por tradición, y no pertenecen a ninguna asociación. El financiamiento es 100% propio. En su totalidad las UPL, no utilizan la mercadotecnia como herramienta de posicionamiento de los productos, pero si usan la publicidad de boca en boca, así como de intermediarios que llegan de las regiones aledañas. Los consumidores son clientes de fin de semana, días festivos y de vacaciones, que se enteran por terceros que les envían el mensaje que son productos lácteos de calidad. Por lo que se concluye como resultado se debe buscar el financiamiento mediante los programas de apoyo gubernamentales para las UPL, con el cual podrán hacer uso para la implementación del "Advergaming como herramienta de posicionamiento". Pues debido a la escasa información sobre los recursos que se otorgan mediante los programas de apoyo gubernamental y al abuso de intermediarios no es posible que las UPL lleven a cabo una herramienta de publicidad.

BIBLIOGRAFIA

ayalon, n. "Social Media: Creating commercial buzz through web games", Social Media Marketing Symposium, Media Management Center, Northwestern University (2007). Disponible en: http://www.pdfio.com/k-1443169.html#

Clemente, j. & abuín, n. "La nueva publicidad en videojuegos y dispositivos móviles: Advergaming 2.0", Actas del I Congreso Internacional Brand Trends, Universidad CEU Cardenal Herrera, Valencia 2009.

González díaz, c. "Advergaming aplicado a las estrategias comunicativas dirigidas al target infantil", Actas del I Congreso Internacional Brand Trends, Universidad CEU Cardenal Herrera, Valencia 2009.

Martí parreño, J. Marketing y videojuegos: Product placement, in–game y advergaming, ESIC, Madrid, 2010.

Méndiz noruego, A. "Advergaming. Concepto, tipología, estrategia y evolución histórica", Icono 14, volumen 8, número 1 (2010), pp. 37-38. Disponible en: http://www.icono14.net/ojs/index.php/icono14/article/view/279/156

Selva ruíz, d. "El videojuego como herramienta de comunicación publicitaria: Una aproximación al concepto de advergaming", Revista Comunicación, volumen 1, numero 7 (2009) pp. 141-146. Disponible en:http://www.revistacomunicacion.org/pdf/n7/articulos/a10_El_videojuego_como_herramienta_de_com unicacion_publicitaria_una_aproximacion_al_concepto_de_advergaming.pdf

CRECIMIENTO ECONÓMICO Y DESEMPLEO EN EL ESTADO DE MORELOS: UNA RELACIÓN ESTRUCTURAL

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RESUMEN

En los últimos años la actividad económica del Estado de Morelos ha presentado problemas de crecimiento. Aunque actualmente contribuye con 1.2% al producto interno bruto (PIB) nacional y en promedio las tasas de crecimiento han sido positivas durante las últimas dos décadas, los empleos generados son insuficientes para satisfacer la demanda de trabajo. El saldo se refleja en elevados niveles de desempleo, subempleo y precarización del empleo remunerado, con un sector informal creciente. Este problema es particularmente especial debido a que es una importante entidad receptora de migrantes de otros estados. Con el fin de presentar evidencia que permita avanzar en los argumentos que expliquen el problema del crecimiento y desempleo en la entidad, se estima la tasa de sacrificio entre crecimiento del producto y desempleo para el Estado de Morelos en el periodo 2000-2014. Se considera exógena la tasa de desempleo a partir de la propuesta de los modelos de primeras diferencias y de tendencia y elasticidad de Okun (1962). Se concluye que para el caso del Estado de Morelos la tasa de sacrificio del costo de desempleo medido en producto se encuentra entre 2.47 y 4.38.

PALABRAS CLAVES: Crecimiento económico, Desempleo, Ley de Okun, Estado de Morelos

ECONOMIC GROWTH AND UNEMPLOYMENT IN THE STATE OF MORELOS: A STRUCTURAL RELATIONSHIP

ABSTRACT

In recent years, economic activity in the State of Morelos has presented problems of growth. Although currently contributes 1.2% to gross domestic product (GDP) and average growth rates have been positive over the last two decades, the jobs created are insufficient to meet the demand for labor. The balance is reflected in high levels of unemployment, underemployment and job insecurity paid, with a growing informal sector. This problem is particularly special because it is an important entity receiving migrants from other states. To present evidence to advance arguments to explain the problem of growth and unemployment in the state, the sacrifice ratio is estimated between output growth and unemployment for the state of Morelos in the period 2000-2014. It is considered exogenous unemployment rate from the proposed models and trend first differences and elasticity of Okun (1962). We conclude that in the case of the State of Morelos the sacrifice ratio of the cost of unemployment measured product is between 2.47 and 4.38.

JEL: E60, E62, F21, F23, F24

KEYWORDS: Economic Growth, Unemployment, Okun's Law, State of Morelos

INTRODUCCIÓN

En los últimos años la economía mundial ha presentado una notable desaceleración de su actividad económica con consecuencias importantes en sus mercados, particularmente en el mercado laboral. Más aún, son evidentes las dificultades de la actividad económica para generar los niveles de empleo demandados por creciente población. Para el caso de la Republica Mexicana se ha documentado que los últimos treinta años han sido de lento crecimiento, con sus efectos en la tasa de crecimiento. El estado de Morelos no es ajeno a este entorno, la tasa de desempleo se ha colocado en los niveles más elevados del país y se agrava debido a que es una importante receptora de migrantes. Alberga a una población aproximada de 1,918,858 habitantes, lo que exige satisfacer toda una serie de necesidades y demandas relacionadas con los múltiples servicios básicos urbanos y con el diseño de políticas que permitan la conformación de un mercado de trabajo eficiente. Con relación a la actividad económica, actualmente en estado de Morelos contribuye con el 1.2% del producto interno bruto (PIB) y no ha presentado tasas de crecimiento positivas durante las últimas dos décadas; sin embargo los empleos generados no han sido suficientes para satisfacer la demanda de puestos de trabajo.

El saldo se refleja en elevados niveles de desempleo, subempleo y en un proceso de precarización del empleo remunerado, con un sector informal creciente. En este sentido, el presente trabajo tiene por objetivo estimar la tasa de sacrificio entre el crecimiento del producto y el desempleo para el estado de Morelos (que en la literatura económica se conoce como la ley de Okun) con la finalidad de avanzar en los argumentos que expliquen el problema del crecimiento y desempleo en el estado, para identificar los factores estructurales que afectan la capacidad de generar empleos. En la primera sección se presenta una revisión del problema del desempleo y el crecimiento de la actividad económica en el estado de Morelos. En la sección dos se estima el crecimiento del producto considerando como exógena la tasa de desempleo a partir de la propuesta de los modelos de primeras diferencias (que se amplía para economía abierta al incorporar el índice de apertura comercial) y de tendencia y elasticidad de Okun (1962). La tercera sección incluye la discusión de resultados que son congruentes con las evidencias reportadas por otros autores para la economía mexicana. Finalmente, se recuperara las principales conclusiones a partir de los resultados de las estimaciones.

REVISIÓN DE LA LITERATURA

La ley de Okun fue propuesta a principios de los años sesenta por el economista norteamericano Arthur Okun (Okun, 1962), quien observó una relación fuertemente lineal entre las variaciones de la producción y del desempleo de Estados Unidos a partir de los datos recogidos durante los años 50. Aplicar el término de "ley" a esta relación empírica puede dar lugar a confusiones sobre su validez y aplicabilidad, puesto que no define una relación teórica estricta entre variables, estando su formulación basada principalmente en estimaciones estadísticas entre datos, como suele suceder para la mayoría de las relaciones socioeconómicas (como por ejemplo la curva de Phillips). A esta relación de Okun se le ha aplicado el nombre de "ley" debido a que es una relación empírica que se cumple con regularidad aceptable para la mayoría de las economías desarrolladas, variando únicamente el valor de los coeficientes. Conceptualmente, la ley de Okun establece que una economía en expansión, con una población activa relativamente estable, debe aumentar el volumen de recursos humanos empleados para aumentar su nivel de producción y reduce por tanto su nivel de paro. Análogamente, una economía en recesión disminuirá el número de empleados, aumentando en consecuencia su nivel de desempleo.

Desde su primera formulación hasta nuestros días han surgido numerosas versiones sobre la ley de Okun, siendo la principal diferencia entre ellas la forma de calcular las variaciones del desempleo y la producción. La ley de Okun utilizada en este trabajo describe la relación existente entre la brecha del desempleo y la brecha de la producción, definida esta brecha como la diferencia entre los componentes reales y estructurales para ambas variables. En este trabajo nos referimos al nivel estructural de una

variable como la tendencia a largo plazo de la variable en cuestión, estando ésta determinada principalmente por sucesos con repercusiones económicas importantes (como pueden ser, por ejemplo, la modificación de leyes laborales y económicas, o la introducción en el mercado de trabajo de nuevas tecnologías con alto valor añadido). En cambio, la componente cíclica de una variable explica las variaciones que pueda sufrir ésta a corto plazo, estando condicionada principalmente por sucesos socioeconómicos con efectos temporales (como, por ejemplo, la crisis coyuntural de algunos sectores productivos). La evolución en el tiempo de esta componente tiene especial relevancia, porque permite definir y caracterizar los diferentes ciclos de la serie.

METODOLOGIA

El Problema del Crecimiento y el Desempleo en el Estado de Morelos

En la literatura reciente se da evidencia de que la economía mexicana desde principio de los años ochenta entró en una fase de lento crecimiento (Loria, 2009), incluso algunos consideran que su desempeño, en términos de crecimiento, ha sido mediocre y decepcionante (Ros, 2010). Más aún, prevalece la preocupación porque el lento crecimiento y las altas tasas de subempleo que se le asocian se han acentuado en los últimos años. En ese sentido se ha argumentado que desde a mediados de los ochentas se ha observado una importante relación de retroalimentación entre el lento crecimiento, alto y elevado desempleo sobre todo desde el 2006 y reducción de la productividad total de los factores. Esta relación, que parece estructural de la economía mexicana, tiene sus efectos en las regiones, particularmente en aquellas donde se localizan estados cuya actividad económica se vincula al sector externo como es el caso del estado de Morelos. De esta forma, el análisis que resulta de la estructura macroeconómica nacional nos da argumentos para sostener que estas relaciones son congruentes con el desempeño de algunas regiones del país. En el caso del estado de Morelos el tamaño e importancia de su actividad económica hacen que la economía estatal esté fuertemente vinculada al ciclo de la economía mexicana y desde luego con la economía de los Estados Unidos (Mejia, 2010). En este sentido, la entidad no es ajena al problema del crecimiento del producto y, en los últimos años, a la escasa generación de empleos que sufre el país. De la información disponible del PIB real de México y del estado de Morelos para el periodo 2000 – 2014 se pueden distinguir algunos hechos estilizados. En la gráfica 1 se identifican claramente dos grandes fases del producto y, en los últimos años a la escasa generación de empleos que sufre el país. De la información disponible del PIB real de México y del estado de Morelos para el periodo 2000-2014 se pueden distinguir algunos hechos (ver Figura 1).

Figura 1: México y Estado de Morelos. Producto Interno Bruto Real 2000-2014. Tasa de Crecimiento

Fuente: Elaborado con datos del INEGI (2014)

En la Gráfica 1 se identifican claramente dos fases del comportamiento del producto: la primera entre 2000 y 2005 que corresponde al periodo de auge de la economía mexicana. En estos años es evidente que la dinámica de crecimiento del estado de Morelos se encontraba incluso por encima de los niveles de la economía mexicana (la tasa de crecimiento promedio anual para el estado de Morelos fue de 2.0 % mientras la economía mexicana creció en promedio 2.69 % anual (ver tabla 1).

Tabla 1: Tasa de Crecimiento del Pib Estatal y Nacional

Periodo	Estado de Morelos	Nacional
2000 – 2005	2.08	2.69
2006 – 2010	0.40	1.85
2011 - 2014	1.19	2.77

Fuente: Elaborado con datos del INEGI (2014)

Este gran periodo de auge se explica porque a partir de los años cincuenta inicio un proceso de desarrollo industrial muy acelerado impulsando por decreto nacional (Ordoñez, 2008) Como comenta este autor, precisamente el proceso de industrialización del estado de Morelos inicio activamente en la década de los cincuenta en el contexto de la política de sustitución de importaciones que tenía como objetivo fundamental incrementar la producción industrial con el fin de producir en el país los productos manufactureros que anteriormente se importaban y que en un futuro se podrían comercializar en el exterior. La segunda fase de 2006 a 2014 que corresponde al periodo de estancamiento o lento crecimiento de la economía mexicana, se caracterizó por bajas tasas de crecimiento en la producción, que quizá se explique porque el estado de Morelos en este periodo empezó a transitar de un proceso de industrialización hacia un proceso de terciarización de manera paulatina, que ha relegado a la actividad agropecuaria (Ordoñez, 2008). Pero, sobre todo, esta fase se ha identificado por un periodo cuyo desempeño para el estado de Morelos no es muy alentador en el sentido de que su crecimiento se ha dado con tasas menores que la economía nacional y sin duda será difícil recuperar el ritmo de la década de los años cincuenta. INEGI (2014) señala que durante el periodo 2004 – 2014 las economía morelense presento un estancamiento muy marcado en el crecimiento con tasa promedio de 0.84. Este desempeño de la economía del estado de Morelos sugiere que ha tenido efectos sobre el mercado de trabajo, que se traducirían en tasas reducidas de desempleo para los periodos altos de crecimiento y con incrementos en las fases de estancamiento, de acuerdo con los argumentos keynesianos de demanda efectiva. Sin embargo, la información estadística disponible para la tasa de desempleo se limitara al análisis del periodo 2000 – 2014. Los datos de la tasa de desempleo entre 2000 y 2014 dan muestra que casi se ha duplicado: de 2.0 en 2000 pasó a 4.16 en 2014 con una tasa de desempleo promedio anual de 3.07% (INEGI, 2014), muy por debajo de la nacional (ver Figura 2).

Figura 2: Tasa de Desempleo: México y Estado de Morelos 2000 – 2014

Fuente: Elaborado con datos del INEGI (2014)

El problema de las tasas menores a las que presenta la economía nacional quizá se expliquen por factores que son particulares de la economía del estado de Morelos, entre ellos: que es el segundo estado más pequeño del país con poco más de 1, 918, 858 habitantes según datos del Censo General de Población y vivienda 2014; la magnitud y el rápido crecimiento de su población económicamente activa, 1.6% promedio anual entre 2010 y 2014 (CONAPO, 2015).que es una entidad con importantes flujos migratorios.

Estos tres factores suponen una presión constante para el mercado de trabajo porque aún cuando ha mantenido tasas de crecimiento positivas del PIB en promedio durante los años recientes, ha sido imposible absorber totalmente la oferta disponible de mano de obra, de tal forma que su tasa de desempleo abierto es una de las más altas del país. La situación es más crítica si consideramos la calidad de los empleos generados, de acuerdo con datos del STPS, 2015), el 27.1% de la población ocupada en esta entidad gana en promedio de uno a dos salarios mínimos y el 57.7% son asalariados sin prestaciones.

Los datos de crecimiento del PIB y de la evolución del empleo de la economía mexicana indican que en los últimos años la dinámica del mercado laboral se ha visto impactada por importantes cambios estructurales plasmados principalmente a partir de la década de los ochenta y con más énfasis en los recientes. Estos cambios parece han influido en la estructura de la actividad productiva, de tal forma que el crecimiento del producto ya no está generando los empleos suficientes de acuerdo con el tamaño de la economía, lo que implicaría que se está en una fase de escaso crecimiento sin generación de empleos. Más aún, surge la inquietud por tratar de explicar por qué la economía nacional y la del estado de Morelos han crecido a bajas tasas en el marco de una economía abierta, cuando se supone que este proceso de globalización impactaría favorablemente la actividad económica del país y el empleo. Ros (2008), menciona que este proceso de lento crecimiento se puede explicar por el ritmo de acumulación de capital, principalmente por la reducción de la inversión pública, la eliminación de las políticas de promoción, la sobrevaluación cambiaria y la insuficiencia del financiamiento bancario. En esta línea de análisis por explicar la desaceleración de la economía del estado de Morelos, se busca presentar evidencia de que existe una relación estructural entre producción y desempleo para la entidad. Para tal efecto, en la siguiente sección se estiman los modelos de primeras diferencias y ajuste de tendencia y elasticidad de Okun (1962) para el periodo 2000 – 2014.

Estimación

Un recordatorio de los modelos de Okun Estados Unidos (1947 – 1960) que establecía que por cada punto porcentual de reducción de la tasa de desempleo, el PIB real crecería por ciento (Okun, 1962); e inversamente, que por cada punto porcentual de crecimiento de la producción, el desempleo variaría en – 0.3 puntos. A esta regularidad se le conoce como *ley de Okun,* y es la consecuencia de relacionar el crecimiento del producto con la tasa de desempleo en forma bidireccional, a partir de tres especificaciones: primeras diferencias, brechas y ajuste de tendencia y elasticidad. La aportación de Okun es de mucha riqueza para el análisis macroeconómico moderno en virtud de tres factores: permite conocer la tasa de variación del desempleo de largo plazo, determinada por factores estructurales como los demográficos, institucionales y tecnológicos; proporciona una proxy de la tasa natural de desempleo; identifica que el crecimiento económico de largo plazo es el factor principal que contrarresta la reducción en la capacidad de generar empleos (Loria; Ramos, 2007). Okun (1962) utilizó tres especificaciones econométricas diferentes para demostrar que existía una sólida relación estadística bidireccional entre desempleo y crecimiento económico para la economía de Estados Unidos (1947 – 1960): primeras diferencias:

$$\Delta U t \; = \; ß_1 \; + \; ß_2 y t \; + \; \varepsilon t \tag{1}$$

prueba de brechas:

$$U t \; = \; ß_1 \; + \; ß_2 Y_t{}^h \; + \; \varepsilon t \tag{2}$$

ajuste de tendencia y elasticidad:

$$ln\, Et\ =\ ß1\ +\ ß2\, ln\, Yt\ +\ ß3t\ +\ \varepsilon t \tag{3}$$

donde Ut es la tasa de desempleo, yt la tasa de crecimiento del producto, Yt^h la brecha del producto, Yt^n el producto potencial, Yt el producto observado, E la tasa de empleo y t el tiempo. La relación de bidireccionalidad de los modelos implica que se pueden estimar considerando como endógena las proxys del producto, es decir, yt, Yt o ln Yt. Para efectos del presente trabajo se estimaron los modelos de primeras diferencias y el modelo de tendencia y elasticidad, como se detalla a continuación. La razón es que la estimación del modelo de brechas no arrojó resultados consistentes para una economía como la que estamos analizando y presenta problemas de correcta especificación

Las Series del Producto y Desempleo en el Estado de Morelos, 2000 – 2014

Los modelos de primeras diferencias y de tendencia y elasticidad implica estimar la tasa de crecimiento del PIB (y) en función de la primera diferencia de la tasa de desempleo, Δ(U), de la siguiente forma:

$$Yt\ =\ ß1\ +\ ß2\Delta Ut\ +\ \varepsilon t \tag{4}$$

y el logaritmo del PIB (lnY) en función del logaritmo de la tasa de empleo (ln E), incluyendo una variable de tendencia.

$$Ln\ Yt = ß1 + ß2\,{}_{lnEt} + ß3t + \varepsilon t \tag{5}$$

En este sentido, utilizaremos datos trimestrales para el periodo 2000 – 2014. Como una proxy del PIB (Y) se está incluyendo el valor real de la producción manufacturera a precios de 2000 de la encuesta industrial mensual (INEGI, 2014) y la tasa general de desempleo (U) que reporta el INEGI (2014), ambas sin desestacionalizar. La tasa de desempleo (E = 100 – U). La razón de considerar la producción manufacturera como proxy del PIB total, responde a problemas de información. No están disponibles series oficiales largas del producto interno bruto para el estado de Morelos. Aun cuando la manufactura representa alrededor del 1.6% del PIB total, se asume que el crecimiento de una economía se asocia con la manufactura al estilo de Kaldor, particularmente con la primera ley (KALDOR, 1984) que establece que la tasa de crecimiento de una economía se relaciona de manera positiva con la correspondiente a su sector manufacturero. A decir de Ocegueda (2003), esto implica que la manufactura se convierte en el motor de crecimiento, sobre todo porque se asocia con el alto efecto multiplicador del sector industrial, debido a las altas elasticidades ingreso de la demanda de las manufacturas; a los fuertes encadenamientos productivos hacia atrás y hacia delante de las actividades industriales, y las economías de aprendizaje que pueden obtenerse a medida que avanza la división del trabajo y se fortalece la especialización como resultado de la expansión de las actividades manufactureras. Más todavía Díaz Bautista (2003) sostiene que hay evidencia econométrica favorable para la primera ley de Kaldor en el caso de México para el periodo 1980 – 2000, y demuestra que existe una relación de causalidad en el sentido de Granger que va del crecimiento industrial al de la economía en su conjunto. Para efectos de incluir la incidencia que el sector externo tiene sobre la actividad económica del estado de Morelos en este proceso de globalización, se incorpora en la estimación el grado de apertura comercial (apemor) que se define como:

$$apemor = \frac{X+M}{PIB} \tag{6}$$

Donde X = exportaciones totales nacionales, M= importaciones totales nacionales y PIB = producto interno bruto total nacional. Todas a pesos constantes de 2014. Es evidente que esta propuesta de apertura no considera niveles arancelarios que den cuenta de la libertad con la que pueden entrar las importaciones o

salir los productos exportables; más aún, no permite captar con detalle los efectos que la apertura puede tener sobre el producto, sin embargo, se considera que para el objeto del trabajo esta forma convencional, entendida como el volumen de comercio como proporción del producto, cumple como indicador de trata de medir el grado de apertura a partir del incremento en los flujos de comercio. Una vez definidas las variables, y con el fin de aportar evidencia de que la estimación de los modelos es congruente, se aplica a las series las pruebas de causalidad en sentido de Granger (1969). Esta prueba busca determinar estadísticamente si el pasado de la variable x contiene información que preceda al comportamiento de la variable y y que, por lo tanto, contribuya a explicarla. En este esquema, los resultados indican causalidad bidireccional entre la tasa de desempleo (U_t) y el crecimiento del producto (yt) y causalidad unidireccional de apemor a yt en el modelo (1) y causalidad unidireccional del logaritmo de la tasa de empleo (ln E) al logaritmo del producto (ln Y) en el modelo (3), por lo que es posible plantear una estimación econométrica por mínimos cuadrados ordinarios (ver tabla 2).

Tabla 2: Prueba de Causalidad en el Sentido de Granger, 2000-2014

Modelo	Ho: No Causalidad	X²	Probabilidad
[1]	ΔUt no causa Yt	2.204	0.094
	Yt no causa ΔUt	2.312	0.082
	Apemor no causa Yt	6.004	0.001
	Yt no causa apemor	1.327	0.292
[3]	ln E no causa ln Y	2.428	0.065
	ln Y no causa ln E	0.314	0.889

Fuente: Estimaciones propias usando EViews, con información de INEGI

RESULTADOS DE LA ESTIMACIÓN

Los coeficientes estimados se podrán considerar como la relación estructural del crecimiento y el desempleo para el periodo de estudio. Para efectos de considerar una economía abierta, y contar con elementos de comparación con la versión clásica de los modelos de Okun, se procedió a estimar dos modelos, con y sin apertura comercial. Como se detalla más adelante, los resultados son interesantes en el sentido que el efecto de apemor es crucial en la actividad económica del estado. Una vez que se aplicaron las pruebas de correcta especificación y que se encontró consistencia en los resultados, tenemos la evidencia que se muestra en la tabla 3.

Tabla 3: Estado de Morelos: Estimaciones de Okun 2000 – 2014

Pruebas de Correcta Especificación	[1]Primeras Diferencias (Sin Apertura)	[3] Tendencia y Elasticidad (Sin Apertura)	[1] Primeras Diferencias (Con Apertura)	[3] Tendencia y Elasticidad (Con Apertura)
	Yt = -1.846 – 3.913ΔUt	ln Yt = -6.213 + 4.090 ln Et + 0.001t	Yt = -17.754 – 2.47* Δ Ut + 14.712* apemor + 0.590* Yt - 1	ln Yt = -7.549 + 4.383* ln Et + 0.541* ΔlnYt + 0.001t
	t(-1.803) (-2.076)	t(-1.545) (4.102) (3.903) (1.624)	t(-2.065) (-1.843) (1.999) = 4.845	t(-1.545) (4.102) (3.903) (1.624)
R²	0.11	0.30	0.62	0.51
DW	0.804	0.946	1.64	0.672
JB	0.244	0.151	0.50	0.667
LM(1)	0.000	0.001	0.217	0.000
LM(2)	0.000	0.006	0.157	0.000
Arch(1)	0.1857	0.310	0.728	0.004
Arch(2)	0.4265	0.476	0.569	0.002
White (n.c)	0.2858	0.385	0.105	0.232
White ©	0.2858	0.358	0.242	0.339
Reset (1)	0.5277	0.68	0.267	0.561
Reset (2)	0.045		0.502	

Fuente: Estimaciones propias usando EViews, con información de INEGI (2014)

Análisis y Discusiones de Resultados

De los resultados de la estimación, en principio, se debe destacar la importancia de incluir la apertura comercial para la consistencia del modelo de primeras diferencias, sobre todo porque el periodo de estudio coincide con el inicio de una fase de franca apertura comercial, salvo el periodo de recesión que entre sus efectos fue la contracción del volumen de comercio por una caída en la producción. Además, el coeficiente de Okun que resulta para la economía del estado de Morelos (2.47 con apertura vs. 3.9 sin apertura) es congruente con la evidencia reportada por otros autores para la estructura de la economía mexicana (Loría; Ramos, 2007) y; que la estimación mejoró el ajuste del coeficiente de determinación y los problemas de autocorrelación que presenta el modelo sin apertura (tabla 3). Para efectos del objetivo del trabajo, y por la consistencia empírica y de correcta especificación de los coeficientes estimados con el modelo que incorpora la apertura comercial, tomamos estos resultados para el análisis de esta relación, que suponemos estructural, entre el crecimiento del producto y el desempleo.

Los resultados indican que para esta estructura de datos de la economía del estado de Morelos se cumplen los modelos 1 y 3 de Okun. El valor del coeficiente de Okun se encuentra entre 2.47 y 4.3 que es congruente con las características del estado de Morelos, que es intensivo en trabajo y de baja productividad. Este hallazgo reviste gran importancia por su capacidad para explicar el desarrollo económico y nos indica que por cada 1.0% que varíe la reducción de la tasa de desempleo en el estado de Morelos, el PIB crecería 2.47, o bien, interpretando en función del empleo como factor de la producción, se considera que si se logra reactivar la tasa de empleo tendrá un efecto más proporcional en la producción. Además es interesante destacar la importancia que el proceso de globalización y de integración económica en el que se inserta la economía tiene efectos favorables en el crecimiento de la actividad económica de la entidad. El coeficiente de 14.71 de apemor (índice de apertura comercial) sugiere que el proceso de apertura económica determina de manera importante el crecimiento del PIB estatal.

Mejía y Rendón (2010), mencionan que la liberación y apertura de la economía mexicana se ha traducido en un aumento exponencial de las exportaciones y de la captación de recursos, por lo que la estrategia, vía apertura, parece tener éxito. Con relación al modelo de tendencia y elasticidad, destaca la elasticidad empleo del producto(o coeficiente de Okun) de 4.3 se ubica por arriba de lo que reportan trabajos similares para la economía mexicana. Estos resultados tratan de aportar argumentos para explicar esta relación estructural de largo plazo, en el sentido de crecer ante la presencia de recursos ociosos que implica elevadas tasas de desempleo. Ya Okun lo manifestaba: "Desaprovechar por completo un año de producto potencial puede influir en el PNB potencial futuro: en la medida en que bajas tasas de utilización y consiguientes bajos beneficios y rentas personales mantengan baja la inversión en instalaciones, equipo, investigación, vivienda y educación, el crecimiento del producto potencial será retardado" (Okun, 1962).

Este resultado que se reporta para el estado de Morelos es congruente con la evidencia de algunos autores a nivel regional (Altamirano; Carrillo; Cerón, 2006), quienes muestran que el desempleo en México tiene un efecto negativo y estadísticamente significativo en el crecimiento económico. Además reportan que la promoción del crecimiento sectorial-regional (urbano/rural) puede ser una forma efectiva para reducir el desempleo. Sin duda el lento crecimiento de México afecta a las diferentes regiones del país, sobre todo aquellas que se encuentran fuertemente vinculadas al sector externo, como el estado de Morelos. En este sentido, entre los puntos pendientes en la agenda del crecimiento de nuestro país se encuentran aquellos de carácter estructural que permitan el crecimiento sostenido de largo plazo. Al respecto, Jaime Ros (2008) establece que el lento crecimiento de la actividad económica en México desde finales de los años ochenta es producto de factores como la ausencia de una especialización comercial dinámica, dado que el proceso de apertura únicamente se ha centrado en el fomento a las exportaciones; de importantes bajas en la productividad, que han sido la causa de la generación de subempleo en el sector servicios y; por último, de los bajos niveles de inversión en capital fijo.

Finalmente, quedan argumentos para comprender que la dinámica productiva de los últimos veinte años no ha impactado sobre los volúmenes de empleo, quizá porque "la economía mexicana desde 1988 se ha especializado de manera creciente en actividades exportadoras e intensivas en capital lo cual ha generado un reducido proceso de generación de empleo. Las empresas exportadoras, maquiladoras y no maquiladoras, tienen una mínima participación en la PEA y se encuentran lejanas, no obstante su dinamismo, de incorporar una parte significativa del aumento anual de la PEA (Dussel, 2003, p. 148). En general, las nuevas estrategias económicas de los últimos años, han generado la existencia de un débil sector formal de la economía que ha provocado una importante generación de empleo informal (López Gallardo, 2002), además de que a nivel de ramas de la actividad económica desde finales de los años ochenta, las principales actividades generadoras de empleo han quedado distantes de poder absorber la constante dinámica de la población económicamente activa (PEA) del país (Dussel, 2000; Fuji, 2000).

CONCLUSIONES

Se concluye que para el estado de Morelos el coeficiente de Okun se encuentra entre 2.47 y 4.38. Para el primer caso, expresa que por cada punto porcentual de reducción de la tasa de desempleo el PIB real crecería 2.47. O bien, en términos de la tasa de empleo, a partir del modelo de tendencia y elasticidad, significaría que ante un crecimiento de 1% en la tasa de empleo el producto crecerá 4.3. El coeficiente del modelo de tendencia y elasticidad puede considerarse elevado con relación a la evidencia, para el total de la economía nacional, sin embargo, deben considerarse las condiciones económicas del estado de Morelos que de manera permanente enfrenta la incorporación de nueva población activa al mercado laboral, la masiva población migrante que el estado de Morelos recibe año con año y que ha incrementado el número de personas en busca de trabajo. Estas particularidades han modificado el comportamiento natural demográfico y ha presionado sobre la tasa de desempleo. Finalmente podemos decir que el desempleo tiene, entre otros, un costo muy importante que refiere a la producción que deja de obtenerse debido a que es menor el número de personas que tienen un empleo productivo, por lo que el costo recae en los propios trabajadores desempleados que experimentan una pérdida de ingreso debido a que no tienen trabajo, por lo tanto una caída en la demanda efectiva. La magnitud de este costo la da el coeficiente de Okun.

REFERENCIAS BIBLIOGRAFICAS

Altamirano, A. A; Carrillo, M. M. Cerón, J.A. Sectoral Economic Growth and Employment in México 1996-2001. EconoQuantum Revista de Economía y Negocios, Jalisco, v.2, n. 1, p 63-90, 2006

Consejo Nacional de Población – CONAPO. Proyecciones de la población de México 2005-2050. México: CONAPO, 2010a. Disponível em: <http:// www.conapo.gob.mx/ index.php? option=com_conten&view=article&id=3 6&Itemid=234>. Acesso em: 25 nov. 2010.

Consejo Nacional de Población – CONAPO. Proyecciones de la PEA. México: CONAPO, 2010b. Disponível em: <http: // www.conapo.gob.mx /index.php?option=com_content&view=article&id=38&Itemid=236>. Acesso em:25 nov. 2010.

Díaz Bautista, A. Mexico´s Industrial engine of growth: cointegration and causality. Momento Economico, UNAM, México, n. 126, p. 34-41, 2003.

Dussel Peters, E. Polarizing México: The impact of liberalization strategy: Boulder: Lynne Rienner, 2000.

Duseel Peters, E. Características de las actividades generadoras de empleo en la economía mexicana 1998-2000. Investigación Económica, México, v. 62, n. 243, p. 123-154, 2003.

Fujii, G. Apertura externa y empleo manufacturero en México. Momento Económico, México, n. 109, p. 46-59, 2000.

Germán-Soto, V. Generación del producto interno bruto por entidad federativa. El Trimestre Económico, México, v. 72, n.287, p. 617-653, 2005.

Granger, C.W Investigating causal relations by econometric models and cross-spectral methods. Econometrica, v. 37, n.3, p. 424-438. 1969.

Instituto Nacional de Estadística y Geografía – INEGI, Censo de Población y Vivienda 2014. México: INEGI, 2014a. Disponível em: http://www.inegi.org.mx/sistemas/mexicocifras/. Acesso 25 nov. 2014.

Instituto Nacional de Estadística y Geografía – INEGI, Encuesta Nacional de Ocupación y Empleo. México: INEGI, 2014b. Disponível em: <http:// dgcnesyo.inegi.gob. mx/cgi-win/bdieintsi.exe/NIVA05#ARBOL >. Acsseso em: 25 nov.2014.

Kaldor, N. Causascdel lento ritmo de crecimiento del Reino Unido. Investigación Económica, México, n.167, p. 9-24, 1984.

López G. J. Modernization, heterogenity and employment en México. International Review of Aplied Economics, v. 16, n. 2, p. 227-242, 2002.

Loría, E. Sobre el lento crecimiento económico de México: una explicación estructural. Investigación Económica, México, v. 68, n. 270, p. 37-68, 2009.

Loría, E.; Ramírez, J. Determinantes del crecimiento del producto y del desempleo en México, 1985.1-2008.4. EconoQuantum, Jalisco, v. 5, n.1, p.79-101, 2009.

Mejía, R. P. Sincronización nacional e internacional de la manufactura de los estados de México. In: Morales, M.E.F.; Mejía, P.R. (coords.). Integración y recesión económica en el binomio México-Estados Unidos. México: Universidad Autónoma del Estado de México, 2010. En prensa.

Millán, H. Penetración de importaciones y dinamismo exportador. Investigación Económica, México, n. 221, p. 61-84, 1997.

Ocegueda Hernández, J. M. Análisis kaldoriano del crecimiento económico en los estados de México, 1980-2000. Comercio Exterior, México, v.53, n. 11, p. 1024-1034, 2003.

Okun, A. Potential GNP: its measurement and significance. In: Pechman, J. (Ed.) Economics for policymaking. Cambridge, MA: MIT Press, 1962. P. 145-158, 2003.

Ros, J. La desaceleración del crecimiento económico en México desde 1982. El trimestre Económico, México, v.75, n. 299, p. 537-560, 2008.

Ros, J. Refomas microeconómicas, políticas macroeconómica y crecimiento. El caso de México. EconoQuantum, Jalisco, v. 6, n. 1, p. 137-142, 2010.

BIOGRAFIA

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DIAGNÓSTICO Y VALORACIÓN DEL NIVEL DE DESARROLLO DEL ESPÍRITU EMPRESARIAL (ENTREPRENEURSHIP) DE LOS ESTUDIANTES DE LA CARRERA DE ADMINISTRACIÓN Y GESTIÓN DE LA UPEMOR

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RESUMEN

La actitud emprendedora que se ha manifestado durante los últimos 25 años ha sido una conjunta y pionera gestión de los gobiernos, regiones y universidades, empresas y personas en todos los rincones del planeta, obviamente, con diversos niveles de intensidad. El emprendedurismo es sin duda alguna, uno de los temas más apasionantes que ocupa el quehacer de muchas personas, la mayoría vinculadas al entorno universitario. En esta investigación se presentan las definiciones, alcances y objetivos del espíritu empresarial y, sobre todo, la medición del nivel de emprendimiento de los estudiantes de la carrera de Administración y Gestión de la Universidad Politécnica del Estado de Morelos, puesto que el mismo gobierno de México, a través del Instituto Nacional del Emprendedor fomenta dicha actitud emprendedora a nivel empresarial y educativo. Por tal afirmación es imprescindible la implementación de la educación en emprendimiento en los niveles secundario y universitario, para así fomentar el desarrollo de la creatividad y la capacidad empresarial en los jóvenes y futuros profesionales.

PALABRAS CLAVES: Emprendimiento, Estudiantes, Instituciones, Formación, Espíritu Empresarial, Universidad

DIAGNOSIS AND ASSESSMENT OF THE LEVEL OF DEVELOPMENT OF ENTREPRENEURSHIP STUDENTS OF THE SCHOOL OF ADMINISTRATION AND MANAGEMENT UPEMOR

ABSTRACT

The entrepreneurial attitude that has appeared over the past 25 years has been a pioneer and joint management of the governments, regions and universities, businesses and people in all corners of the planet, obviously, with different levels of intensity. Entrepreneurship is undoubtedly one of the most exciting topics at hand the work of many people, mostly linked to the university environment. In this research the definitions, scope and objectives of entrepreneurship and, above all, measuring the level of entrepreneurship among students studying for Administration and Management of the Polytechnic University of the State of Morelos are presented, since the government itself Mexico, through the National Entrepreneurial Institute that promotes entrepreneurial attitude to business and education. For this assertion it is essential to implement entrepreneurship education in Hig School and university levels, thus promoting the development of creativity and entrepreneurship in young people and future professionals.

JEL: I123, Z10, Z19

KEYWORDS: Entrepreneurship, Students, Institutions, Training, Entrepreneurship, College

INTRODUCCIÓN

Para emprender esta investigación es necesario conceptualizar las palabras claves que se van a utilizar a todo lo largo de la disertación. El emprendedurismo, a pesar de que existe desde hace largo tiempo, como objeto de estudio y de investigación se le considera como un paradigma joven sin fundamento teórico sustancial (Bygrave y Hofer, 1991), otros lo consideran preparadigmático (Rusque, 2004) por cuanto a pesar de tener larga trayectoria, los estudiosos del tema no tienen claridad aún sobre las principales categorías y conceptos que se deben manejar para que adquieran una validez común.Para no entrar en polémicas, nos permitimos aceptar el concepto que maneja el Centro de Emprendedurismo de la Universidad de Miami en Ohio, como el proceso de identificar, desarrollar y dar vida a una visión, que puede ser una idea novedosa, una oportunidad o simplemente una mejor manera de hacer las cosas; y cuyo resultado final es la creación de una nueva empresa, formada bajo condiciones de riesgo y considerable incertidumbre. Por otro lado, se define emprendedor como aquel que germina ideas y las pone a crecer para después salir a sembrar de nuevo con su creatividad e ingenio. Y las mejores ideas son aquellas que después vuelan solas sin que su inventor tenga que conducirlas toda la vida (Soto, 2004). Por su parte Comeche (2004) explica que el emprendedor es visto como aquel que percibe una oportunidad y que crea una organización para conseguir dicha oportunidad. En este contexto, se puede afirmar que perseguir una oportunidad creando una organización está implícito en el acto emprendedor.

El otro concepto que se debe plantear y que parte del acto de emprender es precisamente como iniciar el proceso de emprendimiento (Kantis, 2002), implica todas las funciones, tareas y actividades asociadas a la percepción de oportunidades y a la creación de organizaciones para perseguirlas. Al momento determinado de emprender la creación de su empresa, da un paso adelante y empieza a convertirse en empresario, pero sin dejar a un lado su característica de emprendedor. Ripollés (1995), refiere en su obra, que el término empresario ha ido evolucionando hasta llegar a asociarse en la literatura especializada con el progreso económico y social de una comunidad, destacando que aunque esto es así, se le ha prestado muy poca atención en el marco de la teoría económica. Es precisamente a partir de ella, que Comeche (2004) define al empresario como la persona que emprende un negocio o la que ha creado una empresa en marcha de la nada, y al hablar de creación de empresas se asocia con el empresario que vislumbra una oportunidad, que anteriormente se decía era de lucro y hoy se nombra como una oportunidad de actuar con responsabilidad moral y social. Así llegamos al término emprendedor universitario, definiéndolo como el ser humano con estudios superiores que tiene el suficiente conocimiento y autoconocimiento y que está motivado para iniciar y desarrollar sus sueños, de una manera innovadora, asertiva y proactiva en los diferentes escenarios o sectores económicos o sociales donde le toque gestionar, con las apropiadas competencias que lo hacen un individuo especial, destinado por sus propias características a ser eficiente y sobresalir de los demás, llevándolo a producir impactos en la rama productiva que le seduzca.

La educación a nivel del emprendimiento ha evolucionado notablemente los últimos años; en Estados unidos se incrementó el número de universidades que ofrecían cursos de emprendimiento de 16 en 1970 a más de 400 en 1995 (Vesper & Gartner, 1997). Otro estudio (Wilson, 2004) determinó que la educación en emprendimiento en Europa ha estado creciendo significativamente en los últimos 5 años, y se espera que la tendencia se mantenga; esto se refleja en la identificación de 70 centros de emprendimiento, aunque este número puede ser mayor. Es por esto que se ha aplicado un modelo de encuesta en el que se mide el nivel de emprendimiento y espíritu empresarial en los alumnos de la carrera de administración y gestión de la Universidad Politécnica del Estado de Morelos. Los resultados arrojados por esta encuesta se presentan en este artículo.

Planteamiento del Problema

La economía globalizada y las tendencias académicas a la creación de empresas, antes que un proceso de generación de profesionales preparados para ser operarios, ha venido siendo el factor predominante. Se

observa claramente cómo en los países desarrollados están ahora afrontando el reto de este nuevo siglo: preparar para la creación de empresas, desarrollando las habilidades de los futuros profesionales y empresarios, otorgando una cadena de valor en la formación y en la elaboración de los perfiles profesionales de los empresarios. Nuestras organizaciones y empresas requieren en cierta medida conocer las habilidades de los miembros de sus empresas, y qué más que conocerlas directamente en los claustros universitarios; por ello tienen mucho conocimiento disperso: en su personal, en sus archivos documentales, en sus reuniones, en su cultura, en sus clientes, en sus mensajes y reclamos; en el entorno existe también mucho conocimiento disperso. Pues bien, en las organizaciones se están planteando ya cómo rescatar ese conocimiento y ponerlo a disposición de todos los individuos que las componen, como una nueva herramienta para salir adelante y competir, o simplemente sobrevivir.

Preocupa pues, darnos cuenta, por lo menos es lo que parece, de que en nuestro país muchas personas y, peor aún, organizaciones y empresas ni siquiera se están preguntando si son eficientes o productivas, y los líderes tienen miedo tremendo de hablar de esos temas. Y después nos quejamos y envidiamos el progreso de otros países. Las empresas exitosas y competitivas a nivel mundial son las que alcanzan y se mantienen en el estadio de la excelencia. Muchas empresas no logran pasar por todos los estadios sino que se quedan estancadas en alguno de ellos o desaparecen cuando se encuentran en los primeros debido a que dejan de ser rentables en un mercado globalizado. La dificultad que se presenta en la asimilación de la tecnología se debe a que, por lo general, no se entiende el proceso de asimilación como uno de enseñanza-aprendizaje. No se tienen en cuenta los elementos que este proceso requiere para que tenga éxito, además los perfiles profesionales no se han actualizado en las nuevas tendencias del desarrollo emprendedor; es por esto que nuestra formación es netamente técnica, es decir, deja de lado la visión que los estudiantes tienen desde los claustros académicos y, sobre todo, sus expectativas, que son elementos que valdría la pena escudriñar más en la carrera de administración y gestión de la Universidad Politécnica del Estado de Morelos. Finalmente, la generación de ventajas competitivas por parte de las empresas van a estar condicionadas en gran parte por las personas que conforman la organización y por sus iniciativas en la formulación de alternativas empresariales.

Justificacion

El emprendimiento proviene del francés entrepreneur (pionero) y se refiere a "una manera de pensar y actuar orientada hacia la creación de riqueza. Es una forma de pensar, razonar y actuar centrada en las oportunidades, planteada con visión global y llevada a cabo mediante un liderazgo equilibrado y la gestión de un riesgo calculado, su resultado es la creación de valor que beneficia a la empresa, la economía y la sociedad. En otras palabras el emprendimiento es una característica especial de las personas que le generan ciertas actitudes al igual que aptitudes que le permiten promover nuevos retos, nuevos proyectos, nuevos logros. Aunque este tema ha estado presente a lo largo de la historia mundial, es en las últimas décadas en las cuales ha tomado una fuerza impresionante convirtiéndose en un concepto de gran importancia, bastante utilizado alrededor del mundo gracias a la necesidad mundial de vencer los crecientes problemas económicos. Debido a los altos niveles de desempleo, la escasez y la baja calidad de los empleos existentes en un país como México, las personas han creado cierta necesidad urgente de generar sus propios recursos para así poder lograr independencia y estabilidad económica y de paso mejorar su calidad de vida. El mundo se ha dado cuenta que el emprendimiento es uno de los mejores caminos para crecer económicamente como persona, como organización y, en sentido más amplio, como país, tanto así que los gobiernos han creado programas de apoyo para fomentar el emprendimiento tales como el Instituto Nacional del Emprendedor. Este proyecto de investigación fundamenta su validez en la carencia de lineamientos más efectivos para la medición de los niveles de Entrepreneurship a nivel universitario; a pesar de que mucho se habla al respecto, los estudios son contados, y más aún si se tienen que actualizar acordes con las políticas de desarrollo regional, y adicionalmente se aduce que la universidad desarrolla 3 pilares fundamentales: la investigación, la extensión y la pedagogía, haciendo de las dos últimas dos acciones fundamentales para generar un óptimo impacto a nivel de las empresas del entorno.Esta deficiencia en los indicadores de Entrepreneurship coloca

no sólo a la educación morelense sino al país en un sitial poco deseable en los temas de investigación y desarrollo para hacer más competitivo el entorno formativo empresarial morelense.

Objetivos

Objetivo general: Realizar un diagnóstico y valoración del nivel de desarrollo del espíritu empresarial (entrepreneurship) de los estudiantes de la carrera de administración y gestión de la Universidad Politécnica del Estado de Morelos.

Objetivos específicos: La intención emprendedora. Su atracción hacia las profesiones de asalariado, profesional independiente o emprendedor. La imagen social que tienen del emprendedor. Las habilidades y capacidades que tiene, en lo que a emprendimiento se refiere. La formación y experiencia en el mundo de la creación de empresas. Los motivos y frenos que pueden llevarle a la creación o no de su propia empresa. La posible red de contactos empresariales que pueden tener. La educación en emprendimiento que posee. Algunos datos generales como sexo, universidad, edad, estudios y profesión de los progenitores que pueden influir en su actitud emprendedora.

REVISIÓN LITERARIA

Trabajar por un sueño parecería una cuestión ideal, ser independiente o su propio jefe, una bendición, sin embargo, y como una cuestión extraña, en realidad son muy pocas las personas que deciden lanzarse a aventurar con sus ideas, sus proyectos o sus propios negocios. Es evidente que el camino es difícil, pero ¿por qué las personas no se arriesgan? La literatura sobre emprendimiento nos presenta casos de personas que a partir de cero han logrado construir y lograr grandes hazañas ¿Qué hizo a estas personas y qué características se encuentran en los verdaderos emprendedores? Parece existir cierto consenso en que los grandes emprendedores cumplen con ciertas características:

La constancia
El sentido de oportunidad o de negocio
El conocimiento
Responsabilidad personal
Capacidad de liderazgo

Si alguien decide desarrollar un emprendimiento, debe ser consciente de que debe cumplir por lo menos con los anteriores requisitos, ya que sacar una idea adelante requiere de estos y muchos factores más. Las estadísticas, sin embargo, no son del todo alentadoras; es evidente que en la mayoría de las ocasiones es más posible el fracaso que el éxito, cuestión que se presenta especialmente en el nuevo mundo de los emprendimientos por internet; sin embargo, si es una persona decidida, debe tomar este camino, puesto que aunque se corren riesgos, los posibles premios a su labor serán mucho más altos que los que obtendría como un empleado o un simple cargo medio de una empresa. En el artículo (Teoría de la Intraempresarialidad) de Knight, Cose & Baumol, publicado en la página virtual de la UANL, se hace referencia a cómo la literatura económica ha entendido tradicionalmente el emprenderismo como la creación de una empresa que inicia con una jerarquía a cargo del empresario (Dyer 1994, Westhead y Wright, 1998).

Sin embargo, hace aproximadamente dos décadas se ha multiplicado, en un sinnúmero de estudios en la literatura de gestión, una perspectiva del emprenderismo. Se entiende como aquel proceso que no necesariamente comienza en la cima sino que puede iniciarse en la base de la escalera jerárquica e ir ascendiendo paulatinamente. Dicho proceso emprendedor se denomina el proceso *intraempresarial* (conocido en el mundo anglosajón como *intrapreneurship*, palabra que nace de la combinación de los vocablos intra-firm y entrepreneurship) y se distingue del concepto tradicional del emprenderismo básicamente en que el proceso de innovación (que conlleva el acto empresarial) se lleva a cabo dentro del

contexto de las organizaciones existentes. El proceso intraempresarial no está sometido a la presión del proceso competitivo, como ocurre con el proceso puramente empresarial, sino que es seleccionado y reconocido dentro de una estructura jerárquica. Como ya se ha mencionado, varios estudios han intentado extender la definición del espíritu emprendedor como la distinción entre los empresarios innovadores fuera y dentro de las organizaciones existentes (Gartner, 1989; Carlandcet al., 1984). Investigaciones como las de Sharman y Chrisman (1999) proponen una definición para el emprenderismo que es altamente consistente con los autores principales del emprenderismo (Schumpeter, 1934 y Gartner, 1990) y del proceso intraempresarial (conocido también como emprenderismo corporativo (Zahra, 1995).

METODOLOGIA

A continuación se muestra un diagrama de flujo del planteamiento de los pasos a seguir en el desarrollo de la metodología:

Figura 1: Desarrollo de la Metodología a Desarrollar

Fuente: Elaboración propia

Para recolectar la información se diseñaron y aplicaron cuestionarios base con información sobre características emprendedoras, creación de empresas, capacitación y formación.
El cuestionario se aplicó con un universo de 377 estudiantes de la carrera de administración y gestión y se tomó como población objetivo los 190 estudiantes de tercero, sexto y noveno cuatrimestre.

Instrumento de Recolección de Datos

Los datos utilizados para la realización del presente estudio han sido obtenidos de la encuesta realizada a los alumnos de la carrera de administración y gestión de la Universidad Politécnica del Estado de Morelos. La población tenida en cuenta está formada por los 377 alumnos matriculados en tercer, sexto y noveno cuatrimestres. La recolección de la información se ha llevado a cabo de forma presencial durante los meses de mayo y junio de 2015 mediante un muestreo basado en el método de conveniencia y cuotas. Los alumnos respondían el cuestionario en el aula, de forma anónima y durante 15 minutos. El número total de encuestas

recogidas ha sido de 190, y toda esa información recabada se ha analizado con la ayuda de los programas estadísticos SPSS 22.0. La encuesta está formada por 9 bloques, a través de los cuales se puede obtener información, que según la literatura previa estudiada puede influir en la intención emprendedora de los universitarios, (Chen et al. 1998; Krueger, 2000; Kouriloff, 2000; Urbano, 2006; Mira Solves, 2006; Guerrero y Urbano, 2007; Liñán et al. 2008; Lucas et al. 2009; Liñán et al. 2011).

Análisis

Los análisis estadísticos de los resultados de la aplicación del instrumento se efectuaron mediante los programas SPSS (paquete estadístico para las ciencias sociales, versión 22), EViews 8.1 (paquete econométrico), esto es con la finalidad de tener un mejor enfoque del comportamiento desde el punto de vista estadístico del análisis discriminante de las variables a evaluar.

Diseño del Cuestionario Para las Encuestas de los Estudiantes de Administración y Gestión de la UPEMOR

El preparar un cuestionario puede verse como un avance de dentro hacia afuera o sea que se establece provisionalmente las consecuencias lógicas del problema a investigar. Este proceso es un paso importante para conseguir un número grande de preguntas y con ellas ir descubriendo omisiones, prejuicios y ambigüedades. Todo ello se hace con el objeto de preparar y afinar el contenido definitivo de un cuestionario. El registro metódico de datos y hechos, conforman la elaboración y validez del cuestionario, el cual se encarga de condicionar el valor de la encuesta, ya que de él dependen los resultados de la misma. En este cuestionario se utilizó una serie de preguntas con una escala de evaluación de 1 a 4. Se determinó que las preguntas fueran quince, sencillas, de manera que pudieran ser corroborativas y que se pudieran contestar en forma directa.

Características de la Muestra

En la presente investigación, la muestra de acuerdo a la clasificación utilizada en la metodología de la investigación es del tipo no probabilística que se divide en cualitativa, por cuotas, de sujetos tipo, de expertos y de sujetos voluntarios. Para el enfoque cualitativo, la muestra es una unidad de análisis o un grupo de personas, contextos, eventos, sucesos, comunidades, entre otros, de análisis; sobre el(la) cual se habrán de recolectar datos, sin que necesariamente sea representativo (a) del universo o población que se estudia (Freund, 1989). En la muestra no probabilística, la elección de los elementos no depende de la probabilidad, sino de las causas relacionadas con las características de la investigación o de quien hace la muestra. Aquí el procedimiento no es mecánico, ni con base en fórmulas de probabilidad, sino que depende del proceso de toma de decisiones de una persona o de un grupo de personas y, desde luego, la muestra seleccionada obedece a otros criterios de investigación (Murray, 1970). La muestra no probabilística, también llamada muestra dirigida, supone un procedimiento de selección informal. Se utiliza en muchas investigaciones y, a partir de ella, se hacen inferencias sobre la población (Murray, 1970).

ANÁLISIS DE LOS RESULTADOS

Una vez realizada una breve explicación de los bloques que componen el cuestionario se procede a detallar los primeros resultados obtenidos con los diferentes análisis efectuados. Triandis (1980) y Ajzen (2005) son dos de los autores de referencia que han estudiado las intenciones y que han aportado su propia definición de dicho concepto. Para Triandis (1980) las intenciones son las instrucciones que las personas se dan a sí mismas para comportarse en ciertas formas. Por su parte, Ajzen (2005) las define como aquellos comportamientos que las personas pueden ejecutar primordialmente bajo un control voluntario. En base a esta definición Ajzen y Fishbein (1980) establecieron la teoría de la Acción Razonada, que posteriormente sería revisada por ellos mismos en el año 2010. Esta teoría adquiriría el nombre de Teoría del Comportamiento Planeado y establece que la intención se compone de tres determinantes principales.

Dichos componentes son: la actitud hacia el comportamiento, la norma subjetiva y el control de comportamiento percibido. Han sido diversos los estudios que han utilizado este enfoque en sus investigaciones empíricas (Liñan, 2004; Kolvereid e Isaksen, 2006; Liñan, 2008; Van Gelderen et al. 2008). Siguiendo esta teoría y a estos autores estudiaremos algunos de los ítems que ellos analizaron. Para evaluar si el alumno ha pensado seriamente alguna vez en fundar una empresa propia se le ha preguntado directamente, ofreciendo como respuesta las opciones que se observan en la tabla 1. Como puede observarse un 95.27% del alumnado ha pensado en algún momento en la creación de su propia empresa pero la mayoría lo ha hecho (seriamente) (38.42%), solo un 24.22% lo ha hecho (vagamente), el 32.63% tiene el firme propósito de llevarlo a cabo y únicamente el 4.73% no lo haría (ver tabla 1).

Tabla 1: Pensar Seriamente en Crear una Empresa Propia

		Frecuencia	Porcentaje	Porcentaje Valido	Porcentaje Acumulado
Válidos	Si, vagamente	46	24.22	24.22	24.22
	Si, seriamente	73	38.42	38.42	62.64
	Si, tengo el firme propósito de crear una empresa	62	32.63	32.63	95.27
	No	9	4.73	4.73	100
	Total	190	100	100	

Fuente: Elaboración propia

Posteriormente, se ha aplicado la prueba Chi-cuadrado de Pearson para comprobar la relación que pueda existir entre la variable (pensar seriamente en crear una empresa propia) y algunas de las variables de las que resulta más interesante averiguar si están relacionadas o no. Dichas variables están relacionadas con los estudios, curso, género o experiencia laboral entre otras, entre otras. Con respecto a este método comentar que la contrastación de la hipótesis nula (H$_0$) se hace con el p_valor (significación bilateral) o nivel de error que permite rechazar la hipótesis cuando es superior a 0.05 que es el nivel máximo de error que se está dispuesto a asumir. Las hipótesis nulas en este método plantean la independencia entre las variables escogidas para el análisis en cuestión, esto es que se busca contrastar si existe relación entre las variables analizadas. En los casos en los que se ha encontrado relación entre las variables analizadas con la Chi-cuadrado se procede a aplicar el Coeficiente Phi y V de Cramer. Son valores comprendidos entre 0 y 1 que deben ser comparados con el valor 0.6 y sirve para comprobar el grado de relación de las variables estudiadas. Si el valor es superior a 0.6 la relación será fuerte, en caso contrario será débil. La hipótesis nula a contrastar seria:

H$_0$: las variables estudiadas no tienen relación con la decisión de crear una empresa propia.

A continuación se muestra un cuadro resumen con todos los datos obtenidos tras aplicar los contrastes anteriormente mencionados. Del mismo se desprende que son cinco las variables que tienen una relación significativa con el hecho de pensar en crear una empresa propia. Esas variables son el curso, la experiencia laboral, tener algún familiar empresario, tener alguna relación con el autoempleo y conocer personalmente a algún emprendedor. Es decir, que parece evidenciarse que conocer a algún emprendedor, el curso en que se encuentra, tener experiencia profesional o relación con el autoempleo (haber estado autoempleado o haber participado en la creación de alguna empresa) pueden influir en la intención de un individuo de fundar su propia empresa. Aunque cabe decir que aplicando el coeficiente de Phi y V de Cramer se ve que dicha relación es débil, puesto que el p_valor es inferior a 0.6.

Seguidamente se estudian una serie de variables mediante las cuales se están analizando los tres determinantes de la intención, según Ajzen y Fishbein (2010), que son: la actitud personal hacia el comportamiento emprendedor, la norma subjetiva y el control del comportamiento percibido. Para el estudio de este constructo de intención emprendedora se recurre al análisis ANOVA de un factor. Este

contraste nos sirve para saber si la intención de crear una empresa propia está relacionada por los ítems considerados. Este análisis se utiliza para contrastar la hipótesis de que varias medias son iguales. La hipótesis nula a contrastar sería:

Ho: Las creencias respecto al emprendimiento (la actitud personal, la norma subjetiva y el control del comportamiento percibido) no están relacionadas con la decisión de crear una empresa propia.

Puesto que el p_valor de todas ellas es inferior a 0.05 se rechaza la hipótesis nula planteada. Por lo tanto se puede afirmar que todas esas afirmaciones contenidas en dicho constructo influyen en el estudiante a la hora de decidir si crear una empresa o no. Una vez comprobada la significación de cada una de las variables el siguiente paso es comprobar las medias de cada uno de los ítems. En nuestra opinión, la información más interesante es la que aportan los datos concernientes a los estudiantes que tienen el firme propósito de crear una empresa y a aquellos que no lo han pensado. En relación con los primeros cabe destacar que dan una mayor valoración media a las variables que hacen referencia a la satisfacción que les supondría ser empresarios, al hecho de tener la oportunidad y los recursos necesarios para crear la empresa y a la aprobación de su actitud por parte de los amigos. Por otro lado, los universitarios que no han pensado en crear una empresa dan una valoración más elevada a la aprobación de su decisión por parte de amigos, familia y compañeros. Como sugerían Liñán et al (2008) y Guerrero (2007) en sus trabajos es interesante el estudio de la inclinación de los estudiantes hacia las profesiones de asalariado, profesional independiente y empresario. En nuestro caso la profesión que presenta una mayor valoración (4.0073) es la de empresario. Aunque se puede matizar que las otras dos opciones propuestas al alumno también tienen una alta valoración. Este dato resulta llamativo si tenemos en cuenta la información obtenida en párrafos anteriores donde se decía que sólo un 32.63% de los encuestados tiene el firme propósito de crear una empresa. Siguiendo a Liñán et al. (2011) y Guerrero (2007) otro constructo a tener en cuenta en nuestra investigación es la valoración social que se tiene del emprendedor. Para analizarlo se ha procedido a realizar un análisis ANOVA de un factor entre los distintos ítems que componen el constructo y la cuestión referente a pensar en crear una empresa. Con este contraste se pretende comprobar si estas variables están relacionadas con la intención de crear una empresa. Esto es que la opinión que la familia, amigos y compañeros tengan del emprendedor influye al estudiante en su decisión de crear una empresa.

Al igual que en el caso anterior nos interesa saber qué es lo que más tienen en cuenta los alumnos que piensan firmemente en crear su propio negocio y los que no. Es decir, que tienen en cuenta que la sociedad considera que la actividad emprendedora merece la pena, a pesar de los riesgos, así como la opinión que la familia tiene sobre la profesión de emprendedor. Por otra parte, los que no han pensado en crear su negocio valoran en mayor medida, que hace referencia al poco reconocimiento que la sociedad tiene hacia el papel del emprendedor. En relación a los datos globales destacar que nuevamente es la percepción de que la actividad merece la pena, a pesar de los riesgos, la variable más valorada. Con el fin de estudiar la percepción que el alumno tiene de sus propias capacidades concretas relacionadas con el emprendimiento, (Lucas et al. 2009), se les planteó una batería de cuestiones que debían valorar en una escala de 1 (nada capaz) a 4 (completamente capaz). Por otro lado la media más baja, 2.97, corresponde a las habilidades para desarrollar una investigación científica original, debido probablemente a la titulación objeto de estudio. Cabe resaltar que aún así se consideran en general bastante capacitados para desarrollar las habilidades que en el cuestionario se le plantearon ya que todos están por encima de la media de la escala. Posteriormente se ha realizado otro análisis ANOVA de un factor. En esta ocasión la hipótesis nula a contrastar sería:

Ho: las habilidades específicas no están relacionadas con la decisión de crear una empresa propia.

Puesto que el p_valor de todas ellas es inferior a 0.05 se rechaza la hipótesis nula planteada. Por lo tanto se puede afirmar que todas esas habilidades están relacionadas con la decisión del estudiante de crear una empresa o no. Posteriormente se observa, que tanto los estudiantes que quieren fundar su propia empresa como aquellos que no muestran interés en ello, las capacidades a las que les dan una mayor valoración están

la selección de personal y la negociación con proveedores. Y de manera global la habilidad más destacada es la selección de personal. Finalmente y siguiendo a urbano (2006) y Krueger (2000) se ha procedido a evaluar los motivos y los frenos que pueden condicionar a los universitarios a la hora de crear su propia empresa. Para ello se les ha pedido que valores una serie de variables en una escala de Likert de 1 (nada importante) a 5 (muy importante). Puede observarse como lo que más motiva a la creación de una empresa propia, con una media de 4.09, son las recompensas económicas, seguidas de la independencia, con una media de 4.05. En relación a los frenos vemos como es el riesgo económico el más valorado, con una media de 4.01, así como la falta de capital inicial (3.88).

Como se mencionó en la introducción, para Guerrero (2007), resulta especialmente importante saber la educación que han recibido los alumnos en lo que a emprendimiento se refiere. Para ello se les pregunta si en algún momento han realizado alguna asignatura o curso relacionado con la creación empresas. En esta ocasión han sido 81 alumnos los que sí han realizado algún curso. Posteriormente se les plantearon dos bloques de cuestiones que debían valorar con una escala Likert. El primer bloque hacía referencia a lo que habían mejorado sus competencias una vez realizado el curso en cuestión. Y el segundo bloque se refería a las actividades que consideran importantes en los contenidos de un curso de emprendimiento. En ella además puede apreciarse que en lo que más creen mejorar los alumnos una vez que han hecho los cursos es en lo referente al conocimiento empresarial en general. Y en cuanto a las actividades que consideran importantes que se lleven a cabo en dichos cursos destaca la introducción en situaciones reales.

CONCLUSIONES Y LIMITACIONES

Para finalizar, a continuación se presenta las principales conclusiones obtenidas así como sus limitaciones y posibles líneas futuras de investigación. Como se ha comentado en el apartado anterior alrededor de un 38.42% de los estudiantes encuestados ha pensado alguna vez en crear su propia empresa, pero el 24.21% lo ha hecho vagamente. Cabe destacar que sólo el 32.63% tiene el firme propósito de llevarlo a cabo. Una vez expuesto este dato a continuación se detallan algunas de las primeras conclusiones obtenidas del presente estudio. Variables como el género, la edad, o los estudios y ocupación de los progenitores no influyen en la decisión de creación de una empresa por parte de los estudiantes. Los alumnos que tienen el firma propósito de crear su propia empresa le dan una valoración mayor a la satisfacción personal que les supondría ser empresarios, al hecho de tener la oportunidad y los recursos necesarios para llevar a cabo sus ideas de negocio así como a la aprobación de su actitud por parte de sus amigos. En cambio, los universitarios que no han pensado en crear su propio negocio le dan una valoración más elevada a la aprobación de su decisión por parte de amigos, familia y compañeros. Ofreciendo a los encuestados las profesiones de asalariado, profesional independiente y empresario la opción más valorada resulta ser la de empresario. La imagen que tiene la sociedad del emprendedor influye al estudiante en su decisión de crear una empresa. De hecho lo que más influencia tiene en él es la opinión de la familia, amigos y compañeros. En general los universitarios encuestados se ven a sí mismos bastante capacitados para desarrollar aquellas habilidades necesarias para la puesta en marcha y mantenimiento de su propia empresa. En concreto en lo que más capaces se muestran es en lo que a selección de personal se refiere.

En lo que a formación y experiencia respecta se han encontrado relaciones significativas entre el hecho de pensar seriamente en crear una empresa y el cuatrimestre en que se encuentra el alumno, la experiencia profesional y su relación con el autoempleo. Entre los motivos y frenos que más pueden condicionar la intención emprendedora del alumnado nos encontramos con las recompensas económicas y el riesgo económico. Este último se demuestra además que tiene una relación significativa, aunque débil, con la decisión de crear una empresa. Se comprueba que la red de contactos empresariales tiene una relación significativa con la decisión del universitario de fundar su propia empresa. Es decir que se demuestra que cuando un alumno conoce personalmente a un emprendedor (sea familiar o no) eso le influye en su posible decisión de crear una empresa. Los alumnos que han participado en algún curso relacionado con el emprendimiento dicen que mejoran sus conocimientos generales empresariales tras la realización del

mismo. Además dan una especial importancia a que este tipo de cursos deben sumergirles en situaciones reales de la vida empresarial. Para concluir con el trabajo de investigación se destaca como principal limitación el hecho de que la encuesta solo se ha realizado en la carrera de administración y gestión de la Universidad Politécnica del Estado de Morelos. Aunque pueda parecer una limitación importante lo cierto es que de aquí se pueden derivar dos futuras líneas de investigación. La primera de ellas, ya que se está llevando a cabo, consiste en ampliar este estudio al resto de las carreras de la UPEMOR. De este modo podrían hacerse comparaciones entre las diferentes carreras ofertadas por dicha universidad. Y la segunda de las líneas consistiría en repetir este mismo estudio en años sucesivos, es decir realizar un estudio longitudinal de un grupo de estudiantes desde que comienzan sus estudios universitarios hasta que los finalizan.

BIBLIOGRAFIA

Allport, G. W. 1935, "Attitudes". En Murchison, C. (Ed.): Handbook of Social Psychology. Clark University Press.

Bygrave y Hofer. (1991) pág. 13.Citado por José Manuel Comeche Martinez. Una Visión dinámica sobre el emprendedurismo colectivo, Capítulo 67, Universidad de Valencia, España, 2004, pág. 1055.

Comeche Martinez, J. M. (2004). Una visión dinámica sobre el emprendedurismo colectivo. Universidad de Valencia, España, pág. 1058.

Davidsson, P. 1995, "Culture, structure and regional levels of entrepreneurship". Entrepreneurship and Regional Development, vol. 7, n° 1, pp. 41-62.

Espíritu Olmos, R. & Sastre Castillo, M.A. 2007, "La actitud emprendedora durante la vida académica de los estudiantes universitarios", Cuadernos de Estudios Empresariales, n° 17, pp. 95-116.

Kantis, H.; M. Ishida y M. Komori. (2002). Empresarialidad en economías emergentes: creación y desarrollo de nuevas empresas en América Latina y el Este de Asia, Nueva York, Banco Interamericano de Desarrollo, págs. 101-106.

Krueger, N. (2000), "The Cognitive Infrastructure of Opportunity Emergence Entrepreneurship: Theory & Practice, 24(3) 5-23.

Liñán, F.; Urbano, D. & Guerrero, M. 2011, "Regional variations in entrepreneurial cognitions: start-up intentions of university students in Spain".

Lucas, W.A.; Cooper, S. Y.; Ward, T. & Cave, F. 2009, " Industry placement, authentic experience and the development of venturing and technology self-efficacy". Technovation, vol. 29(11), pp. 738-752.

Mira Solves, I. 2006, " La creación de empresas por titulados universitarios. Una aproximación a los factores de influencia del ámbito de la Universidad". Tesis Doctoral. Universidad Miguel Hernández.

Peterman, N. E. & Kennedy, J. 2003, "Enterprise Educaction: influencing students perceptions of entrepreneurship Theory and Practice, vol. 28 (2), pp. 129-144.

Thompson, P. 1986, "Characteristics of the small business entrepreneur inCanada", Jorunal of Small Business and Entrepreneurship, vol. 4 (1), pp.5 -11.

Urbano Pulido, D. 2006, "La creación de empresas en Catalunya: Organismos de apoyo y actitudes hacia la actividad emprendedora". Departament de Treball i Industria, Centre d´Innovació i Desenvolupament Empresarial.

BIOGRAFIA

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EVOLUCIÓN DEL MERCADO DE DERIVADOS ESTANDARIZADOS EN COLOMBIA: PERÍODO 2010-2014

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RESUMEN

Este documento presenta los resultados finales de una investigación mediante la cual se buscó identificar los obstáculos que enfrenta el desarrollo del mercado de derivados financieros estandarizados en Colombia y sus posibilidades de crecimiento con una mayor profundidad, variedad y sofisticación de sus operaciones. Los resultados muestran que aunque el mercado de derivados estandarizado Colombiano ha tenido un crecimiento importante en los últimos años, aún presenta un limitado tamaño y desarrollo, no solamente cuando se compara con paises desarrollados del continente, sino también incluso con los paises Latinoamericanos que han logrado consolidar el crecimiento y expansión de este tipo de mercado financiero. Los principales obstáculos que actualmente enfrenta el mercado de derivados estandarizados Colombiano son: a) la restricción a la participación de inversionistas institucionales, b) El limitado desarrollo de los mercados accionario y de transferencia temporal de valores, c) la competencia del mercado de mostrador de forward sobre divisas, d) las altos costos por la operación de la Bolsa de Valores de Colombia-BVC, la Cámara de Riesgo Central de Contraparte-CRCC y el Autorregulador del Mercado de Valores-AMV, e) los altos niveles de garantía exigidos por la Cámara de Riesgo Central de Contraparte para transar ciertos derivados estandarizados, f) el desincentivo a la participación de inversionistas extranjeros y g) el desconocimiento sobre el funcionamiento de este tipo de mercado, sus características centrales y las ventajas de su adecuada utilización. Si se logra superar estos obstáculos, las bases para un desarrollo sostenible a largo plazo estan dadas, puesto que se dispone de un marco regulatorio que permite la transacción de todo tipo de instrumentos derivados, existe la infraestructura y las plataformas de negociación para realizar en forma relativamente segura y confiable las operaciones de compra y venta de estos contratos y adicionalmente se ha logrado un clima de confianza para los inversionistas con base en el aceptable desempeño económico de la nación en los últimos años.

PALABRAS CLAVES: Mercados de Capitales, Derivados Financieros Estandarizados, Futuros, Opciones, Permutas Financieras, Riesgo

EVOLUTION OF THE STANDARDIZED DERIVATIVES MARKET IN COLOMBIA: PERIOD 2010-2014

ABSTRACT

This document presents the final results of a research that looked for identifying the obstacles faced by the development of the standardized financial derivatives market in Colombia and its growth possibilities with a higher depth, variety and sophistication of its operations. The results show that even though the standardized financial derivatives market in Colombia has had an important growth over the latest years, it still presents a limited size and development when it is compared to the correspondent markets not only in developed countries in the continent but also in those Latin American countries that have achieved to consolidate the growth and expansion of this type of financial market. The main obstacles currently faced by the standardized financial derivatives market in Colombia are the following: a) the restriction to the

participation of institutional investors, b) the limited development of the stock market and the temporary transfer of securities market c) the competency represented by the over-the-counter currency forward, d) the high costs due to the operations of the Colombian Stock Exchange (BVC by its acronym in spanish), the Chamber of Central Counterparty Risk (CRCC by its acronym in spanish), and the Stock Market Self-regulator (AMV by its acronym in spanish), e) the high warranty levels required by the Chamber of Central Counterparty Risk in order to commercialize certain standardized derivatives, f) the lack of incentive to the participation of foreign investors and the lack of knowledge about the functioning of this type of market, its central characteristics and the advantages of its suitable utilization. Once these obstacles be overcome, the bases for a long-term sustainable development are given because there is a regulatory frame that allows the commercialization of all types of derivatives instruments, there are the infrastructure and the trade platforms required to perform in a relatively secure and trustworthy way the purchase and sale operations of these types of contracts and in addition, a reliable business environment has been achieved based on the acceptable economic performance of the country over the latest years.

JEL: G10, G15

KEYWORDS: Capital Markets, Standardized Financial Derivatives, Futures, Options, Swaps, Risk

INTRODUCCIÓN

El desarrollo del mercado de capitales es sin duda un factor fundamental para el progreso económico de un país al facilitar el traspaso en forma eficiente y segura de los excedentes de recursos de ahorradores e inversionistas a empresas e individuos que los requieren para adelantar proyectos productivos que incrementan la disponibilidad de bienes y servicios que requiere una sociedad. En los mercados de capitales más desarrollados, el mercado de derivados financieros es un componente primordial que permite la protección contra algunos de los más importantes riesgos que deben soportar los diversos actores que participan en los procesos productivos de una economía. Sin ser exhaustivos, algunos de estos riesgos son, por ejemplo, el asociado con la tasa de cambio, el cual enfrentan los exportadores e importadores de bienes y servicios cuando comercializan con monedas extranjeras (divisas). También, el riesgo de tasa de interés, que afecta prácticamente a todos los actores del sistema económico en la medida en que esta variable incide en los precios de todos los bienes y servicios. Finalmente, el riesgo de mercado que enfrentan productores y consumidores en la comercialización de los llamados commodities o productos básicos, debido a variaciones de precio asociados con los diferentes ciclos de oferta y demanda.

Para protegerse contra estos y otros riesgos, los mercados de derivados han desarrollado instrumentos como los contratos forward, los contratos de futuros, las opciones, los swaps, etc., los cuales permiten la transferencia del riesgo de una forma eficiente, de tal manera que el participante puede tener un mejor control sobre aquellas variables que afectan su desempeño económico. A pesar de estas ventajas y la importancia de su papel dentro del mercado de capitales, el mercado de derivados financieros colombiano ha tenido un desarrollo limitado, no solamente en el mercado de mostrador o Over The Counter -OTC sino también en el mercado estandarizado de las bolsas de valores. Esta situación se hace evidente al examinar la poca variedad de instrumentos financieros negociables y el número y monto de las transacciones realizadas. Por ejemplo, a pesar de que la negociación de derivados estandarizados comenzó en el país hace ya varios años (en Septiembre del 2008 se iniciaron operaciones), en la Bolsa de Valores de Colombia - BVC únicamente se negocian contratos de futuros sobre algunos subyacentes y no existen transacciones de opciones, el cual es otro instrumento importante y característico de los mercados de derivados estandarizados.Con base en las anteriores argumentaciones, este documento presenta los resultados de una investigación que buscó identificar los obstáculos y las perspectivas de crecimiento del mercado de derivados estandarizados en Colombia, como parte del esfuerzo para consolidar un mercado de capitales amplio y eficiente que promueva el desarrollo económico del país.

REVISIÓN LITERARIA

El limitado desarrollo del mercado de derivados estandarizados en Colombia y los problemas para su crecimiento ha preocupado a muchos analistas económicos y actores del sistema financiero del país. Son numerosos los artículos de revistas y publicaciones sobre el particular; sin embargo, estudios formales encaminados a buscar las causas de esta situación son relativamente pocos o se enmarcan dentro de otros temas más amplios. Uno de los primeros estudios que abordaron el tema fue el de Kamil et al. (2007) en el cual se analizaba la utilización de los derivados para manejar el riesgo cambiario en Colombia desde 1998 al 2006. Más tarde, Echeverry y Otros (2008) concluyeron que el mercado de derivados en Colombia era prácticamente inexistente y que las normas de control de capitales desincentivaban a potenciales inversionistas extranjeros a participar en el mercado. Alonso y Albarracín (2013) destacan en un documento sobre la creación de un mercado de opciones estandarizadas en el país los obstáculos que deben superarse para promover la negociación de estos instrumentos. Cardozo y otros (2014) afirman en un estudio sobre la Caracterización del Mercado de Derivados Cambiarios en Colombia que "…éste continúa rezagado frente a países desarrollados y algunos países de la región." Además, destacan la alta competitividad del mercado forward frente a los mercados de otros instrumentos.

METODOLOGÍA

La investigación de tipo deductivo se desarrolló en tres etapas. En la primera, se recolectó información estadística del mercado de derivados estandarizado tanto de Colombia como de otros paises seleccionados del mundo. Dentro de la información estadística se cuantificó el crecimiento y tamaño del mercado de derivados estandarizados en el país desde su aparición en septiembre de 2008 hasta finales del 2014, determinando el monto, tipo y número de negociaciones de instrumentos derivados en la Bolsa de Valores de Colombia –BVC, teniendo en cuenta que éste es el único escenario donde se negocian estos instrumentos en el país. La comparación de Colombia con países en desarrollo incluyó a Brasil y México, naciones Latinoamericanos líderes en el desarrollo de los mercados de derivados en la región. La comparación con paises desarrollados se realizó con Canadá y los Estados Unidos, paises con los mercados financieros de más alta sofisticación y profundización en el continente y quizas en el mundo. La comparación del tamaño del mercado de derivados estandarizados en Colombia con el de otros países (trabajo realizado en la tercera etapa de la investigación), se realizó no solamente en términos absolutos (volumenes de negociación y transacciones realizadas) sino también en términos relativos, teniendo en cuenta el tamaño de la economía de cada país medida por su producto interno bruto-PIB. Adicionalmente a la recolección de información estadística, en esta primera etapa también se obtuvo información de los tipos y características de los derivados negociados en Colombia y la regulación vigente, con el fin de tener una visión del nivel de desarrollo, sofisticación y particularidades del mercado Colombiano.

La segunda etapa de la investigación consistió en la realización de una encuesta dirigida a la totalidad de las 23 sociedades activas comisionistas de bolsa miembros de la Bolsa de Valores de Colombia a finales del 2014, en su calidad de organismos encargados de realizar ante la bolsa, las operaciones de derivados requeridas por sus clientes en su condición de inversionistas. El objetivo básico de la encuesta fue el de identificar los principales obstáculos que enfrenta el mercado de derivados en Colombia para su desarrollo, conocer el papel que ha jugado el gobierno nacional a través de la regulación del sector en la evolución y profundización del mercado y detectar las potenciales oportunidades para el desarrollo de nuevos instrumentos financieros. Finalmente, del análisis de los resultados de la encuesta, del desarrollo de la regulación y de las características específicas de la evolución del mercado de derivados Colombiano y de la comparación con otros mercados internacionales, se logró responder la pregunta que motivó la presente investigación referente a la identificación de los obstáculos que ha tenido el mercado de instrumentos financieros derivados estandarizados para su desarrollo en Colombia. A partir de la identificación de obstáculos y por ende de las medidas para su superación, se establecieron las perspectivas de crecimiento de este mercado en el país.

RESULTADOS

Los resultados que aquí se presentan son de dos tipos. En primer lugar, están los resultados correspondientes al análisis de las cifras de crecimiento y evolución del mercado de derivados estandarizado Colombiano y su comparación tanto con los paises Latinoamericanos líderes en el desarrollo del mercado de derivados como también con los paises desarrollados del continente. En segundo lugar, se presentan los principales obstáculos para el desarrollo del mercado estandarizado Colombiano que la investigación identificó y las perspectivas de crecimiento en un futuro.

Crecimiento del Mercado de Derivados Estandarizado Colombiano

La Figura 1 presenta el valor nocional y número de contratos de la negociación de contratos de derivados estandarizados en la Bolsa de Valores de Colombia-BVC desde septiembre de 2008, momento en el cual comenzó a funcionar este tipo de mercado en el país. Toda la negociación corresponde a contratos de futuros, puesto que en la BVC aún no se negocian opciones.

Figura 1: Comportamiento de la Negociación de Derivados Estandarizados en la Bolsa de Valores de Colombia Desde Inicio de Operaciones De Este Mercado En Septiembre Del 2008.

Año	Número de Contratos	Valor Nocional (Millones de USD)	Crecimiento Anual del Valor Nocional (%)
2008	621	77	N.A.
2009	14,896	1,848	2295.7
2010	287,493	13,231	615.9
2011	795,500	45,533	244.1
2012	636,060	35,804	-21.4
2013	692,471	44,621	24.6
2014	941,599	47,154	5.7

Esta figura muestra el valor nocional y el número de contratos de la negociación de derivados estandarizados en la Bolsa de Valores de Colombia -BVC desde inicio de operaciones de este mercado en Septiembre del 2008. Notas: N.A. = No aplica. Fuente: Los datos del 2008 corresponden a información obtenida de la BVC. Los datos del 2009 al 2014 corresponden a información del World Federation of Exchanges -WFE: derivatives market surveys.

Como puede observarse, el crecimiento del mercado de derivados fue muy importante en los primeros años de operación. Sin embargo, en el año 2012 se presentó una caída en el valor nocional medido en USD con respecto al año anterior del 21.4%, producto en parte a la desaceleración del crecimiento económico del país (el crecimiento del PIB de Colombia pasó del 6.6% en el 2011 al 4% en el 2012). En el 2013 el

crecimiento del valor nocional fue del 24.6% y en el 2014 tan solo del 5.7%, afectado en este último año por las consecuencias económicas de la caida internacional del precio del petroleo y por ende en la fuerte devaluación del peso Colombiano en el segundo semestre de este año. En cuanto al número de contratos, los resultados muestran un comportamiento relativamente similar al aumento del valor nocional, aunque en el 2014 el crecimiento del número de contratos es una cifra destacada cercana al 36%.

Comparación del Mercado Colombiano Con Otros Mercados Latinoamericanos

La Figura 2 junto con su tabla de datos, presenta el valor nocional del mercado de derivados estandarizado como porcentaje del PIB para Colombia, México y Brasil. Estos últimos dos paises son considerados los paises latinoamericanos con los mercados de derivados más desarrollados de la región, por lo que su referente es fundamental para dimensionar el mercado Colombiano. Adicionalmente, la comparación teniendo en cuenta el PIB permite ponderar los resultados de acuerdo con el tamaño de la economía de cada nación. En este caso, las cifras muestran que el valor nocional del mercado de derivados estandarizado Colombiano representa para el año 2014 un poco más del 12% del valor del PIB. Mientras que en México, esta relación ha mostrado una tendencia a disminuir en los últimos años aunque con un ligero aumento en el 2014 ubicándose en el 23%. Por su parte, el mercado Brasilero de derivados estandarizado refleja las dificultades que ha estado presentado la economía de este país en los últimos años, con un valor nocional que pasa de representar 20 a 9 veces el PIB del país del 2010 al 2014, respectivamente. A pesar de esta disminución, no deja de ser sorprender el tamaño, la profundidad y el desarrollo del mercado de derivados financieros de este gigante Suramericano.

En resumen, aunque el mercado de derivados estandarizado Colombiano ha crecido en forma importante desde su lanzamiento en el año 2008, su profundidad y desarrollo todavía es precario si se compara con las cifras del mercado Mexicano (aproximadamente unas 6 veces más grande, medido por sus valores nocionales en USD) y más aún con el mercado de derivados Brasilero, el cual a su vez es más de 70 veces mayor al mercado Mexicano. Lo anterior, con base en las últimas cifras disponibles del año 2014.

Comparación del Mercado de Derivados Estandarizado Colombiano con los Mercados de Paises Desarrollados del Continente

Aunque la comparación del mercado de derivados estandarizado Colombiano con los mercados de otros paises Latinoamericanos es lógica y apropiada dado que se dimensionan mercados en paises con similares niveles de desarrollo económico, no es menos importante la comparación con sofisticados y eficientes sistemas financieros de paises desarrollados, puesto que de esta manera se puede estimar la potencialidad del crecimiento de estos mercados y la magnitud del camino por recorrer. La Figura 3 presenta los resultados del valor nocional como porcentaje del PIB para los mercados de derivados estandarizados de Colombia, Canadá y Estados Unidos, desde el año 2010 hasta el año 2014.

Figura 3: Comparación Entre los Mercados de Derivados Estandarizados de Colombia, Canadá y Estados Unidos. Valor Nocional Como Porcentaje Del PIB. Cifras En Billones de US$

Año	Colombia			Canadá			Estados Unidos		
	Valor nocional (1)	PIB	Valor nocional /PIB (%)	Valor nocional (2)	PIB	Valor nocional /PIB (%)	Valor nocional (3)	PIB	Valor nocional /PIB (%)
2010	13.2	287.0	4.6	14,883.5	1,614.0	922.1	975,475.3	14,964.4	6,518.7
2011	45.5	335.4	13.6	23,414.7	1,788.8	1,309.0	1,061,638.2	15,517.9	6,841.4
2012	35.8	369.7	9.7	23,020.5	1,832.7	1,256.1	789,246.1	16,163.2	4,883.0
2013	44.6	380.1	11.7	24,485.6	1,839.0	1,331.5	920,533.8	16,768.1	5,489.8
2014	47.2	377.7	12.5	24,783.1	1,786.7	1,387.1	1,178,281.0	17,419.0	6,764.3

Esta figura muestra el valor nocional del mercado de derivados estandarizado como porcentaje del PIB para Colombia, Canadá y Estados Unidos desde el 2010 hasta el 2014. Nota: (1) Corresponde a las negociaciones en la bolsa de Valores de Colombia -BVC. Incluye futuros sobre energía. (2) Corresponde a las negociaciones en la Bolsa de Montreal y en la ICE Futures Canada (Agricultural Exchange). (3) Obtenido del dato de negociaciones de derivados en bolsa para Norte América del Bank for International Settlements-BIS menos los mercados de Cánada y México del World Federation of Exchanges-WFE. Fuente: WFE: Derivatives Market Surveys y BIS: Quarterly Reviews.

Los resultados de esta comparación muestran que a pesar de ponderar el tamaño de los mercados con base en las cifras del PIB, las diferencias en las dimensiones siguen siendo muy significativas, aunque menores con respecto a los valores absolutos. Por ejemplo, el valor nocional del mercado de derivados comercializados en bolsa en Colombia como porcentaje del PIB del país alcanzó un máximo del 13.6% en el 2011 y se situó en 12.5% en el año 2014. Mientras tanto, en Canadá esta misma relación presenta un crecimiento relativamente constante para alcanzar su valor máximo en el 2014 con un valor nocional aproximadamente 14 veces superior al PIB del país. Obsérvese que estas diferencias tan considerables se dan a pesar de que el PIB de Canadá en dólares Americanos es tan solo 4.7 veces aproximadamente superior al PIB de Colombia para el año 2014 (comparación en términos relativos).

Por otra parte, las diferencias de Colombia con respecto al mercado de los Estados Unidos son por supuesto mucho más abultadas: el valor nocional del mercado de derivados comercializados en bolsa en el país Norteamericano es muy cercano a 67 veces su PIB en el año 2014. Las anteriores diferencias muestran que el mercado de derivados estandarizado Colombiano tiene aún mucho espacio para crecer, con enormes posibilidades de diversificación y profundización a través de la comercialización de nuevos instrumentos y mayores volúmenes de transacción respectivamente.

Obstáculos Para el Desarrollo del Mercado de Derivados Estandarizado Colombiano

Con base en los resultados de la encuesta, la revisión de documentos, artículos y normatividad vigente y la comparación con otros mercados internacionales, a continuación se presentan algunos de los principales obstáculos del mercado de derivados estandarizado Colombiano y las propuestas de desarrollo correspondientes.

Restricción a la participación de inversionistas institucionales: La legislación Colombiana restringe la participación de los fondos de pensiones, las compañías de seguros y las sociedades de capitalización en el mercado de derivados, imponiendo límites a la inversión en estos instrumentos a tan solo una pequeña fracción del valor del fondo o del portafolio respectivo. Si se considera que estas entidades hacen parte de los organismos llamados a dinamizar el mercado de derivados, como ocurre a nivel internacional, esta medida regulatoria no solamente limita los niveles de riesgo que pueden asumir los participantes sino que también frena el crecimiento del propio mercado.

Limitado desarrollo de los mercados accionario y de transferencia temporal de valores-TTVs: El limitado desarrollo de los mercados accionario y de transferencia temporal de valores-TTVs, ha afectado el crecimiento del mercado de derivados de acciones en Colombia. Un mercado accionario cerrado, alta concentración de la propiedad y pocos participantes, explican su tamaño relativamente pequeño. Los límites impuestos a los fondos de pensiones y compañías de seguros, restringen las operaciones de ventas cortas (short sales) y por ende la expansión del mercado de TTVs.

Importante competencia del mercado OTC de forward sobre divisas: Realizar una operación forward en el mercado de mostrador o over-the counter -OTC de compra o venta de dólares Americanos es más barata y con menos requisitos que la operación equivalente de futuro sobre la divisa Americana. Esta situación restringe el aumento del mercado de futuros sobre la tasa de cambio para esta moneda.

Altos costos por la operación de la Bolsa de Valores de Colombia-BVC, la Cámara de Riesgo Central de Contraparte-CRCC y el Autorregulador del Mercado de Valores-AMV.

Una barrera importante al desarrollo del mercado de derivados estandarizados en Colombia son los costos de transación cobrados por la BVC, la CRCC y el AMV. Estos costos son significativamente superiores a los costos de mercados de derivados de paises en desarrollo, como es el caso de Brasil a nivel regional, y por supuesto superiores a los costos de paises desarrollados, donde las economías de escala, los volúmenes

de transacción, los desarrollos tecnológicos y la competencia, han reducido los montos de las comisiones en forma muy importante.

Altas garantías en el mercado de estandarizados (margin accounts): Un obstáculo para el desarrollo del mercado de derivados estandarizados en Colombia son los altos niveles de garantías o márgenes requeridos para la compensación y liquidación de los contratos, los cuales comprometen recursos que de otra manera podrían darle una mayor liquidez al mercado y eventualmente aumentar el número de transacciones promedio efectuadas por sus participantes.

Desincentivo a la participación de inversionistas extranjeros en el mercado de derivados estandarizados: Otro obstáculo importante para el crecimiento del mercado de derivados estandarizado en Colombia es el desincentivo a la participación de inversionistas extranjeros en la forma de altos impuestos cobrados a los no residentes sobre las ganancias obtenidas en la realización de este tipo de transacciones.

Desconocimiento del funcionamiento, ventajas y características del mercado de derivados: Uno de los obstáculos fundamentales para el desarrollo del mercado de derivados en Colombia es sin lugar a dudas el desconocimiento sobre su funcionamiento, sus características centrales y las ventajas de su adecuada utilización. Este desconocimiento, no solo incluye a los inversionistas habituales del mercado de valores sino también y sorprendentemente a muchas de las personas e instituciones que hacen parte del sistema financiero del país. Perspectivas de crecimiento: la comparación de Colombia con México y Brasil, los paises Latinoamericanos con los mercados de derivados negociados en bolsa más desarrollados de la región, y con Canadá y Estados Unidos, los paises desarrollados del continente, muestra que el mercado Colombiano tiene aún mucho espacio para crecer. Las tasas finales de expansión dependerán por supuesto de que se adopten las medidas para corregir los principales obstáculos y barreras que enfrenta el mercado de derivados negociados en bolsa del país.

CONCLUSIONES

Desde su lanzamiento en Septiembre del 2008, el mercado de derivados estandarizado Colombiano ha crecido en una forma muy importante; sin embargo, su profundidad y desarrollo todavía es muy limitado si se compara con paises desarrollados del continente e incluso con paises Latinoamericanos que han logrado consolidar este tipo de mercado financiero. Con base en los resultados de la encuesta aplicada a las Sociedades Comisionistas de Bolsa del País (brokers), la revisión de documentos, artículos y normatividad vigente y la comparación con otros mercados internacionales, los principales obstáculos que enfrenta el mercado de derivados estandarizado Colombiano son: a) la restricción a la participación de inversionistas institucionales, b) El limitado desarrollo de los mercados accionario y de transferencia temporal de valores-TTVs, c) la competencia del mercado de mostrador de forward sobre divisas, d) las altos costos por la operación de la Bolsa de Valores de Colombia-BVC, la Cámara de Riesgo Central de Contraparte-CRCC y el Autorregulador del Mercado de Valores-AMV, e) los altos niveles de garantía exigidos por la Cámara de Riesgo Central de Contraparte para transar ciertos derivados estandarizados, f) el desincentivo a la participación de inversionistas extranjeros y g) el desconocimiento sobre el funcionamiento de este tipo de mercado, sus características centrales y las ventajas de su adecuada utilización. Si se superan estos obstáculos, en los próximos años el mercado de derivados estandarizado Colombiano tendrá un destacable crecimiento, dado el dinamismo y las condiciones internas que han permitido que este mercado ofrezca los instrumentos para el manejo de algunos de los más importantes riesgos que enfrentan los actores del sistema económico del país.

REFERENCIAS

Fernandez, V. (2003). *What determines market development? Lessons from Latin American derivatives markets with an emphasis on Chile.* Journal of Financial Intermediation, 12, pp. 390–421.

Echeverry, J. C. et al. (2008). *Promoviendo el Desarrollo del Mercado de Capitales en Colombia: Hoja de Ruta,* Bogotá: BRC Investor Services S.A.

Budnevich & Asociados. (2009). *Estudio de Diagnóstico, Evaluación y Propuesta de Desarrollo del Mercado de Derivados en Chile.* Disponible en https://www.sbif.cl/sbifweb3/internet/archivos/publicacion_9143.pdf.

Cardozo, N. et al. (2014). *Caracterización del Mercado de Derivados Cambiarios en Colombia*, Borradores de Economía, Num. 860, 214. Disponible en http://www.banrep.gov.co/docum/Lectura_finanzas/pdf/be_860.pdf

Clavijo, S. et al. (2014). *La Utilización de Derivados por los Fondos de Pensiones: Lecciones de la Experiencia Internacional*, Contraparte, Edición No. 4, Febrero 2014. Disponible en http://anif.co/sites/default/files/uploads/Contraparte4-14.pdf

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ESTRATEGIA DE MEJORA CONTINUA PARA AGILIZAR LA GESTION ADMINISTRATIVA DE LA TRANSPORTACION DE RESIDUOS PELIGROSOS DE LA EMPRESA PROAMBIENTAL

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RESUMEN

Actualmente el proceso de recolección de residuos es un problema, el cual reclama atención para poder realizar de manera eficiente el mismo dentro de la empresa mexicana Proambiental. La empresa tiene 30 recolecciones por semana, de las cuales tiene un nivel de servicio promedio del 70 % en cuanto a las entregas puntuales, si hablamos del gasto mensual de combustible su promedio esta en 75 mil pesos, teniendo un promedio de 38 incidencias en el departamento de logística reportada por sus clientes. Este articulo está basado en la aplicación de la metodología basada en PDCA el cual significa (Plan, Do, Check, Act en el círculo de Deming apoyada de herramienta del Kaizen y 5s) del cual uno de los objetivos es el incrementar el porcentaje de cumplimiento de sus recolecciones en tiempo, la meta fue incrementar un 10 % el nivel para alcanzar un 80 % en promedio, es decir subió el promedio de recolecciones en tiempo de un 70% a un 80%. Las incidencias decrecieron de 38 a 26 en promedio como resultado de las implementaciones de controles. De la misma manera se disminuyó un 5 % el gasto de combustible que equivale a $70 000 mil pesos en promedio mensual.

JEL: C10, C49, L90, J20

PALABRAS CLAVES: PDCA**,** KAIZEN, 5' S, SIPOC, Pareto, Ishikawa, AMEF

STRATEGY OF CONTINUOUS IMPROVEMENT TO STREAMLINE MANAGEMENT OF TRANSPORTATION OF HAZARDOUS WASTE

ABSTRACT

Currently, waste collection is a big issue worldwide; therefore, the Mexican company Proambiental is committed to improving its processes. The company has 30 waste collection services a week with an average of 70% of on time services, which results in $75 thousand pesos fuel expenses and 38 incidences reported by the logistics department. This paper describes the use of a new methodology based on PDCA (Plan, Do, Check, Act in the Deming circle supported by the Kaizen and 5s tool) whose main objective was to increase in 10% the on time collection services, which actually went from 70 to 80%. After the intervention, the incidences decreased from 38 to 26; in addition, there was a reduction of 5% in the monthly fuel expenses going from $75 to $70 thousand pesos.

KEY WORDS: PDCA, KAIZEN, 5's, SIPOC, Pareto, Ishikawa, AMEF.

INTRODUCCIÓN

Hablar Proambiental es una sociedad anónima domiciliada en la ciudad de Puebla, México. La cual se divide en dos empresas, denominadas respectivamente Proambiental Servicios Ambientales de México y Proambiental Soluciones en Residuos de la Salud, dedicándose la primera a los residuos industriales peligrosos, y la segunda, a los residuos peligrosos biológicos infecciosos. Es un conjunto de empresas dedicadas al manejo integral de residuos tantos peligrosos como no peligrosos, los cuales provienen principalmente del sector empresarial y del gobierno. En la actualidad las empresas están buscando esquemas que permitan la mejora continua. Por ello, la empresa Proambiental, que es una institución especializada en el manejo de residuos peligrosos, busca el efecto de optimizar la gestión administrativa en la recolección y transportación de estos, de manera que ello repercuta tanto en la calidad del servicio como en el costo operativo del diésel.

REVISIÓN DE LA LITERATURA

Espinoza y Hedjuk, (2010) afirman que "los empresarios deben comprender que el implementar un modelo de trabajo productivo implica un cambio de cultura, es decir, cambio de hábitos y prácticas de trabajo fundamentales que se pueden observar y que explican cómo en realidad está operando una organización". Suárez y Miguel, (2011:25). En el contexto latinoamericano, instituciones tanto públicas como privadas e incluso sociales, han empezado a implementar total o parcialmente diversos aspectos o esquemas del modelo Kaizen.

Descripcion del Problema

Actualmente, entre las dos filiales Proambiental se cuenta con un total de 450 clientes con un total de 16 rutas. Existe un problema en las llegadas fuera de horario para realizar las recolecciones de residuos peligrosos que están afectando el indicador de puntualidad en las recolecciones con los clientes, lo que se traduce en que de solo se está cumpliendo con el horario de recolección de 18 servicios cuando el objetivo es cumplir con los 30 servicios programados por semana. El nivel de satisfacción del cliente también se ve afectado al no cumplir en tiempo y forma las recolecciones pactadas ya que se tiene un promedio de 20 incidencias por mes cuando la meta es tener solo 10 incidencias reportadas por los clientes, entre las cuales se menciona la falta de comunicación entre áreas de servicio al cliente para poder compartir la programación de las rutas de recolección. Debido a esta falta de programación compartida se ocasionan retrasos en la recolección con los clientes finales, dando como resultado que algunos de los clientes busquen el servicio de otra empresa que proporcione el mismo servicio de recolección de residuo al no ver satisfecha sus necesidades de servicio, como se ha manifestó en la pérdida de un 2 % de clientes mensuales.Por otra parte, los retrasos en las recolecciones generan incremento en el consumo de gasolina que representa un costo mensual promedio de 70 mil pesos y que se incrementa hasta 75 mil pesos mensuales es decir un 7%, cuando se tiene que hacer una recolección no programada o bien cuando se pierde la cita con el cliente debido a la falta de documentación que impide el acceso al vehículo con la empresa y este tiene que regresar en otra ocasión, generando un desperdicio de tiempo que al final impacta en la productividad de la empresa.

METODOLOGIA

Para el análisis de este problema planteado que sucede dentro de PROAMBIENTAL usaremos el Ciclo PDCA (o PHVA) viene de las siglas Planificar, Hacer, Verificar y Actuar, en inglés "Plan, Do, Check, Act", Edwards Deming, (1939). El ciclo PDCA es una metodología que describe los cuatro pasos esenciales que se deben llevar a cabo de forma sistemática para lograr la mejora continua, entendiendo como tal al mejoramiento continuado de la calidad (disminución de fallos, aumento de la eficacia y eficiencia, solución de problemas, previsión y eliminación de riesgos potenciales…). El círculo de Deming lo componen 4 etapas cíclicas que fueron ya mencionadas. De éstas usaremos la herramienta de mejora continua llamada

KAIZEN desarrollada por W. Edwards Deming durante los años 50's, la cual se apoya en métodos estadísticos. Deming insistía en no describir funciones cerradas, suprimir objetivos numéricos, no pagar por horas, romper las barreras departamentales y dar más participación a las ideas innovadoras de los trabajadores. En 1986, Masaaki Imai introduce el término Kaizen en su libro "Kaizen: The key to Japan's Competitive Success" ("Kaizen, La Clave de la Ventaja Competitiva Japonesa") (Silva, 2012). Empezaremos con la primera fase planteada por Deming:

La fase de Planificar consiste en establecer los objetivos a lograr donde se aborda principalmente en el problema organizacional planteado, en el cual el principal enfoque es cumplir con los requerimientos de los clientes pues la empresa fue creada para proporcionar una atención a una necesidad prexistente en el mercado, si los clientes no logran satisfacer sus necesidades el fin de la empresa no será cubierto. El alcance del proyecto es poder cumplir con estas necesidades buscando encontrar el método más acertado para la empresa tiene como objetivo tener el 90% de nivel de servicio sin embargo no han podido alcanzar más que un 70% cuando se llega a completar las recolecciones programadas esto basado en una encuesta anual que se hace del nivel de servicio con los clientes donde se toman entre otras cosas factores como, puntualidad, documentación en tiempo, satisfacción del cliente. De acuerdo al SIPOC es una herramienta Lean Manufacturing la cual significa Suppliers, Inputs, Process, Outputs, Customers, los procesos más importantes es la parte de coordinación de la recolección así ya que en esta fase entran diversos integrantes que son los llamados proveedores que son los encargados de la coordinación así como la recolección en sí, la figura 1 nos muestra los agentes más importantes dentro del proceso para poder saber quiénes son nuestros clientes y qué relación tienen con el proceso que estamos analizando para poder determinar en qué proveedores es necesario interferir como lo es en el área de logística, atención a clientes para poder así tener un término de proceso eficiente.

Figura 1: SIPOC (Suppliers, Inputs, Process, Outputs, Customers)

En esta figura 1 se observa el proceso en forma general los participantes del proceso de recolección de residuos peligrosos. En donde se muestra que lo primero en intervenir son las áreas de logística, atención a clientes y clientes siguiendo con las salidas que son de los camiones, programación de citas, y ventas siendo el centro el proceso de recolección que es en donde nos enfocaremos para que la salida que es la recolección sea realizada con éxito y nuestro cliente que son las empresas queden cubiertas sus necesidades.

La empresa realiza la recolección con sus 450 clientes los cuales se van distribuyendo en 16 rutas entre los diferentes días de la semana para poder lograr cubrirlos. El comportamiento de las recolecciones en tiempo fue variando entre un 65 por ciento de cumplimiento al máximo que es de 70 por ciento, durante los meses de enero a Diciembre del 2014. Teniendo un volumen promedio de recolecciones de 30 por semana de los cuales solo se logra cubrir un 70 por ciento de las mismas quedando sin servicio el 30 por ciento restante por los factores que analizaremos más adelante. Debido a la falta de cobertura de estas recolecciones, los clientes se ven forzados a tomar otras alternativas, o bien el área de logística necesita programar unidades extras que puedan recolectar estas faltantes, lo que repercute en incremento de los costos operativos y percepción de un mal servicio por parte del cliente.

Los clientes juegan un papel muy importante dentro de la empresa Proambiental por lo tanto la retroalimentación telefónica es una manera en que la empresa logra mantener una acercamiento con sus clientes, con esta herramienta los clientes dan comentarios respecto al servicio general de la empresa, que se van canalizando según el área que corresponda algunos de estos comentarios van dirigidos, a la falta de puntualidad en las recolecciones, falta de documentación en tiempo, omisión de la entrega de contenedores necesarios para cuando se efectúa la recolección, el objetivo es tener 10 incidencias sin embargo actualmente el departamento tiene 38 incidencias anuales.

Otro indicador importante dentro de la empresa son los costos operativos donde destaca el consumo de combustible necesario para que las unidades realicen las recolecciones, los costos reportados por la empresa van de 73 mil pesos a 75 mil pesos mensuales, esta variación en el consumo de combustible surge cuando se realiza alguna modificación a la ruta planeada, la cual genera que la unidad tenga que realizar una recolección extra y por tanto se incremente el consumo de combustible al salirse de la ruta programada. Es muy importante verificar el diagrama de flujo de la empresa que se muestra en la figura 2, el cual muestra cómo se encuentra actualmente distribuido para poder observar cuales son los pasos intervienen en el proceso de recolección esto con el fin de tener una idea más clara de los factores que interfieren en el proceso que analizaremos.

Figura 2: Diagrama de Proceso de Recolección

DIAGRAMA DE RECOLECCION

En el Figura 2 se muestra como dentro del proceso no se cuenta con herramientas de validación que nos ayuden a mantener el cumplimiento en tiempo y forma de cada uno de los pasos.

Se realizó una lluvia de ideas en el Kaizen para poder determinar los problemas que se tienen en la compañía, se formó un grupo de trabajo encabezado por el Gerente General, Gerente de mercadotecnia, Administradora General, servicio al cliente, jefe de logística, Almacenista como resultado de esta lluvia de ideas pudimos identificar los siguientes problemas que están representados en un diagrama Ishikawa el cual se muestra a continuación en la figura 3

Figura 3: Diagrama Ishikawa

En la figura 3 nos muestra que los problemas se encuentran centrados en los métodos, máquinas y personal esto en la fase de análisis es muy importante ya que nos permite saber en dónde nos centraremos ahora bien para poder tener una visión más clara de cuan frecuente se presentan estos problemas nos ayudaremos de otra herramienta.

En la lluvia de ideas se identificó con los integrantes del Kaizen la frecuencia con que se presentaban los problemas identificados previamente, los cuales se muestran en la gráfica 1 que es el Pareto de causas.

Gráfica 1: Pareto de Causas

En la gráfica 1 se muestran las causas detectadas de porque se están presentando las fallas dentro de las recolecciones programadas teniendo una tendencia muy importante la falta de documentación.

Se muestra una tendencia muy importante en que el principal problema que se presenta durante el proceso de recolección de los residuos se deriva de la falta de documentación, es decir no se cumplen con los requisitos que solicita el cliente para poder realizar la recolección lo que da como resultado que se retrasen en la recolección o en el peor de los casos que no se pueda completar la misma. El otro problema frecuente es la ausencia del contacto en la empresa es decir que cuando lleguen por el residuo la persona que coordina la recolección no se encuentre esto también provoca un retraso en la recolección, que va de la mano del otro problema que es la falta de puntualidad en el horario lo que hace que las demás recolecciones se desplacen. Por ultimo otra que nos impacta mucho es la falla en las unidades por cuestiones mecánicas las cuales nos impiden hacer las recolecciones programadas, debido a estos problemas que presentan el nivel de servicio

Dentro de la fases de hacer es muy importante el poder realizar un análisis que nos permita identificar las áreas que necesitamos integrar a la mejora, para esto utilizaremos el análisis del modo y efecto de fallas (AMEF-9 fue desarrollado en el ejecito de Estados Unidos por ingenieros de la National Aeronautics and Space Administration (NASA)), se empleaba para evaluar la confiabilidad y para determinar los efectos

de las fallas de los equipos y sistemas en el éxito de una misión y en la seguridad del personal o de los equipos. En la fase de mejora utilizaremos la herramienta del AMEF sus siglas significa Análisis de Modo y Efecto de la Falla, que nos ayuda a identificar los riegos potenciales para en base a estos poder meter métodos de control que nos permitan eliminar o disminuirlos, en la figura 4 se muestran los principales riesgos se observan que son la perdida de documentación y la coordinación entre áreas por lo que nos tendremos que enfocar en la fase de control en este tipo de situaciones.

Figura 4: AMEF

Análisis del Modo y Efecto de la Falla AMEF											Nombre AMEF			
De Diseño				De Proceso										
Ingeniero Lider del Proyecto: Arely	Equipo de Trabajo: Guillermo Martinez, Salvador Martinez, Fernando Garcia										Realizado por: (nombre Depto.) Arely Vazquez			
Falla		Fallas Potenciales						Situación Actual			Medidas recomendadas para la eliminación de fallas (Acciones)		Fechas Compromiso	
	Falla No.	Forma, Modo (Cómo se ve?)	Consecuencia (Qué pasa?)	Severidad	Causas potenciales de la falla ¿Porqué?	Ocurrencia	Acciones de verificación previstas	Detección.	No. de Prioridad de riesgo (NPR)			Responsable	Inicio	Fin
Recibir la llamada o revision de la agenda	2	No recibir la llamada, no tener la cita agendada	Perder la cita de recoleccion	5	No recibir alerta de llamada	1	Agenda electronica periodica	1	5		------------------------------			
Variantes de recoleccion	2	el area comercial no se coordine	Envio de insumos incorrectos, distancia	3	Incorrecto equipo de recoleccion	2	Juntas semanales entre area comercial y logistica	3	18		Junta semanal de programacion	LG/ MK	22-Apr	4-Jun
Llamada al contacto	3	Incorrecta validacion	Falla en la recoleccion	6	Falta de entrenamiento	2	Recordatorios electronicos	3	36		Uso de medios electronicos para generacion de alertas	LG	22-Apr	4-Jun
Recoleccion misma semana	4	Cliente no preparado, no se respeten los	Se realice la recoleccion incompleta	6	La unidad no sea la correcta	2	check list para agendar la cita	3	36		Generacion de check list de cita y carpeta de cliente	MK	22-Apr	4-Jun
Decarga en almacen	2	Demora en la descarga	retraso de otras recolecciones	10	Omision de la cita	7	Horarios de descarga en almacen	2	140		Generacion de ventanas de recibo en almacen	LG	22-Apr	5-May
Cierre del viaje y documentacion	6	Perdida de manifestos, falta de informacion	Falta de pago por la recoleccion, falta de entrega	3	Expedientes incompletos, informacion legal	7	Check list de documentacion	9	189		Generacion de check list de documentacion	LG	22-Apr	4-Jun

En la figura 4 En el AMEF pudimos establecer las principales fallas que están afectando a nuestro proceso y cómo podemos disminuirlas, en esta fase es donde se generan las ideas para poder mejorar el proceso como lo es la implementación de check list, creación de carpeta por cliente, implementación de 5s, juntas semanales de coordinación de recolecciones y ventanas de descargas en el almacén

Durante la fase de control se tienen ya identificadas las mejoras que se realizaran, la primera propuesta es realizar una junta diaria de programación con el área de mercadotecnia, administración, almacén y logística en la cual se acordara la ruta que seguirán las unidades de recolección. Esta junta evitara realizar una doble cita a la misma hora, modificaciones en rutas prestablecidas, todo esto con el fin de reducir el consumo de combustible y poder cumplir con los horarios establecidos con el cliente. La agenda que es como se recolectara por semana se dará como producto de la junta semanal. Una vez realizada la junta se procederá a realizar la citas con los clientes para lo cual deberá llenarse el siguiente check list que se observa en la figura 5 el cual permitirá tener, el equipo adecuado, el horario establecido y material que llevara la unidad que se encargará de la recolección.

Figura 5: Check List Para Agendar Citas de Recolección

Figura 5 Este documento deberá llenarse cada vez que se agende una cita con los clientes

En la fase de control surge la necesidad de la creación de carpetas por cliente para tener establecidos los requisitos que cada uno tiene para poder lograr esto primero se tuvo que hacer una implementación de 5´s. La implementación se inició con una capacitación de lo que es la metodología de las *5s* a los trabajadores de las oficinas en la cual se presentó el plan de trabajo. Segundo paso se procedió a designar un área donde se pondrían las pertenencias que ya no se requirieran en los escritorios.

Tercer paso se comenzó la depuración del área asignando así un lugar a las cosas que permanecería en el escritorio y las que no lo harían ponerlas a disposición en el área designada. Para terminar se implementó un *lay out* para cada lugar para que se tuviera a disposición para que cuando se quisiera hacer auditoria fuera perfectamente perceptible y así poder dar seguimiento a la mejora.Después de esta implementación se pudo depurar el área de logística, facilitar el acceso a los documentos, y organizar el directorio de los clientes y las rutas de los mismos. Por lo que se procedió a la realización de una carpeta por cliente la cual permita tener en orden y contar con toda la información necesaria para la formación del expediente administrativo que será utilizada para obtener documentación que se requiriera en la recolección, facturación o bien comunicación con el mismo, dentro de este expediente se incluye, RFD, datos del contacto, contacto suplente, envases que requiere el cliente, documentación de ingreso, manifiestos, y encuestas de satisfacción. Cuando se solicite una recolección el área de logística deberá llenar un check list de documentación que se presenta en la figura 6, que le permita al chofer contar con la información necesaria para evitar la falta de documentación.

Figura 6: Check list Documentación

Figura 6 Esta carpeta y el check list servirán para mantener vigente, ordenada y completa la información del cliente para que cuando se requiera algún servicio se pueda contar con ella.

El motivo de la implementación del check list es evitar que tenga que perder la cita por falta de algún documento o que se tenga que reprogramar. Se determinó que existe una área de oportunidad en la descarga de los residuos peligrosos del almacén por lo cual se necesita tener una programación entre logística y almacén, se propone hacer ventanas de descarga (horarios en que este esperando el almacén) que permitan que esté listo el almacenista para recibir el material, con esto se evitaran las demoras en el proceso de descarga, facilitar la organización del tiempo para el almacenista y agilizar que la unidad pueda volver a su ruta de recolección.   En esta última etapa de Actuar es donde se pone en marcha todo lo que se realizó durante la mejora donde se modificó ya el diagrama de proceso, además se está haciendo uso de los nuevos formatos de control. En esta fase se hacen uso las herramientas implementadas para afectar positivamente los indicadores de la empresa y subir la productividad de la misma.

RESULTADOS

En los análisis de los estudios siempre se espera poder dar soluciones y mejoras a las empresas que permitan incrementar la productividad de la misma y ésta no es la excepción. El resultado principal en la aplicación de Kaizen y 5s es después de las mejoras se puede notar una mejora sustancial en el indicador de porcentaje de cumplimiento que se muestra en la gráfica 2, el cual incrementó un 10 por ciento con una tendencia estable, como se puede apreciar.

Gráfica 2: Porcentaje de Cumplimiento del Nivel de Servicio

Gráfica 2 Se muestra un incremento considerable en el cumplimiento de recolecciones en tiempo.

Se muestra que subió de un 70 por ciento al 80 por ciento de porcentaje de puntualidad en las recolecciones lo que acerca más a la empresa al 95 por ciento deseado. El diagrama del proceso de recolección de residuos que se aprecia en la figura 8, también sufrió una modificación y queda como a continuación se muestra donde hubo un incremento de actividades de control básicamente para poder mantener la implementación de los nuevos controles.

Figura 8: Diagrama de Flujo de Proceso de Recolección

Figura 8 El diagrama de flujo sufrió modificaciones integrándose nuevos procesos que son revisión de la agenda, junta de programación diaria, check list documentación, check list cita y cita almacén para hacerlo más efectivo

Del mismo modo la gráfica número 3 de reporte de incidencias, dentro de la empresa tuvo una mejora considerable debido a que el área de logística que tenía promedio 38 incidencias a solo 26 en promedio por tanto tuvo una disminución de incidencias el cual fue medible debido mediante las llamadas que se realizan para conocer las opiniones de los clientes.

Gráfica 3: Nivel de Servicio Por Áreas Departamentales

Gráfica 3 Se muestra un decremento en el número de quejas al área de logística

En la gráfica 4 se muestra la disminución en un 5 % de consumo de combustible del cual se obtiene un ahorro monetario entre el 2014 y el 2015, que usan las unidades para hacer las recolecciones.

Gráfica 4: Consumo de Combustible 2015

Gráfica 7 Se muestra un decremento en el consumo de combustible de las unidades

CONCLUSIONES

Mediante la aplicación de la metodología Kaizen se logró una mejora en los indicadores de la empresa se logró impactar en cuatro áreas el área de logística logrando subir un 8 % es decir de un 70 por ciento de recolecciones en tiempo que mantenía la empresa a un 80 % de cumplimiento contra el objetivo de 95 por ciento que tiene fijado la empresa como objetivo, lo que se traduce en dejar de perder 12 recolecciones por mes las cuales en promedio generan un ingreso de 1500 pesos. El área de atención al cliente lo cual también ayudo mejorar la percepción del cliente de la atención que está recibiendo en el área ya que de 38 incidencias del año pasado este lleva solo 26 con tendencia a la baja según los comentarios recientes de los clientes. En el área administrativa ya que al mantener un orden, limpieza y organización se puede hacer las actividades de manera más fácil y rápida lo que disminuye los desperdicios, los movimientos innecesarios, debido a que la información está al alcance de todos y se encuentra de manera efectiva.

Por último el área contable se obtuvo un buen impacto en el costo operativo que se logró disminuir es el del combustible que logro bajar un 5 por ciento en promedio y monetariamente significa que de 75000 mil peros que se gastan mensuales en combustible solo se gaste 70 000 mil pesos en promedio mensuales.

REFERENCIAS

Betancourt Mora, Marco y Valle Macías, Patricia (2010). Mejora continua. México: Universidad del Valle de México Campus Tlalpan.

Castro, Raúl (2010). Curso de dirección. Calidad y mejora continua. Guanajuato: Secretaría de Gobernación del Estado de Guanajuato.

Espinoza Méndez, Eligio y Hedjuk, Irena (2010). Modelo de administración de la mejora continua para pequeñas y medianas empresas mexicanas. Revista Ideas Año 5. No. 65, Noviembre 2010, pp. 1307-1334. Guanajuato: Consejo de Ciencia y Tecnología del Estado de Guanajuato.

Salinas Pliego, Ricardo (Fecha de publicación: 28 de septiembre de 2009. Fecha de consulta: 9 de septiembre de 2014). Kaizen. Blog electrónico del portal electrónico de Ricardo Salinas Pliego.

http://www.ricardosalinas.com/ blog/blog.aspx?GUID=ea9727b5-9414-477c-bb8e-431627aa5751. Six Sigma Tolls and Templates. Fecha de consulta: 08 de junio de 2015). http://www.isixsigma.com/tools-templates/sipoc-copis/sipoc-diagram/.

PDCA HOME. Fecha de consulta: 21 de julio de 2015). http://www.pdcahome.com/5202/ciclo-pdca/ Suárez-Barraza, Manuel F.; Castillo Arias, Ileana y Miguel-Dávila, José Ángel (2011). La implementación del Kaizen en las organizaciones mexicanas. Un estudio empírico. Revista Globalización, Competitividad y Gobernabilidad Vol. 5, N° 1, enero-abril de 2011, pp. 60-74. Washington: Georgetown University

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PROPUESTA DE UN NIVEL ÓPTIMO DE INVENTARIO EN PROCESO DE HILO RECUBIERTO PARA UNA EMPRESA MANUFACTURERA DE TELA MOSQUITERA

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RESUMEN

En la actualidad es de suma importancia que las empresas cuenten con sistemas de control de inventarios que les ayuden a reducir costos y eficientar procesos. La empresa manufacturera en la cual se llevó a cabo la presente investigación, en los últimos años ha presentado un exceso de inventario debido al tipo de política "push" de demanda, la cual ha llevado a la administración de la empresa a tener gastos excesivos en la gestión de inventarios. Para poder encontrar un modelo de control de inventarios que ayudara a resolver el problema, se analizó en una primera estancia la demanda y posteriormente se aplicó el modelo de revisión continua con demanda incierta, para así determinar los niveles apropiados de material a tener. Gracias a la aplicación del modelo se puede saber qué cantidad y en qué punto volver a ordenar material, si se mejora el nivel de servicio de un 87% a un 99% tendría un aumento en los costos logísticos totales de solo $200.19

PALABRAS CLAVE. Gestión de Inventarios, Nivel Óptimo de Pedido, Punto de Reorden, Modelo de Revisión Continua Con Demanda Incierta

PROPOSAL FOR AN OPTIMAL LEVEL OF PROCESS INVENTORY FOR COATED STRING FOR A MANUFACTURING COMPANY OF MOSQUITO NET

ABSTRACT

Now a day, it's critical for the enterprises to have an inventory management system in order to reduce costs and make more efficient processes. The manufacturing company, which conducted this research in the last years, has presented an excess inventory due to the demand polity "push", which has led to overspending on inventory management. To find an inventory control model, which solves the problematic, the demand was analyzed and then was applied the periodic review with uncertain model, in order to determinate the appropriate levels of material to be. Thanks to the application of the model, we can know the quantity and the order point of material, if the cycle service level is improve from 87% to 99% the logistics cost will increase just in $200.19.

JEL: C2, G14, M1, M10

KEYWORDS: Inventory Management, Optimal Order Quantity, Reorder Point, Perodic Review with Uncertain Demand Model

INTRODUCCIÓN

Actualmente las empresas se enfrentan a diferentes problemas relacionados con la administración de inventarios una de ellas es la necesidad de mantener niveles de inventarios óptimos que les permitan satisfacer la demanda sobre un horizonte de tiempo específico y no recaer en costos excesivos por el uso de almacenes. Una de las decisiones más frecuentes que enfrentan los gerentes es cuánto, qué y cuándo comprar o producir para enfrentar la demanda, deben ser capaces de mantener un balance entre el costo y el beneficio del uso de inventarios (Gourdin, 2006).

El manejo del inventario implica equilibrar la disponibilidad de producto o servicio al cliente con los costos de suministrar un nivel determinado de disponibilidad de producto. Para determinar una política de inventarios es importante considerar tres clases generales de costos: costo de adquisición, de manejo y por falta de existencias (Ballou 2004). El presente trabajo muestra a detalle el análisis realizado en el proceso de control de inventarios de la empresa ADFORS México. Este estudio se enfoca en el manejo del inventario WIP (Trabajo en Proceso, por sus siglas en ingles) de hilo recubierto, con el cual se fabrica malla mosquitera; en este tipo de inventario se han detectado ciertas ineficiencias, como excedentes en los distintos tipos de hilo que incrementan los costos de manejo de inventario en la empresa. Como el propósito de monitorear inventarios es el de administrarlos con la información recopilada, para mejorar las operaciones y reducir los errores. Se propone una mejora para optimizar el nivel de inventario WIP que sea capaz de satisfacer la demanda del hilo y a la vez reduzca los riesgos presentes en el manejo del inventario. Dicha mejora se sustentará con un modelo de revisión continua con demanda estocástica o incierta que nos permitirá conocer el nivel óptimo de inventario y los ahorros potenciales al reducir costes al mínimo.

Descripción de la Situación Actual

Como empresa de transformación posee inventarios de materia prima, refacciones, trabajo en proceso (WIP), empaque y de producto terminado. Se tiene un manejo de inventario de demanda "push" bajo criterios de disponibilidad de espacio en almacén y consumo requerido en la siguiente etapa de producción (urdido/tejido) ver figura 1.

Figura 1: Proceso de Producción Seguido Por la Empresa

En esta figura se muestra el proceso de producción de la planta. Se puede observar el proceso que sigue el hilo. La primera etapa es el recubrimiento, de aquí puede pasar a almacenaje o a urdido para pasar finalmente al tejido. Fuente: Elaboración propia

El ambiente de manufactura es "hecho para almacenar (MTS)" y "hecho bajo pedido (MTO)". En el MTS los bienes son creados de acuerdo a la demanda anticipada y la actualización de inventarios, mientras que en el MTO las empresas realizan el sistema de producción de bienes solo cuando es ordenado (Wang, 2009). Con base a los pedidos de los clientes y los pronósticos de la demanda se elabora el plan maestro de producción (MRP), que se calcula mensualmente. El sistema de producción de la empresa se configura de acuerdo al MRP; por lo tanto se calcula la cantidad de hilo recubierto (demanda dependiente) requerida en la siguiente fase del proceso (urdido/tejido) y además con la herramienta de planificación de la capacidad (CRP) se determina el número de líneas de recubrimiento para producir la cantidad necesaria del hilo. El

problema del inventario WIP de hilo recubierto, es que excede la capacidad de almacenamiento del inventario. Este problema deriva del manejo del inventario de la demanda push al aceptar cantidades no adecuadas del hilo recubierto por parte del proceso de recubrimiento, que desconoce las cantidades requeridas a pasar mensualmente. El excedente de inventario propicia ocupar áreas no destinadas para el almacenamiento del hilo recubierto; por ejemplo el área de recepción de hilo recubierto. En el presente estudio se analiza la cantidad a ordenar y el punto de reorden de hilo recubierto, principalmente para el color negro que representa el 70% de la producción, y en adición seis colores más que tiene la empresa.

REVISIÓN DE LA LITERARIA

Se han realizado un gran número de estudios en relación a la aplicación de modelos de control de inventarios con demanda desconocida. Zheng y Meng (2010) desarrollaron un modelo para la gestión de inventario del comercio móvil al determinar el punto de reorden, la cantidad económica a ordenar y el inventario de seguridad; Abdullah, Mowardi, Rashid (2013) el objetivo de su estudio fue determinar el EOQ, el costo total de inventario, numero de órdenes y tiempo esperado entre órdenes, recomendando a la empresa comparar los resultados obtenidos con las practicas actuales; Ravanshadnia y Ghanbari (2014) para optimizar el costo de almacenaje y las ordenes a adquirir en una planta de mezcla de concreto se sugirió un control de material de inventarios para crear un patrón de consumo. Existen varios estudios que se encuentran más estrechamente relacionados a nuestro problema, por ejemplo Guan y Zhao (2011) realizaron un estudio de precios e inventario, donde tomaron decisiones conjuntas constantes de varios minoristas con una distribución de Poisson, otro estudio fue el de Chao y Zhou (2006) en el cual investigan la estrategia de precios y el inventario dinámico conjunto de un sistema de revisión continua, donde asumen la misma distribución, así como un comportamiento dinámico de precios en un sistema de revisión continua dónde las reposiciones se pueden hacer instantáneamente cuando el nivel de inventario se reduce a cero. El modelo de revisión continua con demanda incierta fue aplicado en un caso en el que se buscaba un modelo de control de inventarios para la cadena de suministro en relación a un solo producto entre un proveedor y un comprador, en el modelo propuesto consideran el punto de reorden como una decisión variable que esta simultáneamente relacionada con la cantidad a ordenar por parte del comprador y el número de entregas a realizar anualmente (Hidayat, Suprayogi, Liputra, & Islam, 2010).

Modelo Empleado

El modelo de Inventario para el desarrollo de este proyecto, es el modelo estocástico de revisión continua con demanda incierta, los modelos estocásticos son aquellos en los cuales la demanda y/o el tiempo de entrega son aleatorios con una distribución conocida. Específicamente el modelo de revisión continua con demanda incierta tiene una política de revisión de inventario continua en la que se pide una cantidad de producto (q*) cuando el inventario alcanza su punto de reorden (R), una condición que se debe considerar en este modelo es que el tiempo de entrega sea diferente a cero (Reza, Shabnam, Laleh. 2011). Se debe determinar R, es decir establecer en qué punto se debe realizar un nuevo pedido, dicho pedido debe tener un tamaño q*, en cuanto a la revisión del inventario esta se realiza cada vez que se hace una adición, para poder realizar este tipo de sistemas es necesario contar con un sistema computacional que agilice dicho proceso, para evitar pérdida de tiempo por parte de la fuerza laboral de la empresa (Ríos, Martínez, 2008). De acuerdo al modelo obtenemos en forma cerrada una solución de distribución para q* y R, cotas superiores sobre el costo medio a largo plazo óptimo y en el tamaño de lote óptimo. Una propiedad fundamental es que en ciertas condiciones de la distribución de la posición del inventario es uniforme. Cuando la posición de inventario sobrepasa R, la orden disparada comprende el número mínimo de lotes de q* necesario para llevar la posición de inventario por encima de R. En esta configuración, un costo fijo se puede cargar para cada lote en la orden o para cada pedido, independientemente del número de los lotes que lo componen (Gallego, 1998).

Los costos a considerar para la aplicación del modelo de revisión continua con demanda incierta son (Ballou 2004):

Costo de ordenar: estos costos son los que están asociados con el procesamiento, ejecución, transmisión, manejo, y compra del pedido. Se debe considerar el costo de transportación cuando los cargos no están incluidos en el precio de los artículos comprados, así como el manejo o procesamiento de materiales de los artículos al punto de recepción.

Costo de sostenimiento de inventario: estos resultan de guardar o mantener artículos durante un periodo de tiempo y son proporcionales a la cantidad de artículos en resguardo. Se pueden considerar estos costos en cuatro clases:

Costo de espacio: estos son cargos hechos por el volumen que se ocupa en un espacio determinado ya sea propio o rentado, en el caso de que sea propio se deben considerar los gastos fijos, como luz, calefacción, personal, etc., en el caso de ser rentado se deben considerar los costos por espacio- volumen.

Costo de capital: estos se refieren al costo del dinero en conexión con el inventario. Este costo puede representar más del 80% del costo total del inventario.

Costo de servicio de inventario: estos se ven reflejados por los seguros y los impuestos de los productos que se tienen a resguardo.

Costo de riesgo de inventario: son los costos relacionados con deterioro, perdidas, robos, daños u obsolescencias estas conforman los últimos costos de mantener inventario.

El modelo es popular porque se revisa de forma continua, y siempre que el nivel de inventario cae por debajo de R, se solicita una cantidad q* de unidades de bienes para reponer el material del inventario. La mayoría de los sistemas de inventario reales se construyen para almacenamiento de varios elementos, por lo tanto es un problema importante en la planificación y gestión de operaciones para calcular los valores óptimos de q*, R para cada artículo en particular y el espacio de almacenamiento a ocupar. Para los sistemas de un solo artículo, con un algoritmo se puede resolver el problema de optimización y fácilmente obtener la mejor solución. Para varios elementos, a cada elemento se le asigna un espacio fijo de almacenamiento que es utilizado exclusivamente por el artículo para la colocación de sus bienes. (Zhao, Fan, Liu, and Xie, 2007). Para este tipo de modelo consideramos los siguientes supuestos, el costo del artículo es constante independiente de q*, el costo de ordenar siempre es por pedido, nunca hay más de una orden unitaria saliendo, el costo de operar el sistema o procesar la información es independiente de q* y R, el L es el mismo siempre y solo se está considerando un producto que es el hilo recubierto.

METODOLOGÍA

Para determinar qué tipo de modelo de gestión de inventarios utilizar se analizó la demanda para conocer su coeficiente de variación el cual para la mayoría de los casos fue una demanda regular con comportamiento probabilístico. Con el fin de encontrar la cantidad óptima a ordenar de hilo, así como el punto de reorden se aplicó el modelo probabilístico de revisión continúa con demanda incierta, el cual considera las variables de la tabla 1 para encontrar los resultados deseados.

Tabla1: Variables del Modelo Seleccionado

Símbolo	Descripción
d	Demanda
Sd	Desviación estándar de la demanda
L	Tiempo de entrega
c	Costo de compra
k	Costo de ordenar
p	Tasa de inventario
CSL	Nivel de servicio cíclico
pm	Tasa de inventario
h	Costo de sostener el inventario
S'd	Desviación estándar ajustada
zCSL	Valor de z para la distribución normal con un nivel de servicio en el ciclo (CSL) definido
R	Punto de reorden
q	Cantidad a ordenar
Ez	Proporción de la desviación esyándar que no se cumple
mu(q)	Costos totales logísticos
FR	Nivel de servicio

En esta tabla se muestra la simbología y la definición de cada variable considerada en la aplicación del modelo de revisión continua con demanda incierta. Fuente: Elaboración propia

Primero se investigó dentro de la organización para obtener los datos necesarios y poder aplicar el modelo de inventarios deseado.   Para determinar la demanda de los distintos tipos de hilo recubierto, se extrajo la información del ERP (SAP) que utiliza la organización desde enero del 2013 hasta junio del 2015; se promedió la demanda de cada mes por cada año recabado (Ejem. Promedio de enero 2013, enero 2014, y enero 2015) y así obtener la demanda anual a utilizar en los cálculos, esto fue replicado para todos los productos analizados. El tiempo de entrega y el costo de compra fueron proporcionados por la organización siendo de 1 día y $27.00 correspondientemente. El nivel de servicio cíclico es calculado según la experiencia de los trabajadores de la planta, quienes consideran que se tiene un novel del 87% en promedio de cumplimiento con sus órdenes. Para calcular los costos de ordenar se identifica los costos relativos al proceso de ordenar y los costos laborales de la organización (Abdullah, Mowardi, Rashid, 2013). El costo de ordenar es $204 por tarima pedido de hilo recubierto; las variables que se consideraron para calcular el costo de ordenar son: sueldos/minutos del gerente de logística, jefe de materiales, jefe de almacén y operadores; además el costo/pza del embalaje, que incluye la tarima, cartón y etiquetas. Para los costos laborales, se estimaron 23 días al mes.

 La tasa de inventario se obtiene por medio de los costos de mantener el inventario, los cuales son clasificados de la siguiente manera: (1) costos de instalaciones de almacén por ejemplo, la renta anual, agua, electricidad, gas etc., (2) costos de transferencia como envío dentro del almacén, (3) costos de perdidas incluido el material absoluto, roto, etc., (4) seguros e impuestos, (5) costo de almacenaje por capital, lo que se refiere es cuanta oportunidad de ganancia se pierde. Generalmente las empresas lo calculan anualmente entre 0.15 y 0.25, aunque cada empresa puede tener su propia política para el cálculo de este (Ravanshadnia, Ghanbari, 2014). Para este caso de estudio se consideró un costo de sostenimiento de inventario anual de 25%. Después de obtener la demanda mensual, el costo de ordenar, costo de sostener, el tiempo de entrega y la tasa de inventario se aplican las formulas (1), (2), (3), (4), (5) y (6) del modelo q*R para obtener la desviación estándar, desviación estándar ajustada, cantidad a ordenar (q), punto de reorden (R), los costos totales logísticos, la distribución normal estándar (Ez) y el Fill Rate.

Desviación estándar ajustada. $$S'd = sd\sqrt{L}. \quad (1)$$

El valor de z para la distribución normal con un nivel de servicio en el ciclo (CSL) definido se calcula gracias a la aplicación de la distribución normal estándar inversa de la desviación estándar de la demanda. Punto de reorden (R).

$R = d * L + z_{CSL} * S'd, (2)$
Cantidad a ordenar (q*).
$\quad q\sqrt{\frac{2kd}{h}} (3)$
Proporción de faltantes dada una z.
$E_z = z * [F_s(z) - 1] + f_s(z) (4)$
Costos logísticos totales.
$\quad \mu(q) = \frac{kd}{q} + h\left(\frac{q}{2} + z_{CSL} * S'd\right) + cd (5)$
Nivel de servicio:

$FR = 1 - \frac{S'd*E_z}{q} (6)$

RESULTADOS

Al analizar la demanda del hilo de recubrimiento utilizado para los siete colores de malla mosquitera de acuerdo a los datos desde el 2013 hasta junio del 2015 de la empresa. Observamos en la tabla 2 el tipo de demanda que presentan y el patrón de la misma. Es importante subrayar que para el color GRY-STF y WHT-STD se tomó solamente los meses que presentaron demanda, ya que son colores que solamente se realizan para un cliente en específico, por lo que su comportamiento es muy variado.

Tabla 2: Resultados de la Aplicación del Coeficiente de Variación, Tipo de Demanda y Patrón

Producto	C.V	Tipo de demanda	Patron
CCL-CLA	0.37	Probabilistica	Regular
CCL-EHV	0.54	Probabilistica	Regular
CCL-P&P	0.16	Deterministica	Regular
CCL-STD	0.06	Deterministica	Regular
GRY-STD	0.26	Probabilistica	Regular
GRY-STF	0.64	Probabilistica	Regular
WHT-STD	0.73	Probabilistica	Regular

Esta tabla muestra los resultados al aplicar el coeficiente de variación a cada uno de los siete colores analizados, gracias al c.v se puede determinar el tipo de demanda que presentan y el patrón de la misma. Fuente: Elaboración propia

A continuación se muestran a detalle cómo fue calculado el costo de ordenar en la tabla 3.

Tabla 3: Resultados de costos a ordenar

Costos laborales totales			Operador 4	6000RM/23	
Persona a cargo	Calculos	Total	RM 6000	260.8695652	RM/dia
Gerente de logistica	80000RM/23dias			32.60869565	Rm/horas
RM 80000	3478.26087 RM/dia			0.543478261 minuto	0.543
	434.782609 Rm/horas		Costos de herramientas		
	7.246 minuto	7.246	Articulo	Calculos	Total
Jefe de materiales	40000/23dias		Etiquetas		
RM 40000	1739.13043 RM/dia		RM 50	0.1	0.1
	217.391304 Rm/horas		1 rl (500 pz)		
	3.62318841 minuto	3.623			
Jefe de almacen	20000/23		Papeleria		
RM 20000	869.565217 RM/dia		RM 200	4000	
	108.695652 Rm/horas		10 pqt	0.05	0.05
	1.8115942 minuto	1.812	1 pqt = 400 hojas		
Operador 1	6000RM/23		Tarimas		
RM 6000	260.869565 RM/dia		RM 160	160	160
	32.6086957 Rm/horas		1 pza		
	0.54347826 minuto	0.543			
Operador 2	6000RM/23		Cartón	30	30
RM 6000	260.869565 RM/dia		RM 30		
	32.6086957 Rm/horas		1 pza		
	0.54347826 minuto	0.543	Calculos de costo de ordenar		
Operador 3	6000RM/23		TOTALES		
RM 6000	260.869565 RM/dia		RM	204.462	
	32.6086957 Rm/horas				
	0.54347826 minuto				

En esta tabla se presenta a detalle cómo fue calculado el costo a ordenar. Primero se identificó a todas las personas involucradas en el proceso para ordenar, su salario entre el tiempo laboral hasta obtenerlo en minutos. Así mismo se encontró todas las herramientas utilizadas para obtener el costo unitario por orden y por último se hizo la suma de todos los valores. Fuente: Elaboración propia

La aplicación del modelo seleccionado nos permite obtener la cantidad a ordenar, el punto de reorden y los costos logísticos totales, obteniendo los resultados de la tabla 5.

Tabla 5: Resultados de la Aplicación del Modelo de Revisión Continua Con Demanda Incierta

Producto	C.V	Tipo de demanda	Patron	q*	R	CSL	FR	Costos Logisticos
CCL-CLA	0.37	Probabilistica	Regular	11859	143	87%	99.97	$ 2,215.27
CCL-EHV	0.54	Probabilistica	Regular	22747	528	87%	99.94	$ 6,796.95
CCL-P&P	0.16	Deterministica	Regular	60565	3079	87%	99.92	$ 25,375.81
CCL-STD	0.06	Deterministica	Regular	81590	4697	87%	99.95	$ 22,714.86
GRY-STD	0.26	Probabilistica	Regular	39609	1361	87%	99.94	$ 12,841.63
GRY-STF	0.64	Probabilistica	Regular	24197	726	87%	99.91	$ 10,667.05
WHT-STD	0.73	Probabilistica	Regular	11168	181	87%	99.95	$ 3,301.65
						Costos totales		**$ 83,913.22**

En esta tabla se presenta la cantidad a ordenar, el punto de reorden, tomando en cuenta el nivel de servicio con el que cuentan en la a ctualidad, así como los costos logísticos totales. Fuente: Elaboración propia

Se propone a la empresa tener un nivel de servicio superior del 95%, lo cual no implica gastos excesivos a comparación de los que se tiene con el nivel actual del 85% en promedio, los costos con el nuevo nivel de servicio del 95% se pueden ver a detalle en la tabla 6. En la cual se observa que si la empresa aumenta a un 95% su nivel de servicio tan solo se estará incurriendo en $58.38 de costos logísticos totales. Mientras que si la empresa decide tener un nivel de servicio del 99% en comparación con el 85% que se tiene en la actualidad la empresa tendría un aumento de costos de $200.19 y un fill rate del 100 para todos los colores, lo que da la oportunidad a mejorar el servicio sin verse inmersos en gastos excesivos de inventarios por tal hecho.

Tabla 6: Resultados de la Aplicación del Modelo de Revisión Continúa Con Demanda Incierta Con un Nivel de Servicio del 95%

Producto	C.V	Tipo de demanda	Patron	q*	R	CSL	FR	Costos Logisticos
CCL-CLA	0.37	Probabilistica	Regular	11859	170	95%	99.99	$ 2,217.10
CCL-EHV	0.54	Probabilistica	Regular	22747	629	95%	99.98	$ 6,803.75
CCL-P&P	0.16	Deterministica	Regular	60565	3487	95%	99.97	$ 25,403.33
CCL-STD	0.06	Deterministica	Regular	81590	5027	95%	99.98	$ 22,737.10
GRY-STD	0.26	Probabilistica	Regular	39609	1361	95%	99.94	$ 12,841.63
GRY-STF	0.64	Probabilistica	Regular	24197	726	95%	99.91	$ 10,667.05
WHT-STD	0.73	Probabilistica	Regular	11168	181	95%	99.95	$ 3,301.65
						Costos totales		$ 83,971.60

En esta tabla se presenta la cantidad a ordenar, el punto de reorden, tomando en cuenta un nivel de servicio del 95%, resultando en un aumento de $58.38 en los costos logísticos totales. Fuente: Elaboración propia

Abla 6: Resultados de la Aplicación del Modelo de Revisión Continúa Con Demanda Incierta Con Un Nivel de Servicio del 95%

Producto	C.V	Tipo de demanda	Patron	q*	R	CSL	FR	Costos Logisticos
CCL-CLA	0.37	Probabilistica	Regular	11859	206	99%	100.00	$ 2,219.50
CCL-EHV	0.54	Probabilistica	Regular	22747	762	99%	100.00	$ 6,812.69
CCL-P&P	0.16	Deterministica	Regular	60565	4023	99%	100.00	$ 25,439.50
CCL-STD	0.06	Deterministica	Regular	81590	5460	99%	100.00	$ 22,766.33
GRY-STD	0.26	Probabilistica	Regular	39609	1812	99%	100.00	$ 12,872.05
GRY-STF	0.64	Probabilistica	Regular	24197	1126	99%	100.00	$ 10,694.07
WHT-STD	0.73	Probabilistica	Regular	11168	293	99%	100.00	$ 3,309.27
						Costos totales		$ 84,113.41

En esta tabla se presenta la cantidad a ordenar, el punto de reorden, tomando en cuenta un nivel de servicio del 99%, resultando en un aumento de $200.19 en los costos logísticos totales. Fuente: Elaboración propia

CONCLUSIONES

De acuerdo a la investigación realizada, se concluye que es necesaria la implementación de políticas de compra que ayuden a regular las adquisiciones de bobinas de hilo. El modelo de revisión continua q*, R, es un modelo que nos pide realizar y documentar cada uno de los movimientos realizados en inventario, lo cual supone una inversión en tiempo de mantenimiento de inventario así como recursos económicos de la empresa, esta al contar con SAP, podría hacer uso de algún modulo que permita tener el control de este y facilitar la implementación del modelo propuesto. En la práctica la implementación de un modelo de inventarios no es tan sencillo, a causa de diversas limitantes como la falta de información, que fue el caso, así como el costo que implica aplicarlo a cada uno de los productos. Por este motivo muchas empresas prefieren aplicarlo a su producto estrella, o a aquellos que tienen mayor demanda. Para esto es necesario aplicar una clasificación ABC, para detectar aquellos productos A. También es importante no olvidar los costos, ya que un cambio en estos podría representar un ahorro o un gasto extra en el que incurra la compañía. Así como cambios en las variables q*,R, ya que van ligadas a los costos. En trabajo futuro, sería importante analizar los resultados obtenidos con el modelo propuesto para posteriormente decidir si dichos resultados podrían mejorar con la implementación de otro modelo o con algún cambio en las políticas de compra. Al implementarse un modelo de inventario, la empresa se ve obligada a mantener más información referente a sus costos, demandas entre otros.

REFERENCIAS

Adriana, O.; Alexandra, C.; Olimpia, B. (2010) "The application of the EOQ model in the health services inventory management using WinQSB software," Information Management and Engineering (ICIME), The 2nd IEEE International Conference on , vol., no., pp.240,243, 16-18

Ballou, R (2004). Logística: Administración de la cadena de suministro. México: Pearson Educación. Berk and Ülkü Gürler. (2008) "Analysis of the (Q, r) Inventory Model for Perishables with Positive Lead Times and Lost Sales" J-Stor, Operations Research, Vol. 56, No. 5, pp. 1238-1246.

Chao Wang. (2009) "An order mix decision model for make-to-order enterprise" Management Science and Engineering. ICMSE 2009. International Conference on , vol., no., pp.541,546, 14-16

Farahani Reza Z.; Rezapor Shabnam; Kardar Laleh, (2011) "Logistics Operations and Management, Concepts and Models". Estados Unidos: editorial Elsevier pp. 335-401.

Guillermo Gallego, (1998), "New bounds and heuristics for (Q, r) policies" Management Science, Vol. 44, No. 2 pp. 219-233

Hidayat, Y.A.; Suprayogi, S.; Liputra, D.T.; Islam, S.N. (2012) "Two-echelon supply chain inventory model with shortage, optimal reorder point, and controllable lead time," Management of Innovation and Technology (ICMIT), IEEE International Conference on, vol., no., pp.163, 167

K. N. Gourdin.(2006). Inventory Management en Global Logistics Management: a Competitive Advantaje for the 21 st. 2nd ed. Century. Blackwell Publishing 2006.

Kal Namit Jim Chen, (1999),"Solutions to the <Q,r> inventory model for gamma lead-time demand", International Journal of Physical Distribution & Logistics Management, Vol. 29 Iss 2 pp. 138 – 154.

M. Ravanshadnia, M. Ghanbari, (2014) "A hybrid EOQ and fuzzy model to minimize the material inventory in ready mixed concrete plants", Industrial Engineering and Engineering Management (IEEM), IEE International Conference on, vol., no., pp. 526-530, 9-12

Muckstadt John A.; Sapra Amar; (2010)"Reorder Point, Lot Size Models: The Continuous Review Case" Principles of Inventory Management, Springer Series in Operation Research and Financial Engineering. pp 237-292.

N. K. Abdullah, M.A.N.M Mawardi, R. A. Rashid, (2013) "Economic order quantity (EOQ): An alternative at Routine Maintenance Company," Business Engineering and Industrial Applications Colloquium (BEIAC), IEEE vol. no, pp. 739-744,

Nagihan Comez, Timothy Kiessling, (2011) "Joint inventory and constant price decisions for a continuous review system, International Journal of Physical Distribution & logistic Management, vol.42 pp. 174-202

Ríos Francy, Martínez Andrés, Palomo Teresa. (2008) "Inventarios probabilísticos con demanda independiente de revisión continua, modelos con nuevos pedidos", Cierga Ergo Sum, vol 15, núm 3, pp.251-258.

Yalaoui Alice; Chehade Hicham; Yalaoui Farouk; Amodeo Lionel; (2012) "Optimization of logistics" Series Editor Jean-Paul Bourrieres, pp 200-220.

Yingfei Zheng; Xianghui Meng. (20110) "An Inventory Management Model in Mobile Commerce," Information Science and Management Engineering (ISME), International Conference of , vol.2, no., pp.11, 14, 7-8

Zhao, Fan, Liu, and Xie, (2007), "Storage-space capacitated inventory system with (r ,Q) policies", Operations *Research*, 55(5), pp. 854-865.

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ASIGNACIÓN DE TAREAS PARA REDUCIR EL COSTO DE ABASTECIMIENTO EN SCHNEIDER ELECTRIC

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RESUMEN

El presente artículo tiene por objetivo formular una propuesta de solución para resolver un problema de asignación de tareas que reduzca el costo del abastecimiento a las líneas de producción en la compañía Schneider Electric. Este caso se resolvió utilizando un modelo de transporte y un software comercial de optimización. Primero se analizó y contabilizó toda la serie de movimientos necesarios por los abastecedores de las líneas, posteriormente se ingresaron los datos al modelo de transporte y se programó en el software comercial. Los resultados muestran una reducción de costos de hasta 60,000 dólares anuales que equivalen a 5 personas adicionales no solicitadas, esto sin comprometer el servicio y la entrega a tiempo de los materiales a las líneas de producción durante temporada alta y baja.

PALABRAS CLAVE*: Abastecimiento de Materiales, Programación Lineal, Problema de Transporte

TASK ASSIGNMENT FOR REDUCE COST IN MATERIAL SUPPLY TO PRODUCTION LINE IN SCHNEIDER ELECTRIC.

ABSTRACT

This article aims to present a proposed solution to solve tasking problem which reduces the cost of supply to production line in the company Schneider Electric. This case was solved using tools of transport model and optimization software. First data were analyzed and recorded using all the moves required by the production line feeders and then the data were entered to the transport model for later to be programmed into to the optimization software. The result shows a reduction cost of up $60000 a year, this is equivalent to the salary of 5 people working as production line feeder for one year. This solution ensures service and on-time deliveries to production lines no matter whether high or low season.

JEL: C61, E21

KEY WORDS: Material Supply, Linear Programming, Transportation Problem

INTRODUCCIÓN Y REVISION LITERARIA

Hoy en día la optimización del uso de personal y la reducción de movimientos innecesarios de material es un aspecto muy importante a controlar dentro de la cadena de suministro de cualquier empresa, ya que cualquier reducción de gastos de contratación, recursos adicionales, equipos para manejo de material, etc. mejora el indicador de rendimiento de cualquier almacén que tiene a cargo el surtimiento de materiales a líneas de producción, por lo que en los últimos años la palabra productividad se ha convertido en un término de moda y se han manejado distintas definiciones entre ellas: Obtener el máximo resultado con el mínimo de recursos, esto es, hacer mucho más con menos (Santillan E. 2004). Existen numerosos estudios de optimización de transporte y modelos de asignación de personal en base a tareas a realizar, el problema de asignación es sólo una variación del problema de transporte en el que la idea fundamental de solución es

qué recurso satisface mejor el destino, sea en este caso cuantas tareas deben de asignarse a cada persona de acuerdo a lo requerido por cada línea de producción. Hay distintos casos de éxito de la aplicación de modelos matemáticos entre los cuales destacan la planificación de turnos en los hospitales, la distribución de las flotas de vehículos y el reparto de las cargas de trabajo en los procesos de producción o el número de ciclos de surtimiento a diferentes destinos. Al asignar personal se busca la mejor persona para x puesto, el cuál sea asignado de acuerdo a distintos niveles de conocimiento y menor costo (Taha et al. 2004), otro punto de vista consiste en determinar la asignación óptima de n agentes u objetos indivisibles a n tareas, los agentes u objetos por asignar son indivisibles, en el sentido de que ningún agente puede dividirse entre varias tareas, para cada agente, la restricción importante es que sólo puede ser asignado a una tarea. Para el caso de asignación de tareas y debido a la similitud del modelo de asignación de personal con el modelo de transporte, sólo existe una diferencia, en el modelo de asignación debemos respetar la característica adicional de que la oferta no puede distribuirse a más de un destino, por lo que el modelo de asignación puede formularse como un modelo de transporte en el cuál la oferta en cada origen y la demanda en cada destino son iguales (Eppen et al. 2000).

Lipcia (2002) señala que la asignación de recursos son problemas en los cuáles se deben asignar recursos a las actividades de tal manera que se optimice alguna medida de efectividad, es decir si una medida de efectividad puede ser representada por una función lineal de algunas variables sujetas a cierto número de restricciones que también pueden ser representadas por funciones lineales, entonces el problema es asignación es clasificado como programación lineal. Las organizaciones generalmente   implementan regulaciones e intentan alcanzar algún objetivo global, como por ejemplo, la disminución del costo total o una división equilibrada del trabajo entre los empleados, el desafío es encontrar asignaciones eficientes que permitan cumplir con la demanda existente a un costo aceptable y al mismo tiempo evitando violar contratos laborales o restricciones legales (Pradena, 2008). Por lo tanto, este trabajo propone asignar adecuadamente al personal de almacén las tareas requeridas por producción, sin violar ningún reglamento interno de trabajo ni leyes en las que se perjudique al personal con cambios de horario, horas extras no pagadas y carga de trabajo. En consecuencia para este modelo usaremos la capacidad de movimientos que puede realizar cada abastecedor y los movimientos requeridos de cada línea.

METODOLOGÍA

En Schneider Electric la asignación de tareas que debe realizar cada persona a cada línea de producción se realiza de acuerdo a la experiencia del supervisor de almacén, una matriz de habilidades generada por el departamento y en base a los conocimientos de cada persona dedicada al surtimiento de materiales a línea en este caso para efectos prácticos se le llamará abastecedor. Sin embargo, cuando hay temporada alta se tienen frecuentes paros de línea debido a que un sólo abastecedor surte 2 o más líneas y por las tareas o transacciones de materiales requeridas sobrepasa la capacidad de movimientos por persona, generando la necesidad de contratar de 4 a 5 personas por año para cubrir los requerimientos de esa temporada, incurriendo en costos de contratación de recurso humano con un valor de 12000 dólares anuales por cada persona nueva contratada. Por otro lado, cuando se tiene temporada baja de producción, el personal sigue asignado de la misma manera y personal contratado eventualmente durante temporada alta se retira, lo que genera una baja productividad en horas hombre para el área de almacén.

En base a esta problemática el objetivo de esta propuesta es optimizar la asignación de tareas y definir qué persona debe de abastecer cada línea generando una asignación de recursos, evitando el uso excesivo de abastecedores y midiendo la capacidad de movimientos de cada abastecedor. Para realizar el análisis y desarrollo de la metodología se consideraron las tareas generadas por personal de almacén a 6 líneas de producción durante 4 años (desde 2011 hasta 2015) seccionando temporada alta (en el periodo que incluye los meses de Marzo a Septiembre) y temporada baja de (que incluyen los meses de Octubre a Febrero), esto permitirá conocer el requerimiento promedio diario de tareas por línea y ayudará a desarrollar el modelo matemático mediante la utilización del software de optimización lo que permitirá identificar las

asignaciones de tareas propuestas óptimas por el modelo para cada temporada. De acuerdo al objetivo planteado al inicio de este artículo se recolectó la siguiente información en base al historial de personal empleado en el área de logística para dar el servicio de surtimiento de materiales del almacén hacia las diferentes líneas de producción, dicha información nos servirá de base para identificar las restricciones y variables del modelo matemático a diseñar, es importante mencionar que existen costos asociados al movimiento de materiales (fuerza de trabajo) que tendrán que ser considerados. A continuación se cita la forma de trabajo que Schneider Electric ha utilizado para distribuir **n** materiales del almacén hacia **m** líneas de producción con la finalidad de cubrir los requerimientos de producción. Para abordar la problemática citada en la empresa, en función de la estructura de los datos se genera una matriz que despliega los movimientos requeridos por línea y capacidad de movimientos o tareas por abastecedor, utilizando el modelo de transporte que considera orígenes, destinos, útiles para formular el modelo matemático con ayuda de las ecuaciones que representen las iteraciones de cada origen con determinado destino de acuerdo a la capacidad y a la demanda. El modelo matemático del problema de transporte se define de la siguiente manera (Taha et al. 2004):

Minimizar
$$Z = \sum_{i=1}^{m} \sum_{j=1}^{n} c_{ij} x_{ij}, \qquad (1)$$

Sujeta a
$$\sum_{i=1}^{n} X_{ij} = S_i \quad \forall \ i = 1,2,\ldots,m, \qquad (2)$$

$$\sum_{j=1}^{m} X_{ij} = d_j \quad \forall \ j = 1,2,\ldots,n, \qquad (3)$$

$$x_{ij} \geq 0 \qquad (4)$$

Donde:

La Función objetivo (1) busca minimizar los cantidad de tareas generadas por cada abastecedor a cada línea. Las restricciones dadas con las variables: s_i (2) se definen como la capacidad de tareas que cada abastecedor puede realizar a cada línea y la variable d_j (3) como los requerimientos máximos de tareas para cada línea, considerando la no negatividad de las variables (4). Para tener la información necesaria los siguientes datos fueron recolectados considerando todos los movimientos que se han ejecutado del almacén hacia las líneas de producción en promedio durante la temporada alta y baja de los últimos 4 años, estos fueron obtenidos mediante la transacción LT22 del software SAP utilizado como sistema de administración de recursos y procesos. Para analizar este caso se considerarán 6 líneas de producción denominadas como línea 1 a línea 6, para lo cual un abastecedor se encuentra asignado a cada línea. Cada una de las líneas requiere los siguientes movimientos necesarios para ensamblar y cumplir con la producción diaria (demanda Tabla 1).

Tabla 1: Tareas diarias en promedio requeridas por línea temporada alta y baja generados por reporte en Sap de transacciones

Líneas de Producción	Tareas Requeridas Por Línea Temporada Alta.	Tareas Requeridas Por Línea Temporada Baja
Línea 1	44	31
Línea 2	43	25
Línea 3	29	18
Línea 4	38	25
Línea 5	58	36
Línea 6	32	21

La Tabla 1 muestra el número de tareas requeridas por cada línea en ambas temporadas, generado del análisis de transacciones en promedio por cada temporada. Fuente: Elaboración propia y datos SAP.

Cada operador es capaz de ejecutar determinado número de tareas durante ambas temporadas, de acuerdo a la siguiente información (capacidad véase tabla 2):

Tabla 2: Capacidad de Tareas Realizadas Por Persona

Abastecedor Para Líneas de Producción	Capacidad de Tareas Para Servicio
Abastecedor 1	41
Abastecedor 2	50
Abastecedor 3	41
Abastecedor 4	31
Abastecedor 5	52
Abastecedor 6	29

La Tabla 2 muestra la capacidad de tareas que puede realizar cada abastecedor asignado a las líneas, este parámetro se genero en base a la diversidad de productos que cada línea en especial requiere y de acuerdo al resumen de las transacciones generadas, tomando el valor máximo de movimientos realizados. Fuente: Elaboración propia.

Por último se anexan las tablas de tareas registradas por cada línea para temporada alta (Tabla 3) y baja (Tabla 4), considerando la capacidad de transacciones que puede realizar cada abastecedor y la cantidad de tareas requeridas por cada línea.

Tabla 3: Tareas Registradas a Cada Línea en Promedio Por Día Temporada Alta

Líneas de Producción	Línea 1	Línea 2	Línea 3	Línea 4	Línea 5	Línea 6	Capacidad de Tareas Para Servicio
Abastecedor 1	22	2	3	6	4	4	41
Abastecedor 2	9	25	4	6	4	2	50
Abastecedor 3	4	2	11	9	8	7	41
Abastecedor 4	3	6	3	11	5	3	31
Abastecedor 5	4	6	3	6	25	8	52
Abastecedor 6	2	2	5	0	12	8	29
Tareas requeridas para servicio	44	43	29	38	58	32	Total de movimientos por abastecedor

La Tabla 3 muestra el concentrado de tareas realizadas en promedio a cada línea en temporada alta, considerando la capacidad de cada abastecedor y los requerimientos solicitados por la línea de producción. Fuente: Elaboración propia.

Tabla 4: Tareas Registradas a Cada Línea En Promedio Por Día Temporada Baja

Líneas de producción	Línea 1	Línea 2	Línea 3	Línea 4	Línea 5	Línea 6	Capacidad de tareas para servicio
Abastecedor 1	15	0	2	4	2	2	41
Abastecedor 2	7	17	2	4	2	1	50
Abastecedor 3	3	0	7	6	5	5	41
Abastecedor 4	3	4	2	7	3	2	31
Abastecedor 5	3	4	2	4	16	5	52
Abastecedor 6	0	0	3	0	8	6	29
Tareas requeridas para servicio	31	25	18	25	36	21	Total de movimientos por abastecedor

La Tabla 4 muestra el concentrado de tareas realizadas en promedio a cada línea en temporada baja, considerando la capacidad de cada abastecedor y los requerimientos solicitados por la línea de producción. Fuente: Elaboración propia.

Esta información se introduce al programa para la asignación de personal en temporada alta y baja.

RESULTADOS

Con la información anterior se genero el algoritmo para el modelo matemático de asignación de tareas para el personal de Schneider Electric en ambas temporadas dando los siguientes resultados:

Temporada Alta

Al ejecutar el software de optimización con los datos mencionados, se genero la siguiente asignación para temporada alta (Tabla 5):

Tabla 5: Asignación de Acuerdo a Lingo Temporada Alta

Líneas de producción	Línea 1	Línea 2	Línea 3	Línea 4	Línea 5	Línea 6	Capacidad de tareas para servicio
Abastecedor 1	0	2*	0	0	39*	0	41
Abastecedor 2	0	0	0	0	18**	32**	50
Abastecedor 3	0	41*	0	0	0	0	41
Abastecedor 4	30**	0	0	0	1**	0	31
Abastecedor 5	14*	0	29*	9*	0	0	52
Abastecedor 6	0	0	0	29**	0	0	29
Tareas requeridas para servicio	44	43	29	38	58	32	

*La Tabla 5 muestra la asignación * y ** de cada abastecedor de acuerdo al concentrado de tareas realizadas en promedio a cada línea en temporada alta, dividiendo el número de transacciones a realizar por cada uno de ellos y a cada línea, logrando asignar a 1 abastecedor desde 1 a 3 líneas.. Fuente: Elaboración propia.*

Dicha información permite asignar a los abastecedores adecuadamente a cada línea de producción de acuerdo a sus capacidades por abastecedor y requerimientos de línea, evitando con esto que todos los abastecedores surtan todas las líneas de producción generando un desorden de movimientos, permitiendo optimizar la asignación diaria de personal en temporada alta y de igual formar asignar responsabilidades para no afectar el nivel de servicio.

TEMPORADA BAJA

Se generó un modelo de programación lineal dando como resultado la siguiente asignación (Tabla 6):

Tabla 6: Asignación de Acuerdo a Lingo Temporada Baja

Líneas de producción	Línea 1	Línea 2	Línea 3	Línea 4	Línea 5	Línea 6	Capacidad de tareas para servicio
Abastecedor 1	0	11	0	0	30	0	41
Abastecedor 2	0	0	18	0	6	21	50
Abastecedor 3	27	14	0	0	0	0	41
Abastecedor 4**	0	0	0	0	0	0	31
Abastecedor 5**	0	0	0	0	0	0	52
Abastecedor 6	4	0	0	25	0	0	29
Tareas requeridas para servicio	31	25	18	25	36	21	

La tabla 6 muestra la asignación de cada abastecedor de acuerdo al concentrado de tareas realizadas en promedio a cada línea en temporada baja, dividiendo el número de transacciones a realizar por cada uno de ellos y a cada línea, logrando la optimización de 2 recursos** que son el abastecedor 4 y 5. Fuente: Elaboración propia.

El resumen de asignación de acuerdo las tareas asignadas queda de la siguiente manera (Tabla 7), de acuerdo a cada temporada y en base al criterio de cada supervisor.

Tabla 7: Asignación de Tareas de Acuerdo a Lingo Temporada Baja y Alta

Personal	Líneas asignadas		
	Antes	Propuesta temporada alta	Propuesta temporada baja
Abastecedor 1	Línea 1	Línea 2 y 5	Línea 2 y 5
Abastecedor 2	Línea 2	Línea 5 y 6	Línea 3,5 y 6
Abastecedor 3	Línea 3	Línea 2	Línea 1 y 2
Abastecedor 4	Línea 4	Línea 1 y 5	Sin asignación **
Abastecedor 5	Línea 5	Línea 1, 3 y 4	Sin asignación **
Abastecedor 6	Línea 6	Línea 4	Línea 1 y 4

La Tabla 7 muestra la comparación de cada asignación en cada temporada, dividiendo el número de tareas a realizar por cada uno de los abastecedores, logrando a optimización del personal en ambas temporadas y en temporada baja usar 2 abastecedores ** para otras funciones, permitiendo al supervisor tomar la decisión de asignación de personal que más se adecue a los requerimientos generados. Fuente: Elaboración propia.

La propuesta en temporada baja permite disponer de 2 recursos, optimizando la eficiencia del personal cubriendo los requerimientos de cada línea sin generar movimientos innecesarios, considerando que cada abastecedor es responsable de 1 a 3 líneas asignadas, lo que brindará flexibilidad absoluta del personal de almacén. Cabe señalar que durante 2014 y 2015 se contrataron 4 y 5 personas para cubrir con la demanda en ambas temporadas, dicho recurso incurrió en gastos de 48,000 y 60,000 dólares, lo que afecto directamente el indicador de productividad, tal razón fue la causa de realizar este análisis de capacidad de tareas realizadas y requeridas para cada línea.

CONCLUSIONES

Al implementar este modelo de transporte para la asignación de tareas a cada abastecedor dedicado al surtimiento de las 6 líneas de producción mencionadas y con ayuda de herramientas como programación lineal, software de optimización, uso de modelos matemáticos, teorías de modelos de transporte y asignación de personal, se logró generar una propuesta optima de asignación para colocar al personal necesario para el surtimiento de materiales a líneas de producción en Schneider Electric, logrando optimizar

los recursos. Con la propuesta generada se definió que abastecedor puede surtir determinada línea o líneas, en base a la cantidad de tareas requeridas y a la capacidad de tareas que cada persona puede realizar, esto permite hacer flexible el proceso de asignación y re distribuir al personal necesario en cada temporada, logrando no incurrir en costos de contratación y despido al querer cubrir disminución o sobre demanda de producción. Cabe señalar que este análisis es fundamental para decidir si se procede o no a generar requerimiento de personal e incurrir en el gasto promedio de 12,000 dólares anuales por cada persona contratada, este gasto afecta directamente el indicador principal de productividad del área, por lo que este modelo puede ser actualizado cada 4 meses para mejorar la visibilidad del comportamiento de los movimientos requeridos y el total de movimientos aptos para realizar por cada abastecedor, logrando con esto tener una base de datos que mejore el proceso de decisión para la asignación de tareas y personal en el área de almacén cumpliendo con el nivel de servicio requerido.

REFERENCIAS

Cavada H. J. P. (2012). Modelo y Asignación de personal para el patio de equipajes de un Aeropuerto Internacional, CLAIO.

Eppen G.D. (2000) Investigación de Operaciones en la Ciencia Administrativa, 5a Edición. Editorial: Prentice-Hall, México.

Pradena Rojas Lorena (2008), Asignación de Supervisores Forestales. Resolución mediante algoritmo Tabu Search. Arica, Chile.

Taha H. A. (2004). Investigación de Operaciones. 7a Edición Editorial: PEARSON EDUCACION. (pp. 196) México.

Ulloa M. L, "Investigación de Operaciones", Editorial: EUNED.

Winston W. L. (2005), "Investigación de Operaciones - Aplicaciones y algoritmos", 4a Edición. Editorial Cengage Learning. Universidad de Indiana, USA.

Prauda W. J. (1992), "Métodos y Modelos de Investigación de Operaciones", Editorial Limusa, México.

Santilla E. L (2004), "Estrategias para la optimización de Recursos Humanos", 2a Edición. Editorial ISEF, México.

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LA INNOVACIÓN Y EL CRECIMIENTO ECONÓMICO EN MÉXICO

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RESUMEN

El objetivo de este trabajo es avanzar en el estudio de la Innovación, tratando de entender cuáles son los factores con los cuales se relaciona la Innovación y el Crecimiento Económico. Para ello se estudiaron a los autores clásicos en el tema de Innovación, se realizó una investigación documental mediante la revisión de artículos recientes en revistas científicas y se recolectó información de los principales organismos encargados de elaborar índices y estadísticas. Por lo anterior se consideraron dos factores principales, la Innovación Tecnológica y la Producción de Conocimiento e Investigación, en donde la Innovación es la clave para tener y mantener una ventaja competitiva, necesaria para incrementar la productividad, competitividad y el bienestar social de la población.

PALABRAS CLAVE: Innovación, Crecimiento Económico, México

INNOVATION AND THE ECONOMIC GROWTH IN MEXICO

ABSTRACT

The aim of this work is to advance in the study of Innovation, trying to understand what new factors are driving the relationship between Innovation and Economic Growth. For that propose we studied the principal authors and existing literature in themes of Innovation a documentary research was conducted by reviewing recent articles in scientific journals, information issues, and agencies responsible for develop indexes and statistics. Two main factors Technological Innovation & Communication (ICT), and Knowledge Production & Research were considered. However, in order to assess the degree of impact of these factors, it is suggested to study each of the indicators. This research present that Innovation is the key to get and keep a competitive advantage needed to increase productivity, competitiveness and social welfare.

JEL: O30,O40, O54

KEYWORDS: Innovation, Economic Growth, México

INTRODUCCIÓN

El término Innovación surgió después de la segunda Revolución Industrial, o el Gran Capitalismo (1870-1914), momento en el cual se observa una tendencia en el surgimiento de nuevas y mejoradas técnicas de producción, desarrollo de métodos más efectivos y eficientes de comunicación y transmisión de datos (Friedman, 1994). La Innovación es definida por Burgelman, Mandique y Wheelwright como el proceso que se caracteriza por el acto de introducir algo nuevo (Martins Tristao, Helcio; et alt, 2013). Joseph Schumpeter en 1934 formula la Teoría de la Innovación basándose en la dinámica del Crecimiento Económico y cambio Tecnológico, haciendo énfasis en que la Innovación es un proceso que restructura mercados donde la "Destrucción Creativa" es el motor de la expansión productiva, siendo el emprendedor o empresario la principal fuente de actividad transformadora (Miranda Félix, Martínez Huerta, & Áviles Ochoa, 2014). De manera que esta teoría surge de la premisa de que el Crecimiento Económico a largo

plazo es impulsado por el crecimiento de la productividad y por el progreso tecnológico, cuya principal fuerza es la Innovación Industrial (Howitt, 2008). Entiéndase al Crecimiento Económico como el incremento en las actividades económicas de un país, el cual puede ser observable y medible (Méndez Morales, 2005)

REVISIÓN LITERARIA

La literatura relacionada con la Innovación y el Crecimiento Económico destaca que la Innovación es importante para el Crecimiento Económico, presentándose como una herramienta necesaria para obtener ventajas competitivas. De esta manera la Organización para la Cooperación y el Desarrollo Económico (OCDE) coincide en que la Innovación es indispensable en el proceso de Crecimiento Económico de un país ya que conduce al desarrollo económico y al bienestar social (Carayannis & Rakhmatullin, 2014; OCDE , 2012; Luengo & Obeso, 2012). La Innovación se mide por los cambios en los indicadores, pero como éstos no se encuentran disponibles a nivel de la industria, la Innovación no se mide de manera explícita (Chandra, Osorio-Rodarte, & Primo Braga, 2012), sino que se mide en ideas generadas, patentes registradas, introducción de nuevos productos, premios otorgados, número de personas dedicadas a la Innovación y las horas asignadas en temas de Innovación (Gupta, 2007), entre otros. De manera que a través de diversos estudios se ha observado una tendencia e interés por estudiar los nuevos factores que miden la Innovación, tales como: La Innovación Tecnológica, donde se contemplan las Tecnologías de la Información y Comunicaciones (TIC´s), junto con el Gasto en Ciencia y Tecnología y la Producción de Conocimiento e Investigación. Donde se encuentra la producción de patentes y propiedad intelectual junto con el Gasto en Investigación y Desarrollo. Los índices que miden la Innovación no son excluyentes unos de otros, es decir pueden complementarse entre sí.

El primer factor que tiene una relación directa con el Crecimiento Económico es la Innovación Tecnológica, la cual hay que verla como un conjunto de actividades científicas, financieras, comerciales que pueden ser aplicables a un servicio, producto o a un proceso. El análisis del Crecimiento Económico recibió mayor atención desde los trabajos publicados por Robert Solow, quien desarrolló un modelo de crecimiento para entender el papel de la acumulación de capital físico. Su conclusión principal fue la de demostrar que la Innovación Tecnológica es el factor principal que explica el progreso económico (Solow, Robert M., 1956; Solow, Robert M., 1957). Entiéndase por "Tecnología" a la aplicación de nuevo conocimiento obtenido a través de la ciencia para la solución de un problema práctico. De esta forma el cambio o progreso tecnológico se refiere al proceso por medio del cual el nuevo conocimiento es difundido y aplicado en la economía (Feldman, MaryannP. et al., 2002).

La difusión masiva de las nuevas tecnologías, en especial de las TIC´s ha generado en los últimos 20 años una enorme diversidad de nuevos productos, procesos y servicios, donde las empresas que han sabido potencializar esta actividad han logrado capitalizar nuevas oportunidades de negocio (Micheli, Jordy; Medellín, Enrique; et al., 2012). Ulrich Lichtenthaler mostró que las empresas están en proceso de transición hacía la Innovación abierta ya que trabajan con empresas altamente especializadas en tecnología, teniendo un efecto importante en la Innovación, de manea que el crecimiento y el desarrollo de las ciudades está vinculado a la Innovación Tecnológica (Feldman & Audretsch, 1999; Lichtenthaler, 2008). La Innovación Tecnológica puede ser medida a través del Gasto en Ciencia y Tecnología, número de usuarios de internet tanto en hogares como fuera de ellos y en el número de exportaciones mexicanas de bienes de alta tecnología. En el caso de México, considerándose como una economía emergente, es susceptible de beneficiarse de la posibilidad de adoptar normas y estándares que sean apropiados para su etapa de desarrollo tecnológico y económico. De esta manera países que tienen poblaciones estancadas o decrecientes, deberán aumentar la importancia de las actividades de Innovación (Khan, 2013; OCDE, 2012). Con lo anterior, en México la Ciencia, la Tecnología y la Innovación deberán contribuir en mayor medida al Crecimiento Económico. Es por ello que se plantea la siguiente propuesta:

Propuesta de investigación 1: La Innovación Tecnológica está relacionada directamente con el Crecimiento Económico en México. El segundo factor que tiene una relación directa con el Crecimiento Económico es la Producción de Conocimiento e Investigación, la cual hay que verla como un bien económico que permite mantener una ventaja competitiva necesaria para incrementar el bienestar de la población. En los últimos años se ha encontrado que la mayoría de los países correlacionan a la Innovación con otros indicadores como la Investigación y el Desarrollo (I+D) o con la intensidad de exportaciones, lo que hace sugerir que en economías más avanzadas (O´Neale & Hendy, 2012) las patentes son presentadas por las grandes empresas en comparación a los países menos avanzados, considerando a las patentes como el motor estructural en el esfuerzo innovador de una empresa (OCDE , 2012). En México a pesar de la recesión global, muchas empresas multinacionales están conscientes de su necesidad de adquirir conocimiento de "afuera", y del uso de la tecnología, por ello han aumentado su participación en actividades relacionadas con la Investigación y Desarrollo (I+D) con el propósito de ser competitivos en un mercado global, ya que afirman que la Innovación es la clave para mantener una ventaja competitiva en el mercado (Abulrub & Lee, 2012).

El Foro Consultivo Científico y Tecnológico (FCCyT) y la OCDE coinciden en afirmar que las patentes son uno de los indicadores más importantes de la actividad inventiva de una economía ya que gracias a ellas se permite conocer el tipo de tecnología que se está desarrollando, así como las redes y tendencias que se crean; de esta manera las patentes fungen como medida para aproximar a la Innovación, mostrando una correlación positiva entre el crecimiento del PIB y la solicitud de patentes extranjeras. Obteniendo que entre más patentes registradas, existirán mayor número de invenciones (Hernández Montaño, Sergio; Díaz González, Eliseo, 2007; OECD, 2012; FCCyT, 2014).

Algunos de los beneficios de utilizar a las patentes como indicadores económicos es que se pueden clasificar y la información está disponible para muchos países por largos períodos de tiempo brindando una dirección de los cambios que se están dando en lo referente a las invenciones (Greenhalgh & Rogers, 2010). Para aspirar a una patente no se requiere de una inversión significativa, cualquier idea que sea novedosa, que tenga aplicación industrial y que sea resultado de un proceso inventivo puede ser patentada (Jalife Daher, 2015). De esta manera el Gasto en Investigación y Desarrollo, las patentes solicitadas y aceptadas y el número de exportaciones tiene una relación directa con el Crecimiento Económico de aquí la segunda propuesta de investigación:

Propuesta de investigación 2: El Conocimiento y la Investigación están relacionados directamente con el Crecimiento Económico de México

METODOLOGÍA

Se realizó una investigación documental mediante la recolección de información de los principales organismos encargados de diseñar indicadores y estadísticas como: la Organización para la Cooperación y el Desarrollo Económico (OCDE), Banco Mundial (BM), la Red Iberoamericana de Indicadores de Ciencia y Tecnología (RICYT), el Instituto Nacional de Estadística y Geografía (INEGI), la Secretaría de Gobernación, el Foro Consultivo Científico y Tecnológico (FCCyT), así como diversos documentos que sirvieron como pauta para elaborar publicaciones e informes sobre Economía, Tecnología e Innovación como el Índice Global de Innovación, el Sistema Nacional de Innovación y publicaciones que edita el Foro Económico Mundial. Esto permite obtener un panorama sobre la Innovación y el Crecimiento Económico en México.

CONCLUSIÓN

Para concluir este trabajo, es necesario entender el efecto de la Innovación en el Crecimiento Económico, para ello la revisión de la literatura como proceso de entendimiento y marco referencial resulta fundamental,

ya que en ella se considera al Crecimiento Económico como el incremento en las actividades económicas de un país, donde la Innovación es la clave para tener y mantener una ventaja competitiva, necesaria para incrementar la productividad, competitividad y el bienestar social. Hoy en día el enfoque de Shumpeter toma gran importancia, ya que los individuos o agentes participantes de la economía (empresarios) serán capaces de desarrollar innovaciones de vanguardia que permitan implementar nuevas tecnologías. Es aquí donde la vinculación con las universidades y el rol de los investigadores tienen un gran impacto en la Innovación y en el Crecimiento Económico.

REFERENCIAS

Abulrub, A.-H., & Lee, J. (2012). Open Innovation Management: challenges and prospects. Elsevier, 130-139.

Carayannis, E., & Rakhmatullin, R. (2014). The Quadruple/Quintuple Innovation Helixes and Smart Specialisation Strategies for Sustainable and Inclusive Growth in Europe and Beyond. Springer, 212-239.

Chandra, V., Osorio-Rodarte, I., & Primo Braga, C. (2012). Corea y los BIC (Brasil, India y China): Experiencias de recuperación. En OCDE, Innovación y Crecimiento (págs. 29-71). OCDE Y Foro Consultivo Científico y Tecnológico .

FCCyT. (2006). Conocimiento e Innovación en México: Hacía una Política de Estado. México, DF.: Foro Consultivo Científico y Tecnológico.

FCCyT. (2014). Diagnósticos Estatales de Ciencia, Tecnología e Innovación 2014 PUEBLA. México: Foro Consultivo Científico y Tecnológico.

Feldman, M., & Audretsch, D. (1999). Innovation in cities:Science-based diversity, specialization and localized competition. European Economic Review, 409-429.

Feldman, MaryannP. et al. (2002). The Economics of Science and Technology: An Overview of Iniciatives to Foster Innovation. Kluwer Academic Publishers.

Friedman, M. (Septiembre de 1994). Instituto de Ciencia Política. Recuperado el 15 de noviembre de 2014, de www.icpcolombia.org: http://www.icpcolombia.org/archivos/ciencia_politica/No%2038/la_segunda_revolucion_industrial.pdf

Greenhalgh, C., & Rogers, M. (2010). Innovation, Intellectual Property and Economic Growth. New Jersey: Princeton University Press.

Gupta, P. (2007). Business Innovation. South Carolina: Accelper Consulting and Booksurge.

Howitt, P. (2008). Competencia, innovación y crecimiento: teoría, evidencia y desafíos de política pública. Innovación y el Crecimiento Sustentable en un Mundo Globalizado (págs. 19-27). París: OCDE-Foro Consultivo, Cuientífico y Tecnológico.

Jalife Daher, M. (2015). Cómo apropiarse de sus ideas y no morir en el intento. Scientific America México, pag. 24.

Khan, B. (2013). Selling Ideas: An International Perspective on Patenting and Markets for Technological Innovations 1790-1930. Business History Review, 39-68.

Lichtenthaler, U. (2008). Open Innovation in Practice: An Analysis of Strategic Approaches to Technology Transactions. IEEE Transactions on Engineering Management, 55(1), 148-158.

Luengo, M., & Obeso, M. (2012). El efecto de la Triple Hélice en los resultados de innovación. Revista de Administración de Empresas, 13.

Martins Tristao, Helcio; et alt. (2013). Innovation in Industrial Clusters: a Survey of Footwear Companies in Brazil. Journal of Technology and Management, 1-12.

Méndez Morales, J. S. (2005). Fundamentos de Economía. México: McGraw-Hill.

Micheli, Jordy; Medellín, Enrique; et al. (2012). Innovación y Crisis Trayectorias y Respuestas de Empresas y Sectores. (U. A. Metropolitana, Ed.) México: Porrúa.

Miranda Félix, A., Martínez Huerta, R., & Áviles Ochoa, E. (2014). Economía y empresa. México: Universidad de Oriente.

O´Neale, D., & Hendy, S. (2012). Power Law Distributions of Patents as Indicators of Innovation. PLOS ONE, 7(12), 1-38.

OCDE. (2012). Innovación y Crecimiento. México: Centro de la OCDE en México para América Latina y Foro Consultivo Científico y Tecnológico.

OCDE. (2012). México: Mejores Políticas para un Desarrollo Incluyente. México: OCDE.

Schumpeter, J. (2010). ¿Puede sobrevivir el capitalismo? La destrucción creativa y el futuro de la Economía global. (J. Á. Rubio, Trad.) Madrid: Capitan Swing.

Shadlen, K. (2012). The Mexican Exception: Patents and Innovation Policy in a Non-conformist and Reluctant Middle Income Country. European Journal of Development Research, 300-318.

Solow, R. M. (1956). A Contribution to the Theory of Economic Growth. The Quarterly Journal of Economics, 65-94.

Solow, R. M. (1957). Technical Change and the Aggregate Production Function. The Review of Economics and Statistics, 312-320.

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UNA APROXIMACIÓN TEÓRICA A LA GESTIÓN ESTRATÉGICA EN SERVICIOS DE ALOJAMIENTO

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RESUMEN

En el presente documento se destaca la importancia del estudio de recursos y capacidades presentes en hoteles boutique debido a la necesidad que, como organización, tienen de generar ventajas competitivas a fin de lograr objetivos empresariales, esto debido a que se enfrentan a los cambios cada vez más rápidos del entorno: escasez de materia prima, altos costos de operación entre otros muchos factores que las obligan a crear estrategias (Garrido, 2006) para sostenerse, expandirse, diversificarse, competir o liderar el mercado cada vez más complejo y exigente (Lipovestky, 2003; Schnitman, 2002; Conti, 2004, Morin, 2002; Ianni, 2004). Éste es el escenario al que se enfrentan las empresas de alojamiento del mundo y en particular los hoteles boutique del estado de Querétaro, las cuales al percatarse de la oportunidad de los segmentos de mercado cultural y de negocios del estado, han ido en aumento en los últimos diez años.

PALABRAS CLAVES: Hoteles Boutique, Teoría de Recursos y Capacidades, Gestión Estratégica

A THEORETICAL APPROACH TO STRATEGIC MANAGEMENT IN LODGING SERVICES

ABSTRACT

This document explores the importance of studying the resources and capacities of boutique hotels. The boutique hotels have the need to generate competitive advantages to achieve its business objectives because they are faced with the increasingly rapid changes in the environment: raw material shortages, high operating costs and many other factors that force them to create strategies (Garrido, 2006) to sustain, expand, diversify, compete and lead the market increasingly complex and demanding (Lipovestky, 2003; Schnitman, 2002; Conti, 2004, Morin, 2002; Ianni, 2004). This is the scenario that hosting companies around the world face particularly boutique hotels in the state of Queretaro, which to realize the opportunity of the cultural market segments and business of the state, have been increasing in the last ten years. To understand how to generate these competitive advantages the study emphasizes the theory of resources and capabilities.

JEL: M3; M19

KEYWORDS: Boutique Hotels, Resources and Capabilites Theory, Strategic Management

INTRODUCCIÓN

El presente documento es una aproximación a la teoría de la gestión estratégica considerando a los hoteles boutique como sistemas que interactúan dentro del sistema turístico, por ello se hace necesario contextualizar el enfoque sistémico para posteriormente adentrarse al tema de la gestión estratégica. Es

relevante mencionar que sistémicamente ningún elemento puede estar aislado del otro y que hay tres principios fundamentales que orientan este pensamiento:

Principio holístico. El todo es mayor a la suma de las partes, todo está relacionado con todo.
Principio de Isomorfismo. Los sistemas mantienen elementos básicos, procesos y funciones similares, lo que nos permite elaborar analogías de la realidad a representaciones conceptuales.
Principio de teleología. Todos los sistemas tienen un propósito o fin.

Aun no hay un concepto único para definir a los hoteles boutique, al parecer la idea surge en los años 80 en Estados Unidos con el empresario Schrager, en contraposición a las grandes cadenas de hoteles; de acuerdo a Gau (2012) podría decirse que se trata de una experiencia única de hospedaje con énfasis en la exclusividad, altos estándares de calidad y la interacción individual con los huéspedes; por su parte, el Sistema Nacional de Clasificación Hotelera 2012 se refiere a los hoteles boutique como aquellos establecimientos que cuentan con pocas habitaciones, idealmente menos de 30, y en muchas ocasiones las características de espacio y decoración distinguen claramente a cada una de ellas; orientados al turismo de esparcimiento y ofreciendo un servicio personalizado; su arquitectura, decoración y mobiliario generalmente dan una personalidad distintiva al lugar, habitualmente están ubicados en ciudades o pueblos mágicos aunque no es un término excluyente a destinos de playa o rurales.

Los hoteles boutique están enfocados a nichos de mercados selectos y compiten de manera directa con grandes cadenas hoteleras y hoteles cinco estrella al cubrir una necesidad de alojamiento de lujo, de igual manera se enfrentan a retos similares en contextos sociales y políticos, sólo una estrategia precisa podrá mantenernos vigentes en el voraz mundo del alojamiento. Los hoteles boutique entendidos como sistema se definen como un conjunto de elementos organizados, con una dinámica de interacciones que los llevan producir un resultado específico, con eficiencia y eficacia. Como sistema abierto mantiene constante contacto con su entorno del cual recibe energía directa de sus clientes, proveedores, trabajadores, etc. Al mismo tiempo provee y obtiene retroalimentación para conocer su estado en cuanto a preferencias, estatus a nivel social y corporativo y posicionamiento en el mercado. Lo que a su vez le permite mantener el equilibrio homeostático a partir de tomar decisiones de la lectura que hacen de la información recuperada del entorno interno y externo, en donde se analizan los aspectos económicos, sociales, políticos, culturales, tecnológicos, y ambiental. Las decisiones de la gerencia para la resolución de problemas admite varios enfoques para la lectura de los acontecimientos y tendencias del entorno, así como la visión con la cual se tratarán los rumbos de la empresa. En primera instancia de acuerdo con Emery y Trist (1960) existen tres tipos de entorno que los gerentes deben evaluar antes de tomar cualquier decisión.

Tabla 1: Entornos

Tipo de Entorno	Descripción
Estático	Simple, estático, poca incertidumbre
Turbulento	Cuando es complejo, dinámico y alta incertidumbre.
Intermedio	Combinación de los anteriores

En esta tabla se observan los diferentes entornos a los que se puede enfrentar un gerente en la toma de decisiones. Fuente: Emery y Trist (1960)

Otros autores como Aldrich,(1999) o Pfeffer y Salancik (1998), mencionan cuatro tipos de entorno: estable - aleatorio, plácido-agrupado, inestables-reactivo, tubulento. El hecho es que los tomadores de decisiones a nivel empresarial no pueden dejar de hacer una lectura de la dinámica del movimiento del entorno.

Modelos de Gestión Estratégica

Una de las formas de respuesta de las organizaciones a los ambientes cambiantes y turbulentos es la búsqueda de estrategias que les permitan mantenerse o innovar en el mercado; dependiendo del grado de madurez de la organización y las necesidades por las cuales este atravesando; se eligen las estrategias a seguir. Con respecto a la conceptualización de la estrategia se encontró que existen numerosas definiciones desde aquellas que se remontan a sus orígenes bélicos hasta las enfocadas en las organizaciones, que para efectos de este estudio son las más pertinentes de revisar.

Tabla 2 Definiciones de Estrategia

Autor	Definición de Estrategia
Chandler (1962)	"La determinación de las metas y objetivos básicos a largo plazo de una empresa, junto con la adopción de cursos de acción y la distribución de recursos necesarios para lograr estos objetivos".
Quinn (1977)	"el modelo o plan que integra las principales metas, políticas y cadenas de acciones de una organización dentro de una totalidad."
Rodríguez (1998)	"define el modo o plan de acción para asignar recursos escasos con el fin de ganar una ventaja competitiva y lograr un(os) objetivos(s) con un nivel de riesgo aceptable."
Richardson, 1996	"un medio para alcanzar un fin."

La tabla 2 presenta la evolución en la definición de estrategia en un periodo comprendido entre 1962 y 1996 Fuente: Elaborado con base en Aceves (2004)

De igual manera Garrido (2006) en su obra dirección estratégica, aclara que el concepto de estrategia es ampliamente utilizado en el ámbito de la gestión de empresas y señala algunos aspectos importantes para comprender el concepto, explica que siempre que se hace referencia al enfoque *scope* de la actividad de la organización, se relaciona a las actividades con el entorno en el cual opera; las actividades con los recursos y capacidades de que se dispone y las decisiones estratégicas suelen tener un gran impacto sobre las organizaciones. De acuerdo con el autor el término estrategia significa hablar en términos globales y de la forma de fijar rumbos de comportamiento que necesariamente van a incidir de forma profunda y significativa en el devenir futuro de la empresa u organización que la adopta.

Sobre la ventaja competitiva Ohmae (2004) refiere que la estrategia se refiere a distinguirse de todos los demás tipos de planificación de los negocios, en una palabra, la ventaja competitiva. Afirma que si no hubiera competidores, no sería necesaria la estrategia, puesto que el único propósito de la planificación estratégica viene a ser el permitir que la compañía obtenga, con la mayor eficacia posible, una ventaja sostenible sobre sus competidores. Para ello existen caminos para fortalecer la posición de una empresa frente a la de sus competidores: a) La empresa puede reajustar la asignación de recursos a disposición de su equipo gerencial, con objeto de reforzar ciertas capacidades de la compañía como un medio para incrementar su participación en el mercado y su rentabilidad. b) Entre compañías que compiten en la misma industria o en el mismo ramo, hay casos en los cuales a pesar de que una compañía no cuenta con ninguna ventaja inicial sobre sus competidores y la lucha por los factores claves de éxito (FCE) luchan por obtener una ventaja relativa al obtener provecho de cualquier diferencia que exista en las condiciones competitivas de la compañía y la de sus rivales.

Tipos de Estrategias en Función del Nivel en el Que Se Define la Estrategia

El objetivo del trabajo de García y Sabater (2004), fue encontrar una clasificación global de estrategias para ello recogieron 21 clasificaciones; la selección de ellas fue en función de la repercusión de trabajos de investigación posteriores. Las clasificaciones estudiadas se muestran en la tabla.

Tabla 3: Distintos Niveles de Estrategias

Grupo 1	Grupo 2	Grupo 3
Sólo contemplan tipos de estrategia a nivel de unicidad de negocio	Contemplan tipos de estrategia a nivel de negocio más estrategias a nivel corporativo	Contemplan las dos variables anteriores más formas de llevarlas a cabo
Miles y Snow (1978)	-Ansoff (1965)	-Vesper (1979)
Porter (1982)	-Rumelt (1974)	-Simmond (1990)
Abell (1980)	-Buzzell (1975)	- Morrison y Roth (1992)
Chrisman, et al. (1988)	-Hofer y Schendel (1978)	- Mundet y Paturel (1995)
Wright et al. (1998)	-Miller y Friesen (1978)	- Bueno (1996)
Beal (2000)	-Wissema, etal.(1980)	
	- Galbraith y Schendel (1983)	
	- Herbert y Deresky (1987)	
	-Mintzberg (1988)	
	- Menguzzato y Renau (1991)	

La tabla 3 menciona los resultados del trabajo de García y Sabater (2004) en torno a la clasificación de estrategias en tres niveles. Fuente: García y Sabater (2004).

Las estrategias tienen cuatro componentes básicos como podemos analizar: 1) el ámbito o campo de la actividad, 2) Capacidades o competencias distintivas, 3) Ventaja competitiva y 4) Sinergia. Así como tres niveles empresariales corporativa, negocios y funcional.
La teoría de recursos y capacidades hace énfasis en al generación de estrategias de negocios desde el interior de la organización.

Modelos de Generación de Conocimiento

Existen diferentes modelos teóricos para explicar la generación del conocimiento y las razones por las cuales se gestiona dentro de la empresa, algunos se basan en el aprendizaje como proceso de adquisición de conocimiento. Este proceso se inicia al tratar de resolver problemas con lo cual se llega en muchas ocasiones al aumento de la base del conocimiento, la innovación y al aprendizaje y existen otros modelos de generación del conocimiento basados en el capital humano, estos establecen que el capital humano y su capital intelectual son fundamentales para la empresa y se debe capitalizar (Friedman, Hatch y Walker, 2000) en razón de la búsqueda de recompensas económicas, satisfacción intrínseca (creatividad, retos y diversión), reconocimiento (profesional, prestigio y respeto) y oportunidades de desarrollo.

Otro modelo es aquel vinculado a la teoría de los recursos y capacidades que define a la gestión del conocimiento como una capacidad distintiva de la empresa ya que hace un énfasis peculiar en la formación y difusión del conocimiento organizacional con el afán de sustituir el estudio de las acciones e intenciones de la competencia.. Esta teoría reconoce el rol fundamental que juegan los intangibles, en la creación de valor de la organización; Suárez e Ibarra (2002) mencionan que la capacidad de la empresa se puede medir de acuerdo a la factibilidad de producir y adaptar los servicios a las necesidades del cliente, luego entonces, la teoría no descarta en su totalidad el estudio de la interacción entre la empresa y su entorno.   A continuación se presenta una breve reseña de la evolución de la teoría a través de diversos autores, recordando que el principal objetivo de este acercamiento es maximizar la rentabilidad de la empresa a través del tiempo. Penrose en 1959, presenta su Teoría del Crecimiento de la empresa donde postula que que la función de la empresa es adquirir y organizar personas y otros recursos siendo rentable para suministrar bienes y servicios a determinado mercado (Suárez & Ibarra, 2002), esta autora hace énfasis en la importancia de los recursos gerenciales con experiencia y conocimiento dentro de la empresa para el uso

óptimo de los recursos. Por su parte, Prahalad y Hamel (1990) proponen el término Competencias esenciales para referirse a cualidades intrínsecas del grupo empresarial que lo impulsan al éxito económico; estas cualidades se expresan a través del aprendizaje colectivo en la organización y contribuyen a la eficientacion de los recursos a través de las capacidades adquiridas para lograr lo anterior, deben cumplir tres requisitos: proveer acceso potencial a una amplia variedad de mercados, contribuir significativamente a los beneficios percibidos por el cliente del producto final, ser dificilmente imitables (George & Álvarez, 2005).

La percepción de Jay Barney (1991) en torno a esta teoría, es apreciar a la empresa como un cúmulo de recursos y capacidades tales como: activos tangibles, intangibles y capacidades; su postura se basa en que los recursos estan distribuidos heterogéneamente entre las empresas, estos recursos marcan una diferencia de desempeño y las diferencias son estables en el tiempo (George & Álvarez, 2005). El autor propone que para que un recurso de la empresa sea valioso debe contar con cuatro caracteristicas o indicadores que le permitan generar una ventaja competitiva sustentable: valioso, raro, inimitable e insustituible. Robert Grant (1991) a diferencia de otros teoricos relacionados con la visión de recursos y capacidades, apuesta por identificar no sólo las fortalezas de la empresa sino tambien sus carencias, además de ubicar a la organización en un entorno competitivo el cual propone debe ser analizado. Para Grant, el objetivo de identificar los recursos de la empresa es emplearlos de manera eficiente para volverlos rentables y que generen venatajas competitivas (Suárez & Ibarra, 2002). El autor postula dos principios básicos de la teoría de recursos y capacidades:

Los recursos internos y capacidades proveen dirección básica para la estrategia de la empresa
Los recursos y capacidades son la principal fuente de rentabilidad de la empresa.

Análisis de los Recursos y Capacidades

A pesar de los esfuerzos de Grant por explicar de una manera más sistemática la teoría de recursos y capacidades, algunos autores aún consideran que existe una ambigüedad conceptual en la misma (Fong, 2005; Mintzberg et al., 1998) y lamentan que la teoría sea sólo una declaración metafórica acerca de las organizaciones (Pfeffer, 2003), lo cual conlleva a una notoria necesidad de fortalecer la teoría con más estudios empíricos (Fong, 2005) Con base en la revisión de la literatura se propone a continuación diversas técnicas que podrán facilitar la aplicación empírica de la teoría; se toma en consideración que los recursos son aportaciones al proceso productivo, es decir unidades básicas de análisis dentro de la organización y gracias a ellos se generan las capacidades de la empresa (Grant, 1991). Y se propone identificar seis recursos organizacionales: Recursos financieros. De acuerdo a Hofer & Schendel (1978), para la evaluación de recursos financieros en la empresa es útil evaluar la Reinversión del flujo de caja en los últimos 5 años, tomando en consideración la disponibilidad de fondos propios y la capacidad de deuda, lo que dará como resultado el determinar si la empresa pudo (durante el periodo evaluado) mantener su tasa de crecimiento sólo con recursos internos o si necesitó recursos adicionales, incluso dará indicadores, de ser el caso, sobre la cantidad excedida que pueda ser utilizada en otras unidades de negocio. La fórmula propuesta para realizar este cálculo es la siguiente:

$$R_{CF}= \frac{\text{Flujo de caja después de impuestos}}{(\text{Ventas \$})(\text{Tasa de crecimiento anual})* [(\frac{\text{Crecimiento de capital}}{\text{Ventas \$}})+ (\frac{\text{Activos fijos}}{\text{Ventas \$}})]}$$

Recursos físicos. Para su evaluación se sugiere tomar en consideración la propuesta de Hofer & Schendel (1978) complementada con el estudio de Gau,L (2012) cuyo resultado será la identificación de los siguientes indicadores: antigüedad del hotel, ubicación, equipo técnico, inventarios e instalaciones. Recursos humanos. Estudios como los realizados por González O & Álvarez, J (2010) o Heredia, J (2009) analizan el rol del capital humano como factor decisivo en la competitividad de los hoteles, llegando a resultados que relacionan el nivel de capacitación de los empleados en diferentes países de Europa con su

productividad González O & Álvarez, J (2010) y por otro lado las variables de "uso de sistemas de información", "experiencia" y "relaciones con procedimientos" como parte de la rentabilidad en hoteles mexicanos.(Heredia 2009). Se sugiere tomar como base el estudio de González O & Álvarez, J (2010) para identificar los siguientes indicadores como parte de recursos humanos: Educación. (Nivel de escolaridad, conocimiento, información, aportación de ideas, habilidades, capacidad para adaptarse a la nueva tecnología, experiencia en el área.) Capacitación y desarrollo. Aprender haciendo o entrenamiento en un sector específico; premios y sanciones; índice de rotación.

Recursos tecnológicos. De acuerdo a Geroge y Álvarez (2005) El grado en que una compañía invierte en tecnología se correlaciona significativamente con su alta productividad y competitividad. Los indicadores a identificar extraídos de Hofer & Schendel (1978) se proponen que sean: Automatización de tareas. Responde a la interrogante ¿Qué tareas pueden ser sustituidas por avances tecnológicos? ¿Cómo eficientar ciertas tareas o actividades a través del uso de la tecnología. Entre los principales indicadores de calidad en un hotel esta la limpieza e higiene, aspecto semi tangible que puede ser fácilmente identificado por el turista. De acuerdo a Yeoman (2012) existe un proyecto llamado PASTA que enfocado en la industria del hospedaje explora la oportunidad de dotar a las camas de cada habitación con textiles capaces de eliminar gérmenes y bacterias a través de la electricidad. También el uso del titanio en entornos controlados, podría ayudar a limpiar superficies reduciendo la necesidad de limpiar baños. En ambas actividades la implementación tecnológica permitiría disminuir tiempos y recursos. Desarrollo e implementación de nuevos productos. Diseño arquitectónico amigable con el medio ambiente, espacios adaptados para personas con discapacidad auditiva y visual (Yeoman, 2012), uso de la tecnología en instalaciones del hotel, personalización del servicio, incidencia en conceptos únicos e inimitables son los motores para generar nuevos productos en la industria del alojamiento.

Reputación. No existe una definición generalizada de reputación, al ser un concepto empleado en diversas disciplinas (Martinez y Olmedo 2010) con un alto grado de intangibilidad lo que entorpece su delimitación. El recurso reputación según la propuesta de Álvarez & Pérez (2001) se concibe como la suma de identidad, imagen, percepciones, creencias y experiencias que los influenciadores han relacionado con la empresa a través del tiempo. Se considera influenciadores a: empleados, clientes, comunidad financiera (inversionistas), comunidad local (gobierno, grupos de presión, académicos). De acuerdo a Martínez & Olmedo (2010) las principales dimensiones determinantes de la reputación son: a) Oferta de productos y/o servicios; b) Imagen de marca; c) Liderazgo empresarial; d) Calidad de gestión y capacidad directiva; y e) Ética, cultura y responsabilidad social f) Posición financiera g) Innovación. Dimensiones que se propone tomar en consideración para la exploración de este recurso; en el sector de alojamiento es importante considerar en este aspecto el análisis de redes sociales con relación a la opinión de clientes como influenciadores.

Recursos organizacionales. Se toman en consideración las propuestas de Barney (1991), Hall (2001) y Hofer & Schendel (1978) para incluir como indicadores de los recursos organizacionales los siguientes: i) Estructura, diseño y tamaño de la organización. Ii) Sistemas de información iii) Sistemas de compra iv) Tipo de planeación v) Relaciones informales entre grupos dentro de la empresa. Grant (1991) destaca que los recursos por sí mismos, de manera individual, son poco productivos ya que la productividad requiere de la cooperación y coordinación de grupos de recursos que conforman las capacidades de la empresa. La identificación y evaluación de capacidades se torna un poco más compleja ya que de acuerdo a la propuesta de Grant (1991) hay que identificar patrones complejos de coordinación entre personas y entre personas y recursos (Nelson y Winter, 1982), para lograr esa coordinación se requiere del aprendizaje a través de la repetición e involucran un intercambio de información con base en el capital humano de la empresa y dependen del sistema de incentivos e integración del personal (Suárez & Ibarra, 2002). Por ello Grant (1991) propone invertir en el concepto de competencias esenciales como capacidad de la empresa difícil de imitar que permitan garantizar su supervivencia a largo plazo.Se pretende que todo lo anterior pueda ser aplicable en entornos organizacionales de hoteles boutique con el fin de identificar el potencial de la

empresa para establecer las ventajas competitivas mediante la valoración de los recursos y capacidades que posee o a los que puede acceder. Cabe mencionar que aun falta desarrollar una metodología para identificar y evaluar las capacidades de los hoteles pero esto, de acuerdo a la teoría sólo podrá conseguirse como resultado de un análisis previo sobre los recursos estratégicos con los que cuenta la organización y sus posibles sinergias. A fin de verificar si los principios fundamentales de teoría son aplicables en la práctica:

Los recursos internos y capacidades proveen dirección básica para la estrategia de la empresa.

Los recursos y capacidades son la principal fuente de rentabilidad de la empresa.

CONCLUSIONES

La teoría de los recursos y capacidades permite analizar a las empresas considerando que tienen un conjunto de recursos tangibles e intangibles que les permiten generar capacidades empresariales las cuales contribuyen en la creación de ventajas competitivas, a partir de allí los hoteles boutique pueden establecer un juego de estrategias para enfrentarse a la realidad ya sea a nivel empresa o industria. El análisis desde esta visión teórica permite que los hoteles boutique orienten su actividad al conocer en primera instancia su circunstancia interna en cuanto a identificar el potencial de sus recursos y capacidades a fin de valorar o desarrollarlos. Desde el punto de vista externo la información recuperada por parte de los influenciadores son pautas para generar ventajas competitivas.

REFERENCIAS DEL TEMA

Aceves, V. (2004). Dirección estratégica. México: Editorial McGraw Hill.

Aldrich, H. 1999. Organizations Evolving. London, Thousand Oaks, CA: Sage
Álvarez, A. y Pérez, P. (2001): «La Reputación Empresarial como Recursos Estratégico: Un Enfoque de Recursos y Capacidades», Ponencia presentada al XI Congreso Nacional de Acede, Zaragoza
Barney, J. (1991). "Firm Resources". Journal of management Vol. 17 No.1 , 99-120

Emery, F. E., y Trist, E. Socio (1960) Technical Systems. En C. Churchman, & M. Verhulst, Management Sciences, Models and Techniques (págs. 83-297). Oxford: Pergamon.

Fong Reynoso, Carlos. (2007). "La pyme en México, situación actual y retos estratégicos", *El análisis de la ventaja competitiva en la pyme*. Zapopan , Jalisco: Universidad de Guadalajara. Pp 201-246

Friedman, B., Hatch, J. y Walker, D. *Atraer, gestionar y retener el capital Humano*. Paidos-Empresa. Barcelona-Buenos Aires. 2000

Gao, L. (10 de October de 2012). An Exploratory Study of the Boutique Hotel Experience: Research on Experience Economy and Designed Customer Experience. West Lafayette, Indiana, USA: UMI Dissertation Publishing.

García, M. y Sabater, R. (2004) Relaciones entre estrategia y ciclo de vida de la empresa. Revista Madrid. n. 20, diciembre 2003 – enero 2004. Disponible en:
http://www.madrimasd.org/revista/revista20/investigacion/proyectos1.asp [03 de noviembre 2015]
Garrido, S (2006). Dirección Estratégica. España: Editorial McGraw Hill.

George, Claude; Álvarez, Lourdes. (2005). *Historia del pensamiento administrativo*. Segunda edición. México: Pearson Educación.

González, O; Álvarez, J (2010). Human capital, innovation and productivity in the hotel and restaurant sector in mediterranean tourist countries. En: *Competitive strategies and polices* (págs 75-97). Nova Science Publishers.

Grant, R. M. (1991). The resource-based theory of competitive advantage: implications for strategy formulation. *California Management Review* , 114-135.

Hall, Richard (2001). *Organizations structure, process and outcomes*. Prentice Hall
Heredia, J (2009). Influencia del capital intelectual en la competitividad de hoteles. *Conciencia tecnológica* num 37 pp.20-25

Hofer, Charles; Schendel, Dan. (1978). *Strategy Formulation: Analytical Concepts.* St. Paul: West Publishing CO

ICTUR (2014)Metodología para medición de competitividad turística en prestadores de servicios turísticos en certificaciones y sellos de calidad de SECTUR. México: LID Editorial mexicana. Disponible en:http://ictur.sectur.gob.mx/pdf/estudioseinvestigacion/estudiosfondosectorial/metodologiainteriores16se pt.pdf   [24 de noviembre 2015]

Martínez, I., & Olmedo, I. (2010). Revisión Teórica de la Reputación Corporativa en el Entorno Empresarial. Cuadernos de Economía y Dirección de la Empresa, Vol.44, 19p, 59-77.

Mintzberg, Henry; Ahlstrand, Bruce; Lampel, Joseph. (1998). *Strategy Safari: a guided tour through the wilds of strategic management.* New York: Free Press

Nelson, Richard; Winter, Sidney (1982). "An Evolutionary Theory of Economic Change." *Cambridge, M. A. Harvard University Press*. Pp. 194. 201

Ohmae, K. (2004). La mente del Estratega. México: Editorial McGrawHill

Pfeffer, J. (2003), "Introduction to the classic edition," in Pfeffer, J. and Salancik, G. R., The External Control of organizations: A Resource Dependence Perspective (classic edition), Stanford University Press, Stanford, CA.

Pfeffer, J. and Salancik, G. R. (1998), The External Control of Organizations: A Resource Dependence Perspective, Harper & Row, New York

Prahalad, K; Hamel, Gary (1990) "The core competence of the corporation", *Harvard Business Review*, pp.79-91

Suárez, J. e Ibarra S. (2002). *Teoría de los Recursos y Capacidades. Un enfoque actual en la estrategia empresari*al. Anales de estudios económicos y empresariales N° 15, págs. 63-89 Recuperado en http://dialnet.unirioja.es/servlet/articulo?codigo=793552
Yeoman, I (2012) *2050- Tomorrows Tourism*. Channel View Publications

DISEÑO ESTRUCTURAL DE LA ORGANIZACIÓN

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RESUMEN

La razón de ser de una empresa es obtener sus productos o resultados finales, que son los que generan valor y que al ser obtenidos por sus clientes, le proporcionan los recursos económicos que pagan los gastos, generan utilidades y la mantienen vigente. Los productos finales sólo se obtienen si un conjunto de procesos funcionan armónicamente y perfectamente coordinados. Estos procesos pueden ser estudiados, controlados y dirigidos mediante un diagrama denominado Mapa Estructural, que los muestra en tres categorías fundamentales: Procesos Centrales, Procesos Clave y Procesos de Apoyo. El análisis inicia por los productos finales, pero los procesos de sus respectivos mapas se colocan como procesos centrales y se construyen Mapas Estructurales de segundo nivel. Este sistema se repite tantas veces sea necesario y se genera un conjunto integrado e interrelacionado de procesos. Los procesos generados se agrupan por afinidad y con estas agrupaciones se construye una organización que resulta orientada a los productos finales- única razón de ser de la empresa - y tiene todos los elementos para conseguir una operación estructurada y armónica orientada a los productos finales y los clientes.

PALABRAS CLAVE: Productos, Procesos, Clientes, Organización

ESTRUCTURAL DESIGN OF ORGANIZATIONS

ABSTRACT

The fundamental purpose of a Company, is to generate its final products, because they have value and when they are bought by clients generate incomes to pay expenditures, make profits and maintain the Company alive. The final products, are obtained only if a group of processes work out harmoniously and in perfect coordination. This processes can be studied, controlled and managed by means of a diagram named Estructural Map, that show them separated in three fundamental categories: Central Processes, Key Processes and Suport Processes. The work to design an organization, starts by the Final Products, and the processes of their Estructural Maps, are taked like new Central Processes and with them, new Estructural Maps of second level are constructed. This procedure is repited any times as needed, generating a system of integrated and interrelated processes. This set of processes are grouped by afinity and the resulting clusters give rise to a new organization perfectly oriented in all of its parts, toward the final products, and in consecuense to the fundamental purpose of the Company. Finally and this is the main issue, the organization has all the elements to manage an harmonious and structured operation, oriented to products and clients.

JEL: L22, L23,M10, M16

KEYWORDS: Products, Processes, Clients, Organization

INTRODUCCIÓN

Desde el inicio de la humanidad, la organización ha sido un elemento fundamental para que el ser humano sea capaz de trabajar en conjunto. El trabajo en grupos humanos sólo es posible cuando se organiza el grupo y opera de acuerdo a esa organización, de manera coordinada, a fin de conjugar y armonizar las tareas y orientar todos los esfuerzos hacia el producto u objetivo común. Las empresas, vistas desde la óptica del trabajo en conjunto, no son más que conjuntos distintos de personas que deberían trabajar de manera

coordinada y armónica para lograr el fin fundamental de la empresa: los productos finales, que al ser "comprados" por los clientes, generan los recursos económicos que sostienen la vida de las empresas y la de todos los que trabajan en ellas. El diseño de organizaciones ha sido un problema que ha sido estudiado desde el inicio de la revolución industrial y el inicio del concepto de empresa como lo conocemos hoy. El problema siempre ha sido el mismo: "Cómo lograr que se divida el trabajo en módulos de tamaño adecuado para que sean manejados por grupos distintos de personas y que todos esos grupos trabajen de manera coordinada y armonizada para asegurar que se obtendrán los productos finales de la empresa".

La literatura que se ha escrito sobre administración y organización es amplia y contiene una gran cantidad de enfoques y ejemplos. Se ha hablado desde división del trabajo, pasando por los métodos de Kaisen de los japoneses y un sinnúmero de conceptos norteamericanos de diseño estratégico de organizaciones, métodos de arriba hacia abajo y métodos de abajo hacia arriba, pero en ninguno de ellos se puede encontrar un método que establezca como principio del análisis los productos finales y como principio del diseño organizacional la conjugación de los esfuerzos hacia los procesos centrales y los productos finales, que son los que sostienen la vida de la empresa. La falta de un planteamiento metodológico del diseño organizacional enfocado en los productos finales y la concatenación de procesos, ha hecho necesario que las empresas dediquen mucha gente, tiempo y esfuerzo para resolver los problemas de eficacia que plantea la organización diseñada con los enfoques tradicionales, por lo que además de gastar más dinero del necesario, tienen menor productividad y eficacia. El enfoque que se propone en este trabajo, permitirá diseñar con certeza los métodos de trabajo, las interrelaciones entre las diferentes partes de la empresa, los sistemas de comunicación y los requerimientos de coordinación, armonización y dirección. Por ello el objetivo de este trabajo fue diseñar un método que permitiera que el diseño organizacional y la construcción de los organigramas de una empresa estuviera basado en la obtención de los productos finales y con ello asegurar que todas las actividades, en toda la empresa, estuvieran orientadas a ellos, de manera que todos los trabajadores tengan la posibilidad de identificar cómo lo que hacen, tiene relación con los productos finales y con ello dar sentido a su esfuerzo.

REVISIÓN LITERARIA

Nadler y Tushman, Señalan que existen tres formas básicas para diseñar los agrupamientos de una estructura organizacional:

Por actividad: Este enfoque trata de reunir dentro de una misma área organizacional a las personas que tienen funciones, habilidades, procesos de trabajo o disciplinas afines o similares.

Por salidas o resultados: En este caso, el agrupamiento busca reunir a las personas con base en el servicio o producto en el cual participan, sin importar demasiado sus especialidades académicas o laborales.

Por usuario o cliente: El agrupamiento se diseña con el fin de reunir un conjunto de personas que deben trabajar para satisfacer las necesidades de un mismo tipo de cliente o estrato de mercado. También puede aplicarse para atender áreas geográficas específicas.

Organización de enfoque múltiple: Cuando existen situaciones complejas o se desea un diseño adaptable a diferentes situaciones, se puede emplear cualquier combinación de las tres formas básicas de agrupamiento descritas en los puntos anteriores.

Otros autores, también consideran en su análisis de la organización, que a veces es conveniente iniciar el diseño desde los niveles superiores de la empresa; a este enfoque se le denomina Top down (de arriba hacia abajo) y se sugiere que sea utilizado únicamente hasta el segundo o tercer nivel de la organización y únicamente para establecer las líneas de mando y comunicación. Obviamente los resultados que se obtienen son incompletos y muchas veces pueden ser incompatibles con el diseño que requieren los niveles

inferiores. Una segunda estrategia consiste en iniciar el diseño en el nivel básico más bajo: en donde se manufactura el producto y de ahí se procede hacia arriba de la organización identificando el trabajo, los empleos necesarios, los flujos de trabajo y los puestos, hasta llegar al nivel superior de la empresa.

A este modo de diseñar la organización se le denomina Bottom up (de abajo hacia arriba) Sin embargo todo lo anterior son sólo conceptos cuya aplicación requiere de una interpretación y de que la persona que intenta la aplicación, determine el proceso de implementación, las herramientas de análisis, la información que utilizará para crear su diseño organizacional y el método para deducir los elementos con los cuales construirá dicho diseño. En el mismo estado se encuentran otros materiales bibliográficos sobre el tema, ya que, el diseño organizacional es presentado como un arte que no está sujeto a muchas restricciones conceptuales o metodológicas. Se plantea, en la mayor parte de las publicaciones, o al menos se sugiere, que una buena alternativa consiste en copiar lo realizado por algunas empresas famosas que han tenido éxito en sus diseños y evitar los errores de aquellas que han fracasado.

Por lo anterior el autor de este trabajo consideró conveniente desarrollar un método de diseño, basado en la experiencia adquirida al participar en varias restructuraciones organizacionales realizadas en P. Exploración y Producción. En el desarrollo de estos trabajos, se fueron encontrando elementos que permitieron experimentar con el uso de los productos finales de una organización, como base para identificar los procesos que se interrelacionan para obtenerlos y se pudo comprobar que la agrupación de procesos por afinidad, es un medio poderoso y consistente para definir la estructura organizacional. El análisis de los resultados obtenidos en la práctica y la intención de integrar estos conocimientos y hallazgos en un método que pudiera ser aplicado de manera repetitiva y homogénea por cualquier persona, fue el punto de referencia que se utilizó para desarrollar la metodología que se expone a continuación

METODOLOGÍA

Este trabajo se realizó mediante una recopilación de las experiencias adquiridas como participante en más de cinco proyectos de reestructuración organizacional realizados en P. Exploración y Producción a lo largo de un período de 15 años y mediante el análisis de libros publicados sobre el tema. El desarrollo del método presentado en este trabajo, tuvo como punto de origen la inquietud de que debería buscarse una manera de diseñar la organización de una empresa, tomando como punto de partida sus productos finales y los procesos que dan origen a éstos y a todos los productos intermedios e internos.

RESULTADOS

La estructura de organización general de la empresa, lo que comúnmente se conoce con el nombre de organigrama, sólo señala las líneas de autoridad y el manual de organización, con muchas dificultades, esboza las funciones de cada órgano de la estructura, hasta el nivel que se haya seleccionado para hacer dicha tarea. De estas situaciones, se derivan dos problemas fundamentales: El organigrama, no describe como funcionan cada uno de los órganos, ni cómo deben interactuar, entre si, para lograr los resultados que la empresa requiere. El manual de Organización, establece lo que los órganos tienen que hacer, pero no dice qué es lo que tienen que lograr. Como consecuencia, las empresas funcionan de una manera compleja que tiende a ser caótica. La gente trabaja en un ambiente que podría parecerse a un hormiguero, donde las personas van y vienen, se reúnen, analizan situaciones, toman decisiones y realizan acciones, con la mejor intención, pero, quizá, no con la mayor prudencia y certeza. Para controlar este ambiente agitado y difícil de predecir, es necesario que los mandos medios y los líderes de equipo, realicen una labor de conducción que encamine debidamente las tareas, acciones y resultados, hacia el logro de los resultados que realmente interesan a la empresa. Estos mandos, se convierten entonces, en un componente crucial del funcionamiento de la empresa, si ellos fallan en el objetivo de su conducción, se cometerán muchos errores, se realizarán acciones inadecuadas y los resultados fundamentales de la empresa, se alcanzarán sólo parciamente.

La razón de ser de la empresa Las empresas se crean y existen con un único y primordial propósito: generar valor por medio de los productos que constituyen sus salidas hacia sus clientes. Por supuesto que más adelante en el proceso, tienen que generar ingresos mediante el cambio de esos productos por dinero. Pero toda la empresa se cimienta y sostiene por el valor que tienen sus productos. Sin ellos todo lo demás carece de sentido. Resulta lógico, entonces, analizar a la empresa tomando como punto de enfoque los productos finales que genera para satisfacer las necesidades de sus clientes. Para ello es conveniente establecer algunas definiciones básicas:

Producto Final: Son aquellos productos que una empresa genera como resultado de sus operaciones y que tienen como destino directo a sus clientes.

Proceso Central: Es el proceso específico que genera como resultado, un producto final.

Figura 1: Producto Final con Su Proceso Central

Es conveniente dar a este dúo de elementos fundamentales, una representación gráfica, que simplifique las explicaciones que daremos más adelante. El proceso central es muy específico y normalmente es el pequeño tramo final de actividades donde los productos van adquiriendo valor en la medida que se le van integrando los diversos componentes que lo constituyen. Por ello, el proceso central requiere ser alimentado por un conjunto diverso de insumos que son dichos componentes. Cada uno de tales componentes es un producto por sí mismo, generado, obviamente, por un proceso. Los procesos que generan a los insumos recibirán un nombre especial; los llamaremos Procesos Clave y tienen una característica fundamental: afectan directamente a la calidad de los Productos Finales. Una ilustración resultará de gran ayuda para entender la relación que existe entre los Procesos Clave, el Proceso Central y los Productos finales.

Figura 2: Procesos Clave

Existen otros procesos que tienen que interactuar con los procesos centrales y los procesos clave, para que todo el sistema funcione correctamente. Estos últimos procesos se denominan Procesos de Apoyo y su característica distintiva es que son necesarios pero no afectan a la calidad de los productos. La Figura 3 muestra el conjunto de procesos que se requieren para la obtención de un producto, se denomina Mapa Estructural y es la herramienta que se utilizará en este trabajo, para explicar cómo se construye y se puede lograr que una organización funcione de manera congruente, efectiva y eficiente. Los productos son obtenidos cuando el sistema de procesos (Mapa Estructural) funciona y cualquier defecto que tenga, tarde

o temprano repercutirá sobre los productos. Lo importante es que la organización, es la que hace funcionar el sistema y debe ser diseñada teniendo en mente este objetivo primordial y sustancial. La Figura 4 puede ayudar a entender los conceptos básicos analizados anteriormente. Se trata del Mapa Estructural simplificado de una empresa que se dedica a la manufactura de zapatos: Cómo diseñar la organización El Mapa Estructural es la herramienta ideal para construir un organigrama que esté basado en el objetivo primordial de toda empresa: sus productos finales. Esto se logra agrupando los procesos del mapa por afinidad o siguiendo algún otro criterio que se considere adecuado o necesario y de tales agrupaciones se obtienen los órganos que se encargarán del funcionamiento de los procesos.

Figura 3: Mapa Estructural

Los Mapas Estructurales correspondientes a los productos finales, se denominan mapas de nivel uno y normalmente dan origen a los órganos del segundo nivel jerárquico del organigrama, pero es bien conocido que estos órganos se subdividen en otros que forman el tercer nivel jerárquico y la pregunta que surge es ¿cómo se asignan a este tercer nivel jerárquico sus responsabilidades? La respuesta es: analizando los componentes de los procesos clave de nivel uno. Cada uno de los procesos clave de nivel uno se puede colocar como un proceso central que tiene un producto concreto y perfectamente definido y haciendo un análisis de sus insumos es posible construir sus Mapas Estructurales, a los que denominaremos Mapas Estructurales de nivel dos. De manera similar todos los procesos clave de los mapas de nivel dos se pueden colocar como procesos centrales y se les puede construir sus Mapas Estructurales de nivel tres. Este proceso se puede repetir cuantas veces sea conveniente o necesario y se van obteniendo productos y procesos que corresponden a personas de niveles jerárquicos cada vez más bajos dentro de la organización. Este proceso de obtención de los Mapas Estructurales de nivel uno, dos, tres … se denomina despliegue y se aplica tanto a los procesos claves como a los procesos de apoyo en cada nivel. En la ilustración siguiente se muestra un modelo gráfico de su secuencia.

Figura 4: Mapa Estructural de una Fábrica de Zapatos

Figura 5: Despliegue de los Procesos Clave

Con todos los procesos obtenidos mediante despliegues, se puede realizar una agrupación por afinidad y con estos grupos es posible definir los órganos que deben constituir la organización. La ilustración siguiente muestra un diagrama general de un organigrama construido de esta manera.

Figura 6: Organigrama Basado en Procesos

El valor principal de esta organización, reside en que todos los procesos tienen un responsable y que todas las organizaciones de la empresa tienen un enfoque a procesos y productos. Algunas manejan los productos finales y otras manejan productos internos . Sobre todo, debe observarse que como la construcción del organigrama se realiza mediante despliegues, todas las organizaciones de la empresa están enfocadas en sus procesos y productos hacia los procesos centrales y sus productos finales, o sea, a generar valor. Cualquier persona del último nivel jerárquico, puede seguir una ruta de secuencias que lo lleva desde el proceso en el que trabaja, hasta el producto final al que contribuye y así su trabajo adquiere sentido y sobre todo significado. Los directivos tienen una estructura clara de todos los elementos que tienen que gestionar, coordinar y armonizar, para que se logren correctamente todos los insumos que necesitan los productos finales o internos y tendrán absoluta certeza al identificar qué evaluar y corregir y para qué hacerlo.   Una organización construida de esta manera contiene no sólo los elementos de jerarquía y mando sino todos los elementos que se requiere hacer funcionar para que se obtengan los productos finales y la empresa permanezca. Es una organización diseñada para funcionar y no sólo una estructura de mando y comunicación, defecto que tienen hoy, los diseños organizacionales realizados de manera intuitiva como simples cajas con nombres.   Con el modelo descrito en este artículo sí es posible desarrollar organizaciones que funcionan**.** Sistemas de una organización La empresa y cualquiera de sus partes (Organizaciones) tienen mapas estructurales que se construyen tomando como punto de partida sus productos finales y cada uno de estos mapas, está constituido por dos sistemas diferentes:

Sistema primario, constituido por el proceso central y los procesos clave Sistema secundario, constituido por los procesos de apoyo El sistema primario tiene características que lo distinguen y definen su papel en el funcionamiento de la empresa o la organización, en su caso. El proceso central es el responsable de la generación del producto final y por lo tanto de la correcta integración de todos los insumos o componentes provenientes de los procesos clave, por lo tanto en este conjunto de procesos se determina la calidad del producto final. Llevando esta interpretación al extremo, se puede decir que el sistema primario es el que conduce a la empresa al éxito, sólo si este sistema funciona perfectamente, la empresa tiene posibilidad de triunfar. Si este sistema falla la empresa fracasará, sin importar cómo funcione lo demás.

El sistema secundario tiene una característica fundamental, no influye de ninguna forma sobre la calidad del producto final. Los procesos de este sistema pueden tener fallas, de magnitud variable y el sistema primario seguirá funcionando y la calidad del producto no se verá afectada y mientras esto sea así, la empresa continúa su marcha. En casos extremos, algunos procesos del sistema secundario pueden tener fallas considerables y no afectan de manera sensible la operación de la empresa. En general es difícil detectar que el sistema secundario tiene fallas y estas suelen acumularse hasta generar problemas agudos que se detonan como catástrofes que determinan la destrucción de la empresa, por ello se puede decir que este sistema es el que puede conducir a la empresa al fracaso. A fin de reducir los problemas que se plantearon en el párrafo anterior, es necesario que los productos finales de los procesos del sistema secundario, sean definidos de manera muy cuidadosa, para que se establezca, con toda certeza que todos ellos son servicios orientados a lograr que los procesos del sistema primario funciones sin ningún problema y sin ningún riesgo futuro. Los problemas tradicionales del sistema secundario, se crean debido a que los responsables de sus procesos conciben y diseñan sus productos para satisfacer objetivos propios, que no tienen relación con el sistema primario y de esta manera crean una isla que se retroalimenta y pierde contacto con los procesos centrales y los productos finales, que son la razón de ser de cualquier empresa. Gran parte de la responsabilidad de la existencia de esta situación recae en los directores de las empresas, que nunca evalúan los resultados del sistema secundario y si lo hacen no utilizan los productos definidos en función de las necesidades del sistema primario.

Como se explicó anteriormente, el Análisis Estructural (creación de los Mapas Estructurales) empieza con los productos finales y así se generan los Mapas Estructurales de nivel 1 (ME1). Es conveniente aclarar ahora, que una empresa u organización, puede tener varios productos finales y por consecuencia tendrá varios ME1. Normalmente los procesos de estos ME1, se utilizan para crear los órganos del segundo nivel jerárquico, aunque puede suceder que algunos de los procesos de los ME1 pueden quedar integrados a algún órgano del tercer nivel jerárquico. Esto se realiza tanto en el sistema primario como en el secundario, por lo que se construye, al mismo tiempo, tanto la estructura de organización de la parte operativa de la empresa, como de la parte de soporte. Al desarrollar los Mapas Estructurales de los procesos que constituyen los ME1 se obtienen los ME2 que forman la base de las estructuras de nivel jerárquico 3 y así sucesivamente hasta llegar el nivel de despliegue que sea adecuado para la empresa que se analiza. Del proceso de diseño organizacional antes descrito, se puede observar que el método propuesto en este trabajo difiere radicalmente de los métodos tradicionales descritos en la bibliografía consultada, pues no es un proceso top down, ni un proceso Bottom up. Al respecto, es conveniente hacer las siguientes precisiones: No es un proceso top down, porque el método propuesto toma como punto de partida los procesos centrales que están en el nivel básico de la manufactura, concepto que no se utiliza en el análisis top down. No es un proceso Bottom up, porque el método propuesto inicia con el diseño de la estructura de los niveles superiores de la organización, en tanto que el enfoque bottom up se apoya en los flujos de trabajo para ascender en el diseño de los niveles jerárquicos hacia arriba. El método propuesto, es al mismo tiempo top down y bottom up, pues considera elementos del nivel de la manufactura pero inicia el diseño de la organización desde la parte superior de la estructura.

CONCLUSIONES

Se ha desarrollado un método de diseño organizacional que toma como punto de partida los productos finales de una empresa y los procesos centrales que los generan y a partir de ahí, construye el sistema de productos y procesos que mediante su interrelación construyen todos los insumos internos que se requieren. Este sistema de productos y procesos, desplegados hasta el nivel que se considere conveniente, proporciona los elementos para diseñar la organización, que son los procesos encontrados durante los despliegues. Los procesos, en todos los niveles son integrados por afinidad y con ello se construye un organigrama que asegura que todos los productos y procesos internos tienen responsables de su funcionamiento y que al estar plenamente identificados los productos internos, será factible medir, evaluar y coordinar las acciones para asegurar que los productos finales tengan la calidad requerida por los clientes y la productividad de la empresa sea óptima.

FUENTES DE CONSULTA

Champy, H. M. (1993). *Reengineering The Corporation.* New York: Harper.

Gustavo, P. (2013). *La Dirección: Una Ciencia Exacta.* Villahermosa, Tabasco.

Hamel G, Prahalad C. (1994). *Competing for the Future.* Boston, Mass: Harvard Bussiness School Press.

J., G. (1973). *Designing Complex Organizations.* Reading, Mass: Addison Wesley.

Jorge, C. S. (1974). *Historia del Pensamiento Administrativo.* Pearson.

Michael, P. (1985). *Competitive Advantage.* New York: The Free Press.

Nadler, D. A., & Tushman, M. L. (1997). *COMPETING BY DESIGN: The Power of Organizational Architecture.* Oxford University Press.

R., D. (1979). *What is The Right Organization Structure.* Organization Dynamics.

Senge P, Kleiner A, Roberts C, Boss R, Smith B. (1994). *The Fifth Discipline Field Book.* Currency.

Senge, P. M. (1990). *THE FIFTH DISCIPLINE: The Art and Practice of The Learning Organization.* Currency.

BIOGRAFIA

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ANÁLISIS TEÓRICO SOBRE COMPETENCIAS GLOBALES DE LOS ADMINISTRADORES EN LAS PYMES

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RESUMEN

Las competencias son definidas por varios científicos como tener Conocimiento, Habilidades, Actitudes y Experiencia en los que el área que compete y si estas competencias se convierten en globales para los administradores de las Pequeñas y Medianas Empresas (PYMES), entonces se convierte en un reto para enfrentar un entorno mundial competitivo. Existen ciertas definiciones teóricas respecto a las competencias globales como tener habilidad en procesos globales (segundo idioma), tolerancia para laborar con sus semejantes de otras costumbres, entre otras. Actualmente, las empresas requieren administradores con Competencias globales para enfrentarse al desafío que implica tener un negocio internacional. Por consiguiente, la pregunta de este proyecto de investigación es: ¿Los administradores generales de las Pequeñas y Medianas Empresas en Nuevo León cuentan con las Competencias globales, impulsando así las exportaciones de estas empresas?.

PALABRAS CLAVES: Competencias globales, PYMES, Exportaciones

ABSTRACT

ANALYSIS THEORY ON GLOBAL COMPETENCIES OF MANAGERS IN SMES

The competences are defined by several scientists such as to have Knowledge, Skills, Attitudes and Experience in the field involved and if these competencies become global to the Small and Medium Enterprises (SME)'s managers, then it become a challenge to face a competitive world enviroment. There are certain theorical definitions about Global competences such as having skills on global processes (second language), tolerance to work with their similars with other habits, and other. Actually, companies requiere managers with Global competences to deal the challenge that implies to have an international business. Therefore, the question of this research Project is: ¿Have the Small and Medum Enterprises general managers in Nuevo Leon the Global Competences, propelling the exportations of these companies?

JEL: J24, N80

KEY WORDS: Global competences, SME, Exportations

INTRODUCCIÓN

En este apartado se incluyen los antecedentes en donde se habla sobre el estado del arte del tema, enseguida se trata la importancia y justificación del estudio para dar sustento y referencia de los beneficiarios del mismo, así como su aporte, luego los supuestos básicos con respecto a la información de las PYMES a analizar, continuando con las delimitaciones y limitaciones temporal, demográfico, espacial y teórica del estudio. Posteriormente, en el planteamiento del problema de investigación se enuncian los motivos de la elección de la problemática, se incluye además una revisión preliminar de la literatura con las convergencias

de los autores estudiados, continuando con un mapa conceptual del problema bajo estudio y la pregunta central de investigación. Finalmente, la hipótesis general de investigación se enlistan cuatro variables y se representan en un modelo esquemático, luego en el apartado de operacionalización de la hipótesis se tabulan las variables de investigación y sus indicadores de medición propuestos, enseguida se enuncia el objetivo general de la investigación, seguida de sus objetivos específicos de la investigación, así como la matriz de congruencia. El propósito de este artículo es definir teóricamente las competencias globales que debe tener el administrador general para fomentar la exportación en las PYMES manufactureras metal-mecánicas del área metropolitana de Monterrey que exporten al extranjero.

Pregunta Central de Investigación

¿Cuáles son las competencias globales que debe tener el administrador general para fomentar el emprendimiento global de una PYME manufacturera metal mecánica?

Objetivo General de la Investigación

Sustentar un estudio que permita medir las competencias globales que debe de tener un administrador general para fomentar el emprendimiento global en las PYMES manufactureras del área metropolitana de Monterrey, en el caso específico del sector metal mecánico lo que permitiría el crecimiento de su empresa.

Planteamiento del Problema de Investigación

La exportación para las PYMES es un tema que ha tomado auge en la actualidad, y a partir de esto, se plantea que existe una relación de las competencias globales de tener conocimiento, habilidades, actitudes y experiencia necesaria de los administradores generales y la exportación en las PYMES manufactureras metal-mecánicas del área metropolitana de Monterrey inscritas en la SEDECO y ser capaz de poder establecer dicha relación.

Hipótesis

Las competencias globales que debe tener el administrador general de las PYMES manufactureras metal-mecánicas del para metropolitana de Monterrey están relacionadas de manera positiva con la exportación son: Tener conocimiento mundial, habilidades sociales internacionales, actitudes globales y experiencia internacional necesaria.

REVISIÓN LITERARIA

En la revisión de literatura previa, Russell (Harris & Moran, 1987) produjo cerca de setenta "dimensiones de éxito en el exterior", de los cuales, veintiún de ellos tienen una prioridad dada, siendo más importantes para empleo en el extranjero. Con el incremento de la turbulencia ambiental, una administración de competencias distintivas (por ejemplo, competencias clave) se ha vuelto, incluso más crítica y relevante para el éxito de las empresas que antes (Kwangsoo, 1997). Lejanos se encuentran, aquéllos días en que los empleados se encontraban geográficamente limitados. En la actualidad, se acrecienta el número de empleadores buscando al candidato idóneo, conduciéndose a través de una búsqueda global, sin importar la distancia, y en algunos casos, el idioma (Hunter W. D., 2005).

La necesidad de graduados globalmente competentes fue sugerida en una encuesta hecha en 2002 por la compañía Cendant Mobility, en donde midió las tendencias de la fuerza laboral mundial encuestando a 180 gerentes de recursos humanos en los distintos continentes quienes contratan en conjunto alrededor de 200, 000 personas. La encuesta reveló que la competencia global es crítica para el éxito de los trabajadores a través de las fronteras. Aunque no provee una definición del término "globalmente competente", la encuesta de Cendant Mobility concluyó que el entrenamiento en competencias globales es una competencia crítica

en el desarrollo profesional de los empleados y que el número en la atención global de negocios y de programas académicos sobre esta se incrementará en el corto plazo (Cendant Mobility, 2002).

Un pequeño número de educadores e investigadores han acudido al llamado de combatir esta falta de comprensión de las relaciones internacionales y el desarrollo de la fuerza de trabajo global por el llamado del sistema de las instituciones de educación superior que certifican a estudiantes como globalmente competentes, globalmente apto, o como un ciudadano global (Brustein, 2003) (Lambert, 1996) (Nussbaum, 2002). Sin embargo, no hay consenso en la definición de "globalmente competente", existen términos relacionados ("competencia trasnacional" o "ciudadano global").

A pesar de la falta de una definición específica, la competencia global se ha vuelto una palabra de moda en la industria de reclutamiento de ejecutivos (Cendant Mobility, 2002), y los certificados de ciudadanía global; así como globalmente apto se han vuelto una pieza central de varias iniciativas en currículums universitarios, incluyendo aquellos en el Boston Collage y la Universidad de Pittsburgh. La Universidad de Pittsburgh usa la definición creada por un equipo de trabajo como base para su Programa de Estudios Globales. De acuerdo con William Brustein, Director del Centro Universitario para Estudios Internacionales, la competencia global es definida como "la habilidad de comunicarse eficazmente a través de fronteras lingüísticas y culturales, y enfocarse en cuestiones que trascienden culturas y continentes" (Brustein, 2003). Las dimensiones que contribuyen con la competencia global son:

La habilidad de trabajar eficazmente en distintos escenarios internacionales
Una conciencia de las principales corrientes de cambio global y los asuntos que emergen de dichos cambios
Conocimiento de organizaciones globales y actividades de negocio
La capacidad para una efectiva comunicación, a través de fronteras culturales y lingüísticas, y
Una adaptabilidad personal para diversas culturas (Brustein, 2003)

La definición de competencia global, según la Universidad de Pittsburgh, de acuerdo a Brustein (2003), es "concebida en sí misma" y no basada en una investigación en particular. Nussbaum (2002), Decano Asistente para el Servicio Internacional Estudiantil del Boston Collage, y creador de su programa "Globalmente apto", notó que su programa se basó en una tendencia percibida e intereses estudiantiles (Nussbaum, 2002). Mientras los profesionales han derivado programas de competencia/aptitud global sin una base que suene a investigación, varios becarios Estadounidenses y una empresa Europea han publicado trabajos en este tema. Lambert (1996), conocido en la educación superior para su escrito extensivo en el tema de competencia global., identificó a la persona globalmente competente como una que tiene conocimiento reciente en relaciones, siente empatía con otros, mantiene una actitud positiva,   tiene un nivel no específico de competencia en lengua extranjera, y distintos valores entre gente y culturas.

La empresa en administración internacional, la Swiss Consulting Group, en su Global Competency Report 2002, identificó las siguientes habilidades globales esenciales: facilidad intercultural, comunicación en dos vías eficaz, liderazgo diverso, compartiendo sistemáticamente las mejores prácticas, y un verdadero diseño del proceso de estrategia global. El Swiss Consulting Group también visualizó la competencia global como una táctica de negocio, creando una oportunidad para administradores globalmente competentes para "tirarse en paracaídas en cualquier país y llevar a cabo el trabajo y respetando a la vez los caminos culturales" (Swiss Consulting Group, 2014). La definición de persona con competencia global tiene suficiente conocimiento sustantivo, comprensión perceptiva y habilidades de comunicación intercultural para interactuar efectivamente con nuestro mundo globalmente interdependiente (Lee Olson & Kroeger, 2001). Barney (1991) fue uno de los pioneros en resumir la alternativa y el entorno doméstico de la compañía para construir la teoría de activos y capacidades, la cual retoma la relevancia de los activos de la compañía para conseguir una ventaja competitiva. De acuerdo a esta teoría, las compañías que se apoyan en sus activos y capacidades para apoyarse en las ventajas de su ámbito tienen mayor oportunidad de ampliar una ventaja competitiva que las que no lo toman en cuenta. Esta teoría propone que cada compañía

es distinta y que son los activos y capacidades de las compañías (tangibles e intangibles) limitadas, valiosas y únicas, las que producen la ventaja competitiva sostenible fuente de rendimientos (Barney, 1991; Wernerfelt, 1984). La relación de esta teoría con la exportación radica en la unicidad de los elementos y de los activos de la empresa emprendedora, que dan lugar a una ventaja competitiva (Jimenez, 2008).

Esta teoría considera "activos" a los activos tangibles o intangibles (activos fijos, información, marca, tecnología o capital humano) que las compañías recurren como insumo en el proceso de manufactura para su transformación en un producto o servicio. Respecto al término de "capacidades" representa la competencia de la compañía para impregnar, constituir y convertir los activos internos y externos en una ventaja competitiva sostenible (Amorós, Etchebarne y Felzensztein, 2012; Lu et al, 2010). En este sentido, Alvaréz y Busenitz (2001), señalan una relación entre esta teoría y la iniciativa para exportar al clasificar como "activos" a varias de las competencias de los emprendedores, como sus conocimientos, habilidades, actitudes y experiencias (Hunter W. D., 2005). Oviatt y McDougall (1994) definen a la nueva empresa internacional (INVs) como "una organización de negocios que, desde su inserción, busca obtener una significativa ventaja competitiva en el uso de sus recursos y la venta de sus productos en múltiples países" (p. 49). Esta definición se enfoca en la corta edad en que las empresas llegan a ser internacionales y no aspectos como: el tamaño, la experiencia y los recursos que posee (Iborra et al. 1998)

Para Knight y Cavusgil (1996, p.11) las born global son "pequeñas compañías (usualmente) orientadas hacia la tecnología que operan en mercados internacionales desde los primeros días de su establecimiento", dejando al margen empresas en sectores tradicionales. Adicionalmente, ellos agregan dos elementos: el primero consiste en definir el porcentaje de producción que vende en el exterior, y el segundo se refiere al periodo transcurrido entre el establecimiento de la empresa y el inicio de la actividad exportadora, por lo tanto, se observa que el interés radica en tratar de operacionalizar el concepto. Siguiendo esa misma línea, Rialp et al. (2005, p.138) señalan que las born global "son firmas emprendedoras cuya administración parece percibir el mundo entero como su mercado desde su nacimiento"; tal afirmación la realiza apoyándose en los estudios realizados por Chetty y CampbellHunt (2004), Andersson y Wictor (2003), Sharma y Blomstermo (2003), Madsen y Servais (1997), Knight y Cavusgil (1996), Oviatt y McDougall (1995, 1994) y McDougall et al., (1994) De igual modo, Iborra et al. (1998, p. 148) señalan "que se crean con una proyección comercial y empresarial no limitada por fronteras locales ni nacionales; su ámbito producto/mercado tiene una dimensión internacional ya desde la creación delas mismas". En esta misma dirección, ha habido arbitrariedad en cuanto al tiempo que transcurre entre el nacimiento de la empresa y sus primeras exportaciones: algunos investigadores afirman que son 2 años, otros 3 años o de 3 a 5 años y otros de 5 a 6 años (Knight y Cavusgil, 2005; Knight et al. 2004; Chetty y Campbell-Hunt, 2004; Moen y Servais, 2002; Rasmussen y Madsen, 2002; Zuchella, 2002; Shrader,Oviatt y McDougall, 2000). Podríamos decir que a partir de aquí se dieron dos tendencias:

Dedicar los esfuerzos de la clase al desarrollo de la competencia comunicativa; esto incluye los aspectos socioculturales de la lengua pero abandona el contenido cultural que va más allá de la lengua; de este modo, los objetivos educativos quedan en un segundo plano; esta tendencia ha sido dominante en Europa hasta muy recientemente. Incluir los aspectos socioculturales de la lengua y tratar de integrarlos con el conocimiento de la cultura meta como contexto de comunicación entre los hablantes. Con este planteamiento, algunos autores, predominantemente en el contexto norteamericano, intentaron diseñar objetivos culturales para la clase de lengua (Omaggio: 1986). El modelo más conocido es el de Seelye (1984), que propone seis objetivos de instrucción cultural:

El sentido o funcionalidad de la conducta culturalmente condicionada. El estudiante debería demostrar una comprensión de que la gente actúa como lo hace porque usan opciones que la sociedad permite par satisfacer necesidades físicas y psicológicas básicas. Interacción entre lengua y variables sociales. Los estudiantes deberían demostrar una comprensión de que tales variables sociales como edad, sexo, clase social y lugar de residencia afectan a la forma en que la gente habla y se comporta.

Conducta convencional en situaciones corrientes. Los estudiantes deberían indicar una comprensión del rol que la convención juega en modular la conducta, demostrando cómo la gente actúa en situaciones corrientes mundanas y críticas en la cultura meta.

Las connotaciones culturales de palabras y frases. El estudiante debería reflexionar sobre el hecho de que las imágenes culturalmente condicionadas se asocian incluso con las palabras y frases más corrientes de la lengua meta. Enunciados que evalúan la sociedad. El estudiante debería demostrar la habilidad de evaluar la fuerza relativa de una generalización relacionada con la cultura meta en cuanto a la cantidad de evidencia que apoya la afirmación o enunciado. Investigar sobre otra cultura. El estudiante debería mostrar que ha desarrollado la habilidad necesaria para localizar y organizar información sobre la cultura meta a partir de la biblioteca, medios de comunicación, la gente y la observación personal.

Modelos como el de Seelye no sólo suponen un intento de programar el contenido cultural de forma paralela a la programación lingüística, sino que replantean los fines educativos que el componente cultural venía cubriendo: ya no se trata sólo de aportar información, sino de formar al estudiante para dotarle de las habilidades y actitudes necesarias para comprender y reflexionar sobre otras culturas: reflexionar, evaluar, investigar, mostrar curiosidad. La inclusión de aspectos no sólo conceptuales, sino procedimentales y actitudinales suponen un cambio importante en la didáctica del componente cultural

BIBLIOGRAFÍA

Andersson S. y Wictor I. (2003). Innovative Internationalization in New Firms: BorGlobal- The Swedish Case. *Journal of International Entrepreneurship*, Vol. 1, pp. 249-276

Amorós, J., Etchebarne, S., & Felzensztein, C. (2012). International entrepreneurship in Latin America: development challenges. *Esic Market Economic and Business Journal, 43*(3), 497-512.

Barney, J. (1991). Firm resources and sustainablecompetitive advantage. *Journal of Management, 17*(1), 99-120.

Brustein, W. (2003). *Personal communication.* Pittsburgh, PA.

Bull, I., & Willard, G. (1993). Towards a theory entrepreneurship. *Journal of Business Venturing, 8*(3), 183-195.

Cendant Mobility. (2002). *2002 worldwide benchmark study: new approaches to global mobility.* Bethesda, MD: Cendant Mobility Services Corporation.

Cendant Mobility. (2002). New approaches to global mobility. *Human Resource Executive*, 1.

Chetty, S y Campbell-Hunt, C. (2004). A Strategic Approach to Internationalization: A Traditional Versus a "Born-Global" Approach. *Journal of Marketing*, Vol. 12, No, 1, pp. 57-81

Harris, P., & Moran, R. (1987). *Managing Cultural Differences* (2da. ed.). Houston, TX: Gulf Publishing Company.

Hunter, W. D. (2005). *Knowledge, Skills, Attitudes, and Experiences Necessary to Become Globally Competent.* Ann Arbor: ProQuest information and Learning Company.

Iborra, M, Menguzzato, M y Ripollés, M. (1998). Creación de empresas internacionales: Redes informales y obtención de recursos. *Revista Europea de Dirección y Economía de la Empresa*. Vol. 7, num.3, pp. 147-160

Jiménez, A. (2008). La internacionalización de la empresa a través del enfoque de recursos y capacidades. *Revista de la Agrupación Joven Iberoamericana de COntabilidad y Administración de Empresas*, No. 2.

Knight, G. y Cavusgil, T. (2005). A Taxonomy of Born-global Firms. *Management International Review*. Vol.45. Special Issue, 2005, pp. 15-35

Knight, G; Madsen, T and Servais, P. (2004). An Inquiry into Born-global firms in Europe and the USA. *International Marketing Review*, Vol 21, No 6, pp. 645-665

Knight, G. y Cavusgil, T. (1996). "The Born Global Firm: A Challenge to Traditional Internationalization Theory". *Advances in International Marketing*. Vol. 8, pp. 11-26

Kwangsoo, K. (1997). *Distinctive Competences, Global Integrating Modes and Economic Performance Of MNE's in Global Industries.* Ann Arbor, MI: UMI Microform.

Lambert, R. (1996). Parsing th Concept of Global Competence, Educational Exchange and Global Competence. En *Parsing the Concept of Global Competence, Educational Exchange and Global Competence.* New York, NY: Council on International Educational Exchange.

Lee Olson, C., & Kroeger, K. (2001). Global Competency and Intercultural Sensitivity. *Journal of Studies in International Education*, 116-137.

Lu, Y., Zhou, L., Bruton , G., & Weiwen, L. (2010). Capabilities as a mediator linking resources and the international performance of entrepreneurial firmsin an emerging economy. *Journal of International Business, 41*(3), 419-436.

Madsen, T y Servais, P (1997). The internationalization of Born Global: An Evolutionary Process. *International Business Review*. Vol.6. pp. 561-583

McDougall, P; Shane, S y Oviatt, B. (1994). Explaining The Formation Of International New Venture: The Limits Of Theories From International Business Research. *Journal of Business Venture*. Vol. 9. Pp. 469-487

Moen, O y Servais M. (2002). Born Global or Gradual Global? Examining the Export Behavior of Small and Medium-Sized Enterprises. *Journal of International Marketing*, Vol. 10, No. 3, pp. 49-72

Nussbaum, A. (2002). *Personal communication.* San Antonio, TX.

Olson, & Koeger. (2001). Global competency and intercultural sensivity. *Journal of Studies in International Education, 5*(2), 116-137.

Omaggio, A. (1986). *Teaching Language in Contex*t. Heinle& Heinle, Boston.

Oviatt, B y McDougall, P. (1994). Toward a Theory of International *New Ventures. Journal of International Business Studies*, Vol. 25, Issue 1, pp. 45-64

Rasmussen, E y Madsen, K. (2002). The Born Global Concept. Paper for the 28th EIBA conference, in the special session "SME internationalization and born global- different European views and evidence."

Rialp, A; Rialp, J; Urbano, D y Vaillant, Y. (2005a). The Born Global Phenomenon: A Comparative Case Study Research. *Journal of International Entrepreneurship*, Vol. 3, pp. 133-171

Seelye, H.N. (1984). *Teaching Culture: Strategies for Intercultural Communication*. NTC, Lincolnwood

Sharma, D y Blomstermo, A. (2003). The Internationalization process of Born Global: a network view. *International Business Review*, Vol. 12, pp 739-753

Shrader, R, Oviatt, B y McDougall (2000). How new venture exploit trade-offs among international risk factors: Lessons for the accelerated internationalization of the 21 st century. *Academy of Management Journal*. Vol. 43, No. 6, pp. 1127-1247.

Swiss Consulting Group. (21 de noviembre de 2014). *Global Competency Report 2002*. Obtenido de http://www.swissconsultinggroup.com/docs/gcr20020926.pdf

Wernerfelt, B. (1984). A resourced-based view on the firm. *Strategic Management Journal, 5*, 171-180.

Zucchella, A. (2002). Born Global Versus Gradually Internationalizing Firms: An Analysis Based on the Italian Case. 28th EIBA Conference, in the special session "SME internationalization and born global-different European views and evidence."

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MODELO CONCEPTUAL PARA LA ASIGNACIÓN DE ESPACIOS EN ANAQUEL A MIPYMES

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RESUMEN

El merchandising se refiere básicamente a la organización en el punto de venta pero además es parte de la logística del detallista ya que está incluido dentro de la cadena de suministro en el análisis de la distribución de los productos y el manejo de los inventarios en exhibición. El merchandising ha sido retomado por varios autores para la generación de diversos modelos para la resolución de problemas de asignación de espacios en anaquel, ya que permite definir y evaluar las variables que afectan la rentabilidad de los espacios en anaquel de los minoristas. Dentro de esta metodología se destacan tres variables principales: la distribución de la superficie, la frecuencia de compra y la rentabilidad de los espacios en anaquel. Cada una de estas variables se relaciona con las demás a través del espacio disponible para la asignación de productos, este componente define una relación entre la utilidad de los productos y la cantidad asignada en ese espacio. En esta investigación se retoman los aspectos más importantes para desarrollar un modelo que permita identificar los componentes de las variables y su relación para determinar la cantidad de producto en anaquel que se deberá asignar en los espacios disponibles y de esta manera incrementar la rentabilidad de dichos espacios.

PALABRAS CLAVE: Merchandising, Asignación en Anaquel, Pymes

CONCEPTUAL MODEL FOR THE ALLOCATION OF A SHELF SPACE IN SME´s

ABSTRACT

Merchandising refers basically to the organization at the selling point but, is part of the logistics of the retailer as it is included within the supply chain in the analysis of the product distribution and inventory management on display. The merchandising has been taken by several authors for the generation of different models for solving problems in shelf space allocation as to define and evaluate the variables that affect the profitability of shelf space from retailers. Within this methodology highlights three main variables: the distribution of the surface, the frequency of purchase and cost of shelf space. Each of these variables is related to the other through space available for allocation product, this component defines a relationship between the value of the products and the amount allocated in that space. In this research the most important aspects are taken up to develop a model to identify the components of the variables and their relationship to determine the amount of product that should be assigned shelf in the space available and thus increase the profitability of these spaces.

JEL: M310

KEYWORDS: Merchandising, asignación en anaquel, PyMES

INTRODUCCIÓN

El término Supply Chain Management – SCM (Administración de la Cadena de Suministro) fue introducido en los años 80 y desde ese momento ha sido objeto de atención por parte de las organizaciones. Hacia los años 90 se observó que académicos, investigadores e incluso consultores consideraban que SCM consistía en la administración de la logística por fuera de la empresa. (Ballesteros y Ballesteros, 2004) A partir del año 2000, la logística se convirtió en una serie de estrategias que permiten acercar más a los proveedores-productores-consumidores y en algunos casos los productores-clientes de forma directa. Se integran de manera satisfactoria estrategias productivas como: el justo a tiempo, control de calidad, innovación tecnológica, redes de distribución y almacenaje, entre otras; de tal manera que se puedan disminuir los costos dentro del proceso logístico, y tenga un impacto en los precios de los productos que consumen los clientes finales, (Ballou, 2004). La incorporación de la logística se realiza en mercados de diferente tamaño, es decir; las grandes empresas como las pequeñas, implementan procesos logísticos de acuerdo a sus capacidades, esto les permite incrementar la competitividad. La implementación de los procesos logísticos dentro de las diferentes áreas de las empresas presentan mayor eficiencia ya que cuentan con diversidad de recursos, a diferencia de las empresas con recursos limitados, quienes deben adaptar las estrategias logísticas y de gestión para mejorar los procesos de manejo de materiales, control de inventarios, manejo y disponibilidad de almacenes, etc.

Una empresa minorista de autoservicio que desea lograr su objetivo de crecimiento y que desea incrementar sus ventas, debe llevar a cabo una evaluación de la percepción que los consumidores tienen sobre la distribución de los productos que se encuentra en exhibición; de tal manera que pueda satisfacer las necesidades y expectativas de los consumidores a través de la adaptación de la distribución de los productos en exhibición, pues según, Amine (2003), la percepción que tiene el consumidor sobre la distribución de los productos en anaquel, depende del número de unidades en exhibición y de la disponibilidad de las marcas favoritas. Por otro lado los pocos recursos que los minoristas aportan a la mejora de los procesos de asignación de los productos en anaquel para su exhibición y el espacio disponible a asignar contribuyen al problema de una deficiente distribución de los productos a exhibir, Anderson y Amato (1973). El problema de la asignación de espacios en anaquel no es un problema nuevo, Cox (1970), analizó la relación que existe entre las ventas de un producto en específico y la ubicación de este en el anaquel y determinó que el comportamiento de las ventas de ese producto puede variar dependiendo de la posición en la que se coloque en el anaquel. Así mismo, Frank y Massy, (1970), en su investigación estimaron los efectos que algunas políticas de *merchandising* tienen en las ventas frecuentes de ciertos productos que se encuentran en exhibición para los minoristas.

El *merchandising* del distribuidor forma parte del *marketing* y de la logística del detallista; pues se refiere básicamente a la organización en el punto de venta y además del análisis de la distribución de los productos y el manejo de los inventarios en exhibición. Las pequeñas empresas o minoristas dedicadas a la venta de productos al público tienen una gran demanda, lo anterior pese al establecimiento de los grandes supermercados y de algunas tiendas de conveniencia, que tienen un buen manejo de las variables de distribución interna y rentabilidad de los espacios, mismos que generan día con día más mercado y desplazan a los minoristas que no manejan estas variables. Es importante desarrollar un modelo de gestión de espacios que sea accesible y que permita colocar en igualdad de circunstancias a las empresas minoristas, para que sean más competitivas. De acuerdo a los datos del censo económico de 2014 las empresas en México se dividen por sectores económicos, como se muestra en la figura 1. De esta división se puede ver que el 45.1% de la actividad la aporta el comercio.

Figura 1: División de las Empresas en México Por Sectores. Fuente Censos Económicos 2014 (INEGI)

Para el año 2014, el 95.4% de los establecimientos que tienen de 1 a 10 trabajadores, son unidades económicas consideradas microempresas, éstas, aportan el 39.5% del empleo total, como se muestra en las figura 2.

Figura 2: Porcentaje de empresas con menos de 10 trabajadores (I), Porcentaje de aportación al empleo total de las microempresas (D). Fuente Censos Económicos 2014 (INEGI*)* Considerando la importancia que representa el comercio en el sector y la gran aportación al empleo, es viable el desarrollo de un modelo de evaluación y gestión de espacios en el marco de la logística interna, para eficientar la distribución de los productos en anaquel.

REVISIÓN DE LITERATURA

El manejo de la cadena de suministro es un tema importante en los negocios actuales. La idea consiste en aplicar un enfoque de sistemas total para manejar el flujo de información, materiales y servicios de los proveedores de materia prima a través de fábricas y almacenes al usuario final (Chase, Jacobs y Aquilano, 2009). La logística entonces, administra todos los materiales que se mueven dentro de las industrias así como las materias primas que se mueven de los proveedores y la distribución de los productos, el movimiento entre industrias y clientes, este proceso se conoce muchas veces como una distribución física que está basada en una red que conecta a los elementos de la cadena de suministro; sin embargo, en la actualidad el proceso de distribución incluye no sólo la distribución de la industria a los clientes sino también una distribución física dentro de los puntos de venta, Bowersox (2007). La distribución dentro del proceso logístico consiste en el diseño de los sistemas de manejo de la información de tal manera que se

puedan planear, organizar, ejecutar y controlar todas las áreas en las cuales interviene el proceso de almacenaje, transporte, manejo de materiales, manejo de inventarios, planeación de la demanda y el abastecimiento. Este sistema de distribución debe estar concebido para que integre todos los recursos necesarios dentro de todas las funciones logísticas de la cadena de suministro (Nunes y Cespedes, 2003). Los procesos de distribución de producto en anaquel han generado una serie de investigaciones para el desarrollo de modelos matemáticos los cuales integrar el mayor número de variables posibles que minimizan los efectos negativos de una distribución inadecuada.

De acuerdo a Gupta y Krishnan (1966), los modelos matemáticos se pueden aplicar a muchos y variados procesos, no sólo de producción, sino también de servicio; para este caso en específico, el modelo deberá determinar la mejor distribución de los productos dentro del espacio de exhibición para una mejor rentabilidad. El trabajo realizado por Baron, Berman y Perry, (2010), hace uso de heurísticas en la determinación del problema de asignación de espacio en anaquel para múltiples productos con demandas que dependen del nivel de inventario visto por los clientes, así como el espacio de exhibición en las estanterías asignado al producto, a los suplementos o complementos. Ellos encontraron que es importante considerar ambas dependencias, pero que es más importante tener el control sobre la dependencia de la demanda sobre el nivel de inventario visto por los clientes que la dependencia en los espacios para la asignación de productos en exhibición ya que la pérdida en la asignación es mayor, así mismo, consideran que los minoristas deben usar control de sus operaciones y puntos de re-orden para promover demandas altas de productos. Urban, (1998), realizó una investigación cuyo propósito principal fue la generalización e integración de modelos de control de inventario, modelos de surtido de productos y modelos de asignación del espacio en anaquel a través de una heurística voraz y un algoritmo genético.

Gajjar y Adil, (2010), llevaron a cabo una investigación, en la cual retomaron el problema que tienen los minoristas sobre la asignación de espacio en anaquel considerando la elasticidad del espacio (*Shelf Space Allocation Problem Considering Space Elasticity, SSAPSE*), en el cual primero llevaron a cabo una reformulación del modelo no lineal existente para el SSAPSE en un modelo de programación entera usando linearización por tramos, en segundo lugar demostraron que la relajación del modelo de programación propuesto produce un límite superior muy ajustado y tercero diseñaron una heurística que se acerca consistentemente a una solución óptima para promedios generalizados del problema en cuanto al tamaño de los productos y estantes la cual tiene una variación de 25 hasta 200 en los productos y de 5 hasta 50 en los estantes. Bai, Burke y Kendall (2008), Desarrollaron un modelo para la determinación de los espacios en anaquel para los alimentos frescos en una empresa en el Reino Unido, para ello usaron el enfoque heurístico, meta heurístico e híper heurístico para la definición de problemas con múltiples elementos, aplicando para la solución diferentes tipos de algoritmos. Como resultado obtuvieron que en algunos casos se debe asignar más espacio a los productos que generan mayores ganancias, recuperando espacio disponible de los productos que no generan tantas ganancias.

El modelo desarrollado por Gómez y Rozano (2009) propone hacer un análisis en donde se defina la cantidad de producto asignado al lineal disponible para la exhibición, aunque este estudio trata de hacer una comparación entre las marcas del distribuidor y las marcas del fabricante; sirve como base para la investigación, dicho modelo propone llevar a cabo un análisis del problema de asignación de los espacios en anaquel es vital medir el espacio que ocupan los productos dentro de la tienda. Así mismo, existe un método propuesto por Orlando y González, en el que hacen referencia a dos divisiones principales, la primera de ellos, se refiere al *merchandising* del fabricante, el cual trabaja con todas aquellas actividades promocionales que los distribuidores llevan a cabo para estimular la compra de los productos por los clientes; la segunda hace referencia a todas las actividades que el dueño del establecimiento hace para eficientar el espacio de exposición e incrementar la rentabilidad de los productos que vende, este punto está compuesto de cinco fases a considerar para el análisis del problema de asignación de los productos en anaquel, y se muestran en la figura 3, la cual muestra las cinco fases en las cuales se divide el

merchandising del distribuidor y los requerimientos que cada una de las fases aporta a la medición de la rentabilidad de los espacios y la asignación de los productos en anaquel

Figura 3: Modelo de Merchandising del Distribuidor, Fuente Orlando y González (1997)

Estas cinco fases plantean mediciones específicas de acuerdo a como siguen: De acuerdo con el Sistema de Clasificación Industrial para América del Norte, México 2013 (SCIAN) las actividades Comerciales están contempladas en dos sectores: Comercio al por mayor y Comercio al por menor. El Comercio al por mayor comprende las unidades económicas dedicadas principalmente a la compra-venta (sin realizar la transformación) de bienes de capital, materias primas y suministros y sus características principales son:

Operan desde una bodega u oficina de ventas.
Tienen poca o nula exhibición de mercancías.
Atraen clientes generalmente por vía telefónica, mercadeo personalizado o por medio de publicidad especializada a través de medios electrónicos, ferias y exposiciones.
Normalmente venden grandes volúmenes, excepto tratándose de bienes de capital, que generalmente son vendidos por unidad.

El comercio al por menor comprende unidades económicas dedicadas principalmente a la compra- venta (sin transformación) de bienes para el uso personal o para el hogar para ser vendidos a personas y hogares, aunque en algunas ocasiones esos productos también se comercializan a negocios, como el comercio de gasolina o de automóviles, además se encuentran también unidades económicas dedicadas a revender mercancías sin haberlas comprado, es decir, las reciben de otras unidades económicas con las cuales

comparten la misma razón social, así mismo se clasifican en este sector las unidades económicas dedicadas principalmente al comercio al por menor de productos propios exclusivamente a través de Internet de negocios a consumidores; a actuar como intermediarias de negocios a consumidores y entre consumidores en la compra o venta de productos exclusivamente a través de Internet; a la venta por televisión, y al comercio al por menor mediante la utilización de máquinas expendedoras, puerta por puerta, por catálogo, multinivel, demostración de productos en hogares y telemercadeo con ventas vía telefónica. Lucen como tiendas, pues, tienen acceso al público en general extensa exhibición de mercancías para facilitar a los clientes la selección de las mismas (mercancías disponibles a través de dependientes, mercancías presentadas en aparadores, salas de exhibición, unidades económicas con pasillos que permiten al cliente transitar para elegir su mercancía), atraen clientes por la ubicación y diseño del establecimiento, hacen publicidad masiva por medio de volantes, prensa, radio, televisión, etcétera.

Modelo Conceptual Propuesto

Los modelos desarrollados por Drèze (1994), Anderson y Amato (1983), Corstjens y Doyle (1981), Urban (1998), Gajjar y Adil, (2010); han determinado que las variables que afectan al problema de asignación de espacios en anaquel son: la demanda de los productos, el espacio disponible para exhibición y la ganancia unitaria que cada producto exhibido proporciona. Sin embargo a pesar de tener identificadas estas y otras variables, los modelos no han logrado resolver el problema, a pesar de ello, sus resultados han permitido una aproximación a la generación de nuevas consideraciones que se deben establecer para el análisis de este problema. Otro modelo que se han probado son los desarrollados por Gómez y Rozado (2009), este establece que debe determinarse una relación entre el espacio disponible asignado a la exhibición y la demanda del producto debido a que un porcentaje bastante elevado de los clientes deciden sus compras en el momento de ingresar a la tienda y ver los productos que están en exhibición.

Además del modelo de Gómez y Rozado, existe un modelo que complementa lo descrito con anterioridad en el cuál se destacan variables que no se consideran en todos los modelos que se han aplicado para la solución del problema de asignación de espacio en anaquel, dicha estrategia la describe Orlando y González (1997). Los procesos de gestión en las PyMES, surgen como una necesidad de generar estrategias que apoyen a estas empresas, Velásquez (2003), plantea que los modelos de gestión para PyMES deben ser estructurados de acuerdo a sus capacidades, estructura y cultura de trabajo y plantea un modelo de gestión para PyMES innovadoras. Un estudio realizado por Ortiz (2012), dio como resultado que muchas de las PyMES, no tienen una preocupación sobre sus costos logísticos y algunos de ellos son desconocidos para los dueños de las empresas. Sin embargo, es importante entender que la mejora de la gestión logística a través de la eliminación de ineficiencias en los procesos tiene un impacto directo en la reducción de costos y posiblemente un incremento en los ingresos de las PyMES, pues es de suponer que al aumentar la disponibilidad del producto se añade valor a éste. Por lo tanto, es importante que las PyMES adquieran conciencia del potencial que representa la logística para su rentabilidad.

Basado en la necesidad que gestionar los espacios de exhibición que tienen las PyMES dedicadas al comercio al por menor, se desarrolla un modelo cuyo propósito es eficientar el espacio disponible para obtener el mayor beneficio posible considerando los factores que influyen en las decisiones de compra de los clientes.

Figura 4: Modelo conceptual propuesto, fuente propia

El Desarrollo de este modelo toma en consideración sólo algunas variables básicas de medición para las PyMES de comercio pequeño para tratar de hacer una evaluación gráfica y simple y proporcionar estrategias de distribución de productos que permitan incrementar su rentabilidad, se basa en la interacción del modelo entre la demanda de los productos, la frecuencia con que el cliente compra esos productos, el espacio lineal que se destina al acomodo de los productos y el coeficiente de ocupación; así mismo, evalúa variables externas acerca de la disponibilidad de las marcas y de la percepción de la distribución de los anaqueles por el cliente; en conjunto permite verificar la rentabilidad que le da cada uno de los productos que tiene en exhibición.

Determinación de la demanda: Esta actividad consiste en recolectar la información de la cantidad de demanda que los consumidores hacen para ciertos productos, es decir, es conocer lo que el cliente desea y en qué cantidades los compra, este análisis es donde más cambios se presentan de manera constante por lo que se analizaran dos puntos en específico el primero consiste en la determinación del grado de atracción de familia de productos. Esto da la posibilidad de hacer una comparación entre las diferentes familias de productos que se encuentran en los espacios de exhibición, este análisis servirá para la toma de decisiones de acuerdo a los movimientos que los mismos clientes piden de las exhibiciones de los productos.

Frecuencia de compra: La frecuencia de compra permite determinar la frecuencia con la que se está llevando a cabo la compra de los productos que se encuentran en el espacio de exhibición. Este cálculo se efectúa dividiendo el precio promedio del artículo de una familia por el gasto medio de las familias en estos productos y multiplicándolo por los días del año completo.

Espacio lineal asignado: Dentro de este punto interviene la experiencia del encargado para la distribución del productos pero básicamente se deben de considerar ocho aspectos importantes: (1) cálculo de normas lineales, (2) noción de lineal mínimo, (3) utilización de los rendimientos lineales de la familia de productos, (4) coeficientes presupuestarios, (5) parte proporcional de la facturación, (6) parte proporcional del beneficio mutuo, (7) políticas comerciales, (8) índice de gestión de los mercados. (Orlando y González de acuerdo a la cita de Mouton, 1997).

Coeficiente de ocupación (COS): Se calcula con el número de metros lineales de suelo, se obtiene acumulado el número de elementos en el suelo de una góndola multiplicada por el número de fachadas *Rentabilidad:* Para determinar la rentabilidad del espacio, se pueden llevar a cabo un gran número de análisis de las diferentes mediciones que se pueden obtener con las variables a considerar como son: (1) Beneficio bruto, (2) Rendimiento lineal, (3) Inventario medio período, (4) Rotación del inventario, (5) Coeficiente de rotación, (6) Beneficio del margen por rotación. Para esta investigación en particular las dos mediciones más importantes y de mayor impacto son el beneficio bruto y el rendimiento lineal de los anaqueles, esto permitirá la toma de decisiones sobre la modificación de la distribución o la salida o entrada de productos. Además de los pasos a seguir del modelo, se deben hacer dos consideraciones importantes, la percepción que tiene el consumidor sobre la distribución de los productos en anaquel, y la disponibilidad de las marcas favoritas del consumidor, Amine (2003); de ahí entonces que se tenga contemplado estas dos variables dentro del desarrollo del modelo; sin embargo, son variables externas que no pueden ser controladas por el minorista, pero si es importante su consideración para la implementación de las estrategias de distribución de anaqueles. En el trabajo de Gómez y Rubio (2006), se analizan, por una parte, las percepciones de los fabricantes sobre la gestión del producto y el merchandising, poniéndose de manifiesto una discrepancia entre fabricantes y no fabricantes de marca de distribuidor sobre la gestión minorista de valor hacia estas marcas y un elevado grado de acuerdo con relación a su trato ventajoso en el lineal.

CONCLUSIONES

El *merchandisin*g es una técnica muy utilizada dentro del marketing para eficientar el proceso de compra de los clientes a través de la explotación de sus impulsos; sin embargo, el *merchandising* del distribuidor no sólo retoma algunos aspectos sobre los gustos de los clientes sino que también distribuye de manera eficiente los productos en el espacio disponible para exhibición de tal manera que se obtienen las mayores ganancias y además se establecen los niveles adecuados de inventario de los productos que se manejan dentro de la empresa. El modelo descrito por Orlando y González, (1997), permite evaluar de manera satisfactoria todos y cada uno de los niveles del *merchandising*, sin embargo, para esta investigación sólo se tomaran las partes y variables que se ven implicadas en el desarrollo de la evaluación de los lineales asignados a la exhibición, de tal manera que se pueda obtener la mayor ganancia por la venta de esos productos. Para esta investigación no se considera dentro del modelo la implantación de nuevos productos ni el *merchandiser* ya que la investigación se implementará en empresas pequeñas y medianas en donde la implantación de nuevos productos realiza considerando la disponibilidad de recursos, y en el caso del *merchandiser*, no se cuenta con los recursos para la consideración de un asesor por parte de los minoristas.

REFERENCIAS

Anderson. E. E. & Amato, H. N., (1973), "*A mathematical Model for Simultaneously Determining the Optimal Brand-Collection and Display-Area Allocation",* Operations Research, pp.13-21

Amine, A. & Cadenat, S., (2003), "*Efficient retailer assortment: a consumer choice evaluation perspective",* International Journal of Retail & Distribution Management, Vol. 31, No. 10, pp. 486-497.

Bai, R., Burke, E. K. & Kendall, G. "*Heuristic, Metha-Heuristic and Hyper-Heuristic Approaches for Fresh Produce Inventory Control and Shelf Space Allocation*", The Journal of Operations research Society, Vol. 59, No. 10, pp 1387-1397.

Ballou R. H., (2004), "*Logística administración de la cadena de suministro*", México, Editorial Pearson Educación.

Baron, O., Berman, O. & Perry, D., (2010), *Shelf Space Management when Demand Depends on the Inventory Level*", Production and Operations Management, Vol. 20, No.5, pp. 714-726.

Bowersox, D. Closs, D. & Cooper, M. B. (2007), *"Administración y logística en la cadena de suministros*", Editorial McGraw hill.

Censos Económicos 2014, Instituto Nacional de Estadística y Geografia (IMEGI), México.

Chase, B. R., Jacobs, R. F. & Aquilano, J. N., (2009). "*Administración de la producción y operaciones*", México, Editorial McGraw Hill

Corstjens, M. & Doyle, P., (1981), "*A Model for Optimizing Retail Space Allocations*", Management Science, Vol. 27, No. 7, pp. 822-833

Cox, K.. K.., (1970), "*The Effect of Shelf Space upon Sales of Branded Products*", Journal of Marketing research, Vol 7, pp 55-58.

Drèze, X., Hutch, S & Purk, M., (1994), "*Shelf Management and Space Elasticity*" , Journal of Retailing, Vol 70, No. 4, pp 301-326.

Frank, R. E. & Massy, W. F., (1970), "*Shelf Position and Space Effects on Sales*", Journal of Marketing Research, Vol. 7, pp. 59-66.

Gajjar, H. K. & Adil, G. K., (2010), "*A piecewise linearization for retail shelf space allocation problem and a local search heuristic*", Annals of Operations research, No. 179, pp. 149-167.

Goméz, S. M., y Rozano, S. M (2009), *"marcas del ditribuidor, análisis del espacio en el lineal por categorías y enseñas*" cuadernos de Gestión, Vol. 9. No. 1, pp. 81-98.

Gómez, S. M., y Rubio, B. N., (2006), "*Gestión Minorista de las Marcas del Distribuidor: Producto y Merchandising*", ICE, No. 828, pp157-174.

Gupta, S. K. & Krishnan, K. S., (1966), "*Mathematical Models in Marketimg*", pp.1040-1060

Orlando, J. J. y González, D. E. (1997), "Distribución y marketing", Argentina, Editorial Machi.
Ortíz, A., Izquierdo, H. y Rodríguez, M. (2012), "*Modelo d Gestión logística para PyMES Industriales*" LACCEI´2012, pp.2-10.

Sistema de Clasificación Industrial de America del Norte, México SCIAN, (2013), Instituto Nacional de EstadÍsitica y Geografía (INEGI).

Nunes, P. & Cespedes, F., (2003), "*The costumer has escaped,*" Harvard Business Review, Vol. 81, No. 11, pp. 96-105.

Urban, T. L., (1998), "*An Inventory-Theoretic Approach to Product Assortment and Shelf-Space Allocation",* Journal of Retalling, Vol. 74, No.1, pp. 15-35.

Velásquez, C. A., (2003), "*Modelo de Gestión de Operaciones para PyMES Innovadoras"* Revista Escuela de Administración en Negocios, No, 47, pp. 66-87.

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SISTEMATIZACIÓN DEL CONOCIMIENTO SOBRE EL MÉTODO DE ESTUDIO DE CASO PARA INVESTIGAR LA EMPRESA FAMILIAR

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RESUMEN

El objetivo de ésta investigación fue identificar, analizar y sistematizar las aportaciones teóricas sobre el estudio de caso como método de investigación. Esto con la finalidad de cubrir un vacío existente en la literatura sobre empresas familiares que emplean dicho método, pero que adolecen de describir el mismo. Para tal efecto, se realizó una investigación documental interdisciplinar que abarcó entre otros, aspectos tales como concepto, tipología de diseño, confiabilidad, generalización y pasos a seguir en la investigación a través de éste método. Los resultados obtenidos contribuyen a proporcionar una descripción sistematizada sobre la naturaleza del mismo para investigar la empresa familiar. Finalmente, entre otras, se concluye que dicho método es útil para conocer con mayor profundidad la entreverada realidad de la empresa familiar y enriquecer la investigación y conocimiento de la misma.

PALABRAS CLAVES: Método, Estudio de Caso y Empresa Familiar

KNOWLEDGE SYSTEMATIZATION OF THE CASE STUDY METHOD TO RESEARCH THE FAMILY BUSINESS

ABSTRACT

The objective of this research was to identify, analyze and systematize the theoretical contributions of the case study as a research method. This with the purpose to fill a gap in the literature about family businesses that uses such method but lacks to describe it. To such effect, it was made an interdisciplinary documentary research that included among others, aspects such as concept, design typology, reliability, generalization and steps to follow in the research through this method. The results obtained contribute to give a systematized description about the nature of the method to research the family business. Finally, among other things, it is concluded that such method is useful to know in more depth the intermingled reality of the family business and enrich the research and knowledge of the same.

KEY WORDS: Method, Case Study Research and Family Business

JEL: M1, M10, M100

INTRODUCCIÓN

Investigar sobre un negocio de estructura familiar donde los miembros de la familia trabajan en éste, se convierte en un fenómeno que no puede reducirse únicamente al enfoque cuantitativo, pues su realidad es compleja ya que están involucrados la familia y su dinámica interna. Así lo corroboran Aranda, Baldazo y Nieto (2012) cuando afirman que la empresa familiar, dista mucho de ser algo generalizable estadísticamente dado sus características, naturaleza y problemática. Diversas son las obras publicadas

sobre empresas familiares bajo el enfoque del estudio de caso como método de investigación (Dodero, 2013; Müller, et al., 2008; Rodríguez-Alcaide, 2012; Poza, 2011 y Díaz, et al., 2011). Sin embargo, dichas obras adolecen de la descripción de la metodología que guiaron sus trabajos. Soto (2011) afirma que el 70% de las investigaciones consultadas sobre la empresa familiar en México, emplearon el estudio de caso como método de investigación, aunque éstas no exponen detalladamente la metodología empleada. Por tanto, este trabajo tiene como objetivo revisar, analizar y sistematizar las aportaciones de autores de diversos campos sobre el estudio de caso como método de investigación. Esto, con la finalidad de cubrir un vacío existente en las publicaciones sobre empresas familiares que emplean dicho método, pero adolecen de proporcionar una descripción del mismo. La estructura del presente trabajo es la siguiente: la revisión literaria precede a la introducción. Posteriormente, se describe la metodología empleada para llevar a cabo esta investigación. La información obtenida se presentan en el apartado de resultados. Finalmente se presentan las conclusiones y referencias bibliográficas empleadas.

REVISIÓN LITERARIA

Evolución de la Investigación y Literatura Sobre la Empresa Familiar

Las investigaciones sobre empresas familiares se remontan a la década de los 60´s. Los primeros trabajos realizados abordaron sobre la estructura de la empresa familiar. A partir de 1980, con el trabajo de consultores, surgen publicaciones centradas en describir los resultados obtenidos de su experiencia práctica (Basco, 2006). Una investigación realizada por Benavides, Guzmán y Quintana (2011) sistematizó y clasificó los principales temas abordados en la literatura acerca de la empresa familiar para el período 1961-2008. Para tal efecto, analizaron los contenidos de 684 artículos sobre esta temática publicados en revistas indexadas en el Social Science Citation Index. La Tabla 1 muestra la evolución de los temas investigados en la literatura sobre empresa familiar.

Tabla 1: Evolución de Temas Tratados en la Literatura Sobre Empresa Familiar 1961-2008

Temática	Total	1961-1969	1970-1979	1980-1989	1990-1999	2000-2008
Sucesión	123	1	2	15	50	55
Economía y Teoría organizacional	81	0	0	4	31	46
Gobierno Corporativo	68	0	0	11	11	46
Dirección Estratégica y Cambio Organizacional	63	0	0	1	16	46
Dinámica Familiar Interpersonal	54	0	0	5	20	29
Dirección Financiera	51	0	0	0	17	34
Crecimiento y –rendimiento empresarial	43	0	1	3	9	30
Emprendimiento/Innovación	32	0	0	0	13	19
Género y Etnia	25	0	0	1	15	9
Dirección de Recursos Humanos	25	0	0	3	8	14
Conflicto	18	0	0	0	11	7
Formación, Consultoría y Docencia Empresa Familiar	18	0	0	3	12	3
Internacionalización y Globalización	18	0	0	0	5	13
Historia del Negocio	14	1	0	1	8	4
Sistema Macroeconómico	13	0	0	1	10	2
Estado y Planificación del Impuesto	10	0	0	1	9	0
Cultura	9	0	0	2	4	3
Responsabilidad Social Corporativa y Ética	8	0	0	1	3	5
Profesionalización	5	0	0	0	2	2
Marketing	4	0	0	0	2	2
Dirección de la Producción	2	0	0	0	2	9
Total	684	2	3	52	258	369

Fuente: Benavides, Guzmán y Quintana (2011). La Tabla 1 muestra la evolución de los temas investigados y publicados en torno a la empresa familiar. El análisis del contenido de esta tabla permite agrupar los temas en tres grupos. El primer grupo abarca temas sobre sobre sucesión, economía, gobierno corporativo, dirección estratégica, dinámica familiar y dirección financiera. El segundo grupo en frecuencia de publicación está integrado por, crecimiento y rendimiento empresarial, emprendimiento, género y ética, dirección de recursos humanos, conflicto, formación, docencia e internalización y globalización, etc. El tercer grupo está conformado por los temas que han sido escasamente investigados. Entre éstos están, cultura, responsabilidad social, profesionalización, marketing y dirección de la producción. En esta Tabla, se observa la ausencia del estudio de los recursos metodológicos para abordar la investigación de la empresa familiar.

En la Tabla 1 se observa la evolución de los temas tratados sobre la empresa familiar. El primer lugar lo ocupó el tema de sucesión. La economía y teoría organizacional que analiza el comportamiento individual y grupal, la estructura organizacional y los procesos administrativos, quedó en segundo lugar. A este tema le sigue el de gobierno corporativo. En cuarto lugar lo ocupó la dirección estratégica y el cambio organizacional. La dinámica interpersonal tomó el quinto lugar y analiza las interacciones que se dan en el seno de la familia empresaria. El sexto lugar correspondió a la dirección financiera. Otros temas que se investigados con menor frecuencia son: crecimiento y rendimiento empresarial, emprendimiento, innovación, dirección de recursos humanos, conflicto, docencia sobre empresa familiar y globalización. Se observa la ausencia de literatura concerniente a las metodologías para investigar la empresa familiar como un campo de investigación per se.

La Investigación de la Empresa Familiar En México

De acuerdo con Soto (2011), las publicaciones sobre empresas familiares en México se encuentran dispersas, debido a la falta de un espacio de difusión especializado. Y agrega que estos trabajos tienen formatos muy variados como artículos, ponencias, tesis de maestría o doctorado y libros. Asimismo, expone que una de las principales limitaciones para investigar sobre la empresa familiar en México es la "*dificultad para acceder a la información y de manera particular la carencia de información pública, la falta de bases de datos económicos de las empresas, así como la desconfianza de los empresarios*". Probablemente este es el motivo por el cual el 70% de las investigaciones revisadas por Soto (2011) privilegia el estudio de caso como método de investigación. Por su parte, La Red Mexicana de Investigadores en Estudios Organizacionales analizó las investigaciones realizadas sobre empresas familiares y seleccionó únicamente aquellas que enunciaron explícitamente la palabra "estudio de caso". El resultado obtenido mostró que aunque las investigaciones hacen alusión al uso de este método, solamente dos de éstos trabajos describieron someramente dicho método (Aranda, et. al. 2012).

MÉTODO

Para este trabajo se recurrió a la investigación documental interdisciplinar con la finalidad de revisar, analizar y sistematizar el conocimiento existente en cuanto al estudio de caso como método de investigación. Para tal propósito se localizaron en primer lugar aquellos artículos científicos y libros sobre el tema objeto de estudio. Posteriormente, se efectuó un proceso de selección de los mismos con el objetivo de acotar la cantidad de información considerada para esta investigación. Para este propósito se establecieron tres criterios con los que las obras seleccionadas debían cumplir:

Dominio de la diferencia entre el estudio de caso como método de investigación y como técnica didáctica.

Pertinencia y contribución al objetivo de conocimiento planteado en ésta investigación.

Claridad en la exposición y redacción de las ideas y en los ejemplos planteados.

En segundo lugar, se dio continuidad a esta investigación a través de la lectura analítica. Subsiguientemente, como resultado del procesamiento de la información recopilada, ésta se clasificó y sistematizó en las siguientes categorías: antecedentes, concepto, naturaleza, requisitos para su elección, número de casos a seleccionar (muestra), tipología de diseño, confiabilidad, generalización y fases en la investigación de estudios de casos. Finalmente, se expone la pertinencia del estudio de caso, como método de investigación, para investigar las empresas familiares. La Tabla 2 muestra las categorías empleadas para la clasificación y sistematización de la información recopilada.

Tabla 2: Categorías Empleadas Para la Clasificación y Sistematización de la Información Recopilada

Categoría	Descripción
Antecedentes del método	Evolución histórica del estudio de caso como método de investigación.
Concepto	Definición del estudio de caso como método de investigación.
Naturaleza.	Atributos que distinguen al estudio de caso.
Requisitos a cumplir para seleccionar el estudio de caso como método de investigación.	Factores a considerar para elegir, o no el método de estudio de casos.
Definición del número de casos a investigar (tamaño de la muestra.	Criterio para emplear un solo caso o más de uno.
Tipología del diseño.	El plan o estrategia concebida para obtener la información requerida de acuerdo con la finalidad propuesta.
Confiabilidad y generalización.	Procedimiento para asegurar la validez científica del caso o casos investigados.
Fases en la investigación a través del método de estudio de casos.	Pasos o etapas que integran el método de acuerdo con determinados autores.

La Tabla 2 muestra las siete categorías empleadas para la clasificación y sistematización de la información recopilada a través de la investigación documental efectuada. Así como una descripción de cada una de estas categorías. Estas categorías corresponden a: antecedentes históricos del estudio de caso, definición del concepto del concepto de estudio de caso como método de investigación, características, criterios a considerar para seleccionar dicho método, tipología del diseño a emplear, la confiabilidad, validez y generalización, así como las fases del método. Fuente: Elaboración propia.

La Tabla 2 muestra las categorías empleadas para clasificar y sistematizar la información recopilada. En primer lugar se describe la evolución histórica del estudio de caso como método de investigación. A esto, le sigue la definición del concepto y los atributos que lo distinguen. Posteriormente se explican los criterios a considerar para elegir, o no dicho método. Se incluyó también aspectos relativos a los tipos de diseños, la validez y confiabilidad de éste método, así como las fases a seguir.

RESULTADOS

Antecedentes del Estudio de Caso Como Método de Investigación

Existe diferencia entre el estudio de casos como técnica didáctica y el estudio de caso como método de investigación (Díaz, Mendoza, y Porras 2011, Yacuzzi, 2005 y Naumes y Naumes, 2012). Como técnica didáctica, el estudio de casos proporciona al estudiante un problema para su análisis y discusión dentro del aula y su finalidad es pedagógica. Como método de investigación el estudio de caso se remonta a finales del siglo XIX cuando Freud y Jung desarrollaron sus conceptos del psicoanálisis a través del estudio de análisis de pacientes individuales a los cuales denominaron N=1 (muestra tamaño 1). También los emplearon para probar tratamientos de enfermedades cuando fueron descubiertas en otros pacientes (Feagin, Orum y Sjoberg, 1991). La investigación a través de estudios de casos se extendió al campo del conductismo a través de Wundt, Pavlov y Thorndike y Skinner (Kazdin, 1982). Estos científicos comprendieron que el estudio de casos les permitía explorar y conocer en mayor profundidad el fenómeno objeto de estudio y sus causas, lo que no admitía la investigación cuantitativa. Se reconoce a Herbert Spencer como el pionero en el uso del estudio de caso en el campo de la Sociología. Max Weber también utilizó el estudio de caso para investigar sobre las distintas relaciones de poder económico y del origen del capitalismo desde situaciones muy concretas en Alemania (Peña-Collazos, 2009). Posteriormente, el estudio de casos se extendió al campo organizacional y de la administración. White (1984) observó que las investigaciones más importantes en conducta organizacional se realizaron a través del estudio de casos, empleando principalmente, la observación y la entrevista no estructurada. De igual forma, Chandler empleó este método para investigar la relación entre la estructura organizacional y sus estrategias (Naumes y Naumes, 2012).

Concepto del Estudio de Caso Como Método de Investigación de Acuerdo Con Diversos Autores

Como método de investigación, el estudio de casos consiste en la investigación empírica de un fenómeno contemporáneo dentro de su contexto de la vida real para contribuir a la gestión del conocimiento científico (Hancock & Algozzine 2011; Hernández- Sampieri, et. al., 2010, Yin, 2003 y Yacuzzi, 2005). Feagin, Orum y Sjoberg (1991) describen este método como una multifacética investigación a fondo de un fenómeno social por medio del enfoque cualitativo. Por su parte, Hamel (1992) define el estudio de caso como la investigación de uno o más casos particulares y el examen a fondo de éstos. Los casos pueden ser: programas, eventos, personas, roles, procesos, instituciones, grupos sociales y otros fenómenos contemporáneos (Hancock & Algozzine, 2011). Por su parte, Peña-Collazos (2009) define el estudio de caso como un recurso metodológico de investigación científica que permite la descripción, explicación y comprensión de un fenómeno social que comporta una organización o grupo de personas. Gerring, (2004), señala que el estudio de caso consiste en la investigación intensiva de un fenómeno con la finalidad de comprenderlo en profundidad. Una de las principales fortalezas de éste método radica en medir y registrar detalladamente las conductas de las personas involucradas en el fenómeno estudiado (Martínez-Carazo (2006).

Naturaleza del Estudio de Caso Como Método de Investigación

El estudio de caso se centra principalmente en eventos, situaciones, procedimientos, actividades, individuos, grupos u organizaciones que son representativas o típicas.

El fenómeno objeto de estudio se investiga en su contexto real, delimitado en tiempo y espacio.

El fenómeno objeto de estudio es rico y extensamente descrito porque se emplean varias fuentes de información: Anécdotas, observaciones, narrativas producto de entrevistas originales y otros recursos literarios que recrean vívidamente la complejidad de las variables inherentes al fenómeno.

Requisitos a Cumplir Para Emplear el Estudio de Caso Como Método de Investigación (Criterios)

La decisión de elegir o no el estudio de caso como método de investigación, está en función de: el tipo de pregunta de investigación formulada; qué tanto control tiene el investigador sobre el comportamiento real de los eventos, y el grado en que éste se enfoca eventos contemporáneos en lugar de históricos. Yin (2003) presenta los criterios que cada una de las estrategias de investigación establece para su elección (Ver Tabla 3).

Tabla 3: Criterios Para Elegir la Estrategia de Investigación

Estrategia	Tipo de Pregunta	¿Requiere Control de los Eventos Reactivos?	¿Se Enfoca en Eventos Contemporáneos?
Experimento	¿Cómo?, ¿Por qué?	Si	Si
Encuesta	¿Quién?, ¿Qué?, ¿Dónde?, ¿Cuántos?, ¿Cuánto?	No	Si
Registro de Archivos	¿Quién?, ¿Qué?, ¿Dónde?, ¿Cuántos?, ¿Cuánto?	No	Si/ No
Historia	¿Cómo?, ¿Por qué?	No	No
Estudio de caso	**¿Cómo?, ¿Por qué?**	**No**	**Si**

La Tabla 3 muestra los diferentes criterios a considerar para elegir, o no el estudio de caso como método de investigación. Se elige el estudio de caso cuando, se tiene una o varias preguntas sobre "cómo" o "por qué" acerca de un grupo de asuntos contemporáneos, sobre los cuáles el investigador tiene poco o nada de control, es decir, no es posible efectuar experimentos en torno al fenómeno objeto de estudio. Fuente: Yin (2003).

En la Tabla 3 pueden observarse los diferentes tipos de estrategias de investigación considerando: el tipo de pregunta de investigación, sí se requiere, o no control de los eventos y sí se enfoca, o no a eventos contemporáneos. Se elige el estudio de caso cuando, se tiene una o varias preguntas sobre "cómo" o "por qué" acerca de un grupo de asuntos contemporáneos, sobre los cuáles el investigador tiene poco o nada de control y no incluye experimentos. Se elige el estudio de caso cuando se tienen preguntas acerca del cómo o por qué; cuando no se requiere control de los eventos (no admite experimentos) y se enfoca en eventos contemporáneos.

Determinación del Número de Casos a Investigar (Único O Múltiple)

Una decisión fundamental a considerar para emplear el estudio de casos como método de investigación es determinar si se elige un caso o varios. Un factor clave que influye en la decisión de elegir entre un caso único o varios depende de la naturaleza del fenómeno a investigar y del propósito de la investigación. Se selecciona un caso único cuando el caso es atípico, inusual o significativo, es decir, posee características únicas. Por otro lado, cuando se pretende crear una base más robusta para proponer o explicar una teoría, se recurre a la selección de múltiples casos. Seleccionar múltiples casos, permite comparar y verificar sí algún resultado que se encuentra en algún caso, se repite en los demás (De Massis y Kotlar, 2014).

Tipología de Diseños de Estudios de Casos

El diseño de la investigación se refiere al plan o estrategia concebida para obtener la información requerida. Los diseños para un estudio de caso pueden agruparse en tres categorías: Por su finalidad o contribución teórica, por el número de casos y la unidad de análisis y por el alcance que se desea obtener respecto a la obtención de conocimientos (Stake, 2007). En las siguientes Tablas (4, 5 y 6) se expone la descripción de cada una de estas tres categorías. La Tabla 4 muestra los diseños a elegir de acuerdo con la finalidad o contribución teórica que se busca alcanzar.

Tabla 4: Diseños de Acuerdo Con la Finalidad o Contribución Teórica

Tipo de diseño	Descripción
Intrínseco	Se elige cuando el investigador busca conocer más de cerca un individuo en particular, grupo, evento u organización. Su propósito no es construir una teoría, sino que el caso mismo resulta de interés.
Instrumental	El objetivo principal es entender mejor un tema o asunto teórico aportando insumos de conocimiento provenientes de la realidad. Se pretende refinar una teoría o entender en mayor profundidad las explicaciones teóricas relacionadas con el caso.
Colectivo	La finalidad no es solamente investigar el caso, sino también añadir aportaciones a la literatura para conceptualizar mejor una teoría. Este diseño es útil para construir un cuerpo teórico y generalmente involucra la investigación de varios casos con el fin de incrementar la posibilidad de teorizar con base en un mayor número de casos.

La Tabla 4 muestra los diferentes diseños que existen para efectuar una investigación a través del estudio de caso: Intrínseco, instrumental y colectivo. El intrínseco se emplea cuando el caso mismo resulta de interés. Para entender mejor una teoría se recurre al instrumental. El colectivo cumple el propósito de construir un cuerpo teórico. Fuente: Elaboración propia a partir de información proporcionada por Stake, (2007).

La Tabla 4 muestra el tipo de diseño a emplear de acuerdo con la finalidad teórica que se pretende lograr. El diseño intrínseco se elige cuando el investigador busca conocer más de cerca un individuo en particular, grupo, evento u organización, porque que el caso mismo resulta de interés. Cuando el objetivo principal es entender mejor un tema o asunto teórico aportando insumos de conocimiento provenientes de la realidad, se recurre al diseño instrumental. El diseño colectivo se emplea cuando La finalidad no es solamente investigar el caso, sino también añadir aportaciones a la literatura para conceptualizar mejor una teoría.

De acuerdo con Yin (2003) uno de los componentes del estudio de caso guarda relación con la definición de la unidad de análisis, es decir, cuál es el "caso". Por ejemplo, un "caso" puede ser un individuo. En cada situación, una persona es el caso que está siendo estudiado, y la unidad de análisis pude ser: el ambiente en el que creció, sus oportunidades de educación, su desarrollo profesional, etc. La selección de la unidad

de análisis está en función de las preguntas de investigación formuladas en el planteamiento del problema a investigar. De acuerdo con Yin (2003) en cuanto al número de casos la tipología considera: el diseño de un solo caso y el de múltiples casos. Respecto a la unidad de análisis el diseño puede ser, holístico o con unidades incrustadas (Ver Tabla 5).

Tabla 5: Diseño de Acuerdo al Número de Casos y la Unidad de Análisis

Tipo de diseño	Descripción
Un solo caso	Un individuo, una organización, grupo, un evento, proceso, etc.
Múltiples casos (de dos a diez)	En este diseño, el proceso para cada paso se repite. Se consideran las mismas variables, instrumentos de recopilación de información, etc. Son diseños más robustos y poseen mayor validez.
Unidad de análisis holístico	Es un caso con una unidad holística. Todo el caso se toma como una unidad de análisis. Útil para documentar una situación o evento único.
Unidades de análisis incrustadas	Varias unidades de análisis dentro del caso. En este caso, la "gran unidad" es segmentada en varias unidades o subunidades de las cuales se seleccionan algunas para ser analizadas con amplitud y profundidad.

La Tabla 5 muestra los tipos de diseño de acuerdo con el número de casos y unidad de análisis. Puede ser un solo caso o varios (de dos a diez). Los diseños múltiples poseen mayor validez y son más robustos en cuanto a su validez científica. La unidad de análisis se refiere al objeto de estudio que constituye nuestro punto central a investigar. Por ejemplo: dentro del estudio de caso, puede investigarse una persona (caso único) y de ésta, la unidad de análisis podría ser, su desarrollo profesional. Fuentes: elaboración propia a partir de información expuesta por Yin (2003).

La Tabla 5 muestra los diferentes diseños de acuerdo al número de casos y la unidad de análisis que se pretenda convertir en objeto de estudio. Los diseños pueden ser, un solo caso p múltiples casos (de dos a diez). En cuanto a la unidad de análisis puede ser holístico cuando todo el caso se toma como unidad de análisis. También puede ser con unidades de análisis incrustadas. Esto es cuando ciertas unidades de análisis se eligen para investigar. Los procesos de producción de conocimientos siguen una secuencia de desarrollo progresivo. Se inicia estableciendo contacto y acercándose al fenómeno objeto de estudio (fase exploratoria). Posteriormente se organiza y sistematiza la realidad objeto de interés (fase descriptiva). Finalmente, en la fase explicativa se construyen las explicaciones y/o interpretaciones de esa realidad (Padrón, 2001). En la Tabla 6 se expone cuándo es viable la utilización de cada una de estas fases.

Tabla 6: Diseños de Acuerdo al Alcance de la Investigación

Tipo de diseño	Descripción
Exploratorio	Este diseño se elige cuando el tema o problema seleccionado ha sido poco explorado y no hay suficientes datos previos. También cuando aparece un nuevo fenómeno que por su novedad no admite todavía una descripción sistemática.
Descriptivo	Este diseño tiene como objetivo presentar una descripción completa de un fenómeno dentro de su contexto.
Explicativo	Se centra en identificar y determinar las causas y efectos (origen) de un evento, fenómeno, etc. Su objetivo principal es determinar cómo ocurren los eventos.

La Tabla 6 muestra los diferentes diseños que pueden seleccionarse de acuerdo el objetivo que se pretenda alcanzar en cuanto al conocimiento. De tal forma que sí apenas se busca conocer el fenómeno objeto de estudio, se elige el diseño exploratorio. Cuando se tiene como objetivo describir el fenómeno con todas sus características y dinámica, se elige el diseño descriptivo. Por su parte el diseño explicativo se centra en identificar y determinar las causas y efectos (origen) de un evento, fenómeno, etc. Fuente: Elaboración propia a partir de información expuesta por Padrón (2001) y Yin (2003).

La Tabla 6 muestra los diseños a emplear de acuerdo con el alcance que se desea obtener en cuanto al nivel de conocimientos. Los diseños pueden ser: exploratorios, descriptivos y explicativos. Cuando el tema es nuevo o poco explorado se elige el exploratorio. En el diseño descriptico se presenta una descripción detallada del fenómeno objeto de estudio. En el explicativo se pretende determinar las causas y efectos del asunto a investigar y determinar cómo ocurren los eventos.

Confiabilidad y Generalización en los Estudios de Casos

En cuanto a la confiabilidad, Arzaluz (2005) agrega, "*los estudios de caso no siempre son iguales porque se analizan fenómenos con escenarios sociales que están cambiando constantemente".* No obstante, para cerciorarse de la confiabilidad de las fuentes de información Stake (2007) y Yin (2003) proponen la triangulación de información proveniente de las diversas fuentes de datos y perspectivas teóricas. Díaz, et. al. (2011) exponen que la confiabilidad se refiere a la capacidad que tiene un estudio de caso para obtener los mismos resultados, sí éste se repite en el tiempo. Por tal motivo, es necesario seguir los mismos pasos ejecutados en el primer caso, y expresan *"Para ello se recomienda el uso de protocolos de investigación (que integran la definición de instrumentos por aplicar y procedimientos por seguir según un programa detallado, así como el registro del proceso) y una base de datos del estudio de caso.*

Se entiende por generalización la posibilidad lógica de transferir conclusiones relativas a un caso a otros casos no examinados (Giménez, 2012). Este autor, señala que uno de los principales cuestionamientos que suelen hacerse a los estudios de casos es su "incapacidad radical para generalizar sus resultados". Pues los resultados obtenidos para un solo fenómeno no pueden aportar información confiable sobre el resto de los fenómenos considerados. Sin embargo, Peña-Collazos (2009) afirma que "*Un estudio de caso apunta a describir un caso y no busca conocimientos universalmente válidos.* Así lo corrobora Arzaluz (2005) cuando afirma que "*los estudios de caso no pueden definir leyes generales y no pueden ser usados para obtener patrones generales, sin embargo, los resultados y la interpretación pueden ser suficientes para generar ideas y opciones para diferentes escenarios".*

Al respecto, Yin (2003) establece una diferencia entre la generalización estadística y la analítica cuando afirma que: *"La primera es la que se basa en una inferencia realizada a partir de una muestra estadísticamente representativa, mientras que la segunda tiene que ver con la expansión a otros casos de una teoría o de un modelo que ha permitido analizar (exitosamente) un caso concreto".* Por tanto, la generalización analítica busca generalizar teorías y no enumerar frecuencias. Es decir, en los estudios de caso lo que se generaliza es el modelo teórico que condujo satisfactoriamente a determinados resultados y que se infiere conducirá a resultados análogos, (aunque no idénticos) en otros casos.

Pasos en la Investigación del Estudio de Caso

Para los pasos que conlleva la investigación de un estudio de caso se obtuvo información de dos fuentes diferentes: Yin (2003) y Harvard Business School (ambos citados por Hernández-Sampieri, et. al. 2010). En la Tabla 7 se muestra un comparativo de la información aportada por ambas fuentes. En la Tabla 7 se observan dos enfoques diferentes para abordar una investigación a través del estudio de caso. En el caso de la metodología propuesta por la Harvard Business School se aprecia un proceso más práctico, mientras que la metodología propuesta por Yin muestra un mayor acercamiento a la metodología científica tradicional. Esto sugiere la necesidad de profundizar en el estudio del método de estudio de caso de tal forma que se cumpla con el rigor científico sin perder de vista la practicidad requerida en este tipo de investigaciones.

Tabla 7: Comparativo Entre Harvard Business School y Yin (2003)

Harvard Business School	Yin (2003)
1. Identificar el caso.	1. Planteamiento del problema.
2. Investigar los antecedentes y su contexto. Ubicar, definir y contextualizar el caso.	2. Definición de proposiciones o hipótesis.
3. Solicitar permiso de los gatekeepers de la empresa (directivos, líderes de los trabajadores, representantes legales, etc.) y obtenerlo.	3. Determinación de la unidad o unidades de análisis.
4. Involucrar a la compañía o institución.	4. Delimitación del contexto que rodea al caso o casos.
5. Recolectar información sobre los individuos que participan o participaron en el caso (ejecutivos, asesores, etcétera).	5. Identificación de las fuentes de información y diseño de los instrumentos de medición.
6. Efectuar el trabajo de campo: - Entrevistas con los individuos participantes en el caso (de todos los niveles), observación sistemática, materiales audiovisuales, etc.	6. Recopilación de la información.
7. Realizar el análisis de los datos.	7. Análisis de la información recopilada.
8. Elaborar reporte del caso: Narración (descripciones), tablas, figuras y material de apoyo.	8. Definición de los criterios empleados para interpretar los datos y efectuar inferencias.
	9. Elaboración del reporte de resultados.

En la Tabla 7 puede observarse de manera comparativa los pasos propuestos por las dos fuentes señaladas anteriormente. En el caso de la metodología propuesta por la Harvard Business School se aprecia un proceso más práctico, mientras que la metodología propuesta por Yin muestra un mayor acercamiento a la metodología científica tradicional.

CONCLUSIONES

El objetivo de esta investigación fue cubrir un vació existente en la literatura sobre la naturaleza de dicho método para su aplicación en el estudio de la empresa familiar. Con base en los resultados obtenidos se concluye lo siguiente:

La investigación y literatura relativa a la empresa familiar no ha abordado formalmente la metodología como un objeto de estudio per se. En este sentido, dicho campo adolece de una línea de investigación que desarrolle, fortalezca y consolide los recursos metodológicos para abordar la realidad y los fenómenos que ocurren dentro de la estructura y dinámica de la empresa familiar.

Como método de investigación el estudio de caso posee atributos que lo hacen pertinente para investigar la empresa familiar, pues toma en cuenta el contexto de la empresa familiar, promueve el enfoque holístico, a través de la triangulación de las diferentes fuentes de información permite obtener las diversas perspectivas y enfoques del fenómeno objeto de estudio, y finalmente proporciona una descripción rica en narrativa y detalles del complejo mundo de la empresa familiar.

Todo investigador de empresas familiares, podrá incrementar el potencial de sus proyectos y resultados si desarrolla lo que Ruiz (2001) denomina la competencia investigadora: la capacidad para abordar problemas en el proceso de investigación sobre la base de la versatilidad y flexibilidad metodológica, conociendo las posibilidades y limitaciones de cada estrategia metodológica.

Una de las limitaciones en ésta investigación consistió en que para sistematizar el conocimiento relativo al estudio de caso como método de investigación, solamente se encontraron publicaciones cuyos autores pertenecen a disciplinas diferentes a las de la empresa familiar. Por tanto, futuras investigaciones pueden enfocarse hacia el desarrollo y adecuación de dicho método al campo de la empresa familiar.

Esta investigación contribuyó a mostrar la existencia de un vació en el conocimiento relativo a los recursos metodológicos para investigar a la empresa familiar, así como proporcionar una descripción sistematizada sobre el estudio de caso como método para investigar a la misma.

BIBLIOGRAFÍA Y REFERENCIAS ELECTRÓNICAS

Aranda, M., Baldazo, F., y Nieto, O., (2012). El método de estudio de caso para estudiar las empresas familiares. En Revista, Pensamiento y Gestión. N°. 33 Julio-Dic. Disponible en http://rcientificas.uninorte.edu.co/index.php/pensamiento/article/view/4899/3879

Arzaluz, S., (2005). La utilización del estudio de caso en el análisis loca. En Región y sociedad, Vol. XVII N° 32. El Colegio de Sonora. Disponible en: http://lanic.utexas.edu/project/etext/colson/32/4araluz.pdf

Basco, R., (2006), La investigación en la empresa familiar: "Un debate sobre la existencia de un campo independiente". En revista: Investigaciones Europeas, Vol. 12, N° 1, pp. 33-54. Disponible en: http://www.aedem-virtual.com/articulos/iedee/v12/121033.pdf

Benavides, C., Guzmán, V., y Quintana, C., (2011). Evolución de la literatura sobre empresa familiar como disciplina científica. En Cuadernos de Economía y Dirección de la Empresa. N° 14 pp. 78-90. Disponible en: http://www.sciencedirect.com/science/article/pii/S1138575811000107

De Massis, A. y Kotlar, J. (2014). The case sutdy method in family business research: Guidelines for qualitative scholarship. En Journal of Family Business Strategy 5, 15-29. Disponible en: http://www.sciencedirect.com/science/article/pii/S1877858514000114

Díaz, S., Mendoza, V. y Porras, C., (2011) Una Guía para la Elaboración de Estudios de Caso. En Razón y Palabra. Número 75, Febrero-Abril http://www.razonypalabra.org.mx/N/N75/varia_75/01_Diaz_V75.pdf

Dodero, S., (2013). El Secreto de las Empresas Familiares Exitosas. Editorial El Ateneo. México.

Feagin, J., Orum, A. y Sjoberg, G. (1991). A Case for Case Study. Chapel Hill. University of North Carolina Press.

Gerring, J. (2004). What is a Case Study and What is it Good for? En *American Political Science Review*. Vol. 98, No. 2 Disponible en http://www.ie.ufrj.br/hpp/intranet/pdfs/texto_3_-_aula_3.pdf

Giménez, G., (2012), El problema de la generalización en los estudios de caso. En cultura y representaciones sociales. Año 7, Núm. 13. Disponible en: www.journals.unam.mx/index.php/crs/article/download/32999/30233

Hamel, J., (1992), The Case method in Sociology. New Theoretical and Methodological Issues. En Current Sociology, Núm 40, pp. 1-7 Disponible en http://csi.sagepub.com/content/40/1/1.extract

Hancock, D., y Algozzine, B., (2011). Doing Case Study Research. Teachers College Press. New York.

Hernández-Sampieri, R., Fernández-Collado, C., y Baptista Lucio, P. (2010). Metodología de la Investigación. 5ª edición. Mc. Graw-Hill. México.

Kazdin, A. (1982) Single-Case Research Designs: methods for Clinical and Applied Settimgs. New York. Oxford University Press.

Martínez-Carazo, P. (2006). El método de estudio de caso: estrategia metodológica de la investigación científica. *En Pensamiento y Gestión*, Núm. 20. Julio. pp. 165-193. Disponible en http://www.redalyc.org/articulo.oa?id=64602005

Müller, e., García, R., Mora, J., Sarjanovich, J y Sashida, F. (2008) Empresas afectivas, Familias Afectivas. Un nuevo enfoque para abordar la problemática de las empresas familiares de hoy. Trillas. México.

Naumes, W., Naumes, M. (2012). The Art &Craft of Case Writing. Third edition. M.E. Sharpe, New York.

Padrón, J., (2001) El Problema de organizar la Investigación. En LIN-EA-I Línea de investigaciones en enseñanza/Aprendizaje de la investigación. Disponible en http://www.educar.org/articulos/problema.pdf

Peña-Collazos, (2009) El Estudio de caso como recurso metodológico apropiado a la investigación en ciencias sociales. En revista Educación y Desarrollo Social, 2. Pp. 180-195 Disponible en http://www.umng.edu.co/documents/63968/80127/RevArt13Vol3No2.pdf

Poza, E. (2011). Empresas Familiares. 3ª Edición. CENGAGE Learning. México

Rodríguez-Alcaide, J. (2012). El Libro Blanco de la Empresa Familiar. Sabiduría para gestionar la empresa familiar y salir reforzado de la crisis. Almuzara. España.

Ruiz, M., (2001), La competencia investigadora. Entrevista sobre tutoría a investigaciones educativas. Editorial Independiente, S.A. México.

Soto, A., (2013) La empresa familiar en México. Situación actual de la investigación. En Contaduría y Administración 58 (2) Disponible en http://www.journals.unam.mx/index.php/rca/article/view/36776

Stake, R., (2007) Investigación con estudio de casos. Cuarta edición. Morata. Madrid, España.
White, W., (1984) Learning From The Field: A Guide From Experience. Thousand Oaks, CA. Sage.

Yacuzzi, E. (2005) el Estudio de Caso como Metodología de Investigación: Teoría, Mecanismos Causales, Validación. Universidad del CEMA. Disponible en http://www.ucema.edu.ar/publicaciones/download/documentos/296.pdf

Yin, R. (2003). Case Study Research. Design and Methods. 3ª edición. Applied Social Research Methods Series. Volúmen 5. Sage Publications London. E crítica de artículos. Revista de Ciencias Administrativas

BIOGRAFÍA

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IMPORTANCIA DE LA GASTRONOMIA TRADICIONAL POBLANA Y SU RELACION EN EL CONSUMO DE NOSTALGIA POR PARTE DE LOS MIGRANTES POBLANOS EN LOS ANGELES, CALIFORNIA

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RESUMEN

El estudio se llevó a cabo durante las festividades del 5 de mayo de 2015 en la ciudad de los Ángeles, California; bajo un enfoque mercadológico. La problemática fundamental radicó en el fenómeno de migración México-Estados Unidos y el consumo de nostalgia de la gastronomía tradicional poblana. El objetivo principal fue describir la preferencia de los platillos típicos más representativos de la comida poblana y su consumo de nostalgia por parte de los migrantes poblanos radicados en Los Ángeles California. La investigación presento un marco teórico que permitió la explicación de los términos relacionados con; migración, comida tradicional poblana y consumo de nostalgia. Así mismo se diseñó una metodología específica bajo un enfoque mixto que logró determinar cuantitativamente la correlación de las variables en estudio. Los resultados obtenidos servirán de referencia para que las empresas poblanas que deseen exportar sus productos, identifiquen una oportunidad de negocios en el mercado de nostalgia en Estados Unidos.

PALABRAS CLAVES: Migración, Comida Tradicional Poblana, Consumo de Nostalgia

THE IMPORTANCE OF TRADITIONAL GASTRONOMY FROM PUEBLA AND ITS RELATIONSHIP TO THE NOSTALGIA CONSUMPTION OF MIGRANTS FROM PUEBLA IN LOS ANGELES, CALIFORNIA

ABSTRACT

This study was conducted during the 5 de Mayo festivities in Los Angeles, California in 2015 under a marketing focus. The fundamental problem lies between the México-United States migration phenomena and the consumption of traditional nostalgic dishes from Puebla. The main objective was to describe the preference of traditional dishes from migrants of Puebla living in Los Angeles, California that are the most representative of this local cuisine and its nostalgia consumption. This research presented the following theoretical framework that allowed the explanation of the terms related to: migration, traditional food from Puebla and nostalgia consumption. We also designed a specific methodology under a mixed approach that quantitative determined the correlation of these variables in the study. The obtained results will serve as reference for enterprises from Puebla that want to export their products; they will be able to identify business opportunities in the nostalgia market in the United States.

KEY WORDS: Migration, Traditional Food From Puebla, Consumption of Nostalgia

JEL: M31, M31, D1, D12, Q1, U13, F2

INTRODUCCIÓN

En el fenómeno de migración México-Estados Unidos, la mayoría de los mexicanos migrantes se encuentran concentrados en las ciudades de: Los Ángeles, Chicago y Dallas. Para la migración poblana (objeto del presente estudio), los primeros puntos de destinos se concentran en: California, Nueva York y New Jersey. De acuerdo a la concentración anterior, sólo se seleccionó a la ciudad de los Ángeles, California para realizar el estudio. La migración es un factor que promueve la nostalgia o el sentimiento de melancolía hacia personas, lugares y objetos. Entre estos objetos se encuentran las mercancías como ropa, música, abarrotes, juguetes y alimentos, siendo este último uno de los más demandados y comercializados. Para los mexicanos, la gastronomía tradicional mexicana representa un modelo cultural completo que comprende actividades agrarias, prácticas rituales, conocimientos antiguos, técnicas culinarias, costumbres y modos de comportamiento comunitarios ancestrales. Sus conocimientos y técnicas son una expresión de la identidad comunitaria y permiten fortalecer los vínculos sociales y consolidar el sentimiento de identidad en el ámbito nacional, regional y local. Este estudio se encuentra organizado de tal forma que para la revisión de literatura se describen los conceptos de: migración, comida tradicional mexicana y consumo de nostalgia que son palabras clave para la correcta concepción del tema. Posteriormente se muestra la metodología utilizada y finalmente se presentan los resultados de la investigación y sus conclusiones.

REVISIÓN LITERARIA

Se presentan a continuación los términos de: migración, comida tradicional poblana y consumo de nostalgia, que sirvieron como base dentro del contexto teórico.

Migración

La migración internacional es uno de los grandes fenómenos globales de nuestros días apreciándose en diferentes regiones del planeta (Tamayo & Fernandez, 1983). Comentan Castles y Miller que prácticamente ningún país, como tampoco ninguna región del mundo escapa a la dinámica de las migraciones o puede mantenerse ajeno a sus consecuencias, haciendo que esta experiencia universal se convierta en la marca de la era de la migración (Castles & Miller, 2004). La mayoría de los movimientos poblacionales se originan en la búsqueda de mejores condiciones de vida, por lo general por causas como: carencias económicas (García, 2006), presiones sociales, demográficas y ecológicas en los países de origen y los problemas de gobernabilidad en naciones con regímenes políticos frágiles e inestables (Tuirán, 2006) con la finalidad de buscar un mejor sitio y un trabajo que les permita tener óptimas condiciones de vida, satisfaciendo así sus necesidades básicas.

Actualmente, el fenómeno de migración México - Estados Unidos se ha convertido en un problema real, que afecta de manera importante a ambos países, tanto en el ámbito nacional como en el internacional.
La migración de México a Estados Unidos, tiene una serie de características que le dan especificidad con respecto a otros flujos migratorios en el mundo y de otras épocas destacando dos razones principales; la vecindad con nuestro vecino del norte y que los estados del sudoeste norteamericano pertenecieron a México, observando así un carácter más permanente en su migración hacia un solo destino. Al parecer el factor o motivo más importante que contribuye a la permanencia de esta problemática es la parte laboral-económica, impulsado por la interacción de variables que operan en ambos lados de la frontera; como la demanda y la oferta de trabajadores mexicanos en la zona norte (Hernadéz, 1980), aunque no se dejan de considerar la existencia de otros factores. El proceso migratorio mexicano se distingue por tener sus raíces a finales del siglo XIX, que se perpetuó y desarrolló de manera constante a lo largo del siglo XX y que

seguirá creciendo en este nuevo siglo XXI. Por otro lado, la mayoría de los migrantes mexicanos en Estados Unidos mantienen interrelaciones sociales, culturales, económicas y políticas en los dos países. Muchos de ellos son trabajadores temporales que participan en un circuito transnacional y mantienen abierta, de manera permanente, una puerta de comunicación e intercambio cultural en ambos países. Sin embargo, a través de estos circuitos binacionales, giratorios y dinámicos se lleva a cabo una interacción constante de ideas, cultura, lenguaje, valores y formas de vida entre los dos países. En cuanto a la geografía e intensidad migratoria de México-Estados Unidos, según informes del censo 2010 que reporta el Consejo Nacional de Población (CONAPO); el 96% de los migrantes mexicanos se dirige hacia Estados Unidos y 4% restante a otros 143 países (CONAPO, 2013).

En Estados Unidos, histórica y geográficamente los estados que hacen frontera con México: Arizona, California, Nuevo México y Texas, han sido receptores tradicionales de la migración mexicana. Esta región concentra, por mucho, el mayor número de inmigrantes mexicanos en Estados Unidos. Actualmente el estimado de la población total en Estados Unidos es de 318, 857,056 habitantes, de los cuales 54 millones (17.4%) son latinos; siendo 34 millones (64%) de origen mexicano. Los estados de la Unión Americana con más latinos son; California, Texas, Florida, Nueva York e Illinois. La concentración poblacional preferente de los latinos se ubica de la siguiente manera; en el oeste 19, 469,104 latinos, en el Sur 17, 117,750 latinos, en el Noreste 6, 539,067 latinos y en el Medio Oeste 4, 431,338 latinos. Los estados de la Unión Americana con más inmigrantes mexicanos según el estimado al 2014 del Census Bureau de Estados Unidos son: California 12, 510,971 mexicanos, Texas 9, 032, 310 mexicanos e Illinois 1, 711,841 mexicanos. Cuatro condados concentran el 23% de la población de inmigrantes mexicanos; Los Ángeles y Orange County en California, Harris en Texas y Cook en Illinois. Así mismo las ciudades donde habitan más mexicanos son; Los Ángeles con 1, 255,938 mexicanos, Chicago con 603,764 mexicanos y Dallas con 662,387 mexicanos (United States Census Bureau, 2015).

En la ciudad de los Ángeles, California se encuentra la localidad East LA, con una población de 114,092 mexicanos, los cuales representan un 90% de la población de esta localidad. Por último es importante mencionar el fenómeno de migración del estado de Puebla hacia EstadosUnidos, el cual es tomado como referencia para el presente estudio. Según el Instituto de los Mexicanos en el Exterior (IME), en su reporte de estadísticas de mexicanos en el exterior (migrantes con matrículas consulares), reporta que la mayoría de los poblanos que emigran a Estados Unidos se concentran en California con un 33%, Nueva York con un 21.1% y New Jersey con un 9.2% (IME, 2013)**.**

 Comida Tradicional Poblana

La satisfacción de las necesidades alimenticias es una condición indispensable de la supervivencia de los seres vivos. Como señala Back, incluso en nuestra sociedad moderna y racional en la que supuestamente sólo se reconoce una evolución bioquímica de la nutrición, la comida proporciona importantes aspectos de identidad sociocultural (Back, 1977) volviéndose una actividad social y parte fundamental de la cultura de cualquier nación. Los modos de cómo los alimentos son preparados, servidos y concebidos, expresando las formas mediante los cuales los individuos de cada sociedad o grupo particular proyectan sus identidades (Brillant, 2012), "Dime que comes, y te diré quién eres". Al mismo tiempo, la alimentación y en particular la cocina, está relacionada con la historia, con el sentido de ser y pertenecer, es decir, con la identidad. Mintz señala que los "alimentos que se comen tienen historias asociadas con el pasado de quienes los comen; las técnicas empleadas para encontrar, procesar, preparar, servir y consumir esos alimentos varían culturalmente y tienen sus propias historias. Y nunca son comidos simplemente; su consumo está condicionado por el significado" (Mintz, 2003, pág. 28). Claude Lévi-Stauss, Marvin Harris y Jessica Kuper, reconocen que la autenticidad que un grupo social se refleja a través de su gastronomía y los elementos que invierten en dicho proceso como factor generador de identidad social, temporal y espacial. Cuando se cocina, se repiten de manera invariable, una serie de recetas, fórmulas y técnicas culturales que impiden la arbitrariedad; es por lo tanto, una forma cultural, el área práctica y teórica donde se reproducen

los mitos, las tradiciones, los conceptos e identidad de una comunidad (Strauss, 1977). La cocina es el lugar en donde las costumbres, tradiciones y novedades, se han relacionado en un mestizaje perfecto, además, en donde se llevan a cabo las actividades más importantes en el ámbito familiar y espacio donde al preparar los alimentos se efectúa una de las prácticas culturales más complejas e integrales que puedan existir, donde lo intangible hermanado con la materialidad, se perpetua (Pilcher, 2001). La historia de un pueblo renace diariamente en la cocina, con cada ingrediente utilizado, cada proceso de elaboración o la forma misma de servir el platillo se forja sentido de identidad, se provee una diferenciación simbólica que trasciende a través de las generaciones perpetuando rasgos puros y notables de los pueblos La cocina mexicana es creación mestiza, resultado de la fusión de dos elementos principales; la cultura del maíz -como ingrediente principal en la dieta diaria de la cocina nativa prehispánica- y la elemental cocina española (Celis, 2003).

La base indispensable de esta cocina es la trilogía maíz-chile-frijol considerados como el eje singular que representa la identidad cultural y agrupa la diversidad que caracteriza a la nación. Esta cocina y sus rasgos tradicionales que la distinguen, forman parte de un complejo sistema cultural entrelazado con concepciones cosmogónicas, valores simbólicos y un carácter ceremonial y ritual omnipresentes a lo largo de la vida del individuo y de la comunidad. Nacimiento, bodas, siembras o cosechas y todo hecho que implique momentos trascendentes para la vida colectiva, son ocasiones para una buena comida en compañía de la familia y el grupo (De Maria, 2011), constituyéndose como uno de los más vigorosos y dinámicos bienes del patrimonio inmaterial de México. Porque de los modos de comer depende la vida de los pueblos, entendida como un sistema de costumbres, culto y ritualidad; cohesión social, comunitaria e identidad nacional (Padilla, 2004).

De todas las características de la cocina mexicana antes mencionadas, se logra que por primera vez el sistema alimentario de un país acceda al rango de patrimonio cultural de la humanidad. En un hecho sin precedentes el "16 de noviembre de 2010", la cocina tradicional mexicana fue declarada por la Organización de las Naciones Unidas para la Educación, la Ciencia y la Cultura (UNESCO) patrimonio cultural de la humanidad.

La UNESCO fundamenta que: "La cocina tradicional mexicana es un modelo cultural completo que comprende actividades agrarias, prácticas, rituales, conocimientos antiguos, técnicas culinarias, costumbres y modos de comportamiento comunitarios ancestrales. Sus conocimientos y técnicas son una expresión de la identidad comunitaria y permiten fortalecer los vínculos sociales y consolidar el sentimiento de identidad en el ámbito nacional, regional y local" (UNESCO, 2012).

Algunos famosos conocedores de asuntos gastronómicos aseguran que la cocina mexicana se sitúa dentro de las tres más importantes del mundo, junto con la francesa y la china, aunque algunos también incluyan a la italiana en este nivel (Celis, 2003). Para el caso específico del presente estudio, la gastronomía del estado de Puebla y sus platillos no sólo son un deleite para el paladar, sino también una experiencia estética inigualable que dibuja a los ojos de los comensales, el espíritu y la cultura de un Puebla con herencia milenaria. Y es que en la misma esencia de cada una de sus recetas, se descubre la historia del encuentro de dos mundos diametralmente opuestos; una suerte de gastronomía artesanal que combina sabiamente la cocina indígena mexicana con la hispana. También se puede mencionar que la gastronomía poblana tiene influencias tales como la española, francesa y árabe. La comida tradicional poblana se puede identificar por tres ingredientes primordiales: maíz blanco y azul, los ayocotes, los chiles chipotle y poblano y la combinación de estos con otros ingredientes formaron una variedad de platillos vasta y variada. Esta gastronomía es una de las más complejas, ricas y variadas en México. Debido a lo anterior se pudieran enumerar cientos de platillos tan diversos provenientes de sus diferentes municipios y comunidades. A continuación en la tabla 1 se muestran solo los platillos más representativos de la gastronomía poblana según una encuesta realizada a 10 chefs pertenecientes a la ciudad de Puebla.

Tabla 1: los Platillos Más Representativos de la Gastronomía Poblana

Antojitos	Sopas, Caldos y Arroces	Carnes, Aves y Pescados	Moles, Chiles y Pipianes	Dulces,Postres y Bebidas
Pambazos	Arroz Poblano	Robalo al horno	Chiles en nogada	Borrachitos
Quesadilla de Huitlacoche	Flor de calabaza y hongos al epazote	Pescado al cuitlacoche	Chileatole en verde	Jamoncillos
Cemitas de mercado	Caldo de Habas	Truchas al epazote	Salsa roja estilo Cuetzalan	Arroz con leche y manzana
Memelas	Caldo de camarón seco y Nopales	Pescado teresiano	Enchiladas poblanas	Camotes de Santa Clara
Molotes	Consomé Atlixquense	Barbacoa de pollo	Huazamole	Natillas de leche
Chalupas	Crema de Flor de calabaza	Cecina de la Sierra	Manchamanteles	Rompope
Huevos rancheros a la poblana	Sopa a la reina	Cuete mechado	Mole de Caderas	Polvorones de piñón
Pelonas	Sopa de aguacate	Puerco en salsa verde	Mole poblano	Tejocotes en su jugo
Chanclas	Sopa rajas y elote	Lentejas con puerco de Tepeyahualco	Pipián verde	Torrejas poblanas
Tlacoyos	Sopa Suriana	Tinga poblana de pollo	Chiles rellenos	Tortitas de Santa Clara

En ésta tabla se muestran los platillos más representativos de la gastronomía poblana a través de cinco categorías, de acuerdo a como aparecen en el libro "Puebla, Cocina de los Àngeles", editado por el Ayuntamiento de Puebla. en el 2010.Las categorías que se presentan aparecen como títulos en cada columna y son los siguientes: La categoría de antojitos, la categoría de sopas, caldos y arroces, la categortía de carnes, aves y pescados, la categoría de moles, chiles y pipianes, y por último la categoría de dulces, postres y bebidas. Fuente: (Puebla, 2010).

Nostalgia

El concepto de nostalgia tiene una aplicación en diferentes contextos, así como para su entendimiento con diferentes sinónimos, es por eso que para su comprensión en la presente investigación se aplicara en lo referente a un sentimiento de tristeza que se da cuando un individuo recuerda en su mente a algún ser u objeto querido o perdido. La nostalgia se refiere al estado de decaimiento, melancolía y languidez causado por el pesar obsesivo o el recuerdo del lugar de origen en el que se ha vivido por largo tiempo. La nostalgia es un sentimiento, estado de tristeza o melancolía que sufren los individuos cuando añoran o extrañan la pérdida de alguien o algo. Este sentimiento se ve asociado con la melancolía de cualquier migrante ubicado en otro destino diferente al de su origen, con referencia hacia sus familiares, amigos, compañeros, música, ropa, juguetes, alimentos, bebidas, etc.

(Acle & Burguete, 2012). Dentro del presente estudio, la nostalgia juega un papel histórico importante dentro del carácter y sentimiento del mexicano, el cual se ve reflejado en particular en los migrantes mexicanos que al estar fuera o lejos de su tierra natal, ante una cultura diferente (Norteamericana), surgiendo así las necesidades de; seguridad, identificación y diferenciación, logrando así satisfacer su nostalgia consumiendo productos de origen mexicano, reflejando el "carácter nacional", término que Bejar Navarro define como; la recolección de datos sistemáticos sobre sentimientos, emociones, afectos, motivaciones, formas perceptuales, pensamientos, creencias, preferencias y formas de comportamiento social, que dentro de la diversidad del universo individual sean uniformes en el plano colectivo, el carácter nacional es una manera peculiar de ser; se refiere a las características y patrones, de la personalidad relativamente estables que son modales entre los miembros adultos de una sociedad (Bejár & Capello, 1987). Por lo tanto; la cultura, sentimientos, emociones y preferencias de esta creciente etnia conformada por migrantes mexicanos radicados en Estados Unidos representa actualmente una gran oportunidad de negocios para el consumo de nostalgia. El fenómeno de la nostalgia y su consumo está relacionado con los términos; producto, mercado y consumo. Los cuales se explican a continuación:

Producto de nostalgia según un estudio de la Comisión Económica para América Latina y el Caribe (CEPAL), se entiende como aquellas mercancías que integran "bienes y servicios, que forman parte de los hábitos de consumo, cultura y tradición de los diferentes pueblos y naciones" y parte de la idea de que en el caso de los grupos sociales que emigran al extranjero, tienden a extrañar, a rememorar ciertos productos que forman parte de su vida cotidiana, productos y servicios que difícilmente pueden encontrar en sus lugares de destino (CEPAL, 2004). Para la presente investigación se entiende por producto de nostalgia a un bien o servicio diferenciado que se compone de una serie de costumbres, tradiciones, hábitos de consumo que formaban parte de su vida cotidiana en su lugar de origen y que satisface necesidades y deseos de los migrantes al recordar, añorar su cultura en otro destino. Los productos de nostalgia abarcan diferentes bienes y servicios desde ropa, música, alimentos, muebles, regalos, artesanías, restaurantes, entretenimiento, etc. Entre los más demandados están los bienes de consumo (alimentos, bebidas y abarrotes).

El mercado de nostalgia, es el grupo de migrantes con necesidades y deseos específicos de productos de nostalgia, así como de dinero y voluntad para gastar. Dicho mercado se compone de productos de nostalgia que demandan millones de migrantes de primera y segunda generación y refleja buena parte de los hábitos y tradiciones culturales de sus regiones de origen y que tienden a extrañar. El mercado de nostalgia representa un sin número de ventajas para la economía de los países emergentes de Latinoamérica; incentivar, acelerar la producción y exportación de mercancías y servicios que en los países emergentes se están perdiendo por efectos de la migración, lo que ayudaría a la generación de empleos, a la recuperación de tradiciones, de mejora de calidad de bienes y servicios, mejoría en los procesos productivos y tecnología de vanguardia, incentivar las costumbres y tradiciones nacionales ante la homogenización de la influencia global por parte de países altamente industrializados.

El consumo por nostalgia, es la acción y el efecto de los migrantes, por adquirir productos de nostalgia, que representaban una serie de costumbres, tradiciones y hábitos de consumo que formaban parte de su vida cotidiana en su lugar de origen y que satisface necesidades y deseos al recordar, añorar su cultura en otro destino. Dicho consumo trata de una demanda permanente, no asociado a la moda sino a la cultura y al arraigo de sus países de origen. Se considera que no es un mercado ni un deseo, se trata de una acción y efecto de adquirir productos de nostalgia por parte de los migrantes que activa la demanda en el mercado de nostalgia (Acle & Burguete, 2012).

METODOLOGÍA

La problemática fundamental del presente estudio, radicó en el fenómeno de migración México-Estados Unidos y en el consumo de nostalgia de la gastronomía tradicional poblana. En la actualidad la migración mexicana se encuentra concentrada en las ciudades de; Los Ángeles, Chicago y Dallas. En cuanto a la migración poblana, el primer punto de destino se concentra en; California, Nueva York y New Jersey. De acuerdo a lo anterior se seleccionó la ciudad de los Ángeles, California para realizar el presente estudio.Gran parte de los migrantes mexicanos en Estados Unidos mantienen interrelaciones sociales, culturales, económicas y políticas en los dos países manteniendo abierta y de manera permanente, una puerta de comunicación e intercambio cultural en ambos países realizando una interacción constante de ideas, cultura, lenguaje, valores y formas de vida entre los dos países. Cabe señalar que este intercambio genera movimientos en el estilo de vida de los pobladores de ambos lados de la frontera, mismos que han sido estudiados y documentados tanto en Estados Unidos como en México, en sus aspectos sociológicos, demográficos, políticos, económicos entre otros y sólo recientemente en sus aspectos mercadológicos en el consumo de nostalgia y en especial en la comida tradicional poblana.

El objetivo principal fue describir la preferencia de los platillos típicos más representativos de la comida poblana por parte de los migrantes poblanos radicados en Los Ángeles, California. La hipótesis planteada

fue determinar "si la gastronomía tradicional poblana tiene relación en el consumo de nostalgia por parte de los migrantes poblanos radicados en los Ángeles, California". El diseño de la metodología utilizado en el estudio se describirá a continuación: Se realizó bajo un enfoque mixto (cuantitativo y cualitativo), utilizando la investigación de tipo; correlacional, descriptivo y transversal, siguiendo los métodos de investigación; deductivo, analítico y sintético. Las técnicas de investigación que se aplicaron fueron; la encuesta y la entrevista, dirigida a los migrantes poblanos radicados en Los Ángeles, California que fueran mayores de 20 años y menores de 60 años. Se aplicó un cuestionario mixto conformado inicialmente con 5 ítems utilizando la Escala tipo Likert y finalizando con 5 preguntas nominales cerradas de opción múltiple, aplicados por 5 encuestadores de origen mexicano.

La encuesta se aplicó durante las festividades del 5 de mayo del 2015 en "El Mercado de los Ángeles" ubicado en el Este de los Ángeles y en "Placita Olvera", ubicada en el centro de Los Ángeles. Se tomó como universo 700,000 migrantes poblanos radicados en el Condado de los Ángeles, llegando a un tamaño de muestra de 383 migrantes poblanos ajustado a 390, utilizando para este cálculo los criterios de 95% de confiabilidad, 5% de margen de error, 50% de probabilidad a favor y 50% de probabilidad en contra. Por último, se utilizaron las siguientes pruebas estadísticas para el análisis de datos; para la parte cuantitativa; el Coeficiente de Correlación de Pearson y el Coeficiente de Cronbach para determinar la confiabilidad del cuestionario obteniendo .7 de coeficiente, considerado aceptable para su aplicación y por último para la parte cualitativa se usó la estadística descriptiva.

RESULTADOS

Los resultados correspondientes a la investigación se comentan en dos partes; la primera correspondiente a la cuantitativa y la segunda correspondiente a la cualitativa. Resultados Cuantitativos: de acuerdo a los 5 ítems y su Escala Likert, que permitieron determinar "si la gastronomía tradicional poblana tiene relación en el consumo de nostalgia por parte de los migrantes poblanos radicados en los Ángeles, California", a través del Coeficiente de Correlación de Pearson demostraron que aportan evidencia a favor, comprobando de esta forma la hipótesis planteada. Se presentan a continuación los resultados en la siguiente tabla 2.

Tabla 2: Resultados Cuantitativos

Ítem	Afirmación	Escala	Coeficiente de Correlación de Pearson	Interpretación
1	El estar fuera de Puebla y viviendo en Estados Unidos le provoca un sentimiento de nostalgia.	5 Definitivamente si 4 Probablemente si	0.92	Correlación positiva muy alta.
2	Consume alimentos de origen mexicano. .	3 Indeciso	0.79	Correlación positiva alta.
3	Es importante para usted seguir conservando sus tradiciones y costumbres mexicanas viviendo en Estados Unidos	2 Probablemente no 1 Definitivamente no	0.68	Correlación positiva moderada
4	Extraña la comida poblana.		0.81	Correlación positiva alta.
5	Cada vez que consume algún tipo de comida poblana recuerda su lugar de origen.		0.74	Correlación positiva alta.

La tabla 2, referente a los resultados cuantitativos, muestra los cinco ítems utilizados, así como de su Escala Likert: Definitivamente si (5), Probablemente si (4), Indeciso (3), Probablemente no (2), Definitivamente no (1). Y en el cual se aprecian los porcentajes obtenidos de acuerdo a la prueba estadística Coeficiente de Correlación de Pearson. Por último, se presenta su correspondiente interpretación según los intervalos; Correlación positiva muy alta, Correlación positiva alta y Correlación positiva moderada. Fuente: Elaboración propia en base a los resultados obtenidos durante la investigación cuantitativa.

Resultados cualitativos: de acuerdo a las 5 preguntas nominales cerradas de opción múltiple que permitieron describir la preferencia de los platillos típicos más representativos de la comida poblana por parte de los

migrantes poblanos radicados en Los Ángeles, California demostraron que se logró el objetivo general planteado. Se enumeran los resultados en la siguiente tabla 3.

Tabla 3: Resultados Cualitativos

Pregunta 1. Del siguiente recuadro y según su punto de vista enumere del 1 al 8 el tipo de antojito más típico de la comida poblana. Siendo el 1 el más representativo y el 8 el menor.
Resultado: El 76% de los poblanos entrevistados (295), eligió las cemitas de mercado como el antojito más representativo de la comida poblana, el 10% de los entrevistados (40) eligió las chalupas y por último el 9% de los entrevistados (37), eligió las memelas.
Pregunta 2. Del siguiente recuadro y según su punto de vista enumere del 1 al 8 el tipo de sopa o caldo más típico de la comida poblana. Siendo el 1 el más representativo y el 8 el menor.
Resultado: El 51% de los poblanos entrevistados (198), eligió el arroz poblano como la sopa o caldo más representativo de la comida poblana, el 22% de los entrevistados (84) eligió la sopa de flor de calabaza y hongos al epazote, y por último el 15% de los entrevistados (59), eligió la sopa de rajas y elote.
Pregunta 3. Del siguiente recuadro y según su punto de vista enumere del 1 al 8 el tipo de carnes y mariscos más típico de la comida poblana. Siendo el 1 el más representativo y el 8 el menor.
Resultado: El 49% de los poblanos entrevistados (190), eligió la tinga poblana de pollo como el tipo de carnes y mariscos más representativos de la comida poblana, el 19% de los entrevistados (75) eligió la cecina de la Sierra, y por último el 10% de los entrevistados (38), eligió el pescado al huitlacoche.
Pregunta 4. Del siguiente recuadro y según su punto de vista enumere del 1 al 8 el tipo de moles y chiles más típico de la comida poblana. Siendo el 1 el más representativo y el 8 el menor.
Resultado. El 61% de los poblanos entrevistados (238), eligió a los chiles en nogada como el tipo de moles y chiles más representativos de la comida poblana, el 29% de los entrevistados (114) eligió el mole poblano y por último el 5% de los entrevistados (19), eligió el mole de caderas.
Pregunta 5. Del siguiente recuadro y según su punto de vista enumere del 1 al 8 el tipo de dulces y postres más típico de la comida poblana. Siendo el 1 el más representativo y el 8 el menor.
Resultado. El 57% de los poblanos entrevistados (223), eligieron a los camotes de Santa Clara como el tipo de dulces y postres más representativos de la comida poblana, el 14% de los entrevistados (56) eligió el arroz con leche y manzana, y por último el 13% de los entrevistados (54), eligieron los borrachitos.

De acuerdo a la tabla 3, se aprecian los resultados en porcentajes y en cantidades correspondientes a cinco preguntas nominales cerradas de opción múltiple que permitieron describir la preferencia de los platillos típicos más representativos de la comida poblana por parte de los migrantes poblanos radicados en Los Ángeles, California, a través de cinco categorías de alimentos; antojitos, sopas y caldos, carnes, aves y pescados, moles, chiles y pipianes y por último dulces, postres y bebidas. Fuente: Elaboración propia en base a los resultados obtenidos durante la investigación cualitativa.

CONCLUSIONES

Finalmente, la investigación mixta realizada para el presente estudió permitió cuantitativamente comprobar la hipótesis planteada aportando evidencia a favor determinando que la gastronomía tradicional poblana si tiene una correlación (positiva muy alta y alta) en el consumo de nostalgia por parte de los migrantes poblanos radicados en los Ángeles, California. Así mismo, la investigación cualitativa logró el objetivo general describiendo la preferencia de los platillos típicos más representativos de la comida poblana por parte de los migrantes poblanos radicados en Los Ángeles, California, siendo los más preferidos; cemitas de mercado (antojito), arroz poblano (sopa o caldo), tinga poblana de pollo (carne), chile en nogada (mole o chile) y los camotes de Santa Clara (dulce o postre). Para futuras investigaciones se recomienda realizar este mismo estudio en las ciudades de Nueva York y New Jersey, debido a su alta concentración de migrantes poblanos. Así mismo realizar estudios mixtos de diferentes grupos de migrantes originarios de otros municipios de Puebla, con sus propios alimentos típicos en las ciudades de los Ángeles y Nueva York.

REFERENCIAS

Acle, R., & Burguete, M. (2012). Marketing Nostalgico. México.D.F.: Nueva Imagen.

Back, k. (1977). Food, sex and theory. Fitzgeral. T.K.

Bejár, R., & Capello, H. (1987). Crisis económica; carácter nacional e identidad nacional. México: UNAM.

Brillant, J. A. (2012). Physiologie Du Gout. París: TREA.

Castles, S., & Miller, M. (2004). La era de la migración: movimientos internacionales. México: Porrúa.

Celis, M. (2003). Visión de la cocina mexicana a nivel internacional. Hospitalidad.

CEPAL. (2004). Pequeñas empresas, productos étnicos y de nostalgia: oportunidades en el mercado internacional: los casos de El Salvador y México. México: CEPAL.

CONAPO. (Edición Especial de Numero 1 de 2013). Boletin de Migración Internacional. Recuperado el 10 de Septiembre de 2015, de Geografía e Intensidad Migratoria: México-Estados Unidos 2010: http://www.omi.gob.mx/work/models/OMI/Resource/806/1/images/BoletinNumEspecial2013MigracionInternacional.pdf

De Maria, A. (2011). La Cocina del publo mexicano. México: INAH.

García, M. (2006). Los nuevos escenarios de la migración: causas, condiciones ,consecuencias. En Migración2. México: Heinrich Böll.

Hernadéz, E. (1980). Perspectivas actuales de las relaciones entre Méxoco y Estados Unidos. México: UNAM.
IME. (2013). Estadisticas de Mexicanos en el exterior. Recuperado el 10 de septiembre de 2015, de Estadisticas de Mexicanos en Estados Unidos 2013: http://www.ime.gob.mx/matriculas2013/repmex/pue.html

Mintz, S. (2003). Sabor a comida, sabor a libertad. Incursiones en la comida, la cultura y el pasado. México: La reina roja.

Padilla, C. (2004). La cartografia cultural como significado y podePatrimonio Cultural y Turismo. Cartografia de recursos culturales de México. México: CONACULTA.

Pilcher, J. (2001). ¡Vivan los tamales! La comida y la construcción de la identidad . México: Ediciones de la Reina Roja.

Puebla, G. M. (2010). Puebla, Cocina de los Àngeles . Puebla: Ayuntamiento de Puebla.

Strauss, L. (1977). Antropología Estructural. Argentina: EUDEBA.

Tamayo, J., & Fernandez, J. (1983). Zonas Fronterizas. México: CIDE.

Tuirán, R. (abril-junio de 2006). La migración mexicana hacia Estados. Papeles de población, 12(48), 9-31.

UNESCO. (2012). Patrimonio Cultural Inmaterial. Recuperado el 3 de enero de 2014, de http://www.unesco.org/culture

United States Census Bureau. (2015). American Fact Finder. Recuperado el 17 de Septiembre de 2015, de Community Facts: http://factfinder.census.gov/faces/nav/jsf/pages/index.xhtml?refresh=t

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ANÁLISIS SOBRE LA TRAYECTORIA ACADÉMICA DEL ESTUDIANTE DE LICENCIATURA DE LA PRIMERA GENERACIÓN QUE EGRESA DEL MODELO UNIVERSITARIO MINERVA (MUM) EN LA FACULTAD DE CONTADURÍA PÚBLICA DE LA BUAP (2010-2014)

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RESUMEN

Esta investigación permite explorar, conocer y determinar la evolución académica de la primera generación de estudiantes de la Facultad de Contaduría Pública de la BUAP que pertenecen al Modelo Universitario Minerva, desde su ingreso hasta su egreso, lo cual implícitamente hará un recorrido sobre índices de aprovechamiento, deserción, aprobación, reprobación y promedio general alcanzado por cada uno de ellos. La población es la primera generación la Facultad de Contaduría de la BUAP tiene una matrícula de más de 4,067 estudiantes a nivel licenciatura y 351 a nivel maestría, haciendo un total de 4,418 estudiantes, así como 169 docentes. La muestra es no probabilística del tipo intencional. El instrumento se aplicó a 100 estudiantes egresados de la Licenciatura en Contaduría Pública egresados durante el curso de verano 2014. Finalmente concluimos que el MUM tiene una mirada integral a partir del plan de estudios genera contenidos sólidos que permiten a sus estudiantes adquirir conocimientos bien fundamentados para enfrentar el desarrollo regional y global en ambiente multiculturales cada vez más exigentes.

PALABRAS CLAVE: Trayectoria Académica, Modelo Universitario Minerva (Mum), Indicadores de Desempeño Docente, Estrategias y Metodologías De Enseñanza

ABSTRACT

This research explores and determines the academic evolution of the first generation of students from the School of Accounting at B.U.A.P. University, which belong to the Model Minerva. From the student's inception and up until their departure of the program, this research has focused on their index of development, desertion, approval, disapproval, and the overall average that was achieved by these students. The population is the first generation of the School of Accounting at B.U.A.P. University, and has an enrollment of 4,067 undergraduate students and 351 master's level students, for a total of 4,418 students and a total of 169 teachers. The sample is not probabilistic of intentional type. The instrument was applied to 100 graduates who had received their Bachelor's degrees in Accounting during the summer semester of 2014. Finally, we concluded that MUM has an integral look and has generated solid content within its curriculum, which has enabled students to acquire fundamental knowledge that has assisted in confronting the regional and global development within an increasingly demanding and multicultural environment.

JEL: I21

KEYWORDS: Academic Trajectory, Model University Minerva (Mum), Teacher Performance Indicators, Teaching Strategies And Methodologies

INTRODUCCIÓN

La economía mundial está cambiando a medida que el conocimiento reemplaza al capital físico como parte de la riqueza actual y futura. En gran medida este proceso está siendo impulsado por la tecnología, mediante la informática, la biotecnología y otras innovaciones tecnológicas. Las transformaciones del entorno repercuten de manera directa en la educación superior, situación que se aborda a partir de las políticas educativas mundiales, así entonces, la calidad de la educación queda determinada por la capacidad que tienen las instituciones para preparar al individuo, de tal modo que éste pueda adaptarse y contribuir al crecimiento y desarrollo económico y social a partir de sus conocimientos, capacidades y competencias lo cual le permitirá incorporarse al mercado laboral.

Será necesario adquirir más conocimientos que permitan especializarse y profundizar en un área del conocimiento pues en la actualidad, poseer un grado universitario con especialización es requisito fundamental para muchos trabajos bien remunerados.

Tabla 1: Mercado Laboral, Competencias E Innovación

MERCADO LABORAL, COMPETENCIAS E INNOVACIÓN					
Tasa de empleo para personas de 15 a 64 años de edad (%)	60.8	(65.2)	Tasa de desempleo, Encuesta de Fuerza Laboral (personas de 15 años y más) (%)	4.9	(7.9)
Hombres	78.3	(73.1)	Jóvenes (de 15 a 24 años de edad, %)	9.5	(16.0)
Mujeres	45.0	(57.4)	Desempleados de largo plazo (1 año y más, %, 2012)	0.1	(2.7)
Tasa de participación para personas de 15 a 64 años de edad (%, 2012)	64.5	(70.9)	Población de 25 a 64 años de edad con educación superior (%, 2011)	27.7	(31.5)
Promedio de horas trabajadas por año	2 237	(1 770)	Gasto interno bruto en I+D (% del PIB, 2011)	0.4	(2.4)

Fuente: OCDE, enero 2015

Las reformas elevarán significativamente los niveles de vida en la siguiente década, si aquellas que ya han pasado por el proceso legislativo se implementan a cabalidad y son sujeto de seguimiento continuo. La herramienta más poderosa para promover el crecimiento incluyente consiste en mejorar los resultados educativos de todos los mexicanos. A pesar de los importantes avances de la última década, la eficacia del gasto en educación y el logro académico en México se cuentan entre los más bajos entre los países de la OCDE. Además, el acceso a educación de calidad está asociado al estatus socioeconómico de la familia. Estas reformas son sólo el comienzo de una transformación más amplia y profunda del sistema educativo, la cual también requerirá de un apoyo mayor para la educación preescolar, primaria y secundaria, así como aumentar los beneficios de invertir en la educación y motivar a los estudiantes a continuar en la escuela (OCDE, 2015, p32).

México reformó el bachillerato tecnológico y creó becas para prácticas profesionales. La Educación Vocacional y Técnica (EVT) tiene una función económica clave que consiste en mejorar las competencias e integrar a los jóvenes al mercado laboral, así como suministrar capacidades técnicas de alta calidad. Con todo, México debería redoblar los esfuerzos para ampliar el sector EVT y aún más, fortalecer a la educación superior y a los posgrados en nuestro país, pues aún seguimos siendo con un pequeño porcentaje de egreso en éstos dos últimos niveles. Hay diferentes trayectorias que México puede seguir para mejorar dicho sector (OCDE, 2015).

REVISIÓN DE LITERATURA

Este trabajo de investigación tiene la mayor relevancia pues no solo reflejará el desempeño académico de nuestros egresados, aún más mostrará el trabajo que los docentes y directivos de la Facultad de Contaduría Pública (FCP) de la Benemérita Universidad Autónoma de Puebla (BUAP) han llevado a cabo para lograr

que la primera generación egresada del MUM se inserte con éxito al mercado laboral. Esto último será objeto de una investigación posterior a través del estudio que se realice con los empleadores que contraten a nuestros egresados, sin embargo, sí daremos cuenta del desempeño de nuestros egresados.

Las cifras que a continuación presentamos reflejan la importancia de la titulación y el grado de especialización como requisito para incorporarse al mercado de trabajo. "La tasa de egreso en México es del 54% en el nivel de licenciatura, en Puebla equivale al 44%. En el mismo sentido, la tasa de titulación en nuestro país alcanza 37.1%, en Puebla es del 28%. Sin embargo, en la Benemérita Universidad Autónoma de Puebla, la tasa de egreso promedio para licenciatura alcanza el 52% muy próxima a la nacional; en tanto que la tasa de titulación es del 35%, superior a la del Estado. El Estado de Puebla cuenta con 299 escuelas de educación superior que representa el 9.5% del total del país. Este porcentaje es el más alto a nivel nacional, lo que otorga a Puebla, y en especial a la ciudad de Puebla, una buena oportunidad para desarrollarse como una ciudad del conocimiento" (BUAP, 2009-2013).

La creciente demanda también implica un reto de enormes dimensiones para la educación superior. Sin embargo, la sociedad mexicana de nuestros días se caracteriza también por el establecimiento de nuevos patrones de relaciones sociales que sin duda representan avances importantes. Uno de estos patrones está liderado por la universidad pública que ha mantenido y reimpulsado su credibilidad dentro del conjunto de las instituciones mexicanas. Los países que poseen economías sólidas son los que han apostado al impulso de la Ciencia y la Tecnología. Por ello, es claro que la educación superior y la investigación son factores claves para el desarrollo de la sociedad" (Ídem).

La BUAP implementa el Modelo Universitario Minerva (MUM) en el año 2009 con el propósito de renovar su modelo educativo, la Facultad de Contaduría Pública se incorpora al MUM en el año 2010.

El MUM tiene como objetivo formar profesionales competitivos no sólo para el presente, sino para el futuro, con conocimientos, habilidades, actitudes y valores. En la FCP de la BUAP al implementar dicho modelo nos hemos propuesto que los estudiantes lleven a cabo una práctica interdisciplinaria con aprovechamiento de las TIC, que les permita ser capaces de diseñar, aplicar, evaluar y dar seguimiento a los procesos contables, fiscales, financieros y administrativos, que apoyen en la toma de decisiones de toda organización a través del trabajo en equipo y generen un espíritu emprendedor, actuando siempre con sentido ético, crítico, creativo, multicultural y humanista en un proceso de superación continua a través del auto-aprendizaje, que le permita brindar un servicio de calidad, contribuyendo así al desarrollo económico y social, local, regional, nacional e internacional.

Todo estudio de evaluación tiene como propósito determinar el valor de los logros y conocer el desempeño de los docentes como de los estudiantes con criterios y estándares previamente establecidos para mejorar el desempeño profesional y facilitar la optimización de cada uno de los elementos del proceso, es decir, la apropiación del conocimiento por parte de los estudiantes y de sus profesores. Una de las principales estrategias que se ha propuesto la BUAP es proveer una educación de calidad con pertinencia social, lo anterior se traduce de la puesta en marcha del Modelo Universitario Minerva pues a través de éste plasma el compromiso que tiene con sus egresados y con la sociedad al generar las mejores condiciones para proveer una educación con calidad, que permita la inserción de los egresados en el mercado laboral con éxito, para dar respuesta a las demandas que la empresa y la sociedad requiere de los profesionales de la Contaduría.

La idea anterior podrá cristalizar si la Facultad de Contaduría de la BUAP lleva a cabo trabajos de investigación que le permita acompañar al recién egresado a fin de facilitar su inserción al mercado de trabajo a través de programas de actualización y profundización para mantener la vigencia profesional y la adquisición de nuevos aprendizajes compartidos y en alianza de proyectos académicos y de investigación que genuinamente incorporen las necesidades y demandas de los empresarios poblanos. Aún más una estrategia para consolidar la participación de nuestros egresados en la vida académica de la Facultad de

Contaduría será asumiendo a éstos como aliados estratégicos naturales y agentes cooperativos en proyectos específicos como ejemplo en la Expo Emprendedores, así como a través de éstos fortalecer los vínculos con los sectores productivos y sociales.

Es correcto afirmar que abordar la temática de egresados en las Instituciones de Educación Superior implica necesariamente cuestionarnos hasta dónde hemos logrado cumplir con la Responsabilidad Social Universitaria, toda vez que nuestros egresados representan, en gran medida la materialización del deber ser institucional. Por otra parte el instrumento diseñado para esta investigación permite explorar, conocer y determinar la evolución académica de los estudiantes desde su ingreso hasta su egreso, lo cual implícitamente hará un recorrido sobre índices de aprovechamiento, deserción, aprobación, reprobación y promedio general alcanzado por cada uno de ellos. Si bien es cierto, estos datos darán cuenta de sus conocimientos y competencias. El instrumento también permitirá determinar la formación ética adquirida en los estudios del nivel licenciatura dentro de la FCP de la BUAP, pues en efecto la apreciación de los valores en cada individuo le permite trascender en el tiempo y alcanzar un reconocimiento social por la responsabilidad, disciplina y honestidad que muestra en su desempeño laboral.

Lo anterior nos permite afirmar que la Educación Superior con calidad que oferta la BUAP a través de la Facultad de Contaduría Pública se propone alcanzar los mayores niveles de aprovechamiento para sus egresados pues con ello impactará de manera positiva a los empresarios, a la sociedad y al Estado de Puebla. El Cuerpo Académico Desarrollo Institucional ha venido trabajando en los últimos años con la intención de establecer vinculación con el egresado, considerando a éste un elemento fundamental para el mejoramiento del programa académico de la Licenciatura en Contaduría Pública. Es en esta intención que la autoevaluación de los egresados de esta primera generación del MUM seguramente podrá contribuir a determinar los canales y el nivel de interacción que la BUAP y la FCP deberá ofertar como un producto final a la sociedad, sin embargo como producto académico los egresados son muchos más, los proyectos de investigación que los docentes realizan, las asesorías; el acompañamiento en el proceso enseñanza-aprendizaje, las actividades de extensión y de servicio social, son cada vez más para los egresados y el impacto estará mediado por la capacidad de organización que la FCP facilite para que ellos se apropien de todo lo anterior con una premisa fundamental "los docentes estamos comprometidos en indagar nuevos conocimientos para fortalecer el entorno académico que permita a nuestros estudiantes culminar con éxito su egreso", de tal forma que buscamos el rediseño de nuestros modelos educativos bajo una mirada dinámica e innovadora en constante transformación, con pertinencia social y empresarial y con una gran convicción ética hacia un ambiente de calidad y sostenibilidad económica para el Estado de Puebla y para nuestro país. Las ideas antes señaladas fueron el soporte metodológico en la construcción del instrumento de investigación aplicado a los estudiantes egresados en el verano 2014 de la FCP de la BUAP.

Hacia una Conceptualización del Modelo Educativo Minerva (MUM)

"Un Modelo Educativo es la manera de ver, plantear, describir, comprender, entender, interpretar y explicar el fenómeno de la educación en tanto expresión intercultural e intersubjetiva y en cuanto sistema complejo abierto…" (BUAP, 2007: 23). El MUM está conformado por cinco ejes transversales de articulación y convergencia que se desarrollarán a través de:

Formación Humana y Social;
Desarrollo y Habilidades del Pensamiento Complejo y aprendizaje basado en proyectos
Desarrollo de Habilidades en el uso de las Tecnologías de Información y Comunicación (TIC)
Lenguas (Español e Inglés)
Habilidades para la investigación.

El MUM tiene como fundamentos teóricos y metodológicos la mirada del constructivismo social-cultural además del humanismo crítico que son el soporte fundamental de todo el programa educativo a nivel bachillerato, licenciatura y estudios de posgrado.

METODOLOGÍA

Población y Selección de la Muestra

Población encuestada. En la actualidad, la Facultad de Contaduría de la BUAP tiene una matrícula de más de 4,067 estudiantes a nivel licenciatura y 351 a nivel maestría, haciendo un total de 4,418 estudiantes, así como 169 docentes. El instrumento se aplicó a 100 estudiantes egresados de la Licenciatura en Contaduría Pública, de los cuales el 58% pertenecen a la generación del modelo Fenix y el 42% a la primera generación del MUM, que para efectos de la muestra éste último representa el 6.4% de la generación objeto de estudio, mismo que fue aplicado durante el curso de verano 2014. El curso de verano estuvo comprendido a partir del 31 de mayo al 15 de julio del 2014. Cabe destacar que este porcentaje no tiene por objeto apegarse al criterio de muestra representativa, muy por el contrario es una muestra no probabilística de tipo intencional, la que tiene por objeto analizar a la primera generación del MUM que egresó en el verano 2014 y con base a los datos que el Seminario de Titulación nos proporcionó, fueron trabajados para efectos de esta investigación.

 Instrumento de Investigación

El instrumento tiene como propósito explorar y evaluar el proceso de enseñanza-aprendizaje a partir de la implementación del MUM. Cabe mencionar que el instrumento fue elaborado Dra. Blanca Hortensia Morales Vázquez y Dra. Karla Liliana Haro Zea con los siguientes ejes a saber:
Datos generales del estudiante

Experiencia laboral
Referentes académicos.
Planeación del curso
Clima de la clase
Progreso del estudiante
Índice de desempeño del docente
Estrategias o metodología de la enseñanza

RESULTADOS

A continuación se presentan los datos que registran los resultados más relevantes para esta investigación.

Datos generales de los estudiantes: El 64% de los estudiantes es de sexo femenino y 36% masculino, 84% son solteros, 11% son casados y 5% viven en unión libre y 5% tienen hijos.

Lugar de procedencia de los estudiantes: Destaca que los estudiantes que conforman la muestra antes señaladas provienen de 29 ciudades diferentes pertenecientes al Estado de Puebla, resaltando que un 53% son originarios de la capital del Estado.

La elección de carrera y universidad: El 43% eligió a la BUAP por el prestigio de la misma, un 32% por el prestigio de la misma, 14% por la calidad del programa y un 11% por otros motivos.

Porcentaje de la población estudiantil que trabaja: El 91% de nuestros estudiantes trabaja actualmente y de ellos 18% trabaja de forma independiente mientras que el 82% trabaja de forma dependiente. Resalta que el 84% señala que sí existe relación entre la Licenciatura de Contaduría Pública y su trabajo actual.

Desempeño académico de los estudiantes: El 39% de los estudiantes señala haber tenido de 1 a 2 extraordinarios, 20% de 3 a 4 extraordinarios, 11% de 5 a 6 extraordinarios, 23% más de 7 y 6% no tuvo ningún extraordinario. Por otro lado el 34% precisa que tuvo 1 a 2 extraordinarios, 19% de 3 a 4, 10% de 4 a 5, 27% más de 5 extraordinarios y 9% ninguno.

Nivel de inglés de los estudiantes: Por otra parte el 49% señala tener un nivel bajo de inglés, 45% nivel medio, 4% alto y sólo un 1% tiene la certificación TOEFL.

Valores éticos adquiridos para el ejercicio profesional: El 27% de los estudiantes califica a los valores éticos para el ejercicio profesional como excelente, el 56% señala que es bueno, el 16% regular y el 1% como deficiente (ver Figura 1).

Plan de estudios y conocimientos adquiridos: El 21% de los estudiantes señala que el plan de estudios es excelente, el 64% precisa que es bueno, el 12% regular y el 3% deficiente. El 13% de los estudiantes precisa que los conocimientos adquiridos son excelentes, adicionalmente el 70% señala que es bueno, el 15% expresa que es regular y el 2% deficiente (ver Figura 2 y 3).

Índice de Desempeño del Docente: Las materias elegidas para ser evaluadas en la muestra fueron: contabilidad I, II, III, IV, V, VI, Contabilidad de Sociedad I, II, Contabilidad Gubernamental y Contabilidad Internacional, Finanzas I, II, III y IV. Los estudiantes eligieron las materias que conforman el área de contabilidad para emitir su opinión que caracteriza mejor al desempeño de los docentes que les impartió cada curso y los resultados arrojados son los siguientes:

El 19% caracterizaron haber tenido en Contabilidad I al mejor docente, en Contabilidad II el 22% consideran haber tenido al mejor docente, mientras que en Contabilidad III, IV y Contabilidad de Sociedades solo el 5% de los estudiantes consideran haber tenido al mejor docente. Contrasta la opinión para Contabilidad de Sociedades II en donde solo un estudiante señala haber tenido al mejor docente, aún más grave es la opinión para la materia de Contabilidad Internacional en donde ningún estudiante consideró haber tenido a un buen docente. Contabilidad V, Contabilidad VI y Contabilidad Gubernamental recibieron respectivamente un 11%, 14% y 16% en opinión de los estudiantes fueron reconocidos en ese nivel de representatividad como buenos docentes.

El 61% de los estudiantes encuestados está totalmente de acuerdo en que el docente diseña, planea y organiza su curso a través de la formulación de problemas, el 35% está de acuerdo, 1% totalmente en desacuerdo y 3% en desacuerdo. Por otro lado el 54% precisa que el maestro transmite claramente los objetivos del curso, asumiendo que están totalmente de acuerdo, mientras que un 41% señala estar de acuerdo, 1% totalmente en desacuerdo y 4% en desacuerdo. En cuanto a la claridad para transmitir el contenido del curso el 52% señala estar totalmente de acuerdo, el 42% de acuerdo, 1% totalmente en desacuerdo y 5% en desacuerdo. Así también el 42% estudiantes están totalmente de acuerdo en que el docente planea su clase de forma estructurada, considerando apertura, desarrollo y cierre, el 53% está de acuerdo, el 2% totalmente de acuerdo y el 3% en desacuerdo (ver Figura 5).

Clima de Clase

El 43% de los estudiantes señalan estar totalmente de acuerdo en que el docente propicia un ambiente seguro y disciplinado en el trabajo dentro del salón de clase, el 49% está de acuerdo y el 8% en desacuerdo. Por su parte el 32% de los estudiantes precisa estar totalmente de acuerdo en que el maestro genera las

mejores condiciones para un trabajo colaborativo que destaca por el análisis y la crítica bien fundamentada, un 62% está de acuerdo, 1% totalmente en desacuerdo, 4% en desacuerdo, 1% no respondió. Resalta que el 53% de los estudiantes respondió que está totalmente de acuerdo en que el docente respeta la diversidad (Lenguaje, cultura, raza, género, y necesidades especiales de los estudiantes), así como un 40% señala estar de acuerdo, 2% totalmente en desacuerdo, 4% en desacuerdo, mientras que un 1% no respondió (ver Figura 6).

Figura 1: Nivel de Valores Éticos Adquiridos Para el Ejercicio Profesional

Análisis técnico		Conclusiones destacadas
Media	1.909	El "82,83%" eligieron:
Intervalo de confianza (95%)	[1,774 - 2,044]	BUENO
Tamaño de la muestra	99	EXCELENTE
Desviación típica	0.686	La opción menos elegida representa el "1,01%":
Error estándar	0.069	DEFICIENTE

Fuente: elaboración propia.

Figura 2: el Plan de Estudios de la Licenciatura Lo Consideras

Análisis técnico		Conclusiones destacadas
Media	1.970	El "84,85%" eligieron:
Intervalo de confianza (95%)	[1,836 - 2,103]	BUENO
Tamaño de la muestra	99	EXCELENTE
Desviación típica	0.677	La opción menos elegida representa el "3,03%":
Error estandar	0.068	DEFICIENTE

Fuente: elaboración propia.

Figura 3: Forma en Que Consideran los Conocimientos Adquiridos Durante la Licenciatura

Análisis Técnico		Conclusiones Destacadas
Media	2.061	El "84,85%" eligieron:
Intervalo de confianza (95%)	[1,942 - 2,179]	BUENO
Tamaño de la muestra	99	REGULAR
Desviación típica	0.603	La opción menos elegida representa el "2,02%":
Error estandar	0.061	DEFICIENTE

Fuente: elaboración propia.

Figura 4: Elige una Materia de Contabilidad en la Que Consideres Que Caracterizarían Mejor el Desempeño del Docente

Análisis Técnico		Conclusiones Destacadas
Media	4.327	El "41,84%" eligieron:
Intervalo de confianza (95%)	[3,765 - 4,889]	CONTABILIDAD II
Tamaño de la muestra	98	CONTABILIDAD I
Desviación típica	2.839	La opción "CONTABILIDAD INTERNACIONAL" no fue elegida por nadie.
Error estándar	0.287	

Fuente: elaboración propia.

Figura 5: Índice de Desempeño del Docente

El Maestro Diseña, Planea y Organiza Su Curso a Través De:	Totalmente de Acuerdo	de Acuerdo	Totalmente en Desacuerdo	en Desacuerdo	Total
Lectura dirigida	37%	54%	0%	9%	**100%**
En el pizarrón	55%	43%	0%	2%	**100%**
Formulación de problemas	61%	35%	1%	3%	**100%**
Trasmite claramente los objetivos del curso	54%	41%	1%	4%	**100%**
Presenta con claridad el contenido del curso	52%	42%	1%	5%	**100%**
Atiende los diferentes estilos de aprendizaje de los estudiantes	39%	49%	4%	8%	**100%**
Planea su clase en forma estructurada (apertura, desarrollo y cierre)	42%	53%	2%	3%	**100%**

Fuente: elaboración propia.

Figura 6: Clima de Clase

Se Propicia un Ambiente Para Favorecer el Aprendizaje de los Estudiantes a Través De:	Totalmente de Acuerdo	de Acuerdo	Totalmente en Desacuerdo	en Desacuerdo	no Respondió	Total
La adecuada participación de sus estudiantes.	40%	56%	1%	3%	0%	**100%**
Propicia un ambiente seguro y disciplinado en el trabajo dentro del salón.	43%	49%	0%	8%	0%	**100%**
Evita interrupciones privilegiando la instrucción y atención en el contenido del programa.	36%	47%	3%	13%	1%	**100%**
Genera las mejores condiciones para un trabajo colaborativo que destaca por el análisis y la crítica bien fundamentada	32%	62%	1%	4%	1%	**100%**
Respeta la diversidad (Lenguaje, cultura, raza, género, y necesidades especiales de los estudiantes)	53%	40%	2%	4%	1%	**100%**
El trato del profesor hacia los estudiantes, es amable, respetuoso y sin distinción	53%	40%	3%	3%	1%	**100%**

Fuente: elaboración propia.

CONCLUSIONES

Podemos concluir en primer lugar que las universidades y otras Instituciones de Educación Superior (IES) juegan un papel importante en los sistemas de desarrollo de capital humano y de innovación, el caso de la Benemérita Universidad Autónoma de Puebla a través de la Facultad de Contaduría Pública no es la excepción pues en efecto el crecimiento y la innovación se dirigen a las regiones donde se concentra una fuerza laboral capacitada y creativa, con desarrollo en la investigación e infraestructura para la innovación, el caso que ejemplifica lo anterior es la llegada de Inversión Extranjera Directa (IED) al Estado de Puebla a través de AUDI, lo anterior entonces confirma la ventaja competitiva de nuestra ciudad creando así la educación superior las mejores condiciones para el crecimiento y el desarrollo que convertirá a Puebla en un Estado globalmente competitivo. Lo anterior nos obliga a realizar investigaciones como ésta la cual refleja la capacidad que tiene la educación superior para movilizar al capital humano a favor del desarrollo económico, social y cultural del Estado y la región.

Esta investigación nos permite afirmar que en efecto la FCP ha logrado determinar a través de su modelo educativo objetivos y estrategias metodológicas para desarrollar la investigación con un papel protagónico por los docentes y los métodos de enseñanza que han formado a un capital humano competitivo que pone de manifiesto las habilidades adquiridas en el área de contabilidad para la resolución de problemas propios a su disciplina, aún más los egresados han logrado construir y generar conocimiento que les permite ser ampliamente competitivos para actuar en una economía global cada vez más demandante de generación y construcción de conocimiento.

El trabajo de investigación nos permite señalar que el MUM tiene una mirada integral a partir del plan de estudios genera contenidos sólidos que permiten a sus estudiantes adquirir conocimientos bien fundamentados para enfrentar el desarrollo regional y global en ambiente multiculturales cada vez más exigentes. El papel conferido a los métodos de enseñanza y a las estrategias de evaluación por los docentes de la Facultad, logró permear de manera positiva en los egresados pues éstos valoran en gran medida a aquel docente que no sólo domina la materia, aún más que realiza el proceso de enseñanza-aprendizaje a través de métodos dinámicos, innovadores y críticos que les han permitido adquirir conocimientos de manera consciente hacia el análisis, la crítica y la resolución de problemas.

Finalmente los egresados se destacan por una gama variadísima de valores que fueron adquiridas a lo largo de su formación dentro de los que podemos destacar el respeto, la honestidad, la responsabilidad, la disciplina para el trabajo, la solidaridad, la tolerancia, el cuidado por el medio ambiente, todo ello contribuye a definir el perfil integral de nuestros egresados; hombres y mujeres preparados, innovadores, indagadores, comprometidos y con un alto sentido de respeto por la aplicación de un código ético en el ejercicio de la profesión. Para la BUAP, una educación con calidad repercute en el reconocimiento y prestigio de la universidad y de sus profesionales, generando un alto reconocimiento a la universidad, que hace que el mercado laboral prefiera a los egresados de dicha institución por la pertinencia de su educación y su nivel de competitividad. Los egresados son el principal producto de la universidad y tienen una relación con los principios y valores de la institución, que se convierte en la impronta de su actividad profesional y personal (Hurtado, 2007:112), más aún aunque para algunos pueda parecer inapropiado el término, los egresados son el "único producto", o realidad medible, concreta y real del obrar de la universidad.

REFERENCIAS

Benemérita Universidad Autónoma de Puebla (2007). Modelo Educativo Académico.

Benemérita Universidad Autónoma de Puebla. Plan de Desarrollo Institucional. 2009-2013.

Hurtado, C (2007). Impacto Social de los programas de pregrado. Economía. Universidad Eafit. Medellín: Oficina de Planeación Integral. Disponible en: http://www.graduadoscolombia.edu.co/html/1732/article155955.html[acceso 10/06/2015].

OCDE (2009). Educación Superior en Ciudades y Regiones. p.3-4.

OCDE (2015). Estudios Económicos de la OCDE México. p.2. Disponible en: http://www.oecd.org/economy/surveys/Mexico-Overview-2015%20Spanish.pdf [acceso 11/06/2015].

Red GRADUA2/Asociación Columbus (2006). Manual de instrumentos y recomendaciones sobre el seguimiento de egresados. Europe AID Co-operation office. Monterrey, Nuevo León, México.

Revista Virtual Universidad Católica del Norte (Agosto, 2012). Aproximación al estado del arte sobre los estudios de desempeño de graduados de programas de educación superior. Núm. 36. Colombia. Disponible en: http://revistavirtual.ucn.edu.co/[acceso 15/06/2015].

Riveros Angélica, Humberto Rubio Tomás, Candelario Julieta y Mangín Mariana (julio, 2013). Características psicológicas y desempeño académico en universitarios de profesiones de pronta ocupación. Revista Latinoamericana de Psicología. Volumen 45, núm. 2. P. 265-278.

Troncoso Piedrahíta, Lilliana María; Orozco Soto, Diana María; Duarte Duarte, Jakeline; López Velásquez, Angélica María; Taborda Gil, Claudia Marifely; Flórez Ríos, Jhon Alexander (Abril-Junio, 2013). Estado Actual de las prácticas con egresados de las unidades académicas de la Universidad de Antioquia, Colombia. Revista de la Educación Superior de la Universidad Nacional de Colombia, volumen 42, núm. 166.

Universidad de Antioquia (2006). Plan de Desarrollo 2006-2016. Una universidad investigadora, innovadora y humanista al servicio de las regiones y del país. Medellín.

BIOGRAFÍA

Blanca H. Morales Vázquez. Lic. en Economía por la Benemérita Universidad Autónoma de Puebla (BUAP), tiene dos especialidades: una en población, por la Universidad Autónoma de San Luis Potosí (UASLP) y la otra en Docencia por la Universidad Nacional Autónoma de México (UNAM); así mismo una maestría en Investigación Educativa, por la Universidad Iberoamericana de Puebla (UIA) y un Doctorado en Educación Permanente, con Mención Honorífica, por el Centro Internacional de Prospectiva y Altos Estudios (CIPAE). Ha publicado entre otros cuatro libros y 8 capítulos de libros editados por la BUAP, así como 9 artículos en revistas con arbitraje y 20 en revistas sin arbitraje. Ha sido ponente en Congresos Nacionales e Internacionales. Cuenta con la Certificación Académica por la Asociación de Facultades y Escuelas de Contaduría y Administración (ANFECA) y es perfil PROMEP.

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DESARROLLO SOSTENIBLE Y AHORRO EN EL CONSUMO DE REFRESCOS EMBOTELLADOS EN MONCLOVA, COAHUILA

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RESUMEN

El objetivo de este artículo es calcular el consumo de refrescos embotellados pet, así como el gasto familiar en la ciudad de Monclova, Coahuila. proponiendo alternativas de ahorro y proyecto de sostenibilidad. El concepto de desarrollo sostenible refleja una creciente conciencia acerca de la contradicción que puede darse entre desarrollo, en primer lugar se entiende como crecimiento económico y mejoramiento del nivel material de nuestra vida, y las condiciones ecológicas y sociales para que ese desarrollo pueda perdurar en el tiempo. crear conciencia en los seres humanos, modificando la actitud de despreocupación que al respecto se viene generando de la importancia de crear condiciones que hagan posible un bienestar para las actuales generaciones, cuidando el ambiente donde vive, contribuyendo a la vez a la economía familiar. *La presente investigación es el inicio de un gran proyecto de sostenibilidad Social, Ambiental, Económica y Política manteniendo un buen nivel de vida en el país. los valores son de suma importancia ya que nosotros formamos el lugar donde vivimos con acciones que reduzcan los niveles de contaminación. se presentan los resultados del instrumento aplicado, metodología mixta (cualitativa y cuantitativa) complementando con el análisis documental de artículos relacionados. proponiendo métodos de manejo ambiental.*

PALABRAS CLAVE: Sostenibilidad, Economía Familiar, Valores

SUSTAINABLE DEVELOPMENT AND SAVINGS ON CONSUMPTION SOFT DRINKS IN MONCLOVA, COAHUILA

ABSTRACT

The aim of this paper is to calculate the consumption of bottled drinks pet and household spending in the city of Monclova, Coahuila. proposing alternative savings and sustainability project. The concept of sustainable development reflects a growing awareness of the contradiction that may exist between development, firstly it is understood as economic growth and improvement of material standard of our life, and ecological and social conditions so that development can last over time. raise awareness in humans, modifying the carefree attitude that has been generated about the importance of creating conditions that make it well-being for the present generation as possible, taking care of the living environment, while contributing to the household economy. This research is the beginning of a great project, Environmental, Economic and Social Policy sustainability while maintaining a good standard of living in the country. the values are very important because we form where we live with actions to reduce pollution levels. the results of the applied instrument are presented, mixed methodology (qualitative and quantitative) supplemented by documentary analysis of related items. proposing methods of environmental management.

KEYWORDS: Sustainability, Family Economy, Values

INTRODUCCIÓN

En los últimos 30 años se han encontrado cambios en la república mexicana en el comportamiento de consumo de bebidas azucaradas y agua embotellada, en envase pet generando un fuerte gasto para la economía de los hogares mexicanos, en este sentido contribuye a generar una gran cantidad de basura en la ciudad de Monclova, Coahuila, sabemos que el producto pet se recicla y estamos consientes que existe una gran cantidad que no llega a las empresas de reciclado. (Silva, Durán, 2014) El consumo de las bebidas azucaradas(BA) en exceso, se encuentra relacionado con la obesidad, diabetes tipo 2, hipertensión, síndrome metabólico, cáncer, enfermedad coronaria, actualmente Chile se ubica entre los mayores consumidores mundiales de bebidas, específicamente en el consumo de BA, ocupando el tercer lugar a nivel mundial con 79,1 litros per cápita al año (334 botellas individuales de 237cc), siendo superado solo por México (115,4 litros) y Estados Unidos (103,3 litros) (7), hoy en día la familia chilena gasta el 1,38% (8) de su presupuesto familiar en BA, cifra menor que en 1988 en donde se gastaba el 3% (9). Una familia chilena gasta en promedio $11.657 y consume 26 litros al mes en bebidas gaseosas, las familias más pobres gastan $ 6.660 pesos y consumen 15 litros al mes, las familias pertenecientes al déficit inferior el gasto en BA representa un 6% del gasto de alimentos. (Vichessi, Ruvolo, Adhemar ,2008), En las últimas décadas , la aplicación de termoplástico creció rápidamente debido a las propiedades que materiales presentan : como buena capacidad de moldeo en caliente y resistencia mecánica , baja densidad, transparencia, capacidad de teñido y /o impresión buena resistencia mecánica y especialmente bajo costo [1,2] . El problema eliminación de residuos poliméricos , que ocupa mucho residuos urbanos del mundo y son difíciles de descomponer ,aparecido en conjunción con el consumo acelerado.

Planteamiento del Problema

Alto índice de basura generado en envase pet así como el gasto para la economía de los hogares mexicanos en el consumo de bebidas azucaradas y agua embotellada.

Objetivo General

Ahorro en el consumo de bebidas embotelladas, en familias mexicanas, así como el generar una disminución de en envase pet en las calles de Monclova, Coahuila.

Objetivos Específicos

Consumo de bebidas azucaradas y agua en envase Pet, Monclova, Coahuila
Ahorro en el consumo de bebidas azucaradas de Pet a envase retornable.
Considerar disminución de basura en envase pet
Calculo de basura generada en Monclova, Coahuila
 Como disminuir el gasto e incrementar el consumo de agua en los niños de educación básica.

Preguntas de Investigación

¿Cuál es el consumo de bebidas azucaradas en el país y en la ciudad de Monclova, Coahuila?

¿Cuál es el ahorro consumiendo bebidas en envase retornable?

¿Cómo disminuir la basura de envase pet?

¿De qué forma se puede incrementar el consumo de agua en los niños de educación básica en las escuelas de Monclova, Coahuila ?

REVISION LITERARIA

(Pacheco Vega, 2015) Un análisis de la situación en el consumo de agua embotellada en México se encuentra ausente de todas estas discusiones sobre el proceso de privatización tan absoluto que ha tenido lugar en México.

Figura 1: Situación en el Consumo de Agua en México

Fuente: elaboración Pacheco Vega, con datos de INEGI, Encuesta Nacional de Ingresos y Gastos de los Hogares, varios años. En esta figura se muestra el incremento en el consumo de refrescos en México, según investigación de pacheco Vega, 2015.

(Arévalo, Martínez, Lemus, 2014) En los últimos años, el consumo de agua embotellada ha aumentado de forma considerable, no sólo en cantidad sino en variedad. Muchas personas confían más en ésta que en el agua de la llave, entre otras razones por venir en un recipiente cerrado; en países en vía de desarrollo su consumo puede estar relacionado con la ausencia de agua potable en algunas poblaciones. Para 2004, Colombia ocupaba el puesto 52 entre 71 países en consumo per cápita de agua embotellada, con un total de 13.6 litros al año, siendo Italia y México las naciones con mayor índice, con 184 y 169 litros por persona al año.

METODOLOGÍA

Para el logro de los objetivos se llevó a cabo una investigación de tipo Mixta, cuantitativa con fundamentos documentados de tipo descriptivo se aplicaron 43 encuestas, utilizando como instrumento de medición un cuestionario, el cual consta de 20 preguntas y está dirigido a negocios, restaurantes y público en general. Cualitativa con artículos científicos publicados en México y el extranjero. de tipo exploratorio de campo.

Figura 2: Análisis de Estadística Descriptiva en el Consumo de Refresco en el Hogar en Monclova, Coahuila

Muestra en la figura 2 un alto consumo en el hogar en refrescos azucarados en presentación de 2 litros y medio, así como una media de 3.40 en los datos encontrados en la estadística descriptiva. lo cual contribuye de manera especial a la hipótesis de estudio.

Figura 3: Resultados del Instrumento Aplicado en la Variable, Compra de Agua Embotellada

En esta figura se muestra el consumo de agua embotellada en presentación 500 ml., un 58.1% generado en presentación de un litro, muestra un alto índice de venta en producto pet, con una media de 2.95 localizada dentro del límite superior e inferior de una manera normal como se muestra en la grafica de normalidad que se presenta más adelante.

Figura 4: Análisis de Envases Pet Tirados en Calles Acumulando Basura

Un 41.9% de los sujetos encuestados mencionaron que siempre encuentran envases pet en la calle y lugares de depósito de basura donde no se reciclan, el 16% menciono casi siempre por lo cual se encuentran totalmente de acuerdo con la hipótesis.

Figura 5 1: de Normalidad de Variables de la Lectura de los Valores Obtenidos

En esta figura se muestra la representación grafica de la lectura de los valores obtenidos, en la variable 7 se ubica arriba del límite superior de normalidad con siendo la más significativa por lo cual contribuye de manera especial y confirma la hipótesis de estudio, con respecto a las variables que salen del límite inferior de normalidad no contribuyen en la generalidad de la hipótesis de estudio, sin embargo el resto de las variables 1,4,5,6,8 y 9 nos indica que los sujetos simplemente se mantienen normales o que afectan de manera natural a la hipótesis.

RESULTADOS

Aplicando la metodología los *cálculos encontrados en entrevistas a Restaurants donde la venta de refresco en envase retornable es superior en presentación 355 ml en un 63% , sin embargo en tiendas de conveniencia (oxxo) y misceláneas la venta de refresco pet presentación 500 y 600 ml es de un 78% comparado con la retornable. el 67.8% de los encuestados se encuentran en el rango de edad entre los 25-30 años, el 49% de los sujetos encuestados son casados, fuera de casa el 48.84% consumen 1 refresco al día y el 32.56 consume 2 refrescos al día, en cambio de los sujetos encuestados el 37.2% menciono la compra en el hogar es de 2 litros y medio no retornable. el 44.1% compra agua embotellada presentación de un litro en envase pet, cabe mencionar el alto consumo de productos en envase no retornable y resaltar la entrevista a los intendentes del municipio dedicados a barrer y limpiar las calles de la ciudad quienes mencionan un alto porcentaje recolectado de productos pet. la variable 7 se ubica en el límite superior de normalidad (3.11) con una media de 3.40 y una desviación estándar de .67 como se muestra en la grafica de normalidad, las variables 2 y 3 se ubican por abajo del límite inferior de normalidad (1.77), (V2, X=1.42) y (V3, X=1.67) como se indica en la grafica de medias. Las opiniones expresadas se agrupan de manera normal (6 de 9) 66.7% más un atípico superior y dos atípicos inferiores (3 de 9) 33.3%.*

CONCLUSIONES

Uno de los principales resultados encontrados en esta investigación es el alto índice de consumo de refrescos y agua en México, además de la falta de cuidado por el planeta, cabe mencionar la existencia de contendedores recolectores de pet, lamentablemente no se utilizan como debe de ser (se muestra en anexos) en general lo que interesa sostener a unos no es suficiente y se complica con otros que no les interesa realmente, esta conciencia es lo que esta investigación pretende despertar en base a lo sostenible (supervivencia, conservación, cuidado, educación y responsabilidad), efectivamente el educar con respecto al medio ambiente es importante pero a menudo insuficiente, la posición de los autores es optimista hay que iniciar con éxito en la divulgación de esta investigación y en la propuesta que a continuación se menciona, generando un ahorro considerable al gasto familiar además de contribuir a la tarea de construir un futuro sostenible. es preciso actuar con urgencia por tal motivo esta investigación es el inicio de un proyecto en beneficio a la comunidad y sostenibilidad de la región.

PROPUESTA

De inicio la divulgación de la ciencia en medios de comunicación, hacer conciencia del cuidado de medio ambiente y del ahorro que a continuación se detalla.

Tabla 1: Comparación de Compra

Refrescos Retornables	Refresco No-Retornable	Ahorro Mensual	
355 ml costo $6.50	500 ml costo $10.50	$ 120.00	Tienda de conveniencia compra una al día
500 ml costo $8.00	600 ml costo $12.50	$ 240.00	Tienda de conveniencia compra 2 al día.
2 1/2 costo $ 18.00	2 1/2 costo $25.00	$ 210.00	Venta Fabrica 1 al día ahorro en el hogar.
20 litros costo $25.00	1 litro $ 15.00	$ 412.50	Tienda de conveniencia compra una al día

El proyecto a iniciar es regalar y hacer conciencia de llevar un termo y comprar refresco retornable, con un ahorro de 4 pesos diarios en el consumo de un refresco y si aun no cuenta con el termo, comprar un vaso desechable, en el caso de la compra de agua embotellada el ahorro es significativo, por lo cual es parte del proyecto que hoy inicia.

ANEXOS

Tabla 2: Frecuencias y Porcentajes Consumo en el Hogar

CONSUMO EN HOGAR DATOS PET			
CONSUMO EN HOGAR	Frecuencia	Porcentaje	Porcentaje acumulado
500	9	20.9	20.9
600	4	9.3	30.2
1l	10	23.3	53.5
2l	4	9.3	62.8
2l1/2	16	37.2	100.0
Total	43	100.0	

Tabla 3: Frecuencia y Porcentaje Consumo de Agua

COMPRA AGUA DATOS PET

COMPRA AGUA DATOS PET	Frecuencia	Porcentaje	Porcentaje acumulado
500	4	9.3	9.3
600	4	9.3	18.6
1l	25	58.1	76.7
2l	10	23.3	100.0
Total	43	100.0	

Tabla 4: Frecuencia y Porcentaje Encuentra Envases Pet

ENCUENTRA ENVASES DATOS PET

ENCUENTRA ENVASES	Frecuencia	Porcentaje	Porcentaje acumulado
nunca	6	14.0	14.0
a veces	12	27.9	41.9
casi siempre	7	16.3	58.1
siempre	18	41.9	100.0
Total	43	100.0	

REFERENCIA BIBLIOGRÁFICA

Silva O., P. & Durán A., S. (2014). Bebidas azucaradas, más que un simple refresco. Revista Chilena de Nutrición, 41(1) 90-97. Recuperado de http://www.redalyc.org/articulo.oa?id=46930531013

Vichessi, R. B. & Ruvolo Filho, A. C. (2008). Estudo do Efeito do Envelhecimento sob Radiação UV no Transporte de Água em Filmes de PET Reciclados de Bebidas Carbonatadas. Polímeros: Ciência e Tecnologia, 18(4) 326-333. Recuperado de Vichessi, R. B. & Ruvolo Filho, A. C. (2008).

Estudo do Efeito do Envelhecimento sob Radiação UV no Transporte de Água em Filmes de PET Reciclados de Bebidas Carbonatadas. Polímeros: Ciência e Tecnologia, 18(4) 326-333. Recuperado de http://www.redalyc.org/articulo.oa?id=47015847012

Pacheco Vega, R. (2015). Agua embotellada en México: de la privatización del suministro a la mercantilización de los recursos hídricos. Espiral, XXII(63) 221-263. Recuperado de http://www.redalyc.org/articulo.oa?id=13836846007

Arévalo-Pérez, E. C., Martínez-León, M. A. J., Lemus-Pérez, M. F. & Rodríguez-Susa, M. S. (2014). Aproximación a la presencia de SPD y microorganismos en agua embotellada. Tecnología y Ciencias del Agua, V(2) 5-18. Recuperado de http://redalyc.org/articulo.oa?id=353531987001

RECONOCIMIENTO

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LAS LEYES TRIBUTARIAS FORMAN PARTE INTEGRAL DE LA VIDA DEL GOBERNADO EN MEXICO

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RESUMEN

La presente investigación se realizo, en la ciudad de Monclova, Coahuila, en el año 2015, y tiene por objeto que el gobernado identifique los impuestos directos e impuestos indirectos de leyes tributarias que rigen y forman parte de su vida, es de aspecto fiscal y se ubica en la carga tributaria del gobernado. La problemática es que la humanidad a través del tiempo ha experimientado diferentes sistemas de gobierno donde los legisladores o Autoridades Hacendarias estan fuera de control al imponer en forma constante cargas tributarias al gobernado. El fenómeno surge cuando en el país existen leyes complejas y difícil de entender, al incrementar los impuestos en forma directa e indirecta en los gastos y costos, aunado que la autoridad no cuenta con infraestructura para cumplir en forma y tiempo las disposiciones fiscales que impone a sus gobernado en la era digital. De los 94 contribuyentes gobernados es decir el total de la población de la Facultad de Contaduría y Administración, que cuentan con características de contribuyente, con un nivel de confianza del 95%, y margen de error del 5%, se calcula la muestra para 74 encuestados y se obtuvo como resultado que las cargas impositivas son excesivas al cumplir con la obligación que dispone las leyes mexicanas al contribuir con el gasto público y se recibe inequitativamente prestaciones y servicios, se comparo con otros países Europeos como Dinamarca en la que es atractivo pagar impuestos por las prestaciones que el gobernado recibe.

PALABRAS CLAVES: Gobernado, Impuestos, Leyes Tributarias

THE TAX LAWS ARE INTEGRAL IN LIFE'S TAX PAYER IN MEXICO

ABSTRACT

This research was conducted in the city of Monclova, Coahuila, in 2015, and aims to identify ruled that the direct taxes and indirect taxes and tax laws are part of his life, it is fiscally and It is located in the tax burden of the governed. The problem is that humanity through time has experimiented different systems of government where lawmakers or Hacendarias Authorities are out of control by imposing the tax consistently ruled loads. The phenomenon arises when in the country there are complex and difficult to understand laws, to raise taxes directly and indirectly, costs and expenses, coupled with the authority does not have infrastructure to meet fit and tax provisions that time imposes its he governed in the digital age. Of the 94 governed taxpayers ie the total population of the Faculty of Accounting and Administration, which have features taxpayer, with a confidence level of 95% and margin of error of 5% the sample 74 respondents is calculated and result was that the tax burden is excessive to comply with the obligation that has Mexican law to contribute to public spending and unfairly benefits and services received, was compared with other European countries such as Denmark where it is attractive to pay taxes for services that ruled receives.

JEL: K39, L51, K34

KEYWORDS: Governed, Taxes, Tax Laws

INTRODUCCIÒN

El objeto de esta investigación es que el gobernado identifique los impuestos directos e impuestos indirectos de leyes tributarias que rigen y forman parte de su vida. El alcance de esta investigación se considera descriptiva, contiene las características especificas de los sujetos a estudiar o comunidades en las que se encuentra el fenómeno. Se aplicarán encuestas a un grupo de 74 setenta y cuatro gobernados o contribuyentes con características de docentes y administrativos de Facultad Autónoma de Coahuila unidad Norte de Monclova, Coahuila, procesando en el programa estadístico SPSS para encontrar la media o promedio e identificar la importancia que se tiene de los impuestos directos o indirectos. El tema de leyes es delicado, complejo para lidiar con los cambios constantes, que las autoridades hacendarias imponen diariamente y que están fuera de control, todos estamos consciente que es una carga administrativa, costos, infraestructura, y aspectos económicos entre otros, esto afecta en la vida de los gobernados, considerada como una violación a la esfera jurídica del gobernado, que no tiene fondo. Como lo bien lo escribe un escritor.

''La ley es un pozo sin fondo, todo lo devora''. Esta aseveración apareció en un libro del año 1712 que deploraba la existencia de un régimen jurídico cuyos procesos llegaban a demorarse años en los tribunales, lo que conducía a la bancarrota a quienes demandaban justicia. Hoy, los sistemas legales y judiciales de muchas naciones son tan intrincados y se ven plagados de tantos abusos, prejuicios e incongruencias, que la ley ha caído en el descredito general (Arbuthnot, 1967). Sus mordaces escritos contienen cierta alegoría política, como the History of Jhon Bull de 1712, que instaurò al personaje Jhon Bullcomo una personificación nacional de Inglaterra. Arbuthnot fue miembro fundador del célebre club Soriblenus, el cual tenía el propósito de ridiculizar la mala literatura y el aparente aprendizaje. Ahora bien si la ley es un pozo sin fondo por que ha caído en el descredito general, se podría pensar que el remedio para la corrupción es crear mejores leyes, no obstante los expertos opinan que mientras más leyes existen más oportunidades hay de violarlas, además resulta muy costoso llevar a la práctica las leyes de anticorrupción y al final estamos conscientes que se logra muy poco.

La presente investigación está organizada como sigue: en la sección de revisión literaria se sustenta la conceptualización de impuestos directos e indirectos, asi como los diferentes tipos de impuestos que está obligado a pagar el gobernado, se inicia con antecedentes hasta la actualidad, utilizando las fuentes del derecho, como es leyes fiscales, principios constitucionales, jurisprudencias, libros doctrinas entre otras. Aunado al fenómeno de la infraestructura en la era digital para estar en posibilidades de presentar en forma y tiempo los impuestos como disponen las leyes gubernamentales. En Metodología se considero el enfoque Mixto es decir cualitativo y cuantitativo aplicando un instrumento de un cuestionario con 12 reactivos a 83 con escala de likers de nada, poco regular y mucho a sujetos de docentes y administrativos de la Universidad Autónoma de Coahuila unidad Norte de Monclova, Coahuila, en la sección de resultados se presenta los resultados obtenidos así como sección de conclusiones de la investigación, sección de referencias bibliográficas y biografía.

REVISION DE LITERATURA

El desarrollo de la literatura es iniciar con conceptualización de impuestos directos e indirectos, de impuestos, jerarquías de leyes, jurisprudencias, clasificación de impuestos, los tipos de impuestos en los tres ámbitos de gobierno que son Federales, Estatales y Municipal.

Conceptualización de Impuestos Directos e Indirectos

Hay dos corrientes sobre lo que debe entenderse por un impuesto directo e impuesto indirecto. Directo es: aquel que no es repercutible, y gravan los rendimientos por ejemplo los que son a cargo de los profesionales independientes que establece la Ley del Impuesto Sobre la Renta; los profesionales pueden repercutir, trasladar a sus clientes el impuesto que debe pagar por la prestación de servicios; los artistas, principalmente los de fama internacional, ponen como obligación al acudir al país que los contrata que las cantidades que perciban como remuneraciones por las representaciones que den, se les entreguen libres de toda clase de impuestos, los empresarios absorben el impuesto. También son aquellos que gravan los rendimientos, no gravan un hecho real sino una situación hipotética, como es la utilidad fiscal (Margain, 1985) Los asalariados son los únicos que no pueden repercutir el Impuesto Sobre la Renta, sucede lo mismo con los empleados públicos; pero hay empresas que absorben ese gravamen para ayudar de esa forma a sus trabajadores para que no pierdan la capacidad económica con el entero del tributo. Indirecto es: repercutible, gravan los consumos, afectan al consumo, recae sobre hechos ciertos reales como la producción, el consumo, la explotación y la enajenación. Por otra parte, Hugh Dalton, Giannini, argumenta que es inexacto que haya impuestos que no sean repercutibles (Margain, 1985).

Tabla 1: Conceptualización de Impuestos Directos e Indirectos

Jiménez Gonzaléz, Antonio (2001)	**Impuestos directos: son aquellos con los que el legislador grava al causante del impuesto al ser absorbido por la persona que recibe el ingreso o que tiene la posesión o del disfrute de la riqueza.** **Impuestos indirectos: se caracterizan porque gravan una actividad o un hecho (introducción de mercancías al país, compra-venta o producción).**
Rodríguez Lobato, Raúl (1998) Sáinz de Bujanda, Fernando (1975)	Los impuestos directos son aquellos que no pueden ser trasladados o repercutidos y los indirectos los que sí pueden trasladarse. El impuesto es directo cuando la obligación está a cargo de una persona sin conceder a está facultades legales para resarcirse y es indirecto cuando la norma tributaria concede facultades al sujeto pasivo para obtener de otra persona el reembolso del impuesto pagado.

En esta tabla se describen conceptos de impuestos directos e indirectos de tres autores del año 1975 al año de 2001, con el objetivo que sea transparente, los autores mencionan como impuestos directos los que no se pueden repercutir, trasladar o cobrar, mientras los indirectos afectan al consumo y estos pueden trasladarse o repercutirse a otros contribuyentes.

La gran variedad de sujetos y objetos de gravámenes, así como también las diversas bases para los mismos, se visualizan de una mejor manera al clasificar las contribuciones en especial los impuestos en diversas categorías de acuerdo a las características de cada uno de ellos. Los doctrinarios los han clasificado principalmente en los siguientes:

Figura 1: Clasificación de los Impuestos

De acuerdo a la figura se presenta la clasificación más utilizada a nivel internacional (OCDE, CEPAL) de los impuestos directos e indirectos.

Tipos de Impuestos Directos E Indirectos en México

Se presenta la clasificación de impuestos directos e indirectos que existen en México en los tres ámbitos de gobierno que corresponde a Federal, Estatal y Municipal. En los impuestos Federales directo e indirecto fue derogado en el año 2014: el cual corresponde IETU y el IDE.

Figura 2: Tipos de Impuestos En México

En esta figura se identifica el caudal de impuestos que paga el gobernado en México que son federales, Estatales y Municipales que corresponden a impuestos directos e indirectos, considerada como exceso de carga tributaria para el gobernador para cumplir con disposiciones constitucionales y de esta manera pagar de manera proporcional y equitativa que disponen las leyes.

Leyes en México y la Jurisprudencia

De acuerdo a la ley del Impuesto sobre la Renta en su artículo 1. "Personas físicas y morales residentes en México están obligadas a pagar el ISR respecto de todos su ingresos". Asimismo en su artículo 31, Fracción IV. Son obligaciones de los mexicanos: Contribuir para los gastos públicos, así de la Federación, como del Distrito Federal o del Estado y Municipio en que residan, de la manera proporcional y equitativa que dispongan las leyes de acuerdo a la Constitución Política de los Estados Unidos Mexicanos. De acuerdo a jurisprudencia La proporcionalidad: radica medularmente en que los sujetos pasivos deben contribuir a los gastos públicos en función de su respectiva capacidad económica, debiendo aportar una parte justa y adecuada de los ingresos, utilidades o rendimientos.

La proporcionalidad se encuentra vinculada con la capacidad económica de los contribuyentes que debe ser gravada diferencialmente conforme a tarifas progresivas, para que en cada caso el impacto sea distinto no solo en la cantidad sino en el tocante al mayor o menor sacrificio, reflejado cualitativamente en la disminución patrimonial que proceda y que debe encontrarse en proporción a los ingresos obtenidos. Séptima Época, Instancia: Pleno, Fuente: Apéndice de 1995, Tomo : Tomo I, Parte SCJN, Tesis:170, Pagina: 171. El principio de equidad radica medularmente en la igualdad ante la misma ley tributaria de todos los sujetos pasivos de un mismo tributo, los que en tales condiciones deben recibir un tratamiento idéntico en lo concerniente a hipótesis de causación, acumulación de ingresos gravables, deducciones permitidas , plazos de pago , etc., debiendo únicamente variar las tarifas tributarias aplicables de acuerdo con la capacidad económica de cada contribuyente, para respetar el principio de la proporcionalidad. La equidad tributaria significa en consecuencia que los contribuyentes de un mismo impuesto deben guardar una situación de igualdad frente a la norma jurídica que lo establece y regula.

Séptima Epoca, Instancia: Pleno, Fuente: Apéndice de 1995, Tomo. Tomo I, Parte SCJN, Tesis: 170, Pagina:17. La necesidad de que al carga tributaria este establecida en una ley , no significa tan solo que el acto creado de impuesto debe emanar del poder que, conforme a la Constitución, está encargada de la función legislativa. Sino fundamentalmente en los caracteres esenciales del impuesto y la forma, contenido y alcance de la obligación tributaria, siendo consignado de manera expresa en la ley, de tal modo que no quede al arbitrio de las autoridades exactoras. Lo contrario, es decir, la arbitrariedad en el impuesto, la imprevisibilidad en las cargas tributarias y los impuestos que no tengan un claro apoyo legal, son anticonstitucionales, sea cual fuere el pretexto con que s e pretenda justificar un impuesto. Quinta Época, Instancia: Segunda Sala, Fuente: Semanario Judicial de la Federación, Tomo: CIII. Página: 1671.

Figura 3: Jerarquía de Leyes En México

En esta figura se muestra el orden de jerarquía de leyes en las que la constitución Política de los Estados Unidos mexicanos es la máxima autoridad y que de ella emanan las demás leyes, siendo esta la costumbre la de menor nivel y esta se aplica cuando se desconoce la aplicación de alguna ley. Asimismo la jurisprudencia está considerada como la interpretación de las leyes.

Antecedentes Históricos de las Leyes Tributarias

El hombre se ha valido de diversos medios para perseverar la información a lo largo de los siglos. Los escritores de la antigüedad grabaron sus palabras en monumentos, tablas de piedra o madera y hojas de pergamino entre otros materiales. Para el siglo I, el formato reconocido y aceptado en el oriente medio era el rollo. Luego vino el códice que se convirtió en el medio universal para conservar la palabra escrita y que contribuyo enormemente a la difusión. El códice fue el prototipo del libro tal y como se conoce hoy. El poder y la ley no son sinónimos. La verdad es que con frecuencia se encuentran en irreductible oposición. Hay la Ley de Dios, de la cual proceden todas las leyes (Cicerón 2004). Los impuestos forman parte de la vida. El escritor Charlles Adams señala:" desde el inicio de la civilización, los gobiernos han ideado todo tipo de triunfo" estos han generado rechazo e incluso desatado revueltas. El político estadunidense Benjamín Franklin menciono: "En este mundo no hay nada tan seguro como la muerte y los impuestos". (Franklin, 1789) Lema conocido que se encuentra en el edificio de Rentas internas de Washington, D.C. (EE.UU.) "Los impuestos son el precio de una gran sociedad civilizada" pero hay que admitir que los gobiernos hacen grandes desembolsos económicos a fin de suministrar y mantener los servicios necesarios.

Tabla 2: Porcentajes de Impuestos Directos e Indirectos de América Latina 2007

	Imp. Directos	**Imp. Indirectos**
Paraguay	17%	83%
Guatemala	22%	78%
Haití	23%	77%
Bolivia	24%	76%
Uruguay	28%	72%
Ecuador	28%	72%
República Dominicana	29%	71%
Nicaragua	30%	70%
Costa Rica	30%	70%
Honduras	31%	69%
El Salvador	38%	62%
Argentina	41%	59%
Perú	41%	59%
Chile	43%	57%
Venezuela	46%	54%
Colombia	48%	52%
México	55%	45%
Panamá	57%	43%
Brasil	59%	41%

Se presenta tabla de porcentajes der impuestos directos e indirectos de América Latina 2007, en la que se observa que en México se paga impuestos directos 55% e impuestos indirectos el 45% es decir tiene índice superior en impuestos comparado con otros países Latinoamericanos solo superados por Panamá y Brasil. Fuente WWW.CEPAL.ORG.

Dinamarca y la Percepción de Pago de Impuestos

Dinamarca es una economía activa con gran recaudación de impuestos que se encuentra en la Unión Europea, los gobernados perciben que los impuestos que pagan por los ingresos que perciben se ve reflejado en la sociedad, considerada como uno de los países menos corruptos, los ciudadanos están de acuerdo en pagar más impuestos y recibir mejores servicios a pagar menos y después pagar por cada servicios como es el caso de Estados Unidos. De acuerdo a la OCDE de 2006, Dinamarca paga el 68% de impuestos directos y el 32% de impuestos indirectos comparado con México que paga el 35% de impuestos directos y el 65% de impuestos indirectos.

METODOLOGIA

La presente investigación es enfoque Mixto es decir cualitativo y cuantitativo. Se realizó en el año 2015, en la ciudad de Monclova, Coahuila. México. Aplicando un instrumento de investigación que consta de 14 reactivos; dos corresponden a medición nominal y doce con escala de linkert con valor numérico de

cero a tres, para evaluar afirmaciones en las que se desea saber el nivel de importancia en cada una de las variables: nada, poco, regular y mucho, de acuerdo a la información de los sujetos: docentes y administrativos de la Facultad de Contaduría y Administración unidad Norte de Monclova, Coahuila, como se muestra en la Tabla 3. Al cual se le aplico el análisis de fiabilidad en el software estadístico SPSS con un resultado de Alfa de Cronbach de 87% de confiabilidad. Tabla 4.

Tabla 3: Variables de Estudio

No	Variables de Estudio	Escala	Tipo Variable
1	Sexo	0 Femenino 1 Masculino	Ordinal
2	Puesto	0 Administrativos 1 Docentes	Ordinal
3	conocimiento que tiene el gobernado sobre ISR	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
4	conocimiento que tiene el gobernado sobre el impuesto de rendimiento	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
5	Conocimiento que tiene el gobernado sobre riqueza	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
6	Conocimiento que tiene el gobernado sobre el impuesto IVA	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
7	Conocimiento que tiene el gobernado sobre el impuesto IEPS	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
8	Limitante Conocimiento del gobernado sobre impuestos	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
9	Limitante en infraestructura tecnológica	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
10	Limitante conocimiento en la era digital	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
11	Beneficios en educación de calidad	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
12	Beneficios en servicio médicos de calidad	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
13	Beneficios por servicios públicos	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales
14	Beneficios de seguridad publica eficiente	0 Nada 1 Poco 2 Regular 3 Mucho	Nominales

Cantidad Total de variables estudiadas en el instrumento con un alfa de .87 de confiabilidad.

Tabla 4: Confiabilidad del Instrumento

Aspectos	Valores
Casos validados	76
Excluidos	0
Alfa de Cronbach de 12 elementos	.869

Valores de estudio de la muestra y el alfa de Cronbach, generado en SPSS.

Con el objetivo de identificar el conocimiento de los impuestos directos e impuestos indirectos de leyes tributarias que rigen y forman parte de la vida del gobernado, desventajas y limitaciones al realizar el pago y beneficios que recibe al efectuar el pago de impuestos. En la tabla 5, se muestra la población de 94 sujetos de estudio; 76 docente y 18 administrativos, se calculo una muestra de 76 sujetos con nivel de confianza del 95% y 5% de margen de error de acuerdo a la calculadora estadística digital disponible en la página. http://www.corporacionaem.com/tools/calc_muestras.php. De los cuales el 60.5% corresponden al sexo Masculino y el 39.5% Femenino; El 77.6% son docentes y el 22.4% administrativos.

Tabla 5: Población

Sujetos	Cantidad
Administrativos	18
Docentes	76
Total	94

 Cantidad total de trabajadores de la Facultad de Contaduría y Administración de la Unidad Norte Universidad Autónoma de Coahuila que corresoden al año 2015.

RESULTADOS

Los resultados se muestra en dos aspectos que inicia con estadística descriptiva: Media (X), Moda (Mo), Desviación Estándar (S), Mínimo (Min) y Máximo (Max); donde se observa el comportamiento de las variables con respecto al fenómeno de investigación; para las variables estudiadas, los sujetos evaluaron de cero a tres equivalentes que conocen nada a mucho en las doce variables de estudio, los sujetos encuestados

se fueron a valores mínimos de la escala como se muestra en la Moda (Mo) con valores predominantes de cero y uno. Los valores de la desviación estándar se inclinan hacia el cero es decir que el total de los respondientes conocen poco o nada sobre los impuestos excepto la variable de IVA,   como se muestra en la Tabla 6.

Tabla 6: Análisis Descriptivo

Variables de Estudio	X	Mo	S	Min	Máx
conocimiento que tiene el gobernado sobre ISR	1.27	1.00	0.92	0	3
conocimiento que tiene el gobernado sobre el impuesto de rendimiento	1.23	1.00	0.98	0	3
Conocimiento que tiene el gobernado sobre riqueza	1.20	0.00	1.07	0	3
Conocimiento que tiene el gobernado sobre el impuesto IVA	1.77	2.00	1.01	0	3
Conocimiento que tiene el gobernado sobre el impuesto IEPS	1.15	1.00	0.97	0	3
Limitante Conocimiento del gobernado sobre impuestos	1.17	1.00	0.99	0	3
Limitante en infraestructura tecnológica	1.11	0.00	0.99	0	3
Limitante conocimiento en la era digital	1.13	0.00	1.04	0	3
Beneficios en educación de calidad	1.40	1.00	0.96	0	3
Beneficios en servicio médicos de calidad	1.20	1.00	0.84	0	3
Beneficios por servicios públicos	1.32	1.00	0.81	0	3
Beneficios de seguridad publica eficiente	0.89	1.00	0.78	0	3

Resultado del análisis descriptivo de las doce variables que se analizan para esta investigación sobre el conocimiento losimpuestossus limitantes y los beneficios al pagar los impuestos directos e indirectos de los gobernados.

En la tabla 7, se muestra el segundo aspecto con los resultados del análisis de Medias, donde se observa el comportamiento del fenómeno con respecto a las variables que mas conocen y las que menos conocen los sujetos.

Tabla 7: Análisis de Media

Variables de Estudio	X	S
Conocimiento que tiene el gobernado sobre el impuesto IVA	1.77	1.01
Beneficios en educación de calidad	1.40	0.96
Beneficios por servicios públicos	1.32	0.81
conocimiento que tiene el gobernado sobre ISR	1.27	0.92
conocimiento que tiene el gobernado sobre el impuesto de rendimiento	1.23	0.98
Conocimiento que tiene el gobernado sobre riqueza	1.20	1.07
Beneficios en servicio médicos de calidad	1.20	0.84
Limitante Conocimiento del gobernado sobre impuestos	1.17	0.99
Conocimiento que tiene el gobernado sobre el impuesto IEPS	1.15	0.97
Limitante conocimiento en la era digital	1.13	1.04
Limitante en infraestructura tecnológica	1.11	0.99
Beneficios de seguridad publica eficiente	0.89	0.78
Xx=1.22; S=0.21; Ls=1.43; Li=1.01		

Resultado del análisis de media: media de media de 1.22 a una desviación estándar de las medias de .21; Limite superior 1.43 y Limite inferior de 1.01, que se establecen para ubicar las variables que menos y mas significancia para los sujetos estudiados.

CONCLUSIONES

Esta investigación está limitada únicamente a docentes y administrativos de la Universidad Autónoma De Coahuila, de Monclova Coahuila México. Para identificar el fenómeno y la justificación se utilizaron Leyes Jurisprudencias, análisis de los diferentes impuestos que existen en México y se comparo con países latinoamericanos de la estadística 2007. De acuerdo a los resultados considerando las variables del instrumento se concluyo que de los 94 sujetos de los cuales se encuestaron a 76 de la población se identifica que desconocen específicamente los tipos de impuesto que pagan sin embargo el impuestos que mas conocen es el indirecto que corresponde al Impuesto al Valor Agrego que pagan en el consumo y en los productos, debido al alto costo en la adquisición de productos y servicios, el segundo impuesto que conocen es el Impuesto sobre la Renta que corresponde al impuesto directo es decir los ingresos que perciben pagan un alto índice de impuestos en el que desconocen, los cuales no pueden repercutir o trasladar. Los gobernados se encuentran inconformes por el exceso de pago de impuestos por no recibir a cambio un

beneficio equivalente por contribuir al presupuesto del país y sienten por no ven revertido en obras para la sociedad como es: hospitales para atención eficiente, educación de calidad, y sobre todo la seguridad pública para su familia. Al comparar con Dinamarca los habitantes están satisfechos de pagar impuestos más altos en la Unión Europea considerando que los impuestos se ven reflejados en obras, los objetivos son transparente a los ojos de los ciudadanos. Todos pagan impuestos altos, pero el dinero regresa a sus orígenes en educación, salud, pensiones, maternidad y en seguridad y un factor base que en Dinamarca es uno de los países menos corruptos y con impuestos más altos.

BIBLIOGRAFIA

Cuarta reimpresión, ISBN: 970-777-120-8, Deposito legal: B-49.940-2005, Impreso en España/Printed in Spain

Constitución Política de los Estados Unidos Mexicanos (2015)

Ley de Impuesto sobre la Renta 2015

E. de Obregòn 2004. La Columna de Hierro, D.R ©EDITORIAL OCEANO DE MEXICO, S.A. de CV.
E Margain 1985. Editoria Universidad Potosina. Introduccion al Estudio del Derecho Tributario Mexicano.
http://www.elconfidencial.com/mundo/2014-12-13/dinamarca-el-pais-mas-feliz-tiene-los-impuestos-mas-altos-del-mundo_590152/

John Arbuthnot (29 de abril d 1967, INVERBERVIE-27 de febrero de 1735,Londres fue un médico, escritor satìricp y polimata escocès)

http://www.oecdbetterlifeindex.org/es/countries/denmark-es/

WWW.CEPAL.ORG.

BIOGRAFIA

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MODELO DE EVALUACIÓN PARA LA EDUCACIÓN EMPRESARIAL CON VISIÓN INTERNACIONAL

Víctor Mercader, CETYS Universidad

RESUMEN

Este estudio comprende un análisis de la educación empresarial con visión internacional como base de investigación que origina un modelo de evaluación y autoevaluación de desarrollo del estudiante y/o profesional con perspectiva internacional. Este método es aplicable a la vez, a educadores y a diferentes tipos de profesionales, y es adaptable a todo nivel y a diferentes países. Se basa en tres dimensiones fundamentales que siempre deben considerarse por todo estudiante y profesional tanto en el sector educacional, laboral-empresarial e institucional. Se han considerado las siguientes dimensiones: Conocimientos, capacidades gerenciales y la ética. Cada una de las dimensiones contiene elementos (competencias) y estas a su vez, contienen variables que se pretende que no se dejen de considerar en la profesión y en la educación, así como los profesionales en sus diferentes especialidades a modo local y global. Se formalizó un estudio para descubrir las variables más significativas de cada elemento (competencia) y así lograr una mejor práctica y desempeño del estudiante, profesionista, centro educativo y/u organización. Las variables obtenidas son resultado del análisis de la data de la muestra seleccionada de profesionales y estudiantes de posgrado de la zona del norte de México, estado de Baja California en la ciudad de Tijuana, centro industrial, fuente de trabajo y núcleo de gran desarrollo, el cual colinda con el estado de California en USA; además, considera las variables resultantes de una triangulación de tres expertos más la del autor.La gran adaptabilidad de este método o modelo aplicable a cualquier país, nos ayuda a identificar las variables fundamentales del desempeño del trabajo de cualquier individuo, equipo de trabajo u organización, con una visión amplia e internacional con el fin de poder corregir y consecuentemente, obtener mejoras y un mayor desarrollo.

PALABRAS CLAVE: Desarrollo, educación, internacionalización, conocimiento, variables de desempeño, comportamiento individual y organizacional, procesos, administración de empresas, instituciones, organizaciones, metodología, ética, modelo de evaluación, profesionalismo.

ASSESSMENT MODEL FOR PROFESSIONAL EDUCATION WITH INTERNATIONAL VISION

ABSTRACT

This study includes an analysis of international education and research that creates an evaluation and self-assessment model of student and professional development with an international perspective, also applicable to educators and other professionals. The model is based on three fundamental dimensions that should always be considered by every student and all professionals in the educational, labor-business, and organizational or institutional sectors. The three dimensions considered are: knowledge, management skills, and ethics. Each dimension contains elements and these contain variables which should be considered by students, educators, and professionals within their different specialties - locally and globally. A study was implemented to discover the most significant variables of each element and thus achieve best practices and performances of students, professionals, schools and/or organizations. The variables obtained are the result of the data's analysis of the selected sample of professionals and graduate students from the area of northern Mexico, Baja California in Tijuana. This is an industrial region and nucleus of great development in the border of the state of California, USA. There is also another set of variables which

have been obtained from a triangulation of three peer scholars plus the author which are compared with the sample ones. The great adaptability of this method or model, which is applicable to any country, helps us identify the performance of any individual, team or organization with a broad and international vision in order to correct and, consequently, obtain improvement and further development.

JEL: I20, M10, L20, J24

KEYWORDS: Development, Education, Internationalization, Knowledge, Performance Variables, Individual and Organizational Behavior, Processes, Business Administration, Institutions, Organizations, Methodology, Ethics, Evaluation Model, Professionalism.

INTRODUCCIÓN

Este estudio y modelo presentado en pro de la internacionalización de la educación empresarial se enfoca y genera, simultáneamente, una amalgama congruente de los temas del conocimiento, desempeño gerencial, globalización, evaluación, variables e indicadores, ética y la calidad a nivel educacional, profesional y organizacional. La visión global va creciendo de manera acelerada y abarca el pivote y apoyo fundamental del desarrollo a todo nivel ¡la Educación! Las mentalidades de todo el planeta se van interrelacionando cada día más en todas las áreas del vivir y el hecho de fomentar un conocimiento integral y participativo con presencia e intercambio internacional se hace cada vez más evidente y necesario tanto en la educación como en el sector empresarial.

El ser humano emerge como eje fundamental en todos los ecosistemas y entornos bien sea como estudiante, trabajador, profesionista o dirigente en pro de alcanzar las metas establecidas y realizarse en su vida y trabajo. De allí que aprender y habituarse a identificar las variables, conocer su influencia y manejarlas cuando emergen de las diferentes situaciones del vivir, va a ayudar a pensar y encontrar soluciones que permitirán y facilitarán una mejor calidad y mayores logros con perspectiva e interrelación internacional. Por ello, el realizar una investigación que muestre un modelo capaz de identificar, examinar y relacionar la presencia, influencia e impacto que ejercen las dimensiones con sus elementos o competencias (término que se considerará análogo en este estudio) y estas con las variables que se determinen, nos ofrece un valioso conocimiento y una ventaja competitiva en cualquier país que se desee considerar. Al aplicar este método en las universidades, instituciones y organizaciones diversas, nos transformará en impulsadores de desarrollo a todo nivel y con una mentalidad factible de trascender con perspectiva internacional.

Propósito: Presentar un modelo de evaluación y autoevaluación en base a dimensiones, elementos (competencias) y variables que ayude a realizar mediciones y cuantificar los resultados de la realidad que se vive en las universidades, organizaciones e instituciones con visión internacional con el fin de poder realizar cambios y mejoras necesarias en las áreas pertinentes.

Justificación: Si los estudiantes, educadores y profesionales de todo tipo están preparados en las tres dimensiones con sus elementos (competencias) respectivas podrán reconocer mejor las variables que cada elemento contiene y tomar mejores decisiones tanto en su ámbito laboral como personal a modo integral.

REVISIÓN LITERARIA Y MARCO TEÓRICO

La educación es la fuente que nutre el futuro de los países. Sin embargo, los resultados de la misma, dependen de cómo el torrente de conocimientos se dirige y aplica; y ello obedece al hecho de concienciar qué tanto educamos para pensar y encontrar soluciones que no perjudiquen a los demás. La trilogía a inculcar en todos los estudiantes y profesores para generar progreso con equilibrio, puede sustentarse en los Conocimientos (teóricos y prácticos), las Capacidades gerenciales para manejar los procesos de modo

productivo y efectivo; y la Ética como medio y regulador del uso útil de lo que se piensa, se dice y se hace de forma congruente, y que genere beneficio para la mayoría y perjuicio para nadie.

La autenticidad y productividad a nivel educacional, empresarial y social requiere de la integración de los participantes con perspectiva internacional en pro de optimizar el talento humano para poder crear un mejor ambiente de trabajo y una mayor cooperación (Arcienaga et al., 2008). Se han desarrollado numerosos métodos que muestran innovación en las capacidades gerenciales de dirección y liderazgo aplicables a organizaciones tanto educativas como empresariales (Vega, 2006). De allí que según Ramírez (2011) las entidades de educación superior deben enfocarse en el crecimiento social, tecnológico y científico e indica a su vez los siguientes indicadores: Voluntad política, atención socio-económica integral, valoración de los conocimientos de acuerdo con los contextos, movilidad recíproca e implicación de todos los agentes socioeducativos. Los centros docentes deben reformularse y adaptarse a una mentalidad global congruente con la demanda empresarial y social. González (2007) insiste en educar con una perspectiva generadora de transformaciones que incluyan cambios de actitud ante la diversidad y la mejora integral en las sociedades y en el trabajo, mientras Acosta y Genielbert (2013) y Lehner y Wurzenberger (2013) enfatizan que la educación debe permanecer bajo un modelo holístico, intercultural, interdisciplinario, con acción y responsabilidad social y no solo sustentado en contenidos sino también en procesos con un sentido personal de modelo de vida.

Wit (2011) señala la enseñanza sin fronteras o global, dependiente de los avatares económicos y del comercio mundial con fines lucrativos. Así, García (2005) insiste en el incremento que la educación internacional está pasando a tener debido al impacto dinámico y lucrativo creado por empresas e instituciones de todo tipo. Encontrar equilibrio en los cambios sociales y económicos pasa a ser un reto. O´Flaherty et al. (2011) presenta la posibilidad de una educación que integre a la Educación con desarrollo sustentable (ESD), iniciativa de conocimiento comunitario (CKI) y jóvenes innovadores sociales (YSI) donde se practique el pensamiento crítico, el aprendizaje activo y participativo, el desarrollo y aplicación del conocimiento y una mentalidad de justicia social. Si los gobiernos ayudan a dicho cambio con políticas que consideren la equidad, la ética y la aplicación de los conocimientos en beneficio de las mayorías, los resultados se verán reflejados en una sociedad mejor preparada y más productiva. (Donnelly, 2004). Se podrá hablar entonces del ciudadano global con una base de responsabilidad social y de ética profesional que piensa en las consecuencias que sus acciones generan en los demás a modo local y global (Lilley et al. 2014).

De suma importancia es poder mantener en la internalización educativa los índices de calidad que se establezcan ya que factores como el idioma, aprendizaje, costos, visas, posibilidades de trabajo, costumbres y adaptabilidad pasan a ser barreras a verificar (Lenn, 2000; Urias, 2015). Así es como Anderberg et al. (2009) propone mayor investigación para crear un aprendizaje y desarrollo global sustentable. A la vez, insiste en la comprensión del conocimiento, aun siendo complejo, bajo un marco holístico y perspectiva global. Es por ello que Suarez-Orozco (2005) explica cómo los estudiantes y profesionales internacionales tienen que esforzarse para poder adaptarse a los diferentes modelos de cultura y forma de comportamiento en relación no solo a los estudios sino a los prejuicios y a veces discriminación de toda índole. Trubek et al. (2001) propone cinco pilares de la educación internacional, a saber: interés en relación a los temas internacionales, soporte por parte de las autoridades educacionales, trabajo creativo y sustentable por parte de los educadores, apoyo mutuo entre lo tradicional y los ejes nuevos interdisciplinarios, convicción y soporte para la internalización de la educación. Ya no existen fronteras entre las sociedades de aprendizaje, las cuales buscan oportunidades a nivel global, preparándose a la competitividad con estudios específicos y de soporte enfocados en temas acordes a las necesidades actuales y emergentes (Bolanle et al., 2008). De igual modo hay que preparar con iguales oportunidades a los educadores con el fin de que puedan ser efectivos con los educandos (Gabriel y Allington, 2015). Por su parte, Knight, J. (2010) nos nombra el impacto que ejercen los valores y la innovación responsable que se requiere aplicar por parte de los centros de educación para que no pasen a jugar el rol de comerciantes de la educación como prioridad e incentivo.

Bolívar (2011) insiste en un aprendizaje de conocimiento aplicado que combine el espíritu de colaboración con la toma de decisiones frente a diferentes circunstancias de tipo educacional, empresarial, social e incluso familiar que demuestre las capacidades gerenciales y la gestión directiva en todo tipo de ambiente, cultura, contexto y situación, y más allá del pais que se refiera. De modo similar, Ramos y Díaz (2010) se concentran en una conducción visionaria que incluye variables con una plataforma ética factible de aplicarse a las capacidades gerenciales. Citan dichos autores la necesidad de realzar la participación, la confianza, la igualdad de poder, el apoyo y el respeto mutuo.

Akins, R. et al. (2013), presenta diez condiciones que potencian el desarrollo sustentable, las cuales se citan a continuación: Aprendizaje, empoderamiento, adaptación, sustentabilidad, desarrollo, humildad, reflexión, acoplamiento, integridad y práctica. En este caso, la ética está bien representada al hacer énfasis en la humildad, la integridad y el acoplamiento o adaptabilidad. La incorporación de la visión internacional sería altamente recomendable. Barahona (2004) menciona que las características de un director o líder están regidas por el dominio, la gran energía, la confianza en sí mismo, locus de control y estabilidad. Aplicar valores es fundamental para progresar con responsabilidad de acuerdo a los resultados a lograr (Freeman, 2011) los cuales resultan también ser la evidencia del aumento de la confianza ya que sin confianza hay un desgaste muy alto y un esfuerzo innecesario a nivel local y global. Esa confianza se adquiere de forma paulatina con la aplicación de valores éticos (Graham, 2005).Hernández et al. (2014) robustece variables como: comunicación, retroalimentación, empatía, confianza, principios éticos, espíritu de superación y reto, empoderamiento y aumento de la autoestima personal y de los equipos de trabajo mientras que Joseph y Sailakshmi (2011) se enfoca en variables que facilitan los procesos de decisión y cambio como son el aprendizaje, las relaciones interpersonales, la comunicación y el equilibrio del recurso humano.

Asumir la responsabilidad frente a la sociedad con un comportamiento ético pasa a ser el reto prioritario de la educación. Para ello se tiene el apoyo del conocimiento adquirido y aplicado con una perspectiva de la organización humana capaz de crear un balance social (Ferrer, 2007). Ramírez, Sánchez y Quintero (2005) por su parte, considera variables a nivel profesional, como son: el aprendizaje, el sentimiento de pertenencia, la divulgación de la información, el conocimiento práctico y aplicable y la mentalidad proactiva a fin de surgir más allá de las fronteras de acción involucrados en redes activas de cooperación transcultural y conscientes del comportamiento e interrelación social de las organizaciones (Vohra, N. & Sheel, R., 2012). Un cambio y reto de superación constante de calidad educativa y de productividad repercutirá adicionalmente con la calidad de trabajo y de vida de las personas (Rodriguez, A. & Aguilera, J.C., 2005).
Prada (2013) exhorta al ajuste y adaptación de estrategias de cambio innovadoras que generen compromiso, desarrollo personal y profesional y cooperación mutua y sinérgica en la educación y a nivel institucional o corporativo para crear desarrollo sustentable. Todo este bagaje de información literaria integra numerosas variables que influyen y afectan en positivo o negativo la educación internacional y el desempeño de los profesionales en sus respectivos trabajos.

METODOLOGÍA Y RESULTADOS

Este estudio y método ha sido aplicado a una muestra de estudiantes de posgrado del MBA, localizados en Tijuana (estado de Baja California, México) para poder comparar y conjugar las variables que decidan seleccionar con las propuestas por el autor y tres colegas expertos en el tema, a fin de determinar las variables definitivas del modelo.

El Estudio Consiste en Dos Etapas Principales

La teórica que refuerza la necesidad de análisis de la educación en un plano de internacionalización y que proporciona soporte a las dimensiones de estudio y a sus elementos con sus variables respectivas. Se

consolida así, una educación con visión en pro del conocimiento aplicable y con mentalidad global, capaz de brindar calidad en cualquier lugar y con indicadores producto de evaluación que sean adaptables a nivel educacional y profesional. La aplicación y determinación de las variables factibles de los elementos (competencias) que influyen en el desempeño, desarrollo y posibilidades de logro de los estudiantes, educadores y profesionales cuando se proyecta y procura una preparación con raíces y esencia internacional. Los elementos (competencias) para cada dimensión han sido producto del análisis realizado por tres expertos con experiencia amplia internacional tanto en educación como en trabajo en la industria, como una triangulación de apoyo a la del autor, quien completaría el diseño final de las mismas. Ver Tabla 1.

Tabla 1.- Dimensiones y Elementos (Competencias)

	Capacidades Gerenciales	**Conocimientos**	**Ética**
1	Planeación	Sistema Organizacional	Intuición
2	Organización	Producto / Servicio	Actitud
3	Ejecución	Manejo de recursos	Valores
4	Dirección	Tipo de Conocimiento	Leyes / Normas
5	Control	Razonamiento crítico	Sensibilidad humana
6	Coordinación	Cultura del medio	Armonía productiva / Proactiva
7	Comunicación	Calidad / Nivel	
8	Motivación		

Las variables que de ellos resultaron, se compararon y conjugaron con las variables propuestas por los expertos y el autor, y de allí se crearon las variables definitivas a utilizar como muestra del modelo. Los datos provenientes de los estudiantes fueron obtenidos al trabajar en primer lugar de forma individual y a posteriori en cinco equipos como se indica en la Tabla 2. Cada equipo estaba formado en general por cuatro participantes, quienes determinaron las variables que predominaban para cada elemento (competencia) según su percepción y criterio propio.

Tabla 2.- Equipos de Trabajo Para Determinación de Variables

EQUIPOS	**No. de participantes por equipo**	**No. de elementos**	**No. de Variables**	**Elementos x Variables**
1	4	21	8	168
2	4	21	7	147
3	4	21	8	168
4	4	21	8	168
5	4	21	8	168
5	20	21	39	819
Total de equipos	No. Total de participantes	No. de elementos	No. de Variables por elemento	Elementos x Variables

Se resume de modo simple el procedimiento llevado a cabo: Cada participante selecciona las 8 variables más importantes que tienen influencia en cada elemento (competencia) presentado; y posteriormente, en equipos por consenso seleccionan las 8 variables más importantes que tienen influencia en el elemento (competencia) analizado de forma similar. Se puede observar que en el modelo desarrollado, los elementos (competencias) de las dimensiones son 8 en Capacidades gerenciales, 7 en Conocimientos y 6 en Ética, lo que sumará 21 elementos (competencias). Si estos los multiplicamos por las 8 variables seleccionadas para cada elemento (competencia) de las dimensiones en estudio, se puede deducir que se han considerado 168 variables por 4 equipos, lo cual da 672; al adicionarle las 147 variables del equipo que seleccionó solo 7 variables, da un resultado total de 819 variables como se muestra en la Tabla 2. Se eligieron las variables que obtuvieron mayor preferencia y que generalmente han sido las más repetidas por elemento (competencia) de los cinco equipos. Se obtienen así, las variables más importantes de los elementos

(competencias) que contienen Capacidades gerenciales en Tabla 3, Conocimientos en Tabla 4 y Ética en Tabla 5. Las variables seleccionadas que se repiten por los alumnos y por los expertos y el autor (VM) han sido mostradas en negrilla y las que están en itálica son las que no se repiten pero fueron prioritarias bien sea por alumnos o expertos/autor. Se puede decir que esta es la primera etapa de la investigación analizada en este estudio donde se obtienen las variables más importantes según la percepción de los estudiantes de la muestra y que se combina con las del autor y los expertos.

Tabla 3- Variables seleccionadas en los elementos (competencias) de la dimensión Capacidades gerenciales del incorporado de equipos de alumnos y de expertos/autor.

Planeación			Organización		
1			2		
Promedio alumnos	VM y expertos	Definitivo	Promedio alumnos	VM y expertos	Definitivo
Metas - Fines	*Visión y Misión*	Metas y Objetivos	*Jerarquías*	Recursos	Recursos
Estrategias	Metas y Objetivos	Estrategias	*Capital humano*	*Trabajo en equipo*	Comunicación
Objetivos	*Actividades*	Visión y Misión	Comunicación	Comunicación	Estructura organizacional
Administración	*Conocimientos*	Actividades	Recursos	Estructura organizacional	Jerarquías
Tiempo	*Información*	Conocimiento	Orden	*Logística*	Capital humano
Liderazgo	Medición del riesgo	Tiempo	*Cantidad*	Valores	Trabajo en equipo
Medios	Estrategias	Información	Estructura	Presupuestos	Logística
Control	Fortalezas y Debilidades	Liderazgo	Dirección	Prioridades	Cantidad
	Valores				
				Roles y Responsabilidades	
	Oportunidades				
	Tiempos				

Ejecución			Dirección		
3			4		
Promedio alumnos	VM y expertos	Definitivo	Promedio alumnos	VM y expertos	Definitivo
Motivación	Plan de acción/ Acciones	Plan de acción/ Acciones	Comunicación	Liderazgo	Liderazgo
Decisión	*Actitud*	Motivación	Liderazgo	Toma de decisiones	Comunicación
Acción	*Procedimiento*	Actitud	Toma de decisiones	*Valores / Ética*	Toma de decisiones
Presupuesto	*Valores /Servicio/ Disciplina*	Decisión	*Determinación*	Comunicación	Valores / Ética
Estrategia	Compromiso / Responsabilidad	Procedimiento	*Orientación*	Motivación	Motivación
Administración	Flexibilidad y Motivación	Valores /Servicio/ Disciplina	Jerarquía	*Delegación*	Determinación
Supervisión	Seguimiento	Presupuesto	Delegación	Conocimientos	Delegación
Objetivos	Trabajo en equipo	Estrategia	Motivación	Experiencias	Orientación
	Entrenamiento y capacidades			Autoridad	
	Metodología				
	Tecnología y Herramientas				

Control			Coordinación		
5			6		
Promedio alumnos	VM y Expertos	Definitivo	Promedio alumnos	VM y Expertos	Definitivo
Evaluación	Medición / Métricas	Evaluación/ Indicadores	*Organización*	Trabajo en equipo	Trabajo en equipo
Análisis	*Supervisión*	Medición / Métricas	*Control*	*Integración*	Integración

Equilibrio	**Evaluación/ Indicadores**	Supervisión	*Planeación*	*Soporte*	Organización
Medición	*Metas y Parámetros*	Análisis	Dirección	*Solución de problemas*	Control
Estructura	Seguimiento	Equilibrio	**Trabajo en equipo**	Valores	Soporte
Retroalimentación Resultados	Validación Calidad	Metas y Parámetros Estructura	Disposición **Comunicación**	Seguimiento **Información/ Comunicación**	Planeación Solución de problemas
Tiempo	Estándares y especificaciones Revisión de tiempos	Retroalimentación	Reglas		**Información/ Comunicación**

Comunicación			Motivación		
7			**8**		
Promedio alumnos	**VM y Expertos**	**Definitivo**	**Promedio alumnos**	**VM y Expertos**	**Definitivo**
Idioma *Pensamiento*	*Veracidad/Honestidad* *Medios, canales y redes*	**Idioma** Veracidad/Honestidad	*Metas* *Cultura*	**Incentivos** *Confianza*	**Incentivos** Metas
Objetividad	**Retroalimentación**	Pensamiento - Información	*Organización*	*Reconocimiento*	Confianza
Conocimiento	*Asertividad*	Medios, canales y redes	*Felicidad*	*Valores*	Reconocimiento
Durabilidad - Permanencia Procesos	**Idioma** *Información*	**Retroalimentación** Objetividad	**Incentivos** Autoestima	Entusiasmo Aspiraciones	Cultura Organización
Valor **Retroalimentación**	Congruencia **Valores** Enfoque y claridad	**Valor - Valores** Asertividad	Interés Justicia	Oportunidades	Valores Felicidad

Tabla 4- Variables seleccionadas en los elementos (competencias) de la dimensión Conocimientos del incorporado de equipos de alumnos y de expertos/autor.

Sistema Organizacional			Producto / Servicio		
1			**2**		
Promedio alumnos	**VM y Expertos**	**Definitivo**	**Promedio alumnos**	**VM y Expertos**	**Definitivo**
Liderazgo - Alta dirección **Comunicación**	**Liderazgo** *Misión y Visión*	**Liderazgo** **Recursos**	**Calidad** *Garantía*	**Calidad** **Costo**	**Calidad** **Mercadotecnia y ventas**
Dirección intermedia	*Comportamiento organizacional*	**Comunicación**	**Mercadotecnia**	**Producción**	**Producción**
Optimización	*Valores*	Misión y Visión	**Producción**	**Mercadotecnia y ventas**	**Costo**
Procedimientos	Recursos	Comportamiento organizacional	Prestigio	**Tipo de cliente**	**Cliente**
Administración	Estructura organizacional	Valores	**Cliente**	*Cantidad*	Garantía
Recursos **Cultura**	**Comunicación** **Cultura**	**Cultura** Optimización	Marca **Costo**	*Ubicación* Conocimiento	Cantidad Ubicación

Manejo de recursos			Tipo de conocimientos		
3			**4**		
Promedio alumnos	**VM y Expertos**	**Definitivo**	**Promedio alumnos**	**VM y Expertos**	**Definitivo**
Eficiencia - Eficacia	*Dirección- Liderazgo*	**Eficacia - Efectividad**	**Ideas y conocimientos**	**Aplicabilidad y práctica**	**Ideas y aplicabilidad**
Administración **Organización**	**Recurso humano** *Logística*	**Organización** **Recurso humano**	*Exteriorización* **Experiencia**	*Aprendizaje* *Necesidad y deseo*	**Experiencia** Aprendizaje

Tecnología	*Conocimiento*	Dirección- Liderazgo	*Sujeto y objeto*	Posibilidad de enseñar	Exteriorización
Estrategias	**Eficacia - Efectividad**	Logística	**Interiorización**	**Acceso y uso**	Necesidad y deseo
Producción	**Organización**	Administración	**Cultura**	**Experiencia**	**Acceso, uso y cultura**
Ahorro	Tipo de Recursos	Tecnología	*Combinación de conocimientos*	Nivel académico	**Interiorización**
Recurso humano	Tiempo	Conocimiento	*Información*	**Interiorización**	Sujeto y objeto

Razonamiento crítico			**Cultura del medio**		
5			**6**		
Promedio alumnos	**VM y Expertos**	**Definitivo**	**Promedio alumnos**	**VM y Expertos**	**Definitivo**
Evaluación	*Beneficios*	**Evaluación**	**Diversidad y Tolerancia**	**Costumbres y hábitos**	**Costumbres y hábitos**
Análisis	*Consecuencias*	Beneficios	*Recursos Humanos*	**Valores**	**Valores**
Competencias	*Logro / esfuerzo*	Consecuencias	**Comunicación**	**Diversidad y discriminación**	**Diversidad y Tolerancia**
Cognición	*Facilidad y practicidad*	Análisis	**Valores**	*Lenguajes - Idiomas*	**Formas de comunicarse**
Investigación	Tiempo	**Lógica**	*Retroalimentación*	**Formas de comunicarse**	Recursos Humanos
Reflexión	Sensibilidad humana	Competencias	**Costumbres**	*Posibilidades de superación*	Lenguajes - Idiomas
Lógica	**Lógica**	Logro / esfuerzo	Medio político	Apertura a cambios	Posibilidades de superación
Proactividad	**Evaluación**	Facilidad y practicidad	Mejora continua	*Visión global o local*	Retroalimentación

Calidad / Nivel		
7		
Promedio alumnos	**VM y Expertos**	**Definitivo**
Productos	**Satisfacción**	**Satisfacción**
Satisfacción	**Producto - Servicio**	**Producto - Servicio**
Servicio	*Auto-Exigencia*	Auto- Exigencia
Eficacia - Efectividad	**Recurso humano**	Recurso humano
Procesos	**Control**	Eficacia - Efectividad
Valor	Materia prima	**Control**
Control	Sentido de logro	Procesos
Recursos materiales	Espíritu de reto	Materia prima

Tabla 5- Variables seleccionadas en los elementos (competencias) de la dimensión Ética del incorporado de equipos de alumnos y de expertos/autor.

Intuición			**Actitud**		
1			**2**		
Promedio alumnos	**VM y Expertos**	**Definitivo**	**Promedio alumnos**	**VM y Expertos**	**Definitivo**
Razonamiento	**Percepción**	**Percepción**	*Razonamiento*	**Conducta**	**Conducta**
Percepción	**Actitud positiva**	**Actitud**	*Creencia*	**Valores - Ética**	**Valores - Ética**
Decisión	Equilibrio interior	Razonamiento	**Socialización**	*Ejemplo de familia*	**Socialización**
Actitud	**Deducción**	**Deducción**	**Conducta**	*Autoestima*	Razonamiento
Análisis	Confianza en sí mismo	**Observación**	Cognición	**Socialización**	Creencia
Observación	**Observación**	Equilibrio interior	Compromiso	Espíritu de superación	Ejemplo de familia
Deducción	Sentido extrasensorial	Confianza en sí mismo	Afección	Circunstancias externas	Autoestima
Conocimiento	**Experie**ncia	Decisión	**Ética**	Fuerza de voluntad	Espíritu de superación

Valores	**Leyes / Normas**

3 Promedio alumnos	VM y Expertos	Definitivo	4 Promedio alumnos	VM y Expertos	Definitivo
Respeto	*Educación*	**Felicidad**	**Reglas**	*Legalidad*	**Reglamentos**
Honestidad	**Felicidad**	**Integridad**	**Justicia**	**Justicia**	**Justicia**
Felicidad	*Familia*	Educación	**Seguimiento**	*Educación*	Legalidad
Integridad	*Amor al ser humano*	Familia	Constancia	**Reglamentos**	**Seguimiento**
Entrega	**Integridad**	**Respeto**	**Derechos**	**Conducta**	**Conducta**
Responsabilidad	**Respeto**	**Honestidad**	Respeto	*Necesidades*	Educación
Ser humano	**Honestidad**	**Responsabilidad**	**Conducta**	**Seguimiento**	**Derechos**
Plenitud	**Responsabilidad**	Amor al ser humano	Puntualidad	Equidad	Necesidades

Sensibilidad humana 5 Promedio alumnos	VM y Expertos	Definitivo	Armonía productiva / Proactiva 6 Promedio alumnos	VM y Expertos	Definitivo
Ayuda	**Valores**	**Valores**	*Equilibrio*	*Valores*	Valores
Solidaridad	*Amor al prójimo*	Ayuda	*Medición*	*Espíritu de logro*	Equilibrio
Valores	*Ponerse en el lugar del otro*	Solidaridad	*Responsabilidad*	*Metas*	Espíritu de logro
Empatía	Trato humano	Amor al prójimo	Liderazgo	*Deseos de hacer*	Medición
Percepción	Saber decir las cosas	Ponerse en el lugar del otro	Actitud	Plan	Metas
Compartir	Sentimiento de amistad	Empatía	Motivación	Equilibrio	Responsabilidad
Tolerancia	Espíritu de servicio	Percepción	Segmentación	Entusiasmo	Deseos de hacer
Sinceridad	Compasión	Trato humano	Dedicación	Orden	Plan

Una vez, que las tablas precedentes 3, 4 y 5 muestran sus resultados, se procedió a crear la Tabla 6 donde se muestran las variables que se repiten en cada dimensión y la Tabla 7 con las variables que se repiten en el total de las dimensiones.

Tabla 6- Variables que se repiten en cada dimensión y en los diferentes elementos

Capacidades gerenciales 8 Elementos	Variables repetidas	Conocimientos 7 Elementos	Variables repetidas	Ética 6 Elementos	Variables repetidas
Valores / Ética	5	**Recursos Humanos**	3	**Valores**	3
Metas y Objetivos	3	Eficacia - Efectividad	2	Amor al ser humano	2
Comunicación	2	Valores	2	Conducta	2
Estrategias	2			Educación	2
Estructura	2			Equilibrio	2
Liderazgo	2			Espíritu de superación	2
Motivación	2			Percepción	2
Organización	2			Razonamiento	2
Retroalimentación	2			Responsabilidad	2
Trabajo en equipo	2				
No. de variables que se repiten	10 variables		3 variables		9 variables

Se puede decir que esta es la primera etapa de la investigación analizada en este estudio donde se obtienen las variables más importantes según la percepción de los estudiantes de la muestra y que se combina con las del autor y los expertos. La segunda etapa que no se ha anexado por la limitación de espacio (número de páginas máximo) consistiría en colocar en primer lugar, factores de ponderación a cada variable (1 a 10, pudiéndose repetir el número) según la importancia de cada una de las variables de acuerdo a la percepción particular de las personas o equipos que evalúen el caso o situaciones que se quieran analizar; y posteriormente, un porcentaje (%) o puntaje (1 a 10) a cada variable según se aplique a diferentes escenarios que se quieran considerar y cuantificar. Posteriormente, se multiplican el factor de ponderación por la calificación y nos dará el resultado final para cada variable, lo cual no se presenta en Tabla en este artículo (proceedings).

Tabla 7- Variables que se repiten en el total de las tres dimensiones.

Resumen Total 21 Elementos	Variables repetidas		Variables repetidas		Variables repetidas
Valores	10	Actitud	2	Estructura	2
Metas y Objetivos	4	Amor al ser humano	2	Evaluación	2
Comunicación	3	Análisis	2	Felicidad	2
Equilibrio	3	Cantidad	2	Información	2
Liderazgo	3	Conducta	2	Logística	2
Organización	3	Confianza	2	Medición / Métricas	2
Planeación	3	Conocimiento	2	Motivación	2
Recurso humano	3	Control	2	Necesidades	2
Retroalimentación	3	Cultura	2	Percepción	2
		Decisión	2	Razonamiento	2
		Educación	2	Recursos	2
		Eficacia - Efectividad	2	Responsabilidad	2
		Espíritu de superación	2	Trabajo en equipo	2
		Estrategias	2		

CONCLUSIONES

La investigación realizada, como consecuencia del análisis de la literatura considerada y de los resultados aplicados con la muestra de estudio y el método aplicado, concluye:

A Modo General

Las tres dimensiones analizadas en este estudio, Capacidades gerenciales, Conocimientos y Ética están inmersas en la vida cotidiana del individuo a todo nivel y ayudan al desarrollo y mejoramiento de la educación y organizaciones de todo tipo, a modo local y global. Los cambios en esta era dinámica y sujeta a innovación representan un reto a todo estudiante, profesor y organización. Si los cambios se conciben con conocimiento de las dimensiones, los elementos y las variables analizadas en el estudio, se podrán prever oportunidades y amenazas que nos permitan anticipar soluciones y correcciones factibles más productivas e integrales. La educación inducirá a los estudiantes y profesores una visión y mentalidad orientada al aprendizaje con cimientos y perspectivas internacionales y los ayudará a estar mejor preparados para participar como ciudadanos del planeta. El tener patrones de variables que están presentes en la vida profesional en cualquier país otorga una ventaja competitiva al poder apreciar una gama más amplia de oportunidades y opciones en la toma de decisiones. Es conveniente y fundamental preparar a los estudiantes y profesionales sobre la importancia de ser más analistas y previsivos al momento de tomar decisiones; de allí que el hecho de evaluar las variables con porcentajes o del modo que se prefiera, les hará formarse de una manera más preventiva, beneficiosa, equilibrada y ética.

A Modo Particular o Específico Producto del Estudio Realizado

La variable Valores aparece con significativa relevancia sobre las otras y en muchos de los elementos analizados. Se considera de prioritaria necesidad fomentar los valores a nivel internacional en la educación para poder aplicarlos en la vida cotidiana como una forma de vida. Numerosos autores ratifican y consideran indispensable la presencia y necesidad de aplicación de valores en el liderazgo educacional y global (Azanza et al., 2013; Chen, C. & Yang, C. 2012; De Sendagorta E., 2008; Elango, B et al., 2010; Ferrer, J., 2010; Joseph, C. y Sailakshmi, S., 2011; Michaelson, C. (2010).).

En general no hay muchas variables que se repitan en diferentes elementos (competencias) como se aprecia en especial en las tablas 6 y 7 y cuando lo hacen en su mayoría solo dos veces. Las variables seleccionadas en la dimensión de Conocimientos es la más variada y solo tres variables se repiten, a saber: recursos humanos, eficacia-efectividad y valores.

Al tomar las variables que más se repiten en las tres dimensiones y sus 21 elementos en estudio, se puede apreciar que las 9 variables que más se repiten, (valores, metas y objetivos, comunicación, equilibrio, liderazgo, organización, planeación, recurso humano y retroalimentación) son parte fundamental del desarrollo y de la educación empresarial y que están presentes en toda actividad gerencial y administrativa, lo cual nos puede indicar que: Si la educación se concentra en la formación e importancia de estas variables los estudiantes a egresar estarán mejor preparados para afrontar la realidad que se vive dentro de las empresas Si cualquier empresa, institución u organización se concentra en la mejora de estas variables, las posibilidades de mejorar y progresar serán más probables.

RECOMENDACIONES

El método presentado en este estudio podría aplicarse a todo tipo de institución educativa o de otra índole, tanto públicas como privadas, con fines de lucro o no, pequeñas, medianas o corporaciones, y al igual, a equipos de trabajo, a grupos, familias, sociedad e incluso proyectarlo a nivel de región o país. Se recomienda por lo tanto: El realizar estudios similares con diferentes muestras y en distintos países para validar y consolidar el método, pasa a ser un reto para poder efectuar comparaciones y análisis que ampliarán las perspectivas de aplicación y conocimiento útil. El aplicar el instrumento de investigación a directivos de centros educacionales, empresariales y de otra índole es muy recomendable para que puedan encontrar y constatar la situación real de las mismas, considerando las variables que afectan el desempeño educacional, empresarial e internacional.

REFERENCIAS

Acosta, G. (2013) Globalización e internacionalización de la educación superior: un enfoque epistemológico. *Omnia.* 19, 75-85.

Anderberg, E., Nordén, B. and Hansson,B. (2009). Global learning for sustainable development in higher education: Recent trends and a critique. *International Journal of Sustainability in Higher Education.* 10, (4), 368-378.

Akins, R., Bright, B., Brunson, T., & Wortham, W. (2013). Effective Leadership for Sustainable Development. *E Journal of Organizational Learning & Leadership*. 11 (1) 29-36.

Arcienaga, L., Woehr, D. y Poling, T. (2008). El impacto de la diversidad de valores en los equipos sobre las variables de proceso y el desempeño de la tarea. *Revista Latinoamericana de Psicología*. 40, (3), 523-538.
Azanza, G., Moriano, J., & Molero, F. (2013). Authentic leadership and organizational culture as drivers of employees' job satisfaction. *Revista de Psicología del Trabajo y de las Organizaciones*, 29 (2), 45-50.

Barahona, J. (2004). Estilos de liderazgo y Valores. *PHP NUKE Sistemas de portales profesionales – Open Source*.

Bolanle, A., Olaniran, M, and Agnello, F. (2008). Globalization, educational hegemony, and higher education. *Multicultural Education & Technology Journal*. 2, (2), 68 – 86.

Bolívar, A. (2011). Aprender a liderar líderes. Competencias para un liderazgo directivo que promueva el liderazgo docente. *Educar. ,* 47 (2) 253- 275.

Chen, C. & Yang, C. (2012). The Impact of Spiritual Leadership on Organizational Citizenship Behavior: A Multi-Sample Analysis. *Journal of Business Ethics.* 105, 107-114.

De Sendagorta E. (2008). El Humanismo en el Liderazgo Empresarial. *Journal de Empresa y Humanismo*. Vol. XI (2) 11-32.

Donelly, R. (2004). Critical evaluation of the impact of global education reform: an Irish perspective. *International Journal of Education Management.* 18, (6), 351-359.

Elango, B., Paul, K., Kundu, S., Paudel, S. (2010). Organizational Ethics, Individual Ethics, and Ethical Intentions in International Decision- Making. *Journal of Business Ethics*. (97) (pp. 543-561). Ferrer, J. (2010). Eticidad en organizaciones humanas: reto en la construcción de un balance social de futuro. *Multiciencias*, 7 (3), 319-328.

Freeman, G.T. (2011). Spirituality and Servant Leadership: A Conceptual Model and Research Proposal. *Emerging Leadership Journeys*. Vol. 4 (1), 120—140.

Gabriel, R. y Allington, R. (2015). Constructing and Measuring Teacher Effectiveness in Global Education Reform. *In* Education Strategy in the Developing World: Revising the World Bank's Education Policy. Published online. 203-228.

García, C. (2005). Complejidades de la globalización e internacionalización de la educación superior: interrogantes para América Latina. *Cuadernos del CENDES*. 22, 1-22.

González, J.H. (2007). Internacionalización de la educación superior. *Universidades*. 33, 3-10.

Graham, S. (2005). Doing what comes naturally? Why we need a practical ethics of teamwork. *The international Journal of Human Resource Management*. 16 (2), 202-218.

Hernández, J., De Jesús, J., & Aguilar, M. (2014). Influencia del comportamiento del líder en el desarrollo de los recursos humanos. *Revista Internacional Administración & Finanzas*. 7 (6) 75-90

Joseph, C. y Sailakshmi, S. (2011). Spiritual intelligence at work. *The IUP journal of Soft skills*. Knight, J. (2010). Internacionalización de la educación superior: Nuevos desarrollos y consecuencias no intencionadas. *Boletín Iesalc informa de educación superior*. 211. http://www.iesalc.unesco.org.ve/index.php?option=com_content&view=article&id=2418%3Ainternacion alizacion-de-la-educacion-superior-nuevos-desarrollos-y-consecuencias-no-intencionadas&catid=126%3Anoticias-pagina-nueva&Itemid=712&lang=es

Lehner, D. and Wurzenberger, J. (2013). Global education - an educational perspectives to cope with globalization. *Campus-Wide Information Systems*. 30, (5), 358-368.

Lenn, M. P. (2000). Higher Education and the Global Marketplace: A Practical Guide to Sustaining Quality. *On the Horizon*. 8, (5), 7-10. Lilley, K., Barker, M. and Harris, N. (2014). Education global citizen in business schools. *Journal of international education in business*. 7, (1), 72-84.

Michaelson, C. (2010). Revisiting the Global Business Ethics Questions. *Business Ethics Quarterly*. (20) (2) (pp. 237-251).

O´Flaherty,J., Liddy, M., Tansey, L. and Roche, C. (2011). Education engaged citizens: four projects from Irland. *Education + Training.* 55, (4), 267-283.

Prada, R., (2013). La Adaptación al Cambio y el Servicio: Claves del Liderazgo en el Mejoramiento de la Productividad en las Organizaciones. *Revista de estudios avanzados de Liderazgo.* 1 (2) 45-50.

Ramírez A. (2011). Condiciones para la internalización de la educación superior: entre la inclusión y la exclusión en un mundo globalizado. Universities and Knowledge Society Journal. 8, 152-164.

Ramírez F., Sánchez M. y Quintero, H. (2005). El papel de los valores en la identidad corporativa. *Revista Negotium.* 1, (1), 35-54.

Ramos, L. & Díaz, B. (2010). Influencia del liderazgo visionario en el desarrollo organizacional. *Impacto científico.* 5, 137-153.

Rodríguez, A. y Aguilera, J.C. (2005). Persona ética y organización: Hacia un nuevo paradigma organizacional. *Cuadernos de Difusión.* 10, (18-19), (61-77).

Suarez-Orozco, M. (2005). Rethinking education in the global era. *Phi Delta Kappan.* 87, (3), 209-212. Trubek, D., O'mera, P., Mehlinger, H. y Newman, R. (2001). Changing perspectives on international education. Indiana University Press. 298-319.

Urias, D. (2015). International education in a global context. *Power, voice and the public good: schooling an education in global societies.*307-340.

Vega, J.M. (2006). ¿Por qué deben seguirme como líder? *The Anahuac Journal,* 6 (2). Universidad Anáhuac México Sur (ISSN 1405-8448), Oxford University Press.

Vohra, N. & Sheel, R. (2012). Corporate Social Responsibility: Practice Theory, and Challenges. Vikalpa: *The Journal for Decision Makers*, 37, 73-76.

Wit, H. (2011). Globalización e internacionalización de la educación superior. *Universities and Knowledge Society Journal.* 8, 77-84.

BIOGRAFIA

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MERCADO DE BONOS DE CARBONO: UNA OPORTUNIDAD PARA LAS PEQUEÑAS CENTRALES HIDROELÉCTRICAS EN COLOMBIA

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RESUMEN

El mundo cuestiona la generación eléctrica con combustibles fósiles por la emisión de dióxido de carbono, que tiene incidencia en el efecto invernadero y el cambio climático. Esta preocupación ha llevado a la creación de un nuevo mercado: el Mercado de Carbono, el cual otorga un tipo de bonos llamados "certificados de reducción de emisiones" (CER) a los proyectos que por su actividad reducen la cantidad de GEI. Los proyectos hidroeléctricos se encuentran entre los más susceptibles de recibir este tipo de incentivo debido a que, dentro del Mecanismo de Desarrollo Limpio, son consideradas una fuente de energía limpia con mínimos impactos en el ambiente. Este artículo presenta una revisión de las metodologías existentes para la valoración de emisiones de gases efecto invernadero y la aplicación de la metodología ACM0002 en una PCH en Colombia, calculando un factor de emisión actualizado para el país.

PALABRAS CLAVE: Mercados de Carbono, Mecanismo de Desarrollo Limpio (MDL), Pequeña Central Hidroeléctrica (PCH)

ABSTRACT

The world questions the power generation by fossil fuel emission of carbon dioxide, which has an impact on the greenhouse effect and climate change. This concern has led to the creation of a new market: the market for carbon credits, which gives a type of so-called "Certified Emission Reduction" (CER) projects that by their activity reduce the amount of GHG bonds. Hydropower projects are among the most likely to receive this type of incentive because, within the Clean Development Mechanism, are considered a source of clean energy with minimal impacts on the environment. This article presents a review of existing methodologies for assessing greenhouse gas emissions and the implementation of the ACM0002 methodology in a PCH in Colombia, calculating an updated emission factor for the country.

JEL: Q42, Q43, Q51, Q54

KEYWORDS: Carbon market, Clean Development Mechanism (CDM), Small Hydroelectric Plant (SHP)

INTRODUCCIÓN

En las últimas tres décadas, el mundo ha venido sufriendo las consecuencias del cambio climático, debido al uso excesivo de combustibles de origen fósil y a la alta emisión de gases efecto invernadero (GEI). Este efecto ha generado la firma de tratados, como el Protocolo de Kioto (PK), con objetivos claros en la limitación de emisiones de GEI para los países desarrollados, incluso para países en vía de desarrollo (UNFCCC, 2013). Desde el punto de vista del cambio climático, es irrelevante donde se reduzcan las emisiones, porque los efectos del cambio climático se producen, y sus causas se combaten, a escala global (González, Angulo, & López, 2009). Sin embargo, desde el punto de vista económico, es más rentable

reducir las emisiones donde salga más económico hacerlo. Estas variaciones ambientales que se producen a nivel global han planteado la responsabilidad que deben asumir las naciones, y en especial los actores del sector industrial y empresarial como principales agentes de este cambio (UNFCCC, 2013; Vitousek, 1992).

Con este planteamiento, el protocolo de Kioto ha impulsado el Mecanismo de Desarrollo Limpio (MDL) con dos objetivos claros: el primero de ellos consiste en que un país dentro del Anexo I (listado de países desarrollados y con economías en transición de mercado que firmaron el protocolo de Kioto) reciba una ayuda para cumplir con su compromiso del PK; y el segundo establece que, a través de los proyectos que se lleguen a realizar en países en desarrollo, estos últimos se vean beneficiados con la transferencia de tecnologías ambientalmente racionales suministradas por los países más avanzados y por ende, se propicie un desarrollo sostenible para dichos países. Los bonos generados a través de este mecanismo son conocidos como "Certificados de Emisiones Reducidas" o CER por su nombre en inglés (Lokey, 2009) y son otorgados a los proyectos que por su actividad reducen las emisiones de GEI, que pueden ser vendidos a actores industrializados como "permisos" para emitir más GEI del autorizado y comercializarlos en la bolsa de valores como bonos de carbono (PNUMA & UNFCCC, 2002).

Colombia, y más específicamente Antioquia, tienen un potencial hidroeléctrico abundante y de buena calidad, gracias a la afortunada combinación de aguas ricas en caudal y regulación natural, caídas topográficas abundantes y condiciones geológicas estables en el subsuelo (BIRD, 2011). Así mismo, cuenta con aceptable infraestructura de conectividad tanto vial como eléctrica para facilitar acceso a zonas de proyectos y permitir el transporte de la energía producida. Estas características permiten que las centrales hidroeléctricas en Antioquia presenten las condiciones necesarias para desarrollarse sustentablemente y beneficiarse de la emisión de bonos de carbono sin impactar negativamente el ambiente, a través de la venta de bonos de carbono. El objetivo de este trabajo consiste en la revisión y aplicación de algunas metodologías existentes para la valoración económica de las emisiones reducidas en la central hidroeléctrica Generadora Alejandría y su impacto en el sector eléctrico colombiano.

REVISIÓN LITERARIA

Varios autores han discutido el uso de sistemas de energía renovables en lugar de sistemas de energía convencionales en proyectos MDL y sus impactos sociales, económicos y ambientales, mostrando tendencias a la reducción total de las emisiones como producto de la instalación de sistemas de energía renovable en zonas remotas (Akella, Saini, & Sharma, 2009; Devault, Merlina, Lim, Probst, & Pinelli, 2007) (Mol, 2012; PNUMA & UNFCCC, 2002; World Bank Institute, 2009). Por su parte, otros trabajos (Abril et al., 2005; Martins, Seiffert, & Dziedzic, 2013; UNEP, 2004; Van Vuuren et al., 2003) han evaluado proyectos de pequeñas centrales hidroeléctricas (PCH) como candidatos para la reducción de emisiones GEI. Se ha mostrado que tecnologías de energía renovable, tales como PCH, pueden contribuir a la sostenibilidad global a través de la mitigación de GEI (BIRD, 2011; Mol, 2012). Además, estudios en países en desarrollo muestran que la inversión en tecnologías más eficientes, el uso racional de la energía y la sustitución de combustibles fósiles por renovables, reducen las emisiones de gases de efecto invernadero. Dado que las PCH representan una fuente de energía renovable, con una reducción de las emisiones de GEI, es probable que el mercado MDL sea una fuente de oportunidad para su desarrollo, aumentando el interés de los inversores en este tipo de fuentes de energía (Watts, Albornoz, & Watson, 2015).

Mercado de Carbono

El mercado de carbono funciona de la siguiente manera: los Estados miembros del Anexo I del Protocolo de Kioto suelen elaborar Planes Nacionales de Asignación (PNA) de acuerdo a los cuales se establecen límites de emisiones a sus empresas. Dentro de este límite, las empresas pueden comprar y vender derechos de acuerdo a sus necesidades para, a fin de año, entregar una cantidad de derechos equivalentes a sus emisiones. De esta manera, las emisiones se reducen allí donde resulta más rentable (Watts et al., 2015).

Considerando lo antes mencionado, resulta lógico que éste mercado sea altamente atractivo a los países en vías de desarrollo. En efecto, los países industrializados, por lo general, cuentan con tecnologías más eficientes, razón por la cual el costo de oportunidad de reducir las emisiones de GEI en esos países resulta mayor al costo de realizar dichas inversiones en países en vías de desarrollo. Por tanto, este mercado ha creado una serie de oportunidades para los países que, como Colombia, se encuentran en desarrollo ya que permite desarrollar Proyectos MDL a partir de los cuales se originan CER y, a consecuencia de estos últimos, generar ingresos adicionales a los que podrían derivarse de un determinado proyecto de inversión, así como acceder a tecnología amigable con el medio ambiente.

METODOLOGÍA

A partir de una exploración de las metodologías aprobadas por la Convención Marco de las Naciones Unidas Contra el Cambio Climático (UNFCCC) para la valoración de emisiones, se identificaron 66 metodologías por tipos de proyectos y tecnologías elegibles como Mecanismo de Desarrollo Limpio. Las áreas de aplicación incluyen al sector energético (generación, distribución y consumo), las industrias manufactureras, la construcción, transporte, minería, metales, manejo de residuos y reforestación. En la revisión se encontró que los proyectos más populares para ser aprobados bajo el esquema MDL son los de energías renovables, con un 56% del volumen transado en el mercado. Dentro de estos últimos, los aprovechamientos hidroeléctricos son uno de los más frecuentes, con el 26% del total de proyectos registrados hasta principios de 2014 (World Bank Institute, 2014). Para el caso específico de proyectos hidroeléctricos, la UNFCCC cuenta con unas Metodologías de gran escala Consolidadas Aprobadas (ACM) para calcular las reducciones de emisiones para un proyecto. En este trabajo se desarrolla un caso de estudio en Antioquia, con la metodología ACM0002 para el proyecto hidroeléctrico Generadora Alejandría, con el fin de determinar la viabilidad de este tipo de mercados de carbono en Colombia.

Descripción General de la Actividad del Proyecto

El proyecto central hidroeléctrica Generadora Alejandría, a desarrollarse en los próximos años, se encuentra localizado en el departamento de Antioquia, en las inmediaciones de los municipios de Alejandría, Concepción y Santo Domingo, con una zona de influencia, la cual corresponde a las veredas Remolino, de Alejandría; Fátima, de Concepción; y Los Naranjos, de Santo Domingo. El proyecto tendrá una generación eléctrica DE 15 MW aprovechando la cuenca del río Nare. El propósito de este proyecto es generar electricidad adicional para el oriente del departamento de Antioquia y contribuir al desarrollo sostenible de la región y del país, reduciendo las emisiones de CO_2.

Cálculo de las Reducciones de Emisiones Previas a la Ejecución del Proyecto (Ex – Ante)

Las emisiones del escenario de línea base corresponden a las emisiones de CO_2 asociadas al consumo de combustibles fósiles que hubiese sido utilizado por las centrales de generación de energía que son desplazadas por el proyecto MDL. Para estos efectos, la UPME en su página oficial reporta un valor del factor de emisión de CO_2 del sistema eléctrico interconectado colombiano de 0.2849 tCO2/MWh, calculado con la información disponible del año 2008 (UPME, 2010). Para este caso de aplicación, este factor de emisión se recalculará con la información disponible del mercado con el fin de llevar a cabo un estudio con valores actualizados, como se ilustra en el desarrollo de esta sección. Las emisiones de la línea de base se calculan como el producto del factor de emisión (tCO2/MWh) de la red y la energía neta despachada por la actividad de proyecto.

$$BE_y = EG_{PJ,y} \times EF_{grid,CM,y} \tag{1}$$

BE_y	=	Emisiones de la línea base en el año y (t CO_2/yr)
$EG_{PJ,y}$	=	Cantidad neta de generación de electricidad que se produce y se transmite a la red como resultado de la implementación de la actividad de proyecto MDL en el año y (MWh/yr)
$EF_{grid,CM,y}$	=	Factor de emisión de la red, calculado como el promedio ponderado del factor de emisión del Margen de Operación ($EF_{OM,y}$) y el factor de emisión del Margen de Construcción ($EF_{BM,y}$), (t CO_2/MWh)

Se continúa con el cálculo del factor de emisión, mediante el siguiente procedimiento:

Paso 1: Identificación del sistema eléctrico relevante. Se utiliza el Sistema Interconectado Nacional.

Paso 2: Decidir si se incluyen las plantas de generación que no están conectadas a la red (opcional). Se decide incluir sólo plantas de energía en el sistema eléctrico del proyecto.

Paso 3: Seleccionar el método para determinar el margen de operación. El cálculo del factor de emisión del margen de operación está basado en el método OM Simple Ajustado. Los datos seleccionados para este cálculo corresponden a un promedio de los últimos tres años de generación, con base en los datos más recientes disponibles.

Paso 4: Calcular el factor de emisión del margen de operación de acuerdo al método seleccionado.
El factor de emisión OM Simple Ajustado se calcula como la emisión de CO_2 por unidad de generación de electricidad neta (tCO_2/MWh) de una combinación de plantas low-cost/must-run (este término es ampliamente utilizado en la literatura y se refiere a plantas de bajo costo que deberían entrar al sistema) potencia (k) y otras plantas de energía (m), como se muestra continuación:

$$EF_{OM-Adj,y} = (1 - \lambda_y) \frac{\sum_m EG_{m,y} * EF_{EL,m,y}}{\sum_m EG_{m,y}} + \lambda_y \frac{\sum_k EG_{k,y} * EF_{EL,k,y}}{\sum_k EG_{k,y}}$$
$$(2)$$

Donde,

$EF_{OM-Adj,y}$	=	Factor de emisión del margen de operación simple ajustado en el año y (t CO_2/MWh)
λ_y	=	Factor que expresa el porcentaje de veces en que las unidades de potencia low-cost/must-run se encuentran en el margen en el año y
$EG_{m,y}$	=	Cantidad neta de electricidad generada y entregada a la red por la unidad m en el año y (MWh)
$EG_{k,y}$	=	Cantidad neta de electricidad generada y entregada a la red por la unidad k en el año y (MWh)
$EF_{EL,m,y}$	=	Factor de emisión de CO_2 por unidad de potencia m en el año y (t CO_2/MWh)
$EF_{EL,k,y}$	=	Factor de emisión de CO_2 por unidad de potencia k en el año y (t CO_2/MWh)
m	=	Todas las unidades conectadas a la red excepto las unidades de potencia low-cost/must-run
k	=	Todas las unidades de potencia low-cost/must-run conectadas en el año y

El parámetro λ_y se define de la siguiente manera:

$$\lambda_y = \frac{horas\ plantas\ low-cost/must-run\ en\ margen\ en\ a\~no\ y}{8760\ horas\ por\ a\~no} \tag{3}$$

Para calcular el valor de lambda se debe realizar el siguiente procedimiento (UNFCCC, 2012):

Recoger datos de carga cronológicos para cada hora del año *y*, y ordenar los datos de carga desde el más alto nivel hasta el más bajo y trazarlos en una curva en orden descendente.

Calcular la generación total anual (kWh) de plantas de energía / unidades low-cost/must-run.

Trazar una línea horizontal a través de la curva de duración de carga tal que el área bajo la curva sea igual a la producción total (en kWh) de las unidades low-cost/must-run.

Determinar el número de horas que las fuentes low-cost/must-run están en el margen en el año y.

Para calcular los factores de emisión de CO_2 $EF_{EL,m,y}$ y $EF_{EL,k,y}$ se aplica la siguiente ecuación:

$$EF_{EL,m,y} = EF_{CO2,i,m,y} * \eta_{m,y} * CONV \tag{4}$$

Donde:

$EF_{CO2,i,m,y}$	=	Factor de emisión de CO_2 del tipo de combustible *i* usado por la planta *m* en el año *y* (t CO_2/TJ)
$\eta_{m,y}$	=	Eficiencia del combustible de la planta *m* en el año y (MBTU/MWh)
$CONV$	=	Factor de conversión 1 MBTU = 0.001055056 TJ
i	=	Tipo de combustible usado por la planta *m*

El conjunto de los factores de emisión de la unidad de potencia *n* calculado *ex-ante* se deberá revisar al inicio del próximo período de acreditación basado en los datos oficiales y la disposición del público. En la

Tabla 1 se presentan los resultados obtenidos a partir de la ecuación 2, para el cálculo de los factores de emisión de CO_2 por unidad de potencia.

Tabla 1: Factores de Emisión Por Fuente de Combustible

VARIABLE	2008	2009	2010
Generación Low cost/Must run (kWh)	45,984,245,807	40,677,087,860	40,503,285,282
Emisiones Low cost/Must run (tCO_2)	16,355	33,180	73,224
OM Low cost/Must run (tCO_2/MWh)	0.0003557	0.0008157	0.0018078
Generación No Low cost/Must run (kWh)	8,128,306,238	14,964,392,812	16,068,818,044
Emisiones No Low cost/Must run (tCO_2)	5,326,893	10,951,971	10,338,353
OM No Low cost/Must run (tCO_2/MWh)	0.6553509	0.7318687	0.6433798

En la tabla 1 se muestran los datos obtenidos para el cálculo del factor de emisión del Margen de Operación (OM) a partir de los datos de generación de energía eléctrica de las diferentes plantas en Colombia. Para ello se utilizan las ecuaciones 2, 3 y 4 del presente documento. Este factor nos indica la emisión de CO_2 por unidad de generación de electricidad neta (tCO2/MWh, resaltando el bajo nivel de emisión que se genera con fuentes de bajo costo como pequeñas centrales hidroeléctricas (Low cost/Must run).

Paso 5: Identificar el conjunto de unidades de generación que serán incluidas en el margen de construcción. La muestra de las plantas de generación más usadas para calcular el margen de construcción corresponden al conjunto de las adiciones de capacidad en el sistema eléctrico que comprende el 20% de la generación (en MWh) y que han sido construidas recientemente (UPME, 2009, 2013). Con la muestra se determinó el factor de emisión del margen de construcción, obteniendo un resultado para este factor de 0.24422 t CO_2/MWh.

Paso 6: Calcular el factor de emisión del margen de construcción. El factor de emisión del margen de construcción es el factor de generación promedio ponderado de emisiones (tCO_2/MWh) de todas las unidades de potencia m durante el último año y del que hay datos disponibles de generación de energía, calculado de la siguiente manera:

$$EF_{BM,y} = \frac{\sum_m EG_{m,y} * EF_{EL,m,y}}{\sum_m EG_{m,y}}$$ **(5)**

Donde:

En la Tabla 2: se presentan los resultados obtenidos para este cálculo

$EF_{BM,y}$	=	Factor de emisión del margen de construcción en el año y (t CO_2/MWh)
$EG_{m,y}$	=	Cantidad neta de electricidad generada y entregada a la red por la unidad m en el año *y* (MWh)
$EF_{EL,m,y}$	=	Factor de emisión de CO_2 por unidad de potencia m en el año y (t CO_2/MWh)
m	=	Todas las unidades conectadas a la red excepto las unidades de potencia low-cost/must-run

Tabla 2: Resultados Obtenidos Para el Cálculo del Factor de Emisión del Margen de Construcción (BM)

Variable Para El Cálculo	Resultado
Generación total 2010 kWh	56,897,333,441
20 % Generación total 2010 kWh	11,379,466,688
Generación de las últimas 5 Plantas kWh	205,723,335
20% Generación de las últimas 5 Plantas kWh	11,748,551,458
BM 2010	**0.2442221**

En la tabla 2 se muestran los datos obtenidos para el cálculo del factor de emisión del Margen de Construcción (BM) a partir de los datos de generación de energía tanto eléctrica como térmica. Para ello se utiliza la ecuación 5.

Paso 7: Calcular el factor del margen combinado: A partir de la ecuación 1 se obtienen los resultados del cálculo del factor de emisión como se presenta a continuación.

Tabla 3: Resultados Obtenidos Para el Cálculo del Factor del Margen Combinado

Variable	2008	2009	2010
OM No Low cost/Must run	0.6554	0.7319	0.6434
OM Low cost/Must run	0.0004	0.0008	0.0018
Lambda	0.3113	0.0451	0.0203
$EF_{\text{OM Simple ajustado; y}}$	0.4514	0.6989	0.6303
Generación [MWh]	54,112,552	55,641,481	56,572,103
$EF_{\text{OM Simple ajustado 10,09,08 [tCO2/MWh]}}$	**0.45589**		
$EF_{\text{BM 10 [tCO2/MWh]}}$	**0.24422**		
EF_{CM} [tCO2/MWh]	**0.350058**		

En la tabla 3 se muestran los datos obtenidos para el cálculo del factor de emisión del Margen de Combinado (BM) a partir de los la ecuación 1 y los resultados obtenidos en las tablas 1 y 2. Este valor obtenido corresponde a las emisiones de CO_2 que se generan con una fuente convencional de generación de energía en Colombia. A partir de este dato se pueden estimar la reducción de emisiones de cada proyecto de fuentes de energía alternativa.

El valor obtenido para el factor de emisión del margen combinado es 0,350058 tCO$_2$/MWh. A partir de este dato se pueden estimar la reducción de emisiones del proyecto.

ANALISIS DE RESULTADOS

Resumen de la Estimación Ex-Ante de la Reducción de Emisiones del Proyecto

Para un primer período de acreditación de 7 años, con la implementación del proyecto MDL se obtiene una reducción de emisiones de 385.818 toneladas de CO_2 que permitirían obtener unos ingresos adicionales en el mercado de bonos de carbono, como pago por los servicios ambientales. A continuación se muestran, de manera simplificada, los datos obtenidos de reducciones estimadas para el proyecto hidroeléctrico. En la Tabla 4 se presenta el resumen de la estimación de la reducción de emisiones para el proyecto Hidroeléctrico Generadora Alejandría, a partir de los datos obtenidos anteriormente.

Tabla 4: Cálculo de las Emisiones Reducidas Estimadas Para El Proyecto Hidroeléctrico Generadora Alejandría a 21 Años

CER (Tco2e)	Generación Anual de Electricidad (Mwh/Y)	Emisiones de la Línea Base (Tco2e)	CER
7 AÑOS	693,000	242,592	242,592
14 AÑOS	1,386,000	485,184	485,184
21 AÑOS	2,079,000	727,776	727,776

En la tabla 4 se muestran los datos de generación de energía anual del proyecto hidroeléctrico Generadora Alejandría y su estimación de reducción de emisiones para un primer período de acreditación ante la junta directiva del MDL de 7 años. Se estima una reducción de emisiones de 34,656 tCO2e por año, lo que representa 242.592 tCO2e para un primer período de acreditación.

Ingresos Esperados Por Venta De Bonos

Existe consenso que con la venta de certificados de reducción de emisiones de GEI incrementa la Tasa Interna de Retorno (TIR) de los proyectos y al mismo tiempo puede facilitar la financiación del mismo dada la alta calidad del flujo de caja generada por la venta de los certificados. En forma simplificada, los ingresos netos de un proyecto MDL por venta de CER están dados por la siguiente ecuación:

$$I = V * P - T \tag{6}$$

Donde:

V	=	Volúmen de CER (t CO_2)
P	=	Precio del mercado (US$/ t CO_2)
T	=	Costos de transacción

Dadas las características actuales del mercado, cada una de estas variables puede cambiar de forma importante en el tiempo, debido a factores tanto internos como externos al proyecto mismo. De manera que cualquier estimación respecto de los ingresos será, inevitablemente, absolutamente referencial. De acuerdo con estos resultados, para un primer período de acreditación de 7 años del proyecto se obtendrían unas emisiones reducidas de 242.592 tCO2e y se generarían ingresos por venta de CER de USD $774.332 en un escenario conservador, considerando el menor precio de CER obtenido en el mercado. Cabe destacar, que de acuerdo al a la destinación de este tipo de ingresos adicionales, se puede obtener un valor mayor del CER en el mercado a partir de una propuesta inversión de los recursos en la comunidad a intervenir por el proyecto hidroeléctrico. Por ende, la aplicación de la metodología ACM0002 en la pequeña central hidroeléctrica Generadora Alejandría resulta en una propuesta, que desde el punto de vista económico, aumenta la rentabilidad financiera del proyecto. Además, este tipo de ingresos adicionales pueden ser destinados para suplir la inversión requerida en los planes de manejo ambiental, de acuerdo a la legislación colombiana. Estos datos serías diferentes para el caso en el que se hubiera usado el Factor de Emisión calculado por la UPME. Según esto, el proyecto hidroeléctrico obtendría unos certificados de emisiones reducidas de 169.244 tCO2e, lo que significaría una reducción del 30,23% de los ingresos proyectados a recibir por el proyecto, comparado con los datos calculados con el factor de emisión actualizado en este trabajo.

CONCLUSIONES

Este artículo presenta una revisión de las metodologías existentes para la valoración de emisiones de gases efecto invernadero bajo el mecanismo de Desarrollo Limpio (MDL) aprobadas por la UNFCCC según lo establecido en el protocolo de Kioto. Dentro de esta revisión se hace un especial énfasis en las metodologías

relacionadas con la generación de energía a partir de fuentes renovables, y particularmente, con las que se refieren a la operación de las centrales hidroeléctricas. Dicha revisión muestra la ventaja comparativa existente entre la certificación de pequeños proyectos hidroeléctricos (menor a 19 MW) en el MDL con respecto a las grandes centrales hidroeléctricas, debido a una mayor factibilidad del cumplimiento de los requisitos establecidos. Las Pequeñas Centrales Hidroeléctricas (PCH) son una alternativa conveniente para la generación de energía eléctrica en Colombia debido a las condiciones favorables en su operación y al menor impacto ambiental que generan comparada con otras fuentes disponibles en la canasta energética en Colombia. Teniendo en cuenta el resultado de la aplicación de la metodología ACM0002 en la Generadora Alejandría, se puede decir que existen grandes posibilidades para Colombia de participación en el Mercado de Carbono, a través de las pequeñas centrales hidroeléctricas. A su vez, los proyectos hidroeléctricos que busquen contribuir a la sostenibilidad local pueden encontrar en el MDL una manera de complementar fuentes de financiación estables para el desarrollo de los mismos.

REFERENCIAS

Akella, A. K., Saini, R. P., & Sharma, M. P. (2009). Social, economical and environmental impacts of renewable energy systems. Renewable Energy for Sustainable Development in the Asia Pacific Region, 34(2), 390-396. http://doi.org/10.1016/j.renene.2008.05.002

BIRD. (2011). Potencial Hidroeléctrico de Antioquia Inventario, perspectivas y estrategias (p. 112). Medellín: Banco de Iniciativas Regionales para el Desarrollo de Antioquia.

González, J. I., Angulo, M. V., & López, C. (2009). Pobreza y Cambio Climático. Trabajo realizado para Naciones Unidas-Pnud. Documento digital, 52.

Martins, D. E. C., Seiffert, M. E. B., & Dziedzic, M. (2013). The importance of clean development mechanism for small hydro power plants. Renewable Energy, 60(0), 643-647. http://doi.org/10.1016/j.renene.2013.06.021

PNUMA, & UNFCCC. (2002). Para comprender el Cambio Climático: Guía Elemental de la Convención Marco de las Naciones Unidas y el Protocolo de Kioto. Denmark. Recuperado a partir de www.cd4cdm.org

Purohit, P. (2008). Small hydro power projects under clean development mechanism in India: A preliminary assessment. Energy Policy, 36(6), 2000-2015. http://doi.org/10.1016/j.enpol.2008.02.008

UNFCCC. (2012). ACM0002: "Consolidated baseline methodology for grid-connected electricity generation from renewable sources" V 13.0.0.

UNFCCC. (2013). United Nations: Framework Convention on Climate Change. Recuperado 1 de noviembre de 2013, a partir de http://unfccc.int/2860.php

UPME. (2009). Plan de Expansión de Referencia Generación – Transmisión 2010-2024 (p. 118). Unidad de Planeación Minero Energética.

UPME. (2010). Cálculo del factor de emisión de CO_2 del sistema eléctrico interconectado nacional para determinar la línea base de proyectos MDL (Papers) (p. 18). Bogotá: Unidad de Planeación Minero Energética. Recuperado a partir de http://www.siame.gov.co.

UPME. (2015). Registro de Proyectos de Generación. Recuperado a partir de http://www.siel.gov.co/siel/documentos/documentacion/Generacion/PROYECTOS_2015_JUL.pdf

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APLICACIÓN DEL MODELO CVF PARA CARACTERIZAR LA CULTURA ORGANIZACIONAL DE LAS EMPRESAS DE LA REGIÓN DEL TOLIMA GRANDE

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RESUMEN

La presente investigación pretende caracterizar a las empresas asentadas en la región del Tolima Grande (64 empresas y 1,290 colaboradores de todos los niveles de la organización) entre el 2009 y el 2014, mediante la aplicación de la metodología propuesta por Cameron & Quinn y especialmente mediante su método CVF (Competing Value Framework).Para ello se utilizó la metodología deductiva, con un tipo de estudio de orden descriptivo, utilizando el instrumeto de validación OCAI, sugerido por el modelo. La investigación arroja que en su gran mayoría las organizaciones tienen una cultura jerárquica y, en una menor proporción, una cultura de mercado y la cultura que debería tener la empresa para afrontar con éxito el futuro, debería ser mayoritariamente una cultura de clan.

PALABRAS CLAVE: Modelo CVF, Cultura Organizacional, Tipos de Cultura, Ocai

ABSTRACT

This research aims to characterize companies based in the region of Tolima Grande (64 companies and 1,290 employees from all levels of the organization) between 2009 and 2014,by the application of the methodology proposed by Cameron & Quinn and in particular by CVF method (Competing Value Framework. The deductive methodology was used, with a type of descriptive study, using the validation tool OCAI, suggested by the model. The investigation shows that the vast majority of organizations have a hierarchical culture, and in a lower proportion,a market culture, and the culture that the company should have to successfully meet the future, should be mainly a culture of clan.

JEL: M1, M14

KEYWORDS: Model CVF, Organizational Culture, Culture Types, Ocai

INTRODUCCION

El fenómeno de la cultura organizacional, ha ido cobrando relevancia desde los años ochenta, dicha realidad explica el éxito sostenido de muchas empresas tales como google, 3M, Disney, Hewlett Packard, P&G, entre muchas otras, quizás una de las razones del éxito de dichas organizaciones, ha sido entender, que la cultura organizacional es un recurso mas de la organización, y como tal es necesario gestionarlo efectivamente.

REVISIÓN DE LITERATURA

El concepto de cultura organizacional ha sido ampliamente discutido desde décadas atrás. Según Schein(1985:17), uno de los grandes estudiosos de dicha realidad: "Es el patrón de premisas básicas que un

determinado grupo inventó, descubrió o desarrolló en el proceso de aprender a resolver sus problemas de adaptación externa y de integración interna y que funcionaron suficientemente bien al punto de ser consideradas válidas y, por ende, de ser enseñadas a nuevos miembros del grupo como la manera correcta de percibir, pensar y sentir en relación a estos problemas*".* De la misma manera, extrayendo algunos puntos de coincidencia que se encuentran en la concepción de una gran diversidad de autores, se pueden encontrar algunos elementos convergentes: 1) Es conciencia colectiva -sistema de significados compartidos-, *construida y compartida* por los miembros de la organización, 2) Es un sistema abstracto y no tangible, *invisible, percibido y aprendido por el hombre mediante procesos de socialización* lo cual permiten comprender y adaptarse al medio, 3) Dicho sistema de significados influye directamente en la personalidad del individuo, determinando su comportamiento, así como sus formas de pensar, sentir y actuar, 4) La cultura está en la mente de los individuos, quienes en su proceso intelectual conforman el sistema de significados, los valores, las ideologías, es construída de manera inconsciente), 5) Muestra tres estadios; Rasgos Materiales: lo que el hombre produce y construye y se manifiesta por la tecnología, la infraestructura, los inventos; Un nivel formado por los valores y, por último, el invisible, que influye en las formas de pensar y actuar de los individuos, 6) La cultura son manifestaciones que difieren del grupo social que los produce y 7) Los hábitos de Pensamiento, modelos mentales y paradigmas lingüísticos: los marcos cognitivos compartidos que guían la percepción, pensamiento y lenguaje utilizado por los miembros de un grupo son enseñados a los nuevos miembros en el proceso de socialización. Schein (1985, 1986, 1990, 1996), Schein et al (1962), Jaeger & Selsznick (1963), Ebrahimpour et al (2011), Petigrew (1979), Smircich (1983), Denison et al (2006), Barney (1986), Ouchi et al (1985), Odom et al (1990), Hallett (2003), Handwerker (2002), Hatch (1993), Aktas et al (2011), Zehir et al (2011), Keeton & Mengistu (1992), Denison (1993), Tsui (2006), Cameron & Quinn (1999, 2006).

Es preciso aclarar que el concepto de CO ha sido extraído en mayor manera de la antropología y quizás esta sea la causa de los numerosos enfoques que han provocado una corriente amplia de pensamiento dentro de los estudios organizacionales acerca de la relación de cultura y organización. Precisamente, Smircich (1983) afirma que, dentro de la antropología, la cultura se conceptualiza de maneras diversas. Cuando los teóricos de la organización desarrollan una analogía cultural, tienden a elaborar una visión de la cultura que proviene de la antropología cognitiva, de la antropología simbólica o, en una magnitud mucho menor, de la antropología estructural y de las teorías psicodinámicas. En la antropología cognitiva, constituye un conocimiento compartido y en la antropología simbólica, es un sistema de significados compartidos. De acuerdo con la antropología estructural y la psicodinámica, la cultura es una manifestación y expresión del funcionamiento inconsciente de la mente. Otra corriente importante en el abordaje de dicho concepto lo propone la sociología con los trabajos de Durkheim, Parsons y Weber. Bajo este enfoque la organización es una estructura social y las relaciones sociales que sus miembros -tanto internos como sus grupos de interés- establecen dan lugar a un sistema de relaciones. Según Parsons (1938), en la Teoría General de la Acción.

Modelo de cameron & quinn: Ambos investigadores crearon un modelo para evaluar la cultura organizacional, que consta de cuatro cuadrantes que evalúan: "Un aspecto que hace hincapié en la flexibilidad, la discreción frente a los criterios que hacen hincapié en la estabilidad, el orden y el control. La segunda dimensión hace hincapié en una orientación interna, frente a una orientación externa" Cameron & Quinn (2006:51). En la figura 1 se pueden ilustrar los diferentes cuadrantes.

Tipos De Cultura: cuadrante i clan: Es llamada así en razón a la similitud con el tipo de organización familiar. Sus características son: el medio ambiente se puede controlar más efectivamente mediante el trabajo en equipo y desarrollo de los colaboradores, los clientes están mejor como socios, la organización está en el negocio del desarrollo de un ambiente de trabajo humano, y la principal tarea de la administración es capacitar a los empleados y facilitar su participación, el compromiso y la lealtad;

Figura 1: Tipologías Culturales Según el Modelo CVF

Fuente: Cameron & Quinn. Diagnosing and Changing Organizational Culture, Pag 52

Cuadrante II Adhocrática: Los miembros ven a la organización como un lugar dinámico para trabajar, de espíritu emprendedor y ambiente creativo. Las personas, por ende, tienden a ser creativas y toman riesgos aceptados. Los líderes también son considerados innovadores y tomadores de riesgo. Las organizaciones se encuentran principalmente en el negocio de desarrollo de nuevos productos. Lo que sostiene a la organización en el tiempo es la experimentación de nuevos productos o servicios, la innovación, el estar en constante crecimiento y adquiriendo nuevos recursos. El éxito institucional significa tener utilidades importantes por la venta de nuevos productos o servicios, siendo los líderes de mercado en su área;

Cuadrante III Jerárquica: **E**stá basada en el modelo propuesto por Weber. Algunas características son: Muchas reglas y normas, las funciones de los empleados son muy claras, existen procedimientos para realizar las funciones, toma de decisiones centralizada tanto horizontal como verticalmente y por lo tanto, los mecanismos de coordinación normalmente utilizados no pasan de la supervisión directa, demasiado control y es propicia para ambientes estables y con poca incertidumbre. Este modelo es implementado en las organizaciones para generar predictibilidad y consistencia. El éxito se define en términos de entrega fidedigna, planificación adecuada y costos bajos; Cuadrante IV Mercado: Es una organización orientada a los resultados, cuya mayor preocupación es realizar el trabajo bien hecho. Las personas son competitivas y orientadas a los resultados u objetivos. Los líderes son directivos exigentes y competidores a su vez. El sostenimiento de la organización está en el énfasis en ganar, siendo la reputación y éxito de la organización preocupaciones cotidianas. El éxito se define en términos de participación de mercado y posicionamiento. En este tipo de organización, sus miembros están en un ambiente en el cual prima el control del trabajo realizado y además sus miembros prefieren la estabilidad de la organización. La organización normalmente se encuentra en un ambiente hostil, los consumidores de los productos de la organización están interesados en las ofertas de valor que pueda hacer la misma. La mayor tarea de los líderes es llevar a la organización a la productividad**.**

METODOLOGÍA

Tabla 1: Elementos a Considerar en la Metodología

Descripción	Características
Metodología	Método Deductivo.
Tipo de estudio	Descriptivo.
Empresas seleccionadas	64 empresas pertenecientes a los siguientes sectores: Educación, Salud, Servicios y Producción. Para mayor información consultar anexo #1.
Personas encuestadas	Se encuestaron en total 1290 colaboradores de todos los niveles de la organización.
Período de análisis	2009 al 2014.
Instrumento	Se tomó el instrumento OCAI propuesto en la metodología de Cameron & Quinn(1996,1999) que propone seis elementos fundamentales: 1) Características dominantes de la organización, donde se indaga por las peculiaridades de la organización, asociadas según sea el cuadrante, así: Clan (A), Adhoc o de Innovación (B), Mercado (C) y Jerárquica (D); 2) Liderazgo Organizacional, que indaga por la forma como es gestionado de acuerdo a cada cuadrante; 3) Administración del talento humano, quizás uno de los elementos que aporta mayor valor al modelo; 4) Unión de la organización, se pregunta por elementos cohesionadores de la misma; 5) Énfasis Estratégico, hacia donde apuntan las estrategias de la empresa; y por último 6) Los Criterios de Éxito, donde se indaga cómo es definido el éxito en la organización. Para mayor información sobre la totalidad de los ítems incluidos en el instrumento consultar el anexo #2. Cabe anotar que para la tabulación de las encuestas se hace necesario hallar promedios por cada colaborador tanto para la CULTURA ACTUAL como para la DESEADA y posteriormente encontrar un promedio general para el empleado y luego para la empresa, dichos promedios se ubican en la gráfica para cada cuadrante: A, B, C o D como aparece en la figura 2, cada eje va desde 0 hasta 100, partiendo desde el punto (0,0) que es el inicio de cada cuadrante. La dimensión con mayor puntaje entre 0 y 100 de los cuatro cuadrantes, resulta ser la cultura dominante para cada caso, es decir: Clan, Adhoc, Mercado o Jerárquica.

RESULTADOS

A continuación se presenta un resumen de los resultados encontrados por diversos subsectores.

Figura 3: Cultura Actual y Deseada del Sector de la Educación

Como se puede observar, la cultura que más predomina en el sector educativo es la cultura jerárquica (cuadrante A), en razón a la cantidad de normas a las que están circunscritas este tipo de organizaciones. Por una parte el gobierno nacional les reglamenta todo su actuar y, por otra, su sistema de gobierno es altamente jerárquico y centralizado, precisamente para cumplir con la normatividad que les da vida jurídica.

Con respecto a la cultura deseada, se puede evidenciar, en la gran mayoría de empresas, que la cultura deseada para afrontar con éxito el mercado migra fundamentalmente a una de grupo, que corresponde precisamente a la antítesis de la cultura dominante.

Figura 3: Cultura Actual y Deseada del Sector Salud y Otras Empresas de Servicios

Como en el anterior sector, también se evidencia para la cultura actual, una cultura jerárquica predominante (cuadrante A), con algunas empresas en cultura de clan y también cultura de mercado, esta última en razón a las características propias de los mercados que atienden, los cuales exigen mayor nivel de servicio al cliente, mayor oferta de productos y servicios, menores precios, mayor exigencias, entre otras. Con respecto a la cultura deseada, en su gran mayoría quisieran una cultura más participativa, con mayor preocupación por el talento humano, entre otras (cuadrante A).

Figura 4: Cultura Actual y Deseada de las Empresas Dedicadas a la Producción

Las empresas en su gran mayoría tienen un cultura jerárquica, compartida con una cultura de mercado (cuadrante C), en razón a las necesidades de colocar sus productos en mercados altamente competitivos y con expectativas muy amplias por parte de sus consumidores en cuanto a niveles de satisfacción en sus nichos de mercado, medidos en calidad, precio, servicio, entre otros atributos.

CONCLUSIONES

Los resultados de la presente investigación evidencian varios aspectos: 1) Que en su gran mayoría las empresas participantes en el estudio poseen una dominancia en la cultura jerárquica como se evidencia en la figura 5 y en la tabla 2. Vale aclarar que dicha cultura está omnipresente en dichas organizaciones en razón a su entorno estable y no complejo, que comparten todas las organizaciones, dando como resultado estructuras funcionales, como se evidencia en el estudio hecho por López et al (2012), estructuras que limitan el accionar de los colaboradores. Esto es concomitante con estructuras altamente centralizadas y normalizadas en todos sus procesos. Asimismo se evidencia en menor grado la presencia de culturas de mercado, en razón a la necesidad de las mismas de atender sus mercados altamente exigentes, reclamando mayor oferta de productos y/o servicios, menores precios, mayor nivel de servicio al cliente, mejor tiempo de respuesta, entre muchos otros. 2) Queda al descubierto la negación de la posibilidad en dichas organizaciones de aplicar nuevos modelos de organización donde primen elementos como el autocontrol, la autodirección, el trabajo en equipo y la autodirección; por eso quizás no se encuentra rasgos predominantes en el cuadrante de la cultura adhoc (cuadrante B), precisamente por las características asociadas a la misma. Algunos elementos importantes están relacionados con: la innovación, el espíritu creativo, la toma de riesgos y liderazgo, que le son totalmente contrarias a culturas altamente burocráticas. 3) Un aspecto a resaltar de este modelo lo constituye el hecho de preguntar a los colaboradores por la cultura que debería tener la organización para afrontar con éxito el futuro de la organización, que le permita sentar las bases para una adecuada gestión del cambio de la misma, en caso de ser necesario. Cabe anotar que, con respecto al cambio de cultura en las empresas objeto de estudio, se evidencia claramente el deseo de extirpar gradualmente las culturas burocráticas presentes en dichas organizaciones y migrar hacia cultura de clan como se ilustra en figura 5 y en la tabla 2, donde sea posible. Las características de dicha cultura coinciden con: 1) Mayor reconocimiento del colaborador como un ser humano y no como un instrumento más de las organización para el logro de sus objetivo maximalistas y reduccionistas; 2) Obtener mayor participación en la toma de decisiones; 3) Reconocer la dualidad de los objetivos personales de promoción y desarrollo del colaborador, a la vez que se consiguen los objetivos de la organización; por último, 4) Las muestras tomadas por subsectores, donde dichas empresas comparten los mismos mercados, los mismos intereses e inclusive hasta estructuras muy semejantes, ratifican el hecho de que la cultura es una identidad para la organización y, además, como el sistema de significados compartidos que son propios de cada organización.

Tabla 2: Resumen de la Cultura Predominante en las Organizaciones Por Sector

Sector/Cuadrante	Cultura Actual				Cultura Deseada			
	A	B	C	D	A	B	C	D
Educación	24,73	18,84	23,23	33,23	37,53	20,79	20,70	20,96
Salud y Servicios	23,61	19,35	26,77	29,13	30,25	23,09	23,10	22,43
Producción	22,18	16,22	27,66	33,57	32,17	26,21	23,18	18,72

Fuente

Figura 5: Cultura predominante en las organizaciones por sector

Limitaciones: Dentro de las limitaciones que se tuvo, se resalta el poder acceder a un mayor núermo de muestras, especialmente en el sector educativo y en el de la producción, que de seguro llevaría a poder concluir con mayor determinación acerca de la cultura predominante en dichas organizaciones. De otra manera la subjetividad con la pueda contestar el instrumento, dado que el mismo, permite al evaluador calificar entre 0 y 100 cada cuadrante.

Futuras líneas de investigación: Considero que: 1) el instrumento tiene una posibilidad de hacer un estudio mas detallado desde cada característica dominante: aspectos como la gestión del talento humano, el liderazgo, el éxito de las organización y el énfasis estratégico pudiesen ser analizados individualmente y comparados entre organizaciones; 2) Como seguda instancia es pertinente tener instrumentos que se acojan a nuestra realidad cultural, perse diferente, así que puede resultar muy enriquecedor construir y validar los mismo; y en una tercera línea y quizás bastante retador sería poder enlazar el papel que tienen las cultura organzicional en la construcción de las famosas capaciadades dinámicas Teece et al (1997), Pisano (1994), Grant (1996), Eisenhardt y Martin (2000), Collin (1994), así como el impacto, que la misma causa en un aspecto relevante denominado por Leonard-Barton(1992) rigideces organizacionales que impiden su desarrollo.

BIBLIOGRAFÍA

Aktas, E. et al (2011). The Effect Of Organizational Culture On Organizational Efficiency: The Moderating Role Of Organizational Environment and CEO Values. *Procedia Social and Behavioral* Sciences 24, 1560–1573.

Barney, J. (1986). Organizational Culture: Can It Be a Source of Sustained Competitive Advantage? *The Academy of Management Review*, 11(3), 656-665.

Cameron, K. & Quinn R. (1999). *Diagnosing and Changing Culture Organizational*. Culture Editorial. Addison-Wesley, Series on Organization.

Cameron, K, & Quinn R. (2006). *Diagnosing and Changing Culture Organizational Based on the competing values framework*. United States of America. Ed. John Willey & Sons Inc. 2006.

Collins, D.J. (1994). Research Note: How Valuable are Organizational Capabilities? *Strategic Management Journal*, 15, 143-152.

Denison, D. et al. (2006) Diagnosing Organizational Cultures: Validating a Model and Method**.** *Institute for Managment*. 2006.

Deninson, D. et al. (1993). Toward a Theory Organizational Culture and effectiveness*. Working paper''. School Business Administration,* 728.

Ebrahimpour, H. (2011) et al. A survey relation between organizational culture and organizational citizenship behavior. *Social and Bahavorial Sciences* 30, 1920-1925.

Eisenhardt, K. & Martin, J. (2000): Dynamic capabilities: What are they? *Strategic management Journal,* 21, 1105-1121.

Grant, R. (1996). Prospering in dynamically-competitive environments: Organizational capability as knowledge integration. *Organization Science*, 7(4): 375-387.

Hatch, M. (1963). The Dynamics of Organizational Culture. *The Academy of Management Review*, 18(4), 657-693.

Hallet, T. (2003). Symbolic Power and Organizational Culture *Sociological Theory*, 21(2), 128-149.

Handwerker, P. (2002). The Construct Validity of Cultures: Cultural Diversity. *Culture Theory, and a Method American Anthropologist*, 104(1), 106-122.

Keeton, K. & Mengistu B. (1992). The Perception of Organizational Culture by Management Level: Implications for Training and Development. *Public Productivity & Management Review*, 16(2), 205-213.

Jaeger, G. & Sellznick P. (1964). A Normative Theory of Culture. *American Sociological Review*, 29(5), 653-669.

Leonardbarton, D. (1992). Core Capabilities and Core Rigidities - A Paradox in Managing New Product Development. *Strategic Management Journal*, 13: 111-125.

Lopez et al. (2012,11). Aplicación del Modelo CVF a la región del Tolima Grande. Ascolfa 2012. Lima-Perú.
Mendez, C. (2006). *Transformación Cultural en las Organizaciones.* Bogotá:Limusa Noriega Editores.
Odom, R. et al. (1990). Organizational Cultures, Commitment, Satisfaction, and Cohesion Public. *Productivity & Management Review*, 14(2) 157-169.

Ouchi, W. et al (1985). Organizational Culture. *Annual Review Sociological*, 457-83.

Pettigrew, A. (1979). On studying organizational cultures. *Administrative Science Quarterly*, 24, 570-581.

Pisano, G. (1994). Knowledge integration and the locus of learning: An empirical analysis of process development. *Strategic Management Journal,* 15, 85-100.

Schein, E. et al (1962). The Legitimacy of Organizational Influence. *American Journal of Sociology*, 6(6), 682-689.

Schein, E. (1990). Organizational culture. *American Psychologist*, 45(2), 109-119.

Schein, E. (1996). Culture: The Missing Concept in Organization. *Administrative Science Quarterly*, 41(2), 229-240.

Schein, E. (2004). *Culture and Leadership.* San Francisco. John Wiley & Sons, Inc.

Schein, E. (2006). Review by: William G. Organizational Culture and Leadership Tierney. *The Academy of Management Review,* 11(3), 677-680.
Smircich, L. (1983). The concept of culture and organizational analysis. *Administrative Science Quarterly*, 28(3), 339-358.

Teece, D. et al. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*. 18(7), 509-533.

Tsui, A. (2006) Unpacking the relationship between CEO leadership behavior and organizational culture. *The Leadership Quarterly,* 17, 113–137.

Zehir, C. et al (2011). The Effects of Leadership Styles and Organizational Culture over Firm Performance: Multi-National Companies in Stambul. *Procedia Social and Behavioral Sciences,* 24, 1460–1474.

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CRISIS DE LECTOESCRITURA EN EL ESTUDIANTE UNIVERSITARIO

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RESUMEN

La lengua ya sea hablada o escrita, es una de las bases para la preservación y transmisión de la cultura, sin embargo en las últimas décadas los estudiantes universitarios presentan serias dificultades en ambas prácticas. Por lo tanto fomentar la escritura y la lectura en la universidad es una gran necesidad que implica habilitar a los estudiantes para que sean capaces de interpretar y producir textos adecuados a sus necesidades comunicacionales y a los contextos en que se desenvuelven. En este trabajo presentamos las estrategias que la Universidad Veracruzana y los docentes de la Facultad de Pedagogía hemos implementado para aliviar esta situación, así también mostramos algunos de los resultados de la puesta en marcha de dichas estrategias.

PALABRAS CLAVE: Lectura, Escritura, Universidad

CRISIS OF UNIVERSITY STUDENT LITERACY

ABSTRACT

The language either spoken or written, is one of the bases for the preservation and transmission of culture, however in recent decades, college students have serious difficulties in both practices. Therefore encourage writing and reading at the University is a great necessity involving to enable the students to be able to interpret and produce texts appropriate to their communication needs and contexts in it unfold. In this work we present strategies which the Universidad Veracruzana and the teachers of the Faculty of pedagogy have implemented to alleviate this situation, so also we show some of the results of the implementation underway of such strategies.

JEL: I2, I21, K12

KEY WORDS: Reading, Writing, University

INTRODUCCIÓN

Leer es uno de los mayores placeres de la vida, no sólo como una distracción, sino también como una permanente construcción y rectificación del conocimiento y de nosotros mismos. La lectura no solo proporciona información (instrucción) sino que forma (educa) creando hábitos de reflexión, análisis, esfuerzo, concentración y recrea, entretiene y distrae. Una persona con hábito de lectura posee autonomía cognitiva, es decir, está preparada para aprender por sí mismo durante toda la vida, porque la lectura:

Ayuda al desarrollo y perfeccionamiento del lenguaje.
Mejora la expresión oral y escrita y hace el lenguaje más fluido.
Aumenta el vocabulario y mejora la redacción y ortografía
Facilita la expresión del propio pensamiento y posibilita la capacidad de pensar.

La lectura desarrolla la creatividad pues al ampliar nuestro horizonte lexicológico y cultural nos brinda el desarrollo de los principales indicadores de creatividad como son: la fluidez, la flexibilidad, la originalidad y la sensibilidad.

Por su parte la escritura es una actividad compleja que no solamente significa plasmar nuestras ideas, pensamientos, sentimientos y opiniones ante los demás, sino también la de tomar decisiones en cómo se ha de lograr esta tarea, lo cual implicar poner en práctica simultáneamente una serie de procesos de pensamiento, tales como: el análisis, la comprensión, la reflexión, y la síntesis. Enseñar a escribir supone considerar el importante papel que desempeñan tanto la forma como el contenido en la producción de un texto. Hay que profundizar en el conocimiento sobre un tema para poder escribir sobre él, pero también hay que saber cómo expresar y estructurar la información en torno al mismo para que ésta no se reduzca a un grupo de ideas inconexas. Ambos procesos: la lectura y la escritura, son simultáneos, por lo que deben trabajarse a la par, y en la medida que se haga se irá reduciendo la grave crisis de lectoescritura por la que atraviesa no sólo el nivel superior sino en general nuestro país.

Planteamiento del Problema

Si preguntamos ¿qué papel cumplen la lectura y la escritura en la formación del estudiante universitario?, se podría responder que la lectura y la escritura son el eje central del proceso educativo y que de su dominio depende, en parte, no solo el ingreso a la universidad, sino también el éxito académico y profesional. El estudiante universitario descubre que la lectura y la escritura son actividades decisivas en su trabajo académico, porque necesita ampliar, confrontar y reelaborar, a partir de una bibliografía, los conceptos que se trabajan en clase. A medida que los estudiantes avanzan en su trayectoria académica, la metodología de los cursos descansa básicamente, sobre las actividades que llevan a cabo en relación con la elaboración de reportes de lectura, ensayos, informes, reseñas y monografías. Para cumplir con estos requerimientos en forma eficiente y productiva, el estudiante debe desarrollar al máximo su habilidad lectora y de producción de textos, así como la capacidad para utilizar adecuadamente todos los servicios que prestan las bibliotecas y los centros de documentación, y adquirir criterios para seleccionar los materiales que necesita. Nuestra experiencia docente en la universidad nos indica que el estudiante que posee un buen desarrollo de la aptitud verbal logra un mejor rendimiento, sin embargo, la universidad no ha logrado compensar la falta de habilidades para leer y escribir que presentan la mayoría de los estudiantes que ingresan a ella.

Por tal razón existe una gran preocupación por elevar la calidad de la educación para formar profesionales competentes e investigadores capaces de resolver problemas. Se reconoce que para lograr este objetivo es necesario potenciar al máximo las habilidades para leer y escribir, porque son esenciales para el avance científico, tecnológico y cultural de un país. Consideramos que la lectura, y la escritura son procesos inseparables, porque sin negar el papel que juegan los medios audiovisuales en el proceso educativo, todavía la lectura y la escritura son los instrumentos más utilizados en el proceso de enseñanza-aprendizaje. Las investigaciones sobre el fracaso escolar han descubierto que el factor que más incide en dicho fracaso es precisamente la deficiencia en la lectura y la escritura. Además de su papel en el proceso educativo formal, la lectura y la escritura proporcionan esparcimiento y son fuente de placer; son una de las mejores maneras de utilizar productiva y creativamente el tiempo libre. La lectura nos ayuda a comprender las ideas de los demás, también, nos sirve para conocer las culturas y las visiones del mundo que tienen otros pueblos; es la mejor forma de remontarnos al pasado y de reconstruir, en lo posible, el presente y el futuro, así como de acercarnos a las obras de autores que han dejado testimonios valiosos para la humanidad y que han aportado al desarrollo cultural y científico. La escritura por su parte, es fundamental para la transmisión de nuestras ideas, conocimientos y pensamientos, ¿por qué entonces los universitarios leen y escriben cada vez menos, o en su defecto lo hacen con dificultad?

Justificación

La lectura y la escritura son procesos de gran importancia en el desarrollo de la inteligencia y madurez del ser humano. La lectura nos permite a obtener un mejoramiento básico en cuanto a la adquisición de cultura y aprendizaje voluntario. Cuando aprendemos a desarrollar una mejor lectura obtenemos una gran capacidad a la hora de hacer un juicio, análisis con un énfasis de trabajo intelectual. A la hora de realizar constantemente la lectura aumenta un perfeccionamiento en el lenguaje en la cual se mejora la expresión oral y escrita. La lectura implica la participación activa de la mente y contribuye al desarrollo de nuestra imaginación, creatividad y sobretodo enriquece el vocabulario y la ortografía. La lectura es el eje central del proceso educativo y que de su dominio depende, en parte, el ingreso a la universidad y el éxito académico y profesional. En cuanto a un ámbito más maduro como lo es la universidad podemos encontrar una serie de procesos, etapas, pasos más complejos y completos que nos ayuda a fortalecernos en el momento de abrir paso a la lectura. La lectura y escritura además de ser un instrumento para participar en las actividades académicas, es un mediador de la actividad mental por la que los estudiantes aprenden, reflexionan generando conocimiento. Pero el valor de la lectura y escritura en relación con la formación universitaria va más allá de las tareas académicas ya que nos ofrece una visión del mundo y una mejor comprensión de nosotros mismos. Nos colabora a mejorar nuestra forma de interpretar y comprender lo que hay en nuestro alrededor, facilitándonos nuestra forma de relacionarnos con otras personas pero siempre enfocándonos en el desarrollo activo con unos principios básicos.

Las instituciones de enseñanza superior deberían estimular la realización de actividades controladas de lectura y escritura en las diferentes disciplinas. Los universitarios a diario se enfrentan a múltiples casos que obligan a tener por básico una interpretación o comprender dichas situaciones. Además, una de nuestras obligaciones en la universidad es llevar un proceso eficaz que nos comprometa a un aprendizaje intelectual pero obviamente con una facilidad de obtener los instrumentos necesarios que nos permitan dar una mejor participación social plena. Para cumplir con el objetivo de la lectura se requiere que el estudiante deba desarrollar al máximo su habilidad lectora y la capacidad para utilizar adecuadamente todos los servicios que prestan las bibliotecas y los centros de documentación, y adquirir criterios para seleccionar los materiales que necesita. La importancia de la lectura y escritura en la Universidad; es hacer entender a los estudiantes que se verán enfrentados en su vida profesional a situaciones que no han transitados antes, para la comprensión y producción al desarrollar los conocimientos que tengan respecto al tema; por medio de la lectura y la escritura nos hacemos más conocedores de la vida y nos nacen ideas grandísimas lo cual permite un desarrollo de la mente.

Las universidades realizan actividades controladas de lectura y escritura, en los diferentes casos. Los estudiantes normalmente, se encuentran en diferentes discursos sociales en los cuales deben ser capaces de tener una actitud crítica propia de ciudadanos conscientes. Además, una de las funciones de la universidad, es facilitar a los estudiantes instrumentos que les permitan una participación social, para lo cual el dominio de la cultura escrita es indispensable. La capacidad de entendimiento del estudiante hace parte de la educación que recibió en su infancia. La lectura y escritura son habilidades básicas en el aprendizaje de futuros conocimientos. Si un pequeño que lee y comprende puede desenvolverse bien en la educación primaria, en grados superiores, y en la vida común y cotidiana. Los niños que no reciben una buena educación, lamentablemente, no podrán acceder a una universidad; tampoco tienen la capacidad de comunicarse en un espacio laboral, y cuando tengan su familia no les será posible transmitir los conocimientos aprendidos, debido a la inseguridad que llevan.

Finalmente se entiende como lectura y escritura todo el conocimiento que se adquiere desde pequeños, es desarrollar las ideas, pensamientos y conocimientos que se generan al leer un texto lo cual genera un gran beneficio para un tiempo futuro. Las habilidades y saberes no se adquieren en las disciplinas, no solo porque los docentes no tienen la preparación requerida, sino que se basan en los contenidos específicos y no pueden abrirse a otras problemáticas discursivas. Esto lleva en la actualidad a insistir en la importancia de mantener

en todas las carreras, además de los esfuerzos que se realicen en las asignaturas, la reflexión sobre el lenguaje y la realización de tareas de lectura y escritura que permitan a los estudiantes interrogar desde distintos lugares los textos escritos y adquirir la necesaria información.

REVISIÓN DE LITERATURA

La lectura y la escritura son prácticas que marcan la vida del estudiante, a través de la lectura se apropia del conocimiento y lo incorpora a su bagaje logrando aprendizajes significativos; la escritura por su parte es el proceso que le permite expresar sus pensamientos, sentimientos y opiniones. La lectura se define como una actividad mental compleja de captación y grabación de datos, conceptos, sentimientos y emociones; en donde la función del lector es captar, ampliar, interpretar, confrontar, rechazar, compartir, resumir, recrear y reelaborar los conceptos que contienen los textos (Cassany *et al*, 1998; Díaz, 1995; Martínez, 1994, 1997; Jolibert, 1990). Desde este punto de vista la lectura es la práctica más importante para el estudio, porque mediante de ella se adquiere la mayor parte de los conocimientos y por tanto influye mucho en la formación intelectual, además por medio de la lectura se reconocen las palabras, se capta el pensamiento del autor y se contrasta con el propio pensamiento de manera crítica.

De acuerdo con la perspectiva psicolingüística la lectura es vista como un proceso de construcción de significados, para lo cual es absolutamente necesario que se produzca una transacción, una interacción entre el lector y el texto, de la cual ambos resultan transformados. Esta visión del proceso no se centra, ni exclusivamente en el texto, ni en el lector, aunque sí le otorga a este último el papel esencial, que efectivamente desempeña como constructor activo de significados. El lector, hace uso de su conocimiento del mundo, del tema sobre el cual lee y del texto mismo, para procesar la información que el texto suministra y construir así su propia representación. Así pues, la comprensión que cada uno realiza depende de varias cuestiones, algunas relacionadas con el texto y otras propias del lector, entre las que se pueden mencionar: el conocimiento previo con que aborda la lectura, los objetivos que la orientan y la motivación que siente al leer. (Ferreiro, 1983).

Ahora bien desde el punto vista de este mismo enfoque (psicolingüista) la escritura es un proceso que demanda la progresiva construcción de esquemas conceptuales que permitan interpretar datos previos y nuevos datos para transformarlos en conocimiento.

Ferreiro (1983) en sus trabajos ha comprobado que para que el niño comprenda la naturaleza del sistema alfabético tiene lugar una serie de pasos ordenados, caracterizado cada paso por esquemas conceptuales particulares. De acuerdo con Ferreiro, ninguno de esos esquemas conceptuales puede ser caracterizado como una simple reproducción, en la mente del niño, de informaciones provistas por el medio. Esos esquemas implican siempre un proceso constructivo en el cual los niños toman en cuenta parte de la información dada, e introducen siempre, al mismo tiempo, algo propio. El resultado son construcciones originales que a nuestro modo de pensar parecen caóticas, pero que tienen sentido para el individuo en el proceso que realiza para transformar la información dada, elaborarla y asimilarla.

Observamos entonces que la lectura y la escritura se encuentran en el día a día y se manifiestan constantemente en lo cotidiano en el contexto de la hipermedialidad. Tomando un fragmento de un sugerente texto de P. San Martín y G. Guarnieri (2007: 20), se puede sostener que hoy la lectura y la escritura en los tiempos de internet se complejizan cada vez más pues aparecen "segmentos conversacionales, interactividad a través de computadoras conectadas a internet con páginas donde podemos dejar nuestras huellas (blog, wikis) vinculadas a móviles telefónicos, cámaras directas, pantallas gigantes, etc., se multiplican los sujetos de la enunciación". Ese nuevo mundo, esa nueva realidad es un terreno fértil en el cual hay que trabajar y con el cual hay que realizar un cambio para que realmente sirva para la comunicación. Escribir por su parte, es un proceso que consiste en producir textos con los que se pretende dar a conocer un mensaje que puede ser leído por los demás o solamente por el autor. Al escribir

se ponen en orden las ideas que la persona desea expresar. Escribir bien es por lo tanto una competencia que se va desarrollando día a día. Los estudiantes al aprender una disciplina, tomar apuntes y leer textos relacionados con la misma adquieren un nuevo lenguaje, y conocimientos que les permiten elaborar una reinterpretación y asimilación de la información, y al final expresar lo aprendido a través de una escritura académica, más consistente, presentando no sólo ideas propias sino también argumentos, datos y opiniones tomadas de otras fuentes. "Es decir, que aprender a escribir es aprender a pensar y viceversa. Una forma de aprender a escribir es acompañar al estudiante en las etapas de pre-escribir, de re-escribir entendiendo como los estudiantes piensan y crean, cada uno utilizando el lenguaje y las ideas con su particular voz" (Porter, 2001: 2). Por lo tanto: El proceso de escribir, aunque sea para tomar apuntes en clase, implica ya cierto procesamiento de la información, porque escribimos lo que entendemos usando nuestras propias palabras. (Guerrero, 2011). Escribir correctamente implica también conocer las reglas de la gramática y de la ortografía además de manejar la terminología propia de cada campo del conocimiento. Desde la perspectiva de Alvarado y Yeannoteguy (1999), al trabajar con estos dos aspectos de la lengua se estará trabajando con el desarrollo de cuatro códigos fundamentales:

el sociocultural, pues se pondrán en juego permanentemente los conocimientos que se traen acerca del mundo, tanto de parte de un alumno que escribe como de uno que lee;

ideológico pues se comprenderá que en los textos siempre de deslizan sistemas ideológico y de creencias que cada una de las personas pueden proyectarse a través de los textos;

retórico pues se pondrán en juego una serie de conocimientos que el lector tiene (o que deberá trabajar para tenerlos) sobre el lenguaje; y por último el lingüístico, es decir todos los conocimientos que se debe tener como hablante de la lengua vinculados con la lengua (fonética, conocimientos léxico – gramaticales, etc.). Al respecto, Cassany (1998) distingue cuatro enfoques básicos de la didáctica de la expresión escrita, considerando varios aspectos: objetivos de aprendizaje, tipos de ejercicios, programación, etc. Cada planteamiento hace hincapié en un aspecto determinado de la habilidad.

Enfoque gramatical: Se aprende a escribir con el conocimiento y el dominio de la gramática del sistema de la lengua**.**

Enfoque funcional: Se aprende a escribir a través de la comprensión y producción de los distintos tipos de textos escritos.

Enfoque procesual: Mediante este enfoque el aprendiz tiene que desarrollar procesos cognitivos de composición para poder escribir buenos textos.

Enfoque de contenido: Según este enfoque, al mismo tiempo que se desarrolla la expresión, la lengua escrita se enseña como instrumento que puede aprovecharse para aprender distintas materias. En general, la lectura puede servir para enseñar a pensar críticamente, ayudando a los estudiantes a organizar, resumir e integrar y sintetizar diversos elementos en un todo coherente. Por otra parte, escribir puede enseñarles a concienciarse de sus propios procesos de aprendizaje, por tanto, como herramienta de aprendizaje, la escritura puede ayudar a los estudiantes a profundizar su comprensión de los contenidos de la asignatura así como a adquirir importantes competencias de pensamiento. (Barkley E. F., Cross K. P. y Howell M. C., 2005: 87). Finalmente coincidimos con Cassany (1998) en considerar que el gran desafío de la lectoescritura en la universidad, es y será formar usuarios autónomos, críticos y creativos del lenguaje, capaces de interpretar y producir cambios en el mundo mediante el uso de la lengua oral y escrita. Ese es el desafío en el que se debe trabajar.

Objetivos

Los objetivos de nuestro trabajo son:

Dar a conocer la importancia que tiene la lectura y la escritura en el desempeño académico del estudiante universitario.

Propiciar que los estudiantes fortalezcan su competencia comunicativa para que puedan desenvolverse de manera óptima en distintos contextos.

METODOLOGÍA

La Universidad Veracruzana consciente de la importancia que implica fomentar la lectura y la escritura en los estudiantes, incorporó en todos sus Programas Educativos el Área de Formación Básica General (AFBG), la cual incluye cuatro Experiencias Educativas:

Lectura y redacción a través del análisis del mundo contemporáneo
Habilidades del pensamiento
Computación Básica
Inglés I y II

Centraremos nuestro trabajo en el Taller de Lectura y Redacción a través del mundo contemporáneo, ya que éste pretende que el estudiante conozca y aplique diversas estrategias del proceso de lectura para que, a la vez que lee textos de temas contemporáneos como ensayos, artículos, noticias y editoriales en periódicos, revistas, páginas Web y otros medios, sea capaz de utilizar esta práctica con el fin de lograr una competencia para el comentario oral, la comunicación escrita o verbal, la expresión individual o grupal, aprendiendo los recursos de la redacción en la elaboración de diversos trabajos: resúmenes, textos académicos, ensayos y escritos libres. El curso pretende propiciar en los estudiantes el desarrollo de una percepción y una comprensión de la cultura en el mundo contemporáneo, a través de lecturas motivadoras y actividades prácticas diversas que, además, sirvan para afirmar conocimientos básicos del área y estimulen la expresión escrita, la comunicación oral y la investigación. Para el logro de estos fines la Universidad Veracruzana, ha emprendido desde el 2006 una importante cruzada de fomento de la lectura creando la Colección de la Biblioteca del Universitario, la cual consiste en una colección de textos considerados como clásicos de la literatura universal, que pretende formar estudiantes más cultos y mejores seres humanos. Asimismo le abre al estudiante las puertas del conocimiento del mundo y también a sí mismo. Así que el Taller de Lectura y Redacción (TLyR) no sólo promueve estrategias de lectura sino también la habilidad de producción de textos en los jóvenes universitarios y para lograr desarrollar esta habilidad, solicita que a lo largo del curso produzcan distintos tipos de textos, tales como:

Carta de exposición de motivos,
Reseñas críticas,
Fichas de trabajo,
Monografías,
Ponencias,
Informes,
Artículos de divulgación,
Comentarios críticos,
Curriculum vitae,
Ensayos, entre otros.

La producción textual de estos documentos obliga al estudiante a poner en práctica estrategias de lectura que van desde la selección de sus textos, hasta las estrategias que emplean cuando practican el proceso lector y lo que hacen para la apropiación del conocimiento (postlectura), lo que le permite disertar y argumentar con fundamentos sólidos y confiables su discurso, basándose en un meticulosos proceso de escritura que les permite planear su trabajo, formular un primer borrador, sobre el estarán escribiendo, revisando, y corrigiendo hasta llegar a la fase de la edición. En conjunto con estas dos estrategias: la dotación de un paquete de libros a cada estudiante y la producción de textos que se desarrollan en el TLyR se pretende atenuar la crisis de lecto-escritura por la que atraviesa la educación no solamente en nuestro Estado sino en todo nuestro país. En este contexto los profesores universitarios nos enfrentamos al gran reto que representar formar a nuestros estudiantes en las prácticas de lectura, ya que mediante la lectura y la escritura el discente realiza un proceso de análisis y síntesis que lo lleva a comprender contenidos y a expresar sus propias ideas y puntos de vista argumentando correctamente. Escribir bien, en forma coherente y ordenada, denota un pensamiento claro. En un principio los estudiantes universitarios desconocen las prácticas discursivas propias de cada disciplina o profesión, y por lo tanto el cómo leer y escribir en cada ámbito del saber. Es por esta razón, que sobre todo en los primeros años, los estudiantes necesitan la orientación que les han de dar sus profesores por medio de lecturas guiadas y comentadas: esto es, con lecturas acompañadas de preguntas, explicaciones, comentarios y ejemplos, que los ayuden a saber lo que están buscando en la lectura así como el por qué y el para qué.

RESULTADOS

Los resultados de la implementación de estrategias de lectoescritura han sido satisfactoria hemos logrado que la producción escrita de los estudiantes se presentara en distintos eventos académicos, siendo algunos de ellos:

El Foro Regional "Unidos por la lectura", el cual se ha realizado ya en cuatro ocasiones y en donde los jóvenes han dado a conocer a un público selecto sus escritos, Festivales Regionales de la Lectura que se han realizado en cada uno de los campus que conforman a la Universidad Veracruzana, Demostraciones de sus producciones textuales que se realizan como cierre del curso y a las que asisten los directivos y profesores, quienes pueden constatar la originalidad, creatividad y versatilidad de los escritos, Publicación de las producciones textuales en el periódico de la universidad e incluso se han compartido en blogs, recibiendo comentarios verdaderamente halagüeños, Participación en concursos regionales y nacionales de cuento, relato y ensayo Presentación de ponencias en congresos regionales, nacionales e internacionales. Estancias académicas (por ejemplo: Verano con un científico) nacionales y en el extranjero en las que se adhieren a algún proyecto de investigación del Profesor-Investigador de su elección.

Hemos logrado además que en la mayoría de nuestros estudiantes surja la necesidad, pero sobre todo el placer por seguir practicando la lectura no solo con libros inherentes a sus respectivas disciplinas, también con lecturas de su interés y de distintas temáticas, por una parte; por la otra parte han tomado consciencia de que el conocimiento que no se comparte, no trasciende, no germina, por lo tanto se debe comunicar a los demás, lo que ha dado lugar a la creación textual de los jóvenes, su participación en concursos de cuento, relato, ensayo entre otros, así como su participación como ponentes en foros, congresos, simposiums regionales, nacionales e internacionales se ha incrementado significativamente y la calidad de sus trabajos académicos es cada vez mejor.

CONCLUSIONES

No hay especialidad profesional en la que no se requiera de una práctica lectora que actualice constantemente los conocimientos para hacernos más competentes día a día, así en el acto de leer, se establecen conceptos, juicios y razonamientos, ya que, aunque no seamos conscientes de ello, estamos

dialogando constantemente con el autor y con nuestra propia cosmovisión. Por lo tanto la lectura es una herramienta extraordinaria de trabajo intelectual porque promueve el desarrollo de las habilidades cognitivas fundamentales: comparar, definir, argumentar, observar, caracterizar, etc., La escritura es un hábito que se le debe de fomentar al estudiante desde sus primeros años como una herramienta necesaria de comunicación, es por ello que el proceso de enseñanza aprendizaje de la escritura ha causado una serie de inquietudes (por parte del docente) y malestares, (por parte del estudiante), debido al trato "pedagógico" que se ha dado a esta habilidad intelectual superior, así como el uso de los métodos y estrategias didácticas a las que se recurren para su enseñanza, en el proceso educativo. La lectura y la escritura son actividades que duran toda la vida y que pueden practicarse en cualquier tiempo, lugar, circunstancia. Por lo tanto es indispensable promoverlas en cualquier campo universitario, el hecho de estudiar artes, ingenierías, o comunicaciones, no debe ser excusa para pensar que algunos deben leer y escribir más que otros. O que algunos tienen más capacidades para hacerlo que otros que tal vez no se interesan por hacerlo. Leer es una necesidad, escribir es expresarse, ¿quién no querría satisfacer necesidades y expresarse? todo el mundo lo quiere, pero siempre hay limitaciones, y son esas limitaciones las que desmotivan a muchos estudiantes, dando lugar a esta crisis de lectoescritura de la que hemos venido hablando a lo largo de nuestro trabajo.

Podemos concluir entonces que la lectura y escritura son instrumentos valiosos que permiten al alumno participar en las actividades académicas, porque fungen como mediadores de la actividad mental por la que los estudiantes aprenden, reflexionan y generan conocimiento. Pero el verdadero valor de la lectura y escritura en la formación universitaria va más allá de las tareas académicas que cada estudiante realiza, porque nos ofrece una visión del mundo y una mejor comprensión de nosotros mismos. Nos ayuda a mejorar nuestra forma de interpretar y comprender lo que hay en nuestro entorno, facilitándonos la manera de relacionarnos con otras personas pero siempre enfocándonos en el desarrollo activo con unos principios básicos.

REFERENCIAS BIBLIOGRÁFICAS

Alvarado, M. y Yeannoteguy, A. (1999) *La escritura y sus formas discursivas.* Buenos Aires: Eudeba.

Alvarado, M. (2004). *Problemas de la enseñanza de la lengua y la literatura.* Buenos Aires: Universidad Nacional de Quilmes Editorial.

Barkley E. F., Cross K. P. y Howell M. C. (2005). *Técnicas de aprendizaje colaborativo.* Madrid: Morata. Cassany, D. y Luna (1998) *Enseñar lengua.* Barcelona: Grao.

Díaz, A. (1995) *Aproximación al texto escrito*. Medellín: Universidad de Antioquia

Guerrero, Laura y Esquivel Peña, Melisa (2011). *Lectura y escritura* En Crispín, Ma Luisa, *Aprendizaje autónomo: una guía para la docencia.* México: Universidad Iberoamericana.

Jolibert, J. (1990) "Formar niños lectores, productores de textos. Propuesta de una problemática didáctica integrada", Lectura y Vida, 12, 4, Diciembre, pp. 80-87

Martínez, M. C. (1994) *Análisis del discurso*. Cali: Editorial Facultad de Humanidades, Universidad del Valle.

Martínez, M. C. (1997) (Comp.) *Los Procesos de la Lectura y la Escritura*. Cali: Editorial Universidad del Valle.

Porter, Luis. (enero de 2001). *Escribir como forma de aprender*. Recuperado el 6 de septiembre de 2015, de http://academia.uat.edu.mx/porter/asesoria/escribir.htm

San Martín, P. y G. Guarnieri (2007) *Leer y escribir en el contexto de la hipermedialidad* en: Revista La Crujía, Año 02, Número 05, abril de 2007.

Solé, Isabel (2002) *Estrategias de lectura*. España, Instituto de Ciencia de la Educación, Universidad de Barcelona / Grao.

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EDUCACIÓN INCLUSIVA Y VULNERABILIDAD: UNA INTERVENCIÓN A ESTUDIANTES DE LA FACULTAD DE PEDAGOGIA UNIVERSIDAD VERACRUZANA EN LA REGIÓN POZA RICA-TUXPAN

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RESUMEN

Este documento da a conocer un proyecto de intervención que fue revisado y avalado positivamente por el comité académico del Programa para el Desarrollo Profesional Docente para el Tipo Superior (PRODEP) obteniendo así el "Apoyo a la Incorporación de Nuevos Profesores de Tiempo Completo 2015". El objetivo central del proyecto es llevar a cabo el seguimiento de los alumnos en situación de vulnerabilidad que dentro de la Facultad de Pedagogía Poza Rica en la Universidad Veracruzana México se detectaron en 2013, y valorar el impacto que esto ha tenido en el desarrollo de entornos institucionales incluyentes y diversos que favorezcan al éxito académico de estas personas, así como la detección de nuevos colectivos o vulnerabilidades que en su momento no estuvieron presentes. La investigación se encuentra en proceso y comprende los periodos de septiembre 2015 a agosto 2016, siendo así, que lo que aquí se comparte son aproximaciones preliminares del contexto de actuación. Se realizará bajo un paradigma cuantitativo y de tipo exploratorio-descriptivo, lo que facilitará la identificación de nuevos colectivos desfavorecidos y los factores que los hacen vulnerables.

PALABRAS CLAVE: Inclusión, Vulnerabilidad, Estudiantes, Universidad Veracruzana, Propuestas

INCLUSIVE EDUCATION AND VULNERABILITY: AN INTERVENTION TO STUDENTS OF THE UNIVERSITY FACULTY OF PEDAGOGY IN THE REGION VERACRUZANA POZA RICA-TUXPAN

ABSTRACT

This document discloses an intervention project that was reviewed and positively endorsed by the academic committee of the Program for Teacher Professional Development for the Superior type (PRODEP) thus obtaining the "Support for the incorporation of new full-time professors 2015". The main objective of the project is to carry out the monitoring of students in a situation of vulnerability within the Faculty of Education Poza Rica at the Universidad Veracruzana Mexico were detected in 2013, and assess the impact this has had on the development of environments inclusive and diverse institutional conducive to academic success of these individuals as well as groups or detection of new vulnerabilities that once were not present. The investigation is ongoing and includes the periods September 2015 to August 2016, making it that what is shared here are preliminary approaches the performance context. It will be held under a quantitative and exploratory-descriptive paradigm, which will facilitate the identification of new disadvantaged groups and the factors that make them vulnerable.

JEL: I1, 123

KEYWORDS: Inclusion, Vulnerability, Student, Universidad Veracruzana, Proposals

INTRODUCCIÓN

El presente proyecto forma parte de una investigación autorizada por el programa de desarrollo Profesional Docente dentro de la Subsecretaría de Educación Superior en México denominado "Educación Inclusiva y Vulnerabilidad: Una Intervención a Estudiantes de la Facultad de Pedagogía Universidad Veracruzana en la Región Poza Rica-Tuxpan" se encuentra en proceso y los datos aquí presentados son aproximaciones preliminares de la misma. El contexto de actuación se localiza en una universidad pública del sistema educativo mexicano dentro del estado de Veracruz, México. La Universidad Veracruzana (UV) es la principal institución de educación superior en el estado de Veracruz, México. Nuestra universidad está constituida en cinco regiones o campus a lo largo y ancho de nuestro estado, uno de esos campus lo es la región Poza Rica –Tuxpan, donde se imparten 21 programas académicos entre los que se encuentra la Facultad de Pedagogía y que es el principal objeto de estudio para nuestra investigación. La Facultad de Pedagogía tiene 35 años de haber sido fundada, a la fecha atiende 564 estudiantes inscritos en su programa de Licenciatura y 21 en el programa de posgrado. Cabe señalar que la mayoría de los estudiantes inscritos provienen de distintas comunidades del estado, situación que marca sus orígenes indígenas y en muchos casos, condiciones de pobreza; sin embargo estos jóvenes demuestran su inquietud por estudiar y obtener una formación como Licenciados en Pedagogía.

Las referencias anteriormente descritas nos hacen voltear la mirada hacia muchos de los casos en que los estudiantes no poseen las condiciones idóneas y con ello se pone en riesgo su permanencia y egreso de la Universidad creando así una desigualdad social y académica y un debilitamiento en el proyecto de vida de los jóvenes universitarios. Otro de los aspectos relevantes en este trabajo lo conforma la revisión literaria que se ha realizado y que señala diferentes temáticas y buenas prácticas que sobre el tema versan. Se mencionan además los métodos y técnicas a realizarse para la recolección de datos, y los resultados preliminares en esta primera fase de desarrollo, enfatizando que no es un trabajo concluido por lo que el documento no puede dar resultados definitivos de lo que se ha indagado sobre los nuevos colectivos, pero si un reporte de lo que ya se había hecho y del tratamiento o intervención que se llevó a cabo con los previamente detectados.

REVISIÓN DE LITERATURA

Los dos signos más importantes del siglo XXI son la integración y la globalización, ambos fenómenos están atravesados por una serie de procesos y problemáticas, como el avance de las tecnologías y el desarrollo de los diferentes campos del conocimiento, pero también, la desigualdad, el desempleo, la violencia y la pobreza. Esto ha llevado a que los gobiernos y los especialistas se pregunten por los caminos más apropiados para responder a estas necesidades y uno de ellos ha sido sin duda la educación.
Operativizar esta tarea conlleva muchos desafíos como garantizar el acceso y la permanencia en la educación, asegurar su calidad, formular políticas inclusivas y diseñar currículos diversificados que atiendan a las personas y grupos que han sido excluidos ya sea por su origen étnico, social, de género, sus prácticas lingüísticas o culturales. Las políticas se han ido implementando en el ámbito de la educación básica, y poco a poco, han ido alcanzando los otros niveles educativos hasta llegar al superior. El concepto de inclusión educativa ha adquirido un énfasis especial en los últimos años. Históricamente, como concepto y práctica en los contextos escolares, sus inicios se remontan a las reformas integradoras emprendidas en los años 60 del siglo XX en los Estados Unidos y en Europa (González, 2005) y que toman fuerza dos décadas después. Originalmente, las escuelas inclusivas estuvieron dirigidas hacia los estudiantes con discapacidad, pero, poco a poco, su ámbito se ha ido ampliando para plantear un nuevo desafío: hacer las prácticas inclusivas en educación accesibles a todas las personas. Es decir, la inclusión educativa se ha constituido en una forma de responder y abordar la diversidad cultural de los contextos educacionales. Echeita y Ainscow (2011) rescatan la siguiente definición de la UNESCO:

La educación inclusiva puede ser concebida como un proceso que permite abordar y responder a la diversidad de las necesidades de todos los educandos a través de una mayor participación en el aprendizaje, las actividades culturales y comunitarias y reducir la exclusión dentro y fuera del sistema educativo. Lo anterior implica cambios y modificaciones de contenidos, enfoques, estructuras y estrategias basados en una visión común que abarca a todos los niños en edad escolar y la convicción de que es responsabilidad del sistema educativo regular educar a todos los niños y niñas. El objetivo de la inclusión es brindar respuestas apropiadas al amplio espectro de necesidades de aprendizaje tanto en entornos formales como no formales de la educación. La educación inclusiva, más que un tema marginal que trata sobre cómo integrar a ciertos estudiantes a la enseñanza convencional, representa una perspectiva que debe servir para analizar cómo transformar los sistemas educativos y otros entornos de aprendizaje, con el fin de responder a la diversidad de los estudiantes. El propósito de la educación inclusiva es permitir que los maestros y estudiantes se sientan cómodos ante la diversidad y la perciban no como un problema, sino como un desafío y una oportunidad para enriquecer las formas de enseñar y aprender. (p.28)

Cabe señalar que este concepto que brinda la UNESCO no sólo piensa en la educación primaria, sino que va más allá, es decir, en el nivel educativo del cual hablamos en este documento como lo es la Educación Superior, por lo que será necesario identificar determinados conceptos que nos ayudarán a comprender mejor este trabajo: Duk y Murillo (en Palmeros, et. al. 2013) hacen referencia a que la "inclusión es un proceso orientado a proporcionar una respuesta apropiada a la diversidad de características y necesidades educativas del alumnado, a incrementar sus niveles de logro y participación en las experiencias de aprendizaje, en la cultura y comunidades escolares, reduciendo toda forma de discriminación, a fin de conseguir resultados académicos equiparables" (p. 6) Un término contrario es el concepto de exclusión social, tal y como lo plantea Tezanos (2004 citado en Gairín, Rodríguez y Castro 2012), y que comenzó a ser utilizado a finales del siglo XX, para aludir a quienes "de alguna manera, se encuentran fuera de las oportunidades vitales que definen una ciudadanía social plena las sociedades avanzadas". (p.43) Esto es una realidad, estos dos antónimos, son términos latentes en nuestra sociedad, por ello las universidades, las sociedades, los gobiernos, se encargan de ir suprimiendo desigualdades en todos los aspectos e ir incluyendo en el sector escolar a todos esos niños y jóvenes que tengan el interés por estudiar. Ahora, rescatemos el término vulnerabilidad: "El concepto de vulnerabilidad es una noción compleja y multidimensional, que puede afectar a individuos, grupos o comunidades con diversa intensidad y de manera más o menos permanente en aquellos aspectos que conforman su bienestar y desarrollo pleno" (Kummer, Correa & Hernán, 2009; Olmos Rueda, 2011, en Gairín, Rodríguez y Castro, 2014:45).
Motivo de lo anterior es que desde el proyecto ACCEDES se contextualizó a estos grupos vulnerables tal y como Gairín (2013) señala en acta del Ier. Encuentro de Coordinación, Panamá, entendiendo por colectivos vulnerables a:

Los grupos humanos con limitadas oportunidades de acceso, permanencia y egreso exitoso de las universidades en los países Iberoamericanos que presentan condiciones de desigualdad por motivos geográficos, étnicos y sociales, tienden a identificarse como ejemplo de grupos vulnerables o excluidos aquellos pertenecientes a pueblos indígenas, afrodescendientes, personas con discapacidades, mujeres, trabajadores rurales y urbanos, entre otros, de acuerdo con los particulares contextos y realidades socioculturales e institucionales. (p.137)

La pertenencia de la Universidad Veracruzana a este proyecto de investigación y diagnóstico para la identificación de colectivos vulnerables dio pie a que dentro de la Facultad de Pedagogía en la región Poza Rica Tuxpan se identificaran tres grupos con un mayor estatus de vulnerabilidad, quedando identificados estos como: Indígenas, Personas con Discapacidad y Personas en Situación de Pobreza, para lo cual se definieron conceptualmente como: Indígena (Barrales, et. al 2013) es todo estudiante descendiente de pueblos originarios indígenas que habitan en el espacio geográfico correspondiente al territorio nacional y que, aun adoptando elementos de otras culturas, se reconocen a sí mismos como tales, por tener uno o algunos de los siguientes elementos diferenciadores de otros sectores de la sociedad nacional: identidades

étnicas, tierras, instituciones sociales, económicas, políticas, culturales y sistemas de justicia propios. (p.16) Discapacitados (Palmeros, et. al 2013) "incluyen a todas aquellas que tengan deficiencias físicas, mentales, intelectuales o sensoriales a largo plazo que, al interactuar con diversas barreras, puedan impedir su participación plena y efectiva en la sociedad". (p. 20) Pobreza (Vázquez, et. al. 2013) "estudiantes de escasos recursos o de ingresos económicos bajos, estudiantes cuyos padres no cuenten con empleo estable y bien remunerado o que estén viviendo en comunidades marginales o pobres" así también que no tengan una buena alimentación, poco acceso a la salud, incluso hasta poca autoestima, etc. (19) Intentando responder a las necesidades de inclusión y equidad, este trabajo es una importante aportación para el Plan de Desarrollo de las Entidad Académica (PLADEA) de la Facultad de Pedagogía y desde la Línea de Generación y Aplicación del Conocimiento (LGAC) de nuestro Cuerpo Académico, no solo como la promoción de trabajo investigativo, sino para la generación de acciones y políticas de atención a los estudiantes que se encuentran en desventaja. Para la fundamentación de la investigación se ha hecho una revisión exhaustiva de fuentes documentales tales como:

La Ley General para la Inclusión de las Personas con Discapacidad (LGIPC),
Plan Nacional de Desarrollo (2013-2018) que se elabora desde la Presidencia de la República,
Programa de Trabajo Estratégico de la Universidad Veracruzana 2013-2018

Todos estos nos han dado un marco teórico y legal para desarrollar el trabajo propuesto. A efectos de lo que se abordará en este artículo, solo se tocarán algunos aspectos que den marco a lo que aquí pretendemos exponer. En primera instancia queremos hablar sobre las políticas internacionales que dan la pauta sobre el funcionamiento de la educación superior ante la presencia de la vulnerabilidad de los estudiantes, así también documentos legales nacionales que buscan dar la oportunidad a todo aquél que tenga la intención de estudiar una carrera a nivel superior, entre los que podemos citar:

La Convención sobre los Derechos de las Personas con discapacidad consagra en su primer artículo la necesidad proteger y asegurar el goce pleno y en condiciones de igualdad de todos los derechos humanos y libertades fundamentales para todas las personas con discapacidad, promoviendo el respeto de su dignidad inherente. (ONU, 2006) Algo muy importante es que el gobierno, en todas sus secretarías, dependencias y otras instancias administrativas, busca coordinar todas estas disposiciones legislativas con las acciones del Plan Nacional de Desarrollo (PND) 2013 – 2018, en el que explícitamente se plantea que es imperativo enfocar la acción del Estado a garantizar el ejercicio de los derechos sociales y cerrar las brechas de desigualdad que aún nos dividen internamente. El objetivo final es que todos los miembros de la sociedad mexicana puedan desarrollarse con equidad, cohesión e igualdad sustantiva, pero, para lograrlo es indispensable que todos tengamos acceso a los servicios básicos, a la seguridad física y social y a la educación (PND, 2013). El diagnóstico que hace el PND es preocupante, pues señala que las prácticas de discriminación e inequidad continúan afectando a gran parte de las mujeres, las personas que hablan una lengua indígena, los individuos con discapacidad, los adultos mayores y los niños y niñas.

En cuanto, a las personas con discapacidad, el PND reconoce que aún existe una brecha importante en el ingreso a la educación y las condiciones adecuadas así como en el acceso a las oportunidades de trabajo (PND, 2013). Sobre los pueblos indígenas, señala que las principales fuentes de discriminación provenían de las barreras culturales y lingüísticas, por lo que se propone el diseño de políticas interculturales que superaran las prácticas de tutelaje y asistencialismo con las que tradicionalmente se les había tratado (PND, 2013). Así, también plantea que la discriminación, la intolerancia y la exclusión social son tres de los mayores retos para el gobierno, por lo que el tercer eje: "México con educación de calidad" considera ampliar las oportunidades de acceso, permanencia y avance de todos los sectores de la población, incrementar los apoyos a niños y jóvenes en situación de desventaja y vulnerabilidad, crear nuevos servicios educativos y ampliar los existentes (PND, 2013).
El logro más reciente en México es Ley General para la Inclusión de las Personas con Discapacidad (LGIPC) (2011) publicada en el Diario Oficial de la Federación, en la que se determina que el Estado deberá

promover, proteger y asegurar el pleno ejercicio de los derechos humanos y libertades fundamentales de las personas con discapacidad, asegurando su inclusión social en un marco de respeto, igualdad y equidad de las oportunidades. A partir de este reconocimiento, la Ley ordena el establecimiento de las políticas públicas requeridas para su puesta en marcha, observando los principios de justicia social, participación e inclusión plenas y efectivas a la sociedad, la no discriminación, la equidad y la igualdad de oportunidades entre hombres y mujeres con discapacidad.

El Plan Nacional de Desarrollo en el eje México con Educación de Calidad en el objetivo 3.1 propone: Desarrollar el potencial humano de los mexicanos con educación de calidad, podemos identificar que se alinea con el Programa Sectorial de Educación 2013-2018 quien en el objetivo 1 afirma: Asegurar la calidad de los aprendizajes en la educación básica y la formación integral de todos los grupos de la población; alineándose con el Programa Veracruzano de Educación 2011-2016 que describe en su objetivo 1: Mejorar la calidad del servicio educativo en todos los tipos y modalidades, incrementando su equidad, relevancia, pertinencia, eficacia y eficiencia. Todos los documentos mencionados se retoman en el Plan General de Desarrollo 2025 de la Universidad Veracruzana, mismo que finaliza en el Plan de Trabajo Estratégico 2013-2018 de la Dra. Sara Deifilia Ladrón de Guevara González, rectora de la misma institución, quien específicamente aborda en el eje I: Innovación académica con calidad, programa 3: Atracción y retención de estudiantes con calidad mencionando que:

"….es necesario ampliar y diversificar las oportunidades de acceso a la Universidad a un mayor número de jóvenes con deseos y capacidad de realizar estudios en programas reconocidos por su calidad, ofrecidos bajo diferentes modalidades, con especial atención a las necesidades de los grupos vulnerables. Es necesario asegurar la equidad de oportunidades educativas de calidad para todos, independientemente de la situación socioeconómica, la raza, el género o, en su caso, la discapacidad de los estudiantes. De igual forma hay que procurar la atención integral de los mismos desde su ingreso hasta su egreso, a través de programas adecuados que reconozcan la diversidad de perfiles y trayectorias escolares". (p.61)

La anterior planeación evidencia que la Universidad Veracruzana (UV), como entidad de educación superior pública, se ha dado a la tarea de atender la problemática de la inclusión educativa, la diversidad y la atención a los grupos vulnerables, sin embargo, creemos, que ésta ha sido abordada desde una visión un tanto limitada, lo que ha resultado en políticas y estrategias débilmente articuladas entre sí o con poco seguimiento. Una de las acciones institucionales más específicas de atención a éstos grupos vulnerables la encontramos en la incorporación al Proyecto ACCEDES, promovido por la Universidad Autónoma de Barcelona y financiado a través del grupo ALFA III Europeo de 2012 a 2014 y donde basamos lo que describimos como primer fase de la investigación; los objetivos fueron detectar el o los grupos vulnerables con mayor incidencia dentro de la institución, así como la propuesta de un programa de intervención que les atendiera y proporcionara ayudas nivelatorias con respecto a su estatus de vulnerabilidad; sin embargo éstos objetivos solo lograron alcanzarse a nivel de un campus (Poza Rica-Tuxpan), en la fase diagnóstica, a nivel de propuesta en la fase de intervención, y con una incipiente atención a nivel regional. Fundamentados en ese diagnóstico y propuesta de intervención es que podemos decir que en nuestra Facultad de Pedagogía el programa de apoyo a los jóvenes está vinculado con iniciativas de la misma Universidad Veracruzana así como programas de apoyo Federal y Estatal, motivo del cual se proponen alcanzar los siguientes los siguientes objetivos dentro de esta 2da. Fase investigativa y que da título a este artículo y al nuevo proyecto de investigación.

Objetivo General: Analizar la atención y seguimiento que la Facultad de Pedagogía Poza Rica de la Universidad Veracruzana le ha dado a los alumnos en situación de vulnerabilidad, para valorar el impacto que esto ha tenido en el desarrollo de entornos institucionales incluyentes y diversos que favorezcan al éxito académico de estas personas.

Específicos: Identificar los factores que obstaculizan el ingreso, la permanencia y el egreso de los estudiantes vulnerables para proponer a la misma Universidad Veracruzana y su Facultad de Pedagogía medidas más efectivas y centradas en sus necesidades.

Identificar condiciones vulnerables de los nuevos estudiantes incorporados a la facultad.
Identificar las políticas educativas que apoyan a los grupos vulnerables de la facultad.

METODOLOGÍA

Enfoque y estrategia metodológica: La investigación que se trabajará en este proyecto parte del paradigma cuantitativo y será de tipo exploratorio-descriptivo. Básicamente, lo que se pretende es, por una parte, identificar a los estudiantes que se encuentran en situación de vulnerabilidad de reciente ingreso a la Facultad y de semestres superiores, así también por otro lado, generar conocimiento sobre las dificultades que enfrentan para su permanencia y egreso de la universidad los que ya habían sido previamente detectados. Igualmente, se utilizará el diseño pre-experimental de un solo grupo con postest o estudio de caso de una sola medición. Este tipo de modelos se caracteriza porque la variable o rasgo de interés se aborda a través de una sola medición. Es decir, el investigador localiza a los sujetos de estudio y les aplica un instrumento. Para este proyecto resulta muy pertinente acercarnos desde esta perspectiva, especialmente, ante la escasez de información institucional sobre lo que acontece a esta problemática ya que no existía un censo de los estudiantes que se encuentran en vulnerabilidad. La realización del trabajo empírico se organizó en dos etapas:

En la primera, se hará una búsqueda de información documental y de campo de alumnos de la Facultad que nos permita identificar a los estudiantes que serán nuestras unidades de observación final, es decir aquellos que ya previamente se habían detectado y cuyas condiciones de vulnerabilidad eran: personas con discapacidad, personas de origen indígena, y personas en situación de pobreza a fin de constatar la atención que han recibido como parte del proyecto de intervención ACCEDES. La segunda etapa consistirá en la aplicación de un cuestionario-escala (en los dos grupos ya explicitados: nuevo ingreso y reingreso), en el que se tratarán los temas de interés para la investigación, identificar nuevas condiciones socioculturales, económicas, académicas que están enfrentando los estudiantes en su cotidianeidad escolar o refrendar las ya detectadas en el proyecto anterior.

Técnicas e instrumentos de investigación: Dados los objetivos de este proyecto, se ha decidido recurrir al proceso de investigación por encuesta. De acuerdo con Buendía, Colas y Hernández (1998), éste se caracteriza porque es una alternativa útil que permite llegar a resultados susceptibles de generalización debido a la proporción de unidades de observación que conforman la muestra y porque facilita la obtención de opiniones, creencias o actitudes que ofrecen una mirada general de la población a estudiar.
El instrumento consiste un cuestionario estructurado y de escala tipo Likert. Las dimensiones que inicialmente hemos establecido para diseñarlo son: Información sociodemográfica, Situación de discapacidad, Pertenencia a una comunidad indígena, Condiciones laborales, Situación económica, Problemas de permanencia en la Universidad Toda la información se trabajará con la escala Likert y la recabada aportará datos sobre los factores que pueden poner en riesgo su estancia por la Facultad de Pedagogía y que pudieran obstaculizar su egreso de la misma.

Población de estudio: Para la primera fase (la investigación ACCEDES) sobre los que se realizó el Proyecto de Intervención la muestra estuvo conformada por: 78 estudiantes de diversas Facultades, 12 egresados, 12 profesores y 9 funcionarios, misma muestra que se revisará para ver las condiciones de atención que se les han otorgado para su inclusión. La población objeto de estudio de esta segunda parte para el nuevo diagnóstico son los estudiantes inscritos de la Facultad de Pedagogía en la región Poza Rica-Tuxpan, que como ya se comentó son un total de 564, por lo que se aplicó una fórmula estadística para

determinar la muestra y cuyo número nos dio 245 estudiantes, haciendo una afijación proporcional de la muestra que quedó como sigue:

Tabla 2: Relación de Alumnos Inscritos Por Semestre y Número de Matrícula

Semestre	No. de Población	Población a Encuestar	Matrícula
Primer	115	80	S15
Tercer	129	47	S14
Quinto	104	38	S13
Séptimo	141	51	S12
Noveno	61	22	S11
Décimo primero	10	4	S10
Semestres superiores	1	1	S09
	2	1	S06
	1	1	S05
	564	245	

Fuente: Elaboración propia en base a estadísticas escolares de la Facultad de Pedagogía

RESULTADOS

La serie de trabajos realizados dentro del Proyecto Accedes (2012-2014) tuvieron una detección de tres colectivos en vulnerabilidad: Los jóvenes en condición de pobreza, quienes presentan alguna discapacidad y aquellos originarios de una población indígena. Motivo de ello es que se aplicó un proyecto de intervención para darle atención a dichos colectivos, dentro de los que destacan acciones de corto mediano y largo plazo como:

Tabla 3: Proyecto de Intervención (Acciones de Corto, Mediano y Largo Plazo)

Acciones de Bajo Costo	Acciones de Alto Costo
Realizar censos al interior de las escuelas y facultades para detectar la población en vulnerabilidad y riesgos de exclusión (comisiones creadas al interior de las facultades para este hecho).	Formación de las personas que se harán cargo de las acciones organizativas hacia los estudiantes en vulnerabilidad.
Por cada programa educativo (con la comisión que aplica el censo y las juntas académicas de las facultades elaborar las propuestas de intervención por dependencia.	Adecuación de la infraestructura institucional.
Integrar el plan de mejora institucional (con la participación del PIIP, funcionarios institucionales, docentes y alumnos).	Creación de becas específicas
Vincular a estudiantes de bachiller en pobreza extrema a la Universidad facilitando su acceso en cuestión económica, teniendo la oportunidad de demostrar sus habilidades y capacidades para cursar una licenciatura, proporcionando apoyo para solicitar su ficha de ingreso, cuando demuestren la carencia económica para no poder solventar el pago de la ficha.	Capacitar a los docentes para la integración de los grupos vulnerables.
Incorporación de las revisiones de la nueva política para normativizarla.	Reserva de plazas para atender a las personas en vulnerabilidad.
Sensibilización de los agentes participantes de la comunidad académica (funcionarios, estudiantes, personal docente, personal administrativo)	Capacitar a los docentes para la integración de los grupos vulnerables
Realización de jornadas de sensibilización hacia la comunidad académica: reuniones, entrevistas, nuevos instrumentos.	
Integración de los estudiantes a los programas de sensibilización	
Revisar las normativas y políticas existentes para la inclusión de colectios vulnerables por parte de los cuerpos colegiados (juntas académicas, consejos ténicos, consejos de área, consejos universitarios.	.

Fuente: plan de intervención de colectivos vulnerables en la Universidad Veracruzana (Gairín, Palmeros y Barrales, 2014, p. 249)

La relevancia del presente proyecto: "Educación inclusiva y vulnerabilidad: una intervención a estudiantes de la Facultad de Pedagogía, Universidad Veracruzana en la región Poza Rica-Tuxpan", radica en la continuidad de la política institucional realizando el seguimiento y valorando el impacto que esto ha tenido en el desarrollo de entornos institucionales incluyentes y diversos que favorezcan al éxito académico, como se describió son aproximaciones preliminares y estas acciones son las que actualmente se encuentran en revisión para ver el grado de satisfacción de los colectivos, así como el nivel de atención que la propia

Facultad de Pedagogía está llevando a cabo con los grupos. Para lograr lo anterior, actualmente ya se ha llevado a cabo: la discusión sobre la perspectiva teórica de la investigación (con profesores de la dependencia y participantes de este nuevo proyecto), la aplicación del segundo diagnóstico a estudiantes que en años anteriores no formaban parte de la muestra, y que al momento de envío de este documento se encuentra en proceso de interpretación de resultados; sin embargo en este sentido se puede adelantar que la Universidad Veracruzana ha iniciado ya dentro de sus acciones iniciales: los censos al interior de las dependencias –muestra de ello es esta nueva investigación que está rehaciendo sus cuadros y detección de nuevos colectivos en vulnerabilidad-, el suministro de becas de manutención a estudiantes con desventajas económicas, así como la capacitación de sus cuerpos colegiados y la creación de programas de sensibilización. Por la temporalidad de la investigación (que concluye en agosto de 2016), se tiene la planeación de una segunda fase que comprenderá:

Construcción de las bases de datos para sistematizar la información.
Depuración de la base de datos
Elaboración del Informe Técnico Final con los resultados.
La socialización, difusión y culturización de los resultados y propuestas

CONCLUSIONES

El objetivo central de nuestra investigación es identificar a aquellos jóvenes que se encuentren en un estado de vulnerabilidad dentro de la Facultad de Pedagogía, tener un acercamiento con ellos y promover acciones que les permitan permanecer y alcanzar el egreso de la licenciatura mediante un seguimiento y atención permanente a lo largo de su trayectoria académica. Lograr la inclusión y equidad estudiantil no es una tarea fácil pues requiere concordar las políticas educativas de nuestro país, de nuestro estado y de la misma Universidad Veracruzana para apoyar a los jóvenes universitarios, sin embargo se pondrá todo el esfuerzo para que los jóvenes de escasos recursos, de condición indígena o quienes presenten alguna discapacidad puedan incluirse, permanecer y egresar de nuestra Universidad Veracruzana.

Los logros que se piensan alcanzar es proveer a la institución de censos y propuestas de intervención para que esos jóvenes se puedan integrar en su contexto socioeconómico o pueda estar capacitado para integrarse en el espacio laboral y de esta manera participar en el desarrollo económico de nuestro país pero sobre todo de su propio desarrollo personal y profesional. La creación de un banco de experiencias y buenas prácticas que provean de información valiosa sobre casos exitosos hacia una cultura de la inclusión. Entre otros impactos de la investigación se busca que: Contribuya en la construcción de conocimiento nuevo sobre la articulación de tres campos de estudio: la vulnerabilidad, la inclusión educativa y la equidad. Favorecer el desarrollo de procesos de reflexión entre los integrantes del cuerpo académico, otros profesores-investigadores y estudiantes de la UV, para promover la construcción de espacios escolares incluyentes. Fortalecimiento de la Línea de Generación y Aplicación del Conocimiento (LGAC) como resultado del trabajo colegiado de los miembros del cuerpo académico tanto en las actividades del proyecto, como en otras funciones institucionales relacionadas el objeto de estudio. Generación de información y bases de datos que servirán de base para la elaboración de artículos, ponencias, capítulos de libro y otros tipos de producción académica, pero sobre todo de sensibilización para generar una cultura de la inclusión y cuidado mutuo.

REFERENCIAS

ANUIES (2002). Manual para la Integración de Personas con Discapacidad en las Instituciones de Educación Superior. México: ANUIES. 93 p.

Barrales, A., et.al (2013) Indígenas. En Acceso, permanencia y egreso en la universidad de colectivos vulnerables en Latinoamérica. Intervenir y cambiar la realidad. Chile: Santillana

Buendía, L., Colás, P. y Hernández, Fuensanta (1998). Métodos de investigación en psicopedagogía. Madrid: McGrawHill. 343 p.

Echeita G., Ainscow, M. (2011) La educación inclusiva como derecho. Marco de referencia y pautas de acción para el desarrollo de una revolución pendiente1. Tejuelo Nº. 12, pág. 26-46

Gairín J., Palmeros, G. y Barrales, A. (2014) Universidad y Colectivos Vulnerables. México: Lirio

Gairín J., Rodríguez, D y Castro, D. (2012). Éxito académico de colectivos vulnerables en entornos de riesgo en Latinoamérica. Madrid: Wolters Kluwer

González, P. (2005). La respuesta educativa a la diversidad desde el enfoque de las escuelas inclusivas: una propuesta de investigación. Revista de Psicodidáctica, 10 (2). Vitoria-Gazteis, España: Universidad del País Vasco. pp. 97 – 109.

Ley General para la Inclusión de las Personas con Discapacidad. (2011). Diario Oficial de la Federación, México. Consultado en: http://dof.gob.mx/nota_detalle.php?codigo=5191516&fecha=30/05/2011 14 de marzo de 2014

Medrano, H.; Palmeros, G. y Barrales, A. (2012). Los sistemas de acceso, normativas de permanencia y estrategias de tutoría y retención de estudiantes de educación superior en México. Informe Nacional. México: Proyecto ACCEDES en Gairín, J. La organización y atención a la diversidad en centros de educación secundaria de Iberoamérica. Edit. Santillana
ONU (2006) Convención sobre los Derechos de las Personas con discapacidad. Consultada en: http://www.un.org/disabilities/documents/convention/convoptprot-s.pdf 10 noviembre de 2015

ONU (2000). Declaración del Milenio. Resolución aprobada por la Asamblea General. Nueva York: Organización de las Naciones Unidas. Consultada en: http://www.un.org/spanish/milenio/ares552s.htm 10 de noviembre de 2015.

Palmeros, G., et.al (2013) Discapacitados. En Acceso, permanencia y egreso en la universidad de colectivos vulnerables en Latinoamérica. Intervenir y cambiar la realidad. Chile: Santillana

Plan Nacional de Desarrollo 2013-2018. Gobierno de la República. México
Trochim, William & Donnelly, James (2008). The research methods knowledge base. Ohio: Atomic Dog Publisghing – Cengage Learning. 361 p.

Tezanos, J. F. (2004) Tendencias de dualización y exclusión en las sociedades tecnológicas avanzadas. Un marco para el análisis. Citado en Gairín J., Rodríguez, D y Castro, D. (2012). Éxito académico de colectivos vulnerables en entornos de riesgo en Latinoamérica. Madrid: Wolters Kluwer

UNESCO (2003). Superar la exclusión mediante planteamientos integradores en la educación. París: Organización de las Naciones Unidas para la Educación la Ciencia y la Cultura. 32 p.

UNESCO (2009). Directrices sobre políticas de inclusión en la educación. París: Organización de las Naciones Unidas para la Educación la Ciencia y la Cultura. 36 p.

Universidad Veracruzana (2015). Programa de trabajo estratégico 2013-2018. Recuperado de: http://www.uv.mx/programa-trabajo/Programa-de-Trabajo-Estrategico-version-para-pantalla.pdf

Vázquez, M., et. al (2013) Pobreza (IDH Bajo). En Acceso, permanencia y egreso en la universidad de colectivos vulnerables en Latinoamérica. Intervenir y cambiar la realidad. Chile: Santillana

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LA ACTITUD HACIA LAS MATEMÁTICAS ¿HAY DIFERENCIA CON RELACIÓN AL GÉNERO?

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RESUMEN

Es evidente que aun cuando, hoy en día el proceso de enseñanza-aprendizaje de las matemáticas ha sido modificado por las tecnologías de información (TICs) a través de uno de sus principales instrumentos: la computadora, esto no ha logrado que se incremente el nivel de aprendizaje en los alumnos. El objetivo de este trabajo es comprobar si existe una diferencia con relación al género entre los factores en la actitud hacia las matemáticas y computadora en los estudiantes de la Facultad de Comercio y administración de las UASLP. El estudio es no experimental transaccional, de contraste de diferencia de medias y transversal La muestra de estudio se conformó de 120 de estudiantes de la Facultad de Contaduría y Administración de las UASLP de las carreras de administración y contabilidad, resultados muestran de forma certera y clara que no hay una diferencia entre hombres y mujeres, con relación a la actitud hacia las matemáticas.

PALABRAS CLAVE: Ansiedad, Matemáticas, Género

ATTITUDE TOWARDS MATHEMATICS, IS THERE A DIFFERENCE IN RELATION TO GENDER?

ABSTRACT

Clearly, though, today the process of teaching and learning mathematics has been modified by information technologies (ICTs) through one of its main tools: the computer, this has not achieved the level increases learning in students. The objective of this work is to check if there is a difference in relation to gender among the factors in the attitude towards mathematics and computer students of the Faculty of Commerce and Administration of UASLP. The study is not experimental transactional contrast mean difference and cross the study sample was formed by 120 students of the School of Accounting and Administration UASLP racing administration and accounting, results show how accurate and clear there is no difference between men and women regarding the attitude towards mathematics.

JEL: I190, C69, J16

KEYWORD: Anxiety, Mathematics, Gender

INTRODUCCIÓN

Actualmente la Secretaria de Educación Pública ha dado a conocer *"La mitad de los alumnos que terminaron el bachillerato se quedó en el nivel I de matemáticas: sólo saben multiplicar o sumar con números enteros, y 43.3% es incapaz de comprender información implícita en un texto"*. En este año 2015, Rodolfo Tuirán, subsecretario de Educación Media Superior ha señalado que, *ocho de cada diez alumnos*

que concluyeron el bachillerato tienen serias dificultades para resolver operaciones aritméticas complejas. Así mismo, señaló que es importante que las escuelas de nivel superior estén alertas ante esta situación ya es probable que estos alumnos que tienen un nivel bajo de aprendizaje se ausentaran de clases y eventualmente abandonaran los estudios profesionales. Es evidente que aun cuando, hoy en día el proceso de enseñanza-aprendizaje de las matemáticas ha sido modificado por las tecnologías de información (TICs) a través de uno de sus principales instrumentos: la computadora, esto no ha logrado que se incremente el nivel de aprendizaje en los alumnos. Por ello se ha despertado un gran interés en conocer, si por medio de esta herramienta se podrían superar algunas deficiencias actitudinales y con esto lograr un mejor aprendizaje de los estudiantes. Aunque ha habido muchas afirmaciones entusiastas para el impacto positivo de la tecnología en el proceso enseñanza-aprendizaje de las matemáticas, también es cierto, que ha sido muy difícil de lograr evaluaciones sistemáticas sobre él (Galbraith y Hines, 1998).

Sin embargo, algunos autores como Fey (1989) han opinado sobre el uso de la tecnología en la enseñanza de las matemáticas y han manifestado que: "Es muy difícil determinar el impacto real de esas ideas y proyectos de desarrollo en la vida cotidiana de las clases de matemáticas, y hay muy poca evidencia sólida para validar el optimismo casi ilimitado de tecnófilos en nuestro campo". En este sentido Kaput y Thompson (1994) señalan que la aceptación de las innovaciones tecnológicas que han sido creadas y diseñadas para otros públicos (no necesariamente para los estudiantes), conducen a asociaciones o uniones difíciles entre el entorno educativo y las tecnologías de información. Esto hace difícil la adaptación del plan de estudios a la innovación tecnológica (Galbraith y Hines, 1998). Estos estudios de referencia no permiten diferenciar entre los aspectos actitudinales, el rendimiento a las matemáticas y los aspectos propios a la tecnología, sin embargo, en el artículo seminal de Galbraith y Haines (1998), "Desentrañar el nexo: las actitudes hacia las matemáticas y la tecnología en un entorno de aprendizaje de computación", se propone hacer esa distinción entre actitudes relacionadas con las matemáticas a las asociados con la tecnología para el aprendizaje de la misma. A partir del modelo propuesto por los autores que formulan que la actitud hacia la matemática está formada por una estructura de cinco factores se plantea la pregunta principal del estudio de la siguiente manera: ¿Existe una diferencia con relación al género entre los factores que influyen en la actitud hacia las matemáticas y computadora en los estudiantes de la Facultad de Comercio y administración de las UASLP? La pregunta expuesta lleva a plantear el siguiente objetivo de investigación: comprobar si existe una diferencia con relación al género entre los factores en la actitud hacia las matemáticas y computadora en los estudiantes de la Facultad de Comercio y administración de las UASLP.

Los conocimientos matemáticos son de suma importancia en la vida de las personas, por lo tanto en la actualidad es necesario entender y hacer buen uso de las matemáticas en la vida diaria. En Estados Unidos, el Consejo Nacional de Profesores de Matemáticas (2004) indicó que la necesidad del uso de las matemáticas no había sido tan grande como actualmente y que día con día esta necesidad irá incrementándose ya que las matemáticas son esenciales para la vida, son parte de la herencia cultural y son necesarias para el trabajo. En el proceso de enseñanza-aprendizaje de las matemáticas, las tecnologías de información (TICs) han cobrado un papel relevante, por lo que el estudio de estos apoyos didácticos como instrumentos que permitan superar algunas deficiencias actitudinales es indispensable para retroalimentar a los principales actores en el aprendizaje de los estudiantes. En este estudio, que se realiza entre estudiantes de una universidad pública en la ciudad de San Luis Potosí, con el fin de encontrar evidencia que permita identificar si la actitud hacia las matemáticas y si esta puede ser promovida por el uso de las tecnologías de la información implementadas en el proceso de enseñanza aprendizaje, específicamente el uso de la computadora, con los resultados del análisis, se aportará al conocimiento que existe sobre el tema, en la medida de sus limitaciones y su alcance. Este estudio pretende obtener información y datos que permitan, de la manera más acertada posible, tener argumentos sostenibles, para poder guiar, tanto a profesores como alumnos en un mejor desarrollo de proceso de enseñanza-aprendizaje de las matemáticas con los alumnos que ingresaran al nivel profesional y que traen consigo un rezago de conocimientos en esta área.

Actitud hacia las matemáticas y diferencia de género Aun cuando las matemáticas es una disciplina de suma importancia dentro de la formación de los estudiantes, los alumnos la han considerado como uno de los cursos más difíciles (Aliasgar, Riahini, Mojdehavar, 2010). Además, estos autores señalan que los estudiantes le tienen miedo a esta disciplina y por ende, se les dificulta aprender los conceptos. Esta actitud negativa conduce a un estado de ansiedad; en este sentido, Stubblefield (2006, citado Kargar,, Tarmizi, Bayat, 2010) señala que el término de ansiedad hacia la matemática equivale a tener un nivel muy alto de ansiedad, que obstaculiza el aprendizaje. Al respecto Richardson y Suinn, (1972 citado por Sherman) conceptualizan el vocablo orientado a los resultados que produce la ansiedad hacia las matemáticas y señalan que es un estado de angustia que disminuye el razonamiento matemático, rendimiento y las actitudes y esta es una de las razones por las cuales los estudiantes evitan o no eligen estos cursos (Garry, 2005). Una de las causas de la ansiedad hacia las matemáticas es la baja autoestima y miedo al fracaso, esta situación no le permite al estudiante procesar la información recibida, por consiguiente no puede resolver los problemas. Otros estudios han revelado una relación significativa entre el razonamiento matemático, la ansiedad matemática y las actitudes matemáticas y han probado que los estudiantes con una actitud positiva hacia matemáticas aprenden están más motivados y comprometido en sus clases y aprenden de forma más fácil el material de sus clases, además están más motivados y comprometidos con las clases que los estudiantes que mantienen una actitud negativa.

Las ideas expuestas adjudican que la ansiedad ante estas disciplinas se presenta de igual forma en hombres y mujeres. Antes de entrar se consideró lo que algunos autores han investigado al respecto (Hyde y Mertz (2009) han evidenciado que no existen diferencias significativas entre hombre y mujeres cuando se aplica una prueba de matemáticas, ambos tienen el mismo desempeño. Por lo tanto, se infiere que su conocimiento matemático es el mismo. Sin embargo, si hay variabilidad dentro de las dos categorías con relación a las creencias sobre esta disciplina. Para los niños, puede ser la fuente de su identidad positiva y la motivación. Otros autores como Jiménez (2004, citados por Espinoza 2010) muestran que durante la infancia ambos niñas y niños consideran a las matemáticas como una disciplina importante para la vida, sin embargo señalan que en la adolescencia, las diferencias se marcan de manera significativa resaltando que en los hombres el aprovechamiento es mejor. Otra situación importante a considerar para esta marcada diferencia es la influencia de los padres, quienes retrasmiten a las mujeres la creencia de las matemática es una disciplina más exclusiva a los hombres, en consecuencia, las mujeres no tienden a optar por áreas de formación académica donde se involucre esta disciplina (Fennema y Sherman, 1978). Así, Cevin y Dari, (2010) menciona en su estudio de género, escuela y logro escolar en matemática y lengua de la educación media que "*el género es un factor que afecta el aprendizaje de las matemáticas porque los alumnos obtienen mejores resultados en matemáticas que las mujeres*".

REVISIÓN DE LA LITERATURA

Galbraith y Hines, en el año 2000 proponen un modelo teórico que permite hacer inferencias sobre los factores que intervienen en la actitud hacia las matemáticas, un esbozo del modelo se muestra en la Figura 1.

Figura 1: Modelo Teórico de Estudio

Fuente: Modelo teórico Galbraith y Hines (2000). El modelo está compuesto de cinco dimensiones: confianza hacia las matemáticas (CM), motivación hacia la matemática (MM), compromiso con las matemáticas (CCM), confianza a la computadora (CCOM), interacción entre las matemáticas y computadora (IMT).

Las dimensiones con sus variables se muestran en la Tabla 1.

METODOLOGÍA

El estudio es no experimental transaccional, de contraste de diferencia de medias porque es de interés en esta investigación, probar si las media de la variable observable (actitud hacia las matemáticas) de los dos grupos (hombres y mujeres) son estadísticamente diferentes uno del otro. Es transversal teniendo en cuenta que la obtención de datos se da sólo una vez durante un tiempo determinado. Para fines de esta investigación la muestra es no probabilística porque la elección de los elementos no depende de la probabilidad, sino de causas relacionadas con las características de la investigación y desde luego las muestras seleccionadas obedecen a otros criterios de investigación (Hernández, Fernández, Baptista 2006). La muestra de estudio se conformó de 120 de estudiantes de la Facultad de Contaduría y Administración de las UASLP de las carreras de administración y contabilidad,

Los criterios de selección fueron para incluir a estudiantes que hayan completado al menos un campo de la matemática en el programa de licenciatura que estudiaban y estaban disponibles en la institución para aplicar la encuesta. Se utilizó el cuestionario de Galbraith y Haines (1998), que consta de cinco secciones: la confianza hacia las matemáticas (Ítems 1 al 8), la motivación a las matemáticas (ítems 9 al 16), compromiso hacia las matemáticas (items17 al 24), confianza a la computadora (items25 al 32), interacción matemática y computadora (ítems 33 al 40). Cada sección consta de 8 elementos valorados en una escala Likert. El rango de escala va desde 1 (bajo) a 5 (muy alto). Para el procesamiento de los datos se utilizó el programa AMOS v 21. La taba 1 describe cada uno de los indicadores, su concepto y su codificación.

Tabla 1: Indicadores del Modelo Propuesto

Variable	Items	Código	No.
	Las matemáticas es una materia en la que obtengo algún valor a cambio de mi esfuerzo.	CM1	1-8
	La Idea de tener que aprender nuevas matemáticas me pone nervioso.	CM2	
	Puedo obtener buenos resultados en matemáticas	CM3	
	Las matemáticas me ponen más nervioso que otras materias	CM4	
	Aprender temas difíciles en matemáticas no me preocupa.	CM5	
Confianza hacia las matemáticas	No importa cuánto estudie, las matemáticas son siempre difíciles para mí.	CM6	
	Naturalmente no soy bueno para las matemáticas.	CM7	
	Tengo mucha confianza en lo que respecta a las matemáticas.	CM8	
	Las matemáticas es una materia que me gusta practicar.	MM1	9-16
	Invertir mucho tiempo en un problema de matemáticas, me frustra.	MM2	
	No comprendo cómo algunas personas pueden estar tan entusiasmados en practicar matemáticas	MM3	
	Puedo llegar a estar completamente concentrado realizando problemas de matemáticas.	MM4	
	Si algo de matemáticas es difícil para mí prefiero tener la respuesta que tener que resolverlo por mí mismo.	MM5	
Motivación hacia la matemáticas	Me gusta permanecer con un problema matemático hasta lograr solucionarlo.	MM6	
	Mejorar mis cualidades para comprender las matemáticas no me atrae.	MM7	
	Si se me dificulta algo en matemáticas, lo dejo para encontrarlo yo mismo después.	MM8	
Compromiso hacia la matemáticas	Prefiero trabajar con símbolos (álgebra) que con imágenes (diagramas y gráficas).	CCM1	16-24
	Prefiero trabajar solo que en grupo.	CCM2	
	Trabajar a través de ejemplos es menos efectivo que memorizar el material dado.	CCM3	
	Encuentro útil evaluar la compresión al intentar ejercicios y problemas.	CCM4	
	Cuando estudio matemáticas, trato de unir nuevas ideas o conocimientos que ya tengo.	CCM5	
	Cuando aprendo nuevo material matemático hago notas para ayudarme a entender y recordar.	CCM6	
	Me gusta revisar todos los temas en un solo momento más que una parte.	CCM7	
	Usualmente no tomo tiempo para checar mi propio trabajo para encontrar y corregir errores.	CCM8	
Confianza a la computadora	Como hombre o mujer me siento en desventaja al tener que usar computadora.	CCOM1	24-32
	Tengo mucha confianza en mí mismo al usar las computadoras	CCOM2	
	Siento más confianza de mis respuestas cuando me ayudo de una computadora.	CCOM3	
	Si un programa de cómputo que estoy usando falla entro en pánico.	CCOM4	
	Me siento nervioso cuando tengo que aprender nuevos procedimientos en una computadora.	CCOM5	
	Me siento confiado cuando domino cualquier procedimiento de computadora que es necesario para mi curso.	CCOM6	
	No estoy confiado en conseguir la respuesta correcta al usar una computadora.	CCOM7	
	Si cometo un error al usar una computadora usualmente soy capaz de corregirlo por mí mismo.	CCOM8	
Interacción entre las Matemáticas y Computadora	Las computadoras me ayudan a aprender mejor al proporcionarme muchos ejemplos para trabajar	IMC1	32-40
	Se me dificulta transferir el entendimiento de la pantalla a mi cabeza.	IMC2	
	Al ver los cálculos desordenados, las computadoras hacen más fácil el aprender ideas esenciales.	IMC3	
	Cuando leo una pantalla de computadora tiendo a no darle la importancia a los detalles de matemáticas.	IMC4	
	Encuentro útil hacer notas adicionales al copiar material de la pantalla o al obtener impresión.	IMC5	
	Rara vez revisé el material tan pronto como la sesión de computadora se acaba.	IMC6	
	Seguir las instrucciones del teclado me quita atención de las matemáticas.	IMC7	
	4Las computadoras me ayudan a vincular conocimientos por ejemplo el tamaño de las gráficas y sus ecuaciones.	IMC8	

Fuente: Galbraith, P. & Haines, C. (2000) En esta Tabla, se muestran las Variables, Ítems y Códigos y Números. Como indicadores del modelo propuesto.

Hipótesis de Investigación

La hipótesis de investigación se da a partir del modelo teórico de confianza a la matemática el cual puede ser explicado por cinco factores; Confianza hacia la matemática, Motivación hacia la matemática, compromiso hacia la matemáticas, confianza hacia la computadora, interacción entre las matemáticas y la computadora. La representación gráfica del modelo se presenta en la Figura 2.

Figura 2: Representación Gráfica del Modelo

Gráfico 2 Modelo de Galbraith & Haines (2000) Así, la hipótesis de investigación de investigación se plantea de la siguiente forma: existe una diferencia con relación al género entre los factores que influyen en la actitud hacia las matemáticas y computadora en los estudiantes de la Facultad de Comercio y administración de las UASLP.

Para comprobar la veracidad y certeza de la hipótesis planteada, se llevó a cabo un análisis multigrupo de medias y estructuras de covarianza (Sorböm. 1974). Este tipo de metodología permite la estimación conjunta de a diferencia de medias entre variables latentes, así como la estructura de covarianza del modelo, con lo que supera los métodos de comparación de medias comúnmente utilizados, al corregir la media del constructo por el error de medida en un contexto de relaciones causales. Para realizar el análisis factorial confirmatorio de grupos múltiples (AGCM) se utilizó el programa AMOS 22. El análisis AGCM examina si las estimaciones de los parámetros del modelo se mantuvieron invariable en todos los grupos (Kline, 2005). Un requisito previo para medir la invarianza entre grupos es medir en primer lugar el modelo sin ninguna restricción, posteriormente como menciona Byrne (2008) se asigna restricciones al modelo.

En este sentido, Steenkamp y Baumgartner (1998) mencionan que hay diferentes formas de invarianza en la medición, entre ellas se encuentran: la invarianza en el modelo, la invarianza métrica y la invarianza de error. Por lo tanto, el análisis inicia con el ajuste del modelo sin restricción, analizando cada grupo por separado. El análisis multigrupo de medias y estructura de covarianza permite obtener resultados más fiables e interpretaciones más adecuadas al tener en cuenta el error en la medición de los constructos latentes a la hora de indicar la magnitud de las diferencias encontradas. En el modelo se fija el peso de una regresión en 1 y la media de la variable no observada en cero. No es posible estimar los valores de la media para ambos grupos, sin embargo, Sörbom (1974) mostró que, al fijar el valor de la media a un grupo e imponer restricciones apropiadas relativas a los pesos de regresión y a las intercepciones, es posible obtener estimaciones significativas de la media de factores para todos los dos grupos, en este trabajo se fijó en cero el factor de la media del grupo de mujeres y eliminar las restricciones en el grupo de los hombres.

RESULTADOS

En primer lugar se muestra en la Tabla 2 la correlación de los datos de entrada para el análisis y se observa que todas las variables tienden a uno.

Tabla 2: Matriz de Correlaciones

Variables	Cm	Mm	Ccm	Ccom	Imc
CM	1.000	.208	.114	.282	.085
MM		1.000	.392	.337	.171
CCM			1.000	.265	.323
CCOM				1.000	.446
IMC					1.000

Fuente: Elaboración propia. Matriz de correlaciones de los resultados obtenidos.

A este respecto, se encontró que el modelo tiene un buen ajuste para modelar los datos utilizando varios grupos ($X^2_{(13)}$ = 22.094; CFI = 0.979; RMSA=0.059;).

Figura 4: Modelo Utilizando Varios Grupos

Índice	X2	gl	GFI	AGFI	CFI	RMSA
Valor	2.001	2.001	0.993	0.966	0.994	0.0

Fuente: Elaboración Propia. Modelo Utilizando Varios Grupos Y Sus Resultados.

Para demostrar la invariancia del modelo, en primer lugar se probó el número de factores que mejor representa los datos para ambos grupos (hombres y mujeres), como no hay restricciones de igualdad que se impongan, se seleccionó como criterio la bondad de ajuste del modelo en Figura 5, como única forma estadística.

Figura 5: Modelos de los dos Géneros

Índice	X2	Gl	GFI	AGFI	CFI	RMSA
Valor	8.5181	6	0.971	0.856	.965	0.06

Fuente: Elaboración propia. Figuras con los índices de la representación del modelo entre grupos.

Posteriormente, para probar la invariancia entre grupos se establecieron restricciones de igualdad entre los grupos, el resultado de la prueba de bondad de ajuste proporcionan evidencias de un modelo con buen ajuste (X^2 $_{(32)}$ =12.507; CFI =.952; RMSA=0.06.). La Tabla 4 muestra los las estimaciones de las medias de la actitud hacia las matemáticas del grupo correspondiente a las mujeres.

Tabla 4: Diferencia de Medias (Mujeres)

	Estimate	**S.E.**	**C.R.**	**P**	**Label**
ACM	.012	.410	.030	.976	mv_1

Fuente: Elaboración Propia. La media de la actitud hacia las matemáticas y computación tiene un valor El valor critico (C.R) menor es 1.96 y no es significativamente diferente de cero, en otras palabras, no es significativamente diferente de la media del grupo de los hombres.

CONCLUSIONES

Los resultados de este trabajo permiten dar respuesta a la hipótesis planteada; Existe una diferencia con relación al género entre los factores que influyen en la actitud hacia las matemáticas y computadora en los estudiantes de la Facultad de Comercio y administración de las UASLP. En los modelos desarrollados para evidenciar y comprobar la hipótesis, lo resultados muestran de forma certera y clara que no hay una diferencia entre hombres y mujeres, con relación a la actitud hacia las matemáticas. Los resultados son coherentes con los propuestos por (Hyde y Mertz, 2009) que dejan ver que la ansiedad se presenta de una forma general en los estudiante de ambos géneros, sin embargo aun cuando este estudio no evaluó el desempeño de los estudiantes con respecto a las matemáticas se puede inferir una deficiencia en los sus resultados en el desempeño. Las ideas expuestas conducen a que los sistemas educativos reflexionen sobre la actitud negativa que los estudiantes tienen hacia esta disciplina y enfocarse en estrategias para una mejor actitud, es decir una actitud positiva y posteriormente realizar estrategias de enseñanza aprendizaje ya que si se realizan en primer lugar las estrategias y se deja a un lado la actitud, el estudiante seguirá presentando un nivel bajo de desempeño.

BIBLIOGRAFÍA

Aliasgari M., Riahinia, N., & Mojdehavar, F. (2010). Computer-assisted instruction and student attitudes towards learning mathematics. *Education, Business and Society: Contemporary Middle Eastern 3*(1), 6-14.

Cervin, R. y Dari, N. (2009). Género, escuela y logro escolar en matemática y lengua de la educación media: Estudio exploratorio basado en un modelo multinivel bivariado. Revista mexicana de Investigación Educativa, 14(43), 1051-1078.

Espinosa, C. (2010). Diferencia entre hombres y mujeres en educación matemática: ¿Qué pasa en México? Investigación y Ciencia., 46, 28-35.

Fennema, E. y Sherman, J. (1978) Sex-related differences in mathematics achievement and related factors: A further study, *Journal for Research in Mathematics Education.* 9, 189–203, 1978.

Fey, J. (1989). Technology and Mathematics Education: A survey of recent developments and important problems. *Educational Studies in Mathematics* 20, 237–272.

Galbraith. P. y Hines, C. (1998). Disentangling the nexus: attitudes to mathematics and technology in a computer-learning environment. *Educational Studies in Mathematics* 36: 275–290, 1998.

Garry, V.S. (2005). The effect of Mathematics anxiety the course and career choice of high school vocational-technical education students.
Hernández, R., Fernández, C. y Baptista, M. (2010). Metodología de la investigación. McGraW-Hill. México.

Kaput, J. J. y Thompson, P. W. (1994). Technology in Mathematics *Journal for Research in Mathematics Education* 25, 6, 676-684.

Kargara, M., Ahmad. R. & Bayatc, S. (2010). Relationship between Mathematical Thinking, Mathematics Anxiety and Mathematics Attitudes among University Students. *Procedia Social and Behavioral Sciences* 8 537–542.

Hyde, J. & Mertz, J. (2009). Gender, culture, and mathematics performance. PNAS, 16 (22), 8801-8807.

Sherman, B. & Wither, D. (2003). Mathematics Anxiety and Mathematics Achievement. *Mathematics Education Research Journal*, 15, (2), 138-150.

Tuirán, R. (2015). Resultados de la prueba

EL IMPACTO DEL TIPO DE CAMBIO REAL Y OTRAS VARIABLES MACRO Y MICRO EN LA COMPETITIVIDAD DE LAS EXPORTACIONES MANUFACTURERAS MEXICANAS.

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RESUMEN

La competitividad de las exportaciones manufactureras en México, juega un papel preponderante, por ser el puente para la prosperidad y el crecimiento económico. Mediante este trabajo se pretende establecer el impacto que tiene sobre ella, el tipo de cambio real u otras variables macro y microeconómicas, para lo cual se utiliza un modelo de regresión multifactorial, donde se contrastan los valores de las variables aludidas con los valores de los índices de competitividad internacional proporcionados por el WEF y el IMCO. Los resultados sugieren que el tipo de cambio real no es un elemento significativo que incida en la competitividad de las exportaciones manufactureras, no obstante se percibe una alta dependencia de la actividad económica del país con la economía estadounidense, lo cual motiva a impulsar políticas para diversificar los mercados, incrementar la productividad y consumar las reformas estructurales aprobadas recientemente, para revertir la tendencia hacia el crecimiento potencial de la economía.

PALABRAS CLAVE: Competitividad, Tipo de Cambio Real, Exportaciones Manufactureras, Actividad Económica

THE IMPACT OF THE REAL EXCHANGE RATE AND ANOTHER MACROECONOMIC AND MICROECONOMIC VARIABLES ON THE COMPETITIVENESS OF MEXICAN MANUFACTURING EXPORTS

ABSTRACT

The competitiveness of Mexican manufacturing exports plays a leading role, as the bridge to reach prosperity and economic growth. This work looks to determine the impact of the real exchange rate or other macro and microeconomic variables on competitiveness, for which it is used a model of multivariate regression, where the values of the variables mentioned before are contrasted with international competitiveness indices provided by the WEF and IMCO. The results suggest that the real exchange rate is not a significant element that affects the competitiveness of manufactured exports, however the economic activity of the country is highly dependent on the US economy, which gives the motivation to promote policies to diversify markets, increase productivity and consummate recently adopted structural reforms to reverse the trend towards the potential growth of the economy.

KEYWORDS: Competitiveness, Real Exchange Rate, Manufacturing Exports, Economic Activity

INTRODUCCIÓN

El proceso de apertura económica de México empezó a generarse a mediados de los años ochenta del siglo XX, con el ingreso al Acuerdo General sobre Aranceles Aduaneros y Comercio (GATT por sus siglas en inglés). Después de pasar de ser una economía cerrada a una economía abierta, se dio lugar a un nuevo periodo de apertura comercial que llevó al país a firmar en 1994, el tratado de libre comercio con Canadá y Estados Unidos (TLCAN), originándose una transformación industrial especialmente en el sector manufacturero, no obstante en el 2001 con el ingreso de China a la Organización Mundial de Comercio (OMC) México se ve de nueva cuenta obligado a incrementar su capacidad competitiva en el mercado mundial. A pesar de la transformación industrial experimentada así como los múltiples acuerdos comerciales que México ha sostenido y que le han permitido obtener un avance sustancial del 63.1% del PIB total en su comercio internacional al año 2014 (Banco Mundial, [BM], 2014), las cifras del periodo 1980-2014 muestran que el sector manufacturero de México, se ha visto afectado sensiblemente al pasar del 22.4% al 17.5% del PIB nacional (INEGI, 2015), en comparación con otros países emergentes como Corea y China que han tenido incrementos en la participación de su sector manufacturero del 29% y 36% respectivamente (María y Campos, 2013).

El decrecimiento de la participación manufactura en México, se debe en parte a la debilidad tecnológica, a la falta de capacidad para innovar, para patentar, para crear conocimiento nuevo y carecer de una plataforma industrial robusta para el desarrollo de esta actividad. Sin embargo, el proceso de industrialización es un elemento crítico para la consecución de niveles superiores de crecimiento económico de un país, fundamentalmente porque impulsa la competitividad, la productividad y la generación de empleos. Por lo que hay que tener presente que actualmente el tema clave que está en discusión en las economías del mundo es la competitividad, por ser un factor determinante para el crecimiento económico de las naciones. Por otro lado, el tipo de cambio real en México ha jugado un rol importante en el comercio exterior al ser considerado por varios autores como un indicador del desempeño de la política económica y, entre otros, de la competitividad de los productos nacionales en los mercados extranjeros.

Es por eso, que este artículo pretende determinar primeramente, si el tipo de cambio real (TCR), es una variable relevante que está incidiendo en la competitividad de las exportaciones manufactureras mexicanas estimadas por los índices globales del Foro Económico Mundial (WEF por sus siglas en inglés) y el Instituto Mexicano para la Competitividad (IMCO) para el periodo 2001-2014. Además se pretende determinar en este mismo periodo, que otras variables están incidiendo en la escasa competitividad de las exportaciones del sector manufacturero mexicano, en virtud de que es uno de los motores de la economía nacional. La estructuración del presente artículo se construye de la forma siguiente: en la sección dos se hace una revisión de la literatura sobre la competitividad de la industria manufacturera y algunas variables que inciden en la competitividad de las exportaciones manufactureras mexicanas entre la que se consideran el tipo de cambio real y dos de los principales índices de competitividad global. La sección tres muestra la metodología, los datos analizados, el modelo y las hipótesis, mientras que la sección cuatro presenta los resultados econométricos, seguidos de las conclusiones, limitaciones y la propuesta de futuras líneas de investigación.

REVISIÓN DE LA LITERATURA

La competitividad hoy en día, sobre todo en el sector manufacturero, ha ido adquiriendo una importancia decisiva por el papel primordial que juega para la prosperidad y crecimiento económico de cualquier país, ya que promueve la inversión interna y externa, mejora la balanza de pagos, además, es generador de empleos dentro y fuera del sector, impulsa el capital intelectual y la capacidad de innovación, impactando todo ello en un nivel de vida más elevado para los habitantes de las naciones (Organisation for Economic Co-operation and Development [OECD], 2009). Sin embargo, a pesar de que ésta, se ha ido adecuando a las situaciones económicas e incluso políticas de las naciones, debido a la incorporación de nuevos actores en el comercio internacional atraídos por el proceso globalizador, a la fecha no se tiene una definición única

de competitividad que sea validada por todos los autores, ni se ha encontrado la mejor manera de medirla (Madrid, 2010). Tolerante con esta pluralidad de definiciones del término de competitividad, los factores que la determinan también tienden a ser diversos.

Generalmente se ha venido asociando la variable competitividad de las exportaciones con el tipo de cambio real el cual estima los precios de los bienes expresados en una moneda común y es uno de los indicadores que han sido utilizados para medir los cambios en la competitividad entre naciones, pero del mismo modo que otras variables analizadas para estimar la competitividad, tampoco existe un acuerdo sobre el efecto del tipo de cambio real sobre el nivel de exportaciones de una nación (Berman, Martin y Mayer, 2012; Rapetti, Skott y Razmi, 2012; Berka y Devereux, 2013).La noción clásica implica que la subvaluación hace más baratos los productos exportables en el exterior y por tanto estimula las exportaciones, Sin embargo esto último, puede ocasionar riesgos persistentes de inflación, arrastrando consigo un debilitamiento de la economía y por consiguiente fuertes problemas sociales.

Mientras que la sobrevaluación hace más caros los productos para exportación y más baratas las importaciones pudiendo ocasionar un déficit de cuenta corriente que no sea sostenible, incrementos de deuda externa y riesgos especulativos, lo que conduciría a un menor crecimiento económico, especialmente del sector manufacturero (Frait, Komáre y Melecky 2008). Analizando diferentes monedas, periodos de tiempo, y elasticidad de las exportaciones, autores como Serenis y Serenis (2008), Huchet-Bourdon y Korinek (2011) y Qing, Yi y Yingke (2013), afirman que la depreciación del tipo de cambio no es una variable que incorpore competitividad a las exportaciones de las naciones, principalmente en periodos de volatilidad cambiaria, puesto que esta únicamente se incrementa para un pequeño grupo de productos y por un periodo muy corto de tiempo.Sin embargo, se han presentado episodios en donde el tipo de cambio se ha fortalecido y las exportaciones han crecido o bien, la moneda se ha depreciado y las exportaciones han caído, lo cual sugiere que existen variables diferentes a la paridad cambiaria que explican el comportamiento de las exportaciones (CNNExpansión, 2013).

Dado lo anterior es conveniente incluir en modelos que expliquen la competitividad variables macroeconómicas y microeconómicas como lo son: el tipo de cambio real, las importaciones manufactureras de Estados Unidos provenientes de México, las importaciones manufactureras de Estados Unidos provenientes de China, y el crecimiento del ingreso de los Estados Unidos (Lagunés y Pérez, 2015). Además del índice de la productividad total de los factores del sector secundario mexicano (PTF), la Inversión extranjera directa de la industria manufacturera en México (IED), el financiamiento de la banca comercial y de desarrollo al sector manufacturero en México. Para evaluar la implicancia de estas variables en la competitividad de las exportaciones manufactureras mexicanas, se recurrió a la información proporcionada por el WEF y el IMCO, el índice del primero se eligió por ser una de las publicaciones más importantes dedicadas al estudio de la competitividad a nivel internacional que mide los fundamentos microeconómicos y macroeconómicos de la competitividad nacional de un país. Mientras que el del segundo es un índice cuyo enfoque es a nivel global, nacional y regional y, busca aportar información beneficiosa para diseñar y dar seguimiento a las políticas públicas nacionales para la competitividad y el desarrollo económico de México.

METODOLOGÍA

Para alcanzar el objetivo de este artículo, se realizaron pruebas econométricas con el fin de analizar el cambio en el valor de los índices de competitividad de las exportaciones mexicanas como consecuencia de las variaciones en el tipo de cambio real, además de incluir otras variables que pueden estar impactando el nivel de dichas exportaciones. Para verificar la existencia de relación entre el tipo de cambio real del peso mexicano y el valor de los índices que miden la competitividad de las exportaciones de manufacturas, se utilizó una regresión multivariante mediante la versión del modelo GARCH (1,1), la cual, permite

determinar si la variación de una variable incluida en ese modelo tiene efectos sobre la variable dependiente. De modo que el modelo utilizado para validar la relación anteriormente comentada es la siguiente:

$$X_t = \alpha_t + \beta_t TCR_{t-1} + \gamma_t IUSAM_{t-1} + \delta_t IUSAC_{t-1} + \varepsilon_t PNBU_{t-1} + \zeta_t PTF_{t-1} + \eta_t IEM_{t-1} + \theta_t FB_{t-1} + \iota_t \quad (1)$$

Donde:

X_t es el valor del índice de competitividad referente a las exportaciones manufactureras mexicanas de acuerdo al IMCO, o en su caso al WEF.
α_t es el término constante.

TCR es el tipo de cambio real del peso mexicano.
β_t es el coeficiente del tipo de cambio real.

IUSAM es el valor de las importaciones manufactureras de Estados Unidos provenientes de México.
γ_t es el coeficiente de las importaciones manufactureras de Estados Unidos provenientes de México.

IUSAC es el valor de las Importaciones manufactureras de Estados Unidos provenientes de China.
δ_t es el coeficiente de las importaciones manufactureras de Estados Unidos provenientes de China.

PNBU es el valor del ingreso de los Estados Unidos a precios corrientes en mmdd.
ε_t es el coeficiente del ingreso de los Estados Unidos a precios corrientes en mmdd.

PTF es el valor del Índice de productividad total de los factores para el sector secundario en México.
ζ_t es el coeficiente del índice de productividad total de los factores para el sector secundario en México.

IEM es el valor de la Inversión extranjera directa en la industria manufacturera mexicana en mdd.
η_t es el coeficiente de la inversión extranjera directa en la industria manufacturera mexicana en mdd.

FB es el valor del Financiamiento de la banca comercial y de desarrollo al sector manufacturero mexicano en mdp.
θ_t es el coeficiente del financiamiento de la banca comercial y de desarrollo al sector manufacturero mexicano en mdp.

ι_t es el término de error aleatorio. El valor de cada variable se encuentra expresado como $\ln p_{t+1} - \ln p_t$. Estadísticamente existe la posibilidad de que el efecto de las variables independientes no se presente en el mismo periodo de tiempo, sino en algún momento posterior por lo que para capturar esa posibilidad la ecuación (1) se amplía de la siguiente manera:

$$x_{t+1} = a_b + b_t r_{t-1} + \eta_t, \text{ con i = -1, 0, 1, 2…} \quad (2)$$

Este estudio pretende determinar si el tipo de cambio tiene un efecto estadísticamente significativo sobre el valor de las mismas por lo que el enfoque recae en el valor y la significancia de los coeficientes β_t, γ_t, δ_t, ε_t, ζ_t, η_t, y θ_t Cuando el valor del tipo de cambio real es la única variable que tiene un impacto sobre el valor de los índices de competitividad, el coeficiente estimado del tipo de cambio real debe ser estadísticamente significativo y distinto a cero, mientras que el resto de las variables deben ser iguales a cero.

H_{o1}: $| \beta_t | \neq 0$; $\gamma_t = \delta_t = \varepsilon_t = \zeta_t = \eta_t = \theta_t = 0$

RESULTADOS

En base a los resultados obtenidos bajo el modelo econométrico empleado, se asume que en el periodo estudiado no se puede afirmar que el TCR así como la PTF, sean elementos que tengan un efecto estadísticamente significativo sobre la competitividad de las exportaciones manufactureras estimadas tanto por el índice del IMCO como por el índice del WEF (ver tablas 1 y 2).

Tabla 1: Estimación Econométrica En Base Al Índice Del IMCO

	A	B	Γ	Δ	E	Z	H	Θ	I
0 adelantos	0.11	0.73	0.23	-0.30	0.37	0.52	-0.74	0.78	0.85
	(0.06)	(0.39)	(2.21)**	(-2.22)**	(2.54)***	(0.03)	(0.87)	(2.17)**	(0.11)
1 adelanto	0.56	0.28	0.23	-0.57	0.76	0.35	-0.56	0.65	0.68
	(0.28)	(0.86)	(2.19)**	(-2.23)**	(2.62)***	(0.37)	(0.17)**	(2.23)**	(0.33)
2 adelantos	0.10	0.57	0.91	-0.86	0.70	0.67	-0.26	0.09	.30
	(0.11)	(0.80)	(0.84)	(-0.45)	(2.06)	(0.34)	(-0.87)	(0.05)	(0.03)

*Fuente: elaboración propia, ** Significativo al 5%; *** significativo al 1%. El dato entre paréntesis bajo el coeficiente es el valor del estadístico Z.*

Tabla 2: Estimación Econométrica en Base al Índice del WEF

	A	B	Γ	Δ	E	Z	H	Θ	I
0 adelantos	0.81	0.03	0.71	-0.49	0.23	0.20	-0.27	0.54	0.17
	(0.01)	(0.54)	(0.51)	(-2.22)	(2.63)***	(0.84)	-(0.93)	(0.58)	(0.88)
1 adelanto	0.65	0.50	0.35	-0.19	0.91	0.13	-0.47	0.29	0.97
	(0.49)	(0.36)	(2.17)**	(-2.18)**	(2.74)***	(0.80)	(-2.16)**	(0.99)	(0.19)
2 adelantos	0.12	0.84	0.80	-0.52	0.11	0.71	-0.08	0.2	0.16
	(0.45)	(0.95)	(0.33)	(-0.18)	(0.06)	(0.40)	(-0.36)	(0.10)	(0.76)

*Fuente: elaboración propia, ** Significativo al 5%; *** significativo al 1%. El dato entre paréntesis bajo el coeficiente es el valor del estadístico Z*

Siendo las importaciones manufactureras de Estados Unidos provenientes de México; las importaciones manufactureras de Estados Unidos provenientes de China; el total del ingreso de los Estados Unidos y la inversión extranjera directa en la industria manufacturera en México, las variables que actualmente están impactando los niveles de competitividad. En el caso del financiamiento de la banca comercial y de desarrollo al sector manufacturero mexicano, medido por el IMCO, resultó estadísticamente significativo indicando que un aumento de esté implica un aumento de la competitividad de las exportaciones. Mientras que en la medición por el índice WEF en ninguno de los periodos resultó estadísticamente significativo, por lo que se puede afirmar que esta variable no tiene una relación sobre la competitividad de las exportaciones estimadas por este último índice.

Una de las razones por las que se asume que el TCR no es relevante en las exportaciones manufactureras mexicanas evaluadas por ambos índices, es la estrecha relación del comercio intra-industrial que tienen las industrias manufactureras mexicanas y estadounidenses. En donde las exportaciones mexicanas se generan mediante un importante porcentaje de insumos que requiere la producción de sus bienes exportables, ocasionando que los precios de los productos exportados se vean contrarrestados por los costos de los insumos importados, anulándose los efectos que pudiera tener el TCR en la competitividad. Dentro de estos mismos resultados, la variable que resultó con alta significancia estadística en los dos primeros escenarios por ambos índices de competitividad, fue la del ingreso de los Estados Unidos, lo cual es comprensible dado el fuerte vínculo de la economía mexicana con el ciclo económico de los Estados Unidos, principalmente en la industria manufacturera. Muestra de esto, es el desaceleramiento de la producción manufacturera estadounidense la cual paso del 3.9% en el año 2012 al 2.3% en el 2013, repercutiendo en las exportaciones manufactureras mexicanas las cuales pasaron del 8.4% en 2012 al 4.2% en 2013 (Banamex, 2014). En cuanto a la variable de las importaciones manufactureras de Estados Unidos

provenientes de México, resultó estadísticamente significativa por ambos índices, por lo que existe una relación directa de esta variable con la competitividad de las exportaciones mexicanas. Este resultado, parece confirmar que el comportamiento de la industria manufacturera mexicana está limitada y dependiente tanto de la reanimación del mercado y de la producción manufacturera de Estados Unidos, sin embargo para evitar el sometimiento a los cambios de la economía de los Estados Unidos, se sugiere la conveniencia de hacer una revisión exhaustiva de la política industrial manufacturera mexicana con el fin de incursionar a otros mercados internacionales y de un fortalecimiento del mercado nacional.

En relación a las importaciones manufactureras de Estados Unidos provenientes de China, la cual resultó por ambos índices también estadísticamente significativa, se afirma que existe un desplazamiento de las exportaciones mexicanas por las exportaciones chinas en el mercado estadounidense. Dicho desplazamiento se ha venido presentando desde el año 2001 a partir de la incursión de China a la OMC, como resultado de una competencia en precios basada principalmente en la subvaluación de su moneda y bajos salarios. Aun así, la participación de México en el mercado estadounidense se ha estado incrementando, sin embargo, la participación de China ha aumentado en un mayor porcentaje, así se tiene que, durante el primer trimestre del 2004, México contaba con una cuota de mercado del 11% mientras que China tenía el 12%, una década después, en el primer trimestre de 2014, la segunda mayor economía mundial tuvo una participación del 18 por ciento, superior al 13 por ciento de México, ver Figura 1.

Figura 1: Curva de las Exportaciones de México y China A E.U

Fuente. Propia con datos del U.S. Departament of Commerce, 2014.

La variable IED con el índice IMCO, resultó con un estadístico Z positivo y significativo, considerándose que hay relación entre esta variable y la competitividad. Sin embargo, con el índice WEF esta variable derivó con un coeficiente y estadístico Z negativos y significativos, por lo que su relación con la competitividad es inversa. Esta última situación es un tanto atípica, si consideramos que regularmente la IED en los países en desarrollo se orienta principalmente a fortalecer e incrementar el crecimiento y competitividad de las exportaciones sobre todo en la manufactura. Tal comportamiento, pudiera deberse a varias razones, una de ellas puede ser que los flujos de IED buscan obtener mayores retornos que los que se obtienen en el país de origen más que por razones vinculadas a la competitividad. Otra es, que estos

flujos de capital se inviertan en empresas no para abastecer el mercado externo sino produzcan preponderantemente para el mercado interno como es el caso de la industria alimenticia.

CONCLUSIONES

Ante la participación cada vez más activa de los productores y comercializadores de los países como China, India, Indonesia y otros, en los mercados internacionales y en especial en el mercado estadounidense, México requiere prestar atención a otras fuentes de competitividad fundamentadas en la inversión, en la innovación tecnológica, la diversificación de productos, el fortalecimiento del mercado interno y la búsqueda de nuevos mercados. Esta tarea requiere de un trabajo articulado entre gobierno y empresas, en la generación de tecnologías, la búsqueda de financiamiento y la exploración de nuevas oportunidades de exportación. Se requiere desarrollar una estrategia nacional más agresiva que impulse la productividad para competir más eficientemente en el mercado externo; de una política consistente y sustentable para la recuperación de la infraestructura en energía y transporte, que reduzca los elevados costos que las deficiencias presentes ocasionan al aparato productivo; que contemple no sólo el bajo costo de la mano de obra mexicana, sino una mayor inversión en ciencia y tecnología que ayude a impulsar la exportación de productos con alto contenido tecnológico.

Además, implementar una serie de políticas macroeconómicas e institucionales que estimulen el mercado interno, se incentive el empleo, se reduzcan los niveles de la informalidad, de la inseguridad así como abatir la corrupción, factores que actualmente están inhibiendo fuertemente la competitividad no solo del sector manufacturero sino del país en general. Por otro lado, es necesario la implementación de las reformas estructurales recientemente aprobadas en el país, las cuales podrían revertir la tendencia hacia el crecimiento potencial de la economía mexicana. Sería difícil cumplir las expectativas más optimistas sobre la competitividad de las exportaciones mexicanas, sin la implementación de dichas reformas por lo que son un requerimiento esencial para alcanzar niveles superiores de productividad, competitividad y bienestar social.

Limitaciones

Entre las limitaciones a resaltar está el análisis al que está enfocado, dejando por fuera algunas variables de nivel macro y micro tanto económicas-financieras como de tipo político que pudieran estar influyendo de alguna manera en las variables investigadas y que no pueden ser cuantificadas. Así mismo, la escasa información disponible de algunas variables que pudieran estar incidiendo de manera importante en la competitividad de las exportaciones manufactureras de México, mismas que tuvieron que ser excluidas al momento de hacer el estudio, como son: el índice de productividad laboral, los costos unitarios laborales y el índice de desempeño logístico entre otros. Por otra parte, el modelo estadístico de regresión multifactorial utilizado para el análisis puede estar limitando los resultados obtenidos, por lo que estos, podrían cambiar sustancialmente utilizando en el futuro otros modelos como los AR, MA, ARIMA o GARCH. Por último, para la elaboración de artículos posteriores, es recomendable relacionar la competitividad de las exportaciones mexicanas con otros países con economías similares como la de Chile, Brasil u otras del continente asiático, para que los sectores interesados, tengan puntos de comparación y una visión más amplia de la competitividad del país y las razones para mejorarla.

BIBLIOGRAFÍA

Banamex, (2014). *Indicadores Regionales de Actividad Económica 2014*. Retraído 14 de Octubre 2015 de http://www.banamex.com/resources/pdf/es/estudios_finanzas/mercados/publicaciones/IRAE-2014-HD.pdf

Banco Mundial, (2014). *Indicadores del desarrollo mundial*. Retraido 14 de Octubre 2015 de http://datos.bancomundial.org/indicador/TG.VAL.TOTL.GD.ZS

Berka, M., & Devereux, M. B. (2013). "Trends in European real exchange rates,"*Economic Policy*, *28*(74), 193-242.

Berman, N., Martin, P., & Mayer, T. (2012). "How do different exporters react to exchange rate changes?," *The Quarterly Journal of Economics*, *127*(1), 437-492.
CNNexpansión (2013). Recuperado de: http://www.cnnexpansion.com/economia/2013/04/12/hagan-sus-apuestas-dolar-a-10-11-o-12 el 15 de Octubre 2015

Frait, J., Komáre L. & Melecky M. (2008). "The real exchange rate Misalignment in the five central European countries-single equation approach," In P. Karadeloglou y V. Terraza (Eds.). *Exchange rates and macroeconomic dynamics,* New York: Palgrave Macmillan.

Huchet-Bourdon, M., & Korinek, J. (2011). "To what extent do exchange rates and their volatility affect trade?," OECD Trade Policy Papers, No. 119, OECD Publishing.

Instituto Nacional de Estadística y Geografía, (2015). *Indicadores económicos de coyuntura*. Retraído 19 de Octubre 2015 de http://www.inegi.org.mx/inegi/contenidos/notasinformativas/pib_precr/NI-PIBCR.pdf

Lagunes, M. y Pérez, H. (2015). "Tipo de cambio y determinantes de las exportaciones en periodos de volatilidad financiera en la zona del tratado de libre comercio de Norteamérica", **Global Conference on Business & Finance Proceedings** 10.2: 904-913.
Madrid, M. (2010). "Competitividad exterior. Especial referencia a la evolución reciente en la economía española," *Clm. economía: Revista económica de Castilla-La Mancha,* (16)*, p. 75-94.

María y Campos, M. (2013). "Retos de la industria en México," *Revista de la facultad de contaduría de la UNAM*, (139), p. 7-11

Liua, Q., Lub, Y., & Zhoub, Y. (2013). "Do Exports Respond to Exchange Rate Changes?" Inference from Chinars Exchange Rate Reform. *RIn*, *29*, 19921.

Organisation for Economic Co-operation and Development. (2009). *the impact of the global crisis on SME and entrepreneurship financing and policy response*, Centre for entrepreneurship, SMEs and local Development, France.

Rapetti, M., Skott, P., & Razmi, A. (2012). "The real exchange rate and economic growth: are developing countries different?," *International Review of Applied Economics*, *26*(6), 735-753.

BIOGRAFÍA

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DIÁLOGO JURISPRUDENCIAL ENTRE EL TFJFA Y LA CIDH EN MATERIA DEL DERECHO DE ACCESO A LA JUSTICIA

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RESUMEN

La presente investigación explora el diálogo jurisprudencial en su vertiente referida a las sentencias dictadas por el Tribunal Federal de Justicia Fiscal y Administrativa en relación con los fallos dictados por la Corte Interamericana de los Derechos Humanos en materia del Derecho de acceso a la justicia en el procedimiento contencioso administrativo.

PALABRAS CLAVES: Acceso a la Justicia, Corte Interamericana de los Derechos Humanos, Diálogo Jurisprudencial, Tribunal Federal de Justicia Fiscal y Administrativa y Tutela Judicial Efectiva

DIALOG BETWEEN THE JURISPRUDENTIAL TFJFA AND THE IACHR IN RESPECT OF THE RIGHT OF ACCESS TO JUSTICE

ABSTRACT

The present investigation explores the juriprudential dialog in his slope referred to the judgments dictated by the Federal Court of Fiscal and Administrative Justice in relation with the failures dictated by the Inter-American Court of the Human rights as for the Law of access to the justice in the contentious administrative procedure.

JEL: K33, K34, K40, K41

KEYWORDS: Access to Justice, Inter-American Court of Human Rights, Jurisprudential Dialog, Federal Court of Fiscal and Administrative Justice and Effective Judicial Protection

INTRODUCCIÓN:

A través del presente se analiza el diálogo jurisprudencial o judicial que han sustentado el Tribunal Federal de Justicia Fiscal y Administrativa (TFJFA) con la Corte Interamericana de los Derechos Humanos (CIDH), al abordar el análisis y examen de los argumentos de las partes en materia del Derecho de acceso a la justicia, que incluye la tutela judicial, efectiva, las pruebas, la garantía de audiencia, etcétera. Vergottini, (2010:39) señala que el diálogo jurisprudencial puede ser horizontal o vertical, es decir, de igual a igual y de tribunales con distintos niveles jerárquicos y en el presente caso, presentamos un diálogo vertical, entre el TFJFA, órgano especializado en resolver asuntos contencioso administrativos (cuyas sentencias pueden ser revisadas por el poder judicial de la federación en México), con la CIDH. La investigación nos reveló que son escasos los fallos en los que el TFJFA realiza una diálogo jurisprudencial con la CIDH, pero no dejan de ser importantes y reveladores para el estudio jurídico. Como marco legal, consideramos el artículo 17 de la Constitución Política de los Estados Unidos Mexicanos (CPEUM), que consagran las garantías de impartición de justicia, pronta, expedita, completa, imparcial y gratuita. Junto con ello acudimos al artículo 25, de la Convención Americana de los Derechos Humanos (CADH)

REVISIÓN DE LITERATURA

Las Funciones del TFJFA

Es un tribunal administrativo, dotado de autonomía para resolver los conflictos contenciosos administrativos, tratándose de resoluciones definitivas que provengan de las autoridades federales en esta materia. El TFJFA tiene como estructura, el pleno, compuesto por 11 magistrados, dos secciones, que se integran con 5 magistrados cada una y salas regionales distribuidas en todo el país, salas especializadas y salas metropolitanas ubicadas en la ciudad de México, Distrito Federal. Tanto las salas regionales, las especializadas, como las metropolitanas se integran por 3 magistrados. En la presenta investigación resultaron como fallos dictados, para efectos del diálogo jurisprudencial; 1 sentencia que corresponde a la Segunda Sección del TFJFA, 1 sentencia que corresponde a una sala metropolitana y 3 sentencias que corresponden a sala regional

El Diálogo Jurisprudencial o Judicial Entre el TFJFA en México y la CIDH

García Roca, et al (2012:92), señalan que *"el diálogo judicial puede describirse como la comunicación entre tribunales derivada de una obligación de tener en cuenta la jurisprudencia de otro tribunal (extranjero o ajeno al propio ordenamiento jurídico) para aplicar el derecho propio".* Sobre la diferencia en el impacto entre el derecho comparado y el diálogo judicial en las decisiones de los tribunales, dichos autores precisan que *"El uso del derecho comparado produce una fertilización mutua importante, pero de mucho menor entidad que la derivada de un diálogo necesario, aquél que resulta obligado como consecuencia de la conexión entre unos ordenamientos jurídicos parciales que deben convivir sin contradicciones"* Como requisitos para que se configure el referido Diálogo, Carlos Ayala Corao (2013: 3) expresa: *"la cita y la referencia de la jurisprudencia deben tener un efecto útil es decir, pertinente e idóneo, para que guarde coherencia con la argumentación del fallo. Este ejercicio de razonamiento debe llevarse a cabo siempre, no solamente cuando la solución dada por el juez coincida con la jurisprudencia citada sino igualmente cuando se utilice para llenar "vacíos" de normas de contorno impreciso".* En el mismo tenor, Carmona Tinoco *(s.f.),* recomienda "que al invocar un criterio, se ofrezcan los datos mínimos necesarios para identificar su fuente u origen; esto es, que lo hagan verificable por el órgano de decisión ante el cual se hace valer. Algunos de esos datos podrían ser: el caso en que se adoptó el criterio, la fecha y el tipo de resolución, el órgano que la emitió, el número de párrafo en el cual se encuentra, y las ocasiones en que el criterio ha sido reiterado". Por su parte Vergottini (2010: 63), reflexiona sobre lo inconveniente que el diálogo se utilice para *"esconder improvisaciones comparatísticas a menudo carentes de fundamento y, en todo caso, científicamente impropias".*

Los lineamientos en México, del diálogo jurisprudencial o judicial sobre casos en los que nuestro país no fue parte, es la Jurisprudencia 21/2014, del Pleno de la SCJN con el rubro: jurisprudencia emitida por la corte interamericana de derechos humanos. Es vinculante para los jueces mexicanos siempre que sea más favorable a la persona.. Gaceta del Semanario Judicial de la Federación, Décima Época, Pleno, Libro 5, Abril de 2014, Tomo I, Pag. 204. Es decir, se reconoce el "carácter vinculante" de los casos de la CIDH, cuando se trate del Principio Pro Homine. Bajo otro contexto, sólo existe "carácter orientador" de la jurisprudencia de la CIDH, cuando México no sea parte en los casos fallados y no se refiera al principio pro homine. El carácter orientador, representa la no obligatoriedad de los lineamientos contenidos en los fallos. A manera de resumen, mostramos los efectos de las sentencias emitidas por la CIDH, en nuestra legislación nacional:

Cidh	Situación de México	Efectos
Casos fallados	Fue parte	Jurisprudencia es obligatoria y vinculante
Casos fallados	No fue parte	Jurisprudencia es vinculante, siempre que se refiera al principio pro homine
Casos fallados	No fue parte	Jurisprudencia es orientadora, para los tribunales mexicanos

Tabla de elaboración propia en base a las jurisprudencias invocadas.

Atendiendo a lo anterior, son vinculantes, los casos en los que México fue parte (*Caso Fernández Ortega vs México y Caso Radilla Pacheco vs. México)* y que el TFJFA los consideró al emitir sus fallos dictados, mientras que los casos de la CIDH (*Caso López Mendoza vs Venezuela y Caso Velásquez Rodríguez vs Honduras),* invocados por el TFJFA, son orientadores, partiendo de la premisa que México no fue parte en ellos y no se referían al Principio Pro Homine.

El Marco Constitucional e Internacional del Derecho de Acceso a la Justicia

El derecho de acceso a la justicia se contiene en el artículo 17, CPEUM y contiene lo siguiente; justicia pronta y expedita, justicia imparcial, justicia gratuita. Estas garantías representan que existan medios de defensa para el gobernado, que no pongan obstáculos para su interposición y trámite, que sean gratuitos y que se resuelvan en un plazo prudente.

RESULTADOS

Son cuatro casos emblemáticos resueltos por la CIDH, que se consideraron para emitir sentencia en la materia contencioso administrativa, como son: *Caso Fernández Ortega vs México; Caso López Mendoza vs Venezuela; Caso Radilla Pacheco vs. México y Caso Velásquez Rodríguez vs Honduras* y que pasamos a su examen y análisis.

El Acceso Efectivo en el Derecho a la Justicia, Considerando el Caso Velásquez Rodríguez Vs. Honduras.

En la tesis violación al acceso efectivo al derecho a la justicia. Lo constituye cualquier norma, práctica o medida que impida tramitar y resolver el recurso previsto en el artículo 175 del código fiscal de la federación, el diálogo jurisprudencial fue en los términos siguientes:

la Corte Interamericana de Derechos Humanos, ha sostenido en los casos Velásquez Rodríguez, Sentencia de 29 de julio de 1988. Serie C No. 4 y Godínez Cruz, Sentencia de 20 de enero de 1989. Serie C No. 5, que para el cumplimiento a garantizar el derecho a la efectiva protección judicial previsto en el artículo 25 de la Convención Interamericana de Derechos Humanos, *no es suficiente la existencia formal de recursos, sino que estos deben ser los adecuados y efectivos para resolver la situación jurídica infringida y, conforme a ello, cualquier norma, práctica o medida que impida usar el recurso previsto en la legislación interna, constituye una violación del derecho de acceso a la justicia*. Séptima época, de la Sala Regional del Centro I del TFJFA, Publicación: No. 22, Mayo 2013, Página: 429. Como puede colegirse, la sala regional del TFJFA determina que los medios de defensa que existan para el gobernado, deben ser adecuados y efectivos para resolver la cuestión que se plantee.

El Derecho a la Seguridad Jurídica en los Procedimientos Administrativos, Considerando el Caso López Mendoza Vs Venezuela.

El dialogo jurisprudencia en este caso, se sustenta en el test de previsibilidad que fijo la CIDH y derivó en la tesis control de convencionalidad. Derecho humano a la seguridad jurídica en los procedimientos administrativos en términos del artículo 8.1 de la convención americana de derechos humanos y al test de previsibilidad conforme a los principios orientadores de la jurisprudencia de la corte interamericana de derechos humanos en el caso lópez mendoza vs. Venezuela**.** Séptima época, Segunda Sección de la Sala Superior del TFJFA, Publicación: No.14,Septiembre 2012, Página: 85.

El Derecho de Acceso a la Justicia Tratándose de la Carga Prueba, Considerando el Caso Fernández Ortega y Otros Vs. México

La Sala Regional del Centro I, del TFJFA, a través del diálogo jurisprudencia fijo el alcance de la carga probatoria, cuando el estado es quien tiene el control de los bienes para aclarar los hechos materia a discusión y para ello fijó el criterio siguiente: derecho de acceso a la justicia. Se vulnera cuando la carga de la prueba se hace descansar en el particular, si el objeto sobre el que esta ha de versar se pierde o destruye en poder de la autoridad demandada**.-** Séptima época, Sala Regional del Centro I del TFJFA, Publicación: No. 21 Abril 2013. Página: 423.

El Derecho Fundamental a la Seguridad Jurídica, Considerando el Caso Radilla Pacheco Vs. México

En la tesis procedimiento de cancelación de patente aduanal. El artículo 167, párrafo tercero, de la ley aduanera, viola el derecho fundamental a la seguridad jurídica previsto en el artículo 16 constitucional, y por tanto procede su desaplicación al caso concreto en ejercicio del control de convencionalidad, la Primera Sala Regional del Noreste del TFJFA, establece el diálogo jurisprudencial de la forma siguiente:

en cumplimiento a la resolución emitida por la Corte Interamericana sobre los Derechos Humanos, en el caso Radilla Pacheco, sustentó criterio en el sentido de que si bien los jueces no pueden hacer una declaración general sobre la invalidez o expulsar del orden jurídico las normas que consideren contrarias a los derechos humanos contenidos en la Constitución y en los tratados (como sí sucede en las vías de control directas establecidas expresamente en los artículos 103, 107 y 105 de la Constitución), sí están obligados a dejar de aplicar estas normas inferiores dando preferencia a los contenidos de la Constitución y de los tratados en esta materia. En ese contexto, si el artículo 167, párrafo tercero, de la Ley Aduanera, viola el derecho fundamental a la seguridad jurídica previsto en el artículo 16 Constitucional, al no establecer plazo para dar a conocer al agente aduanal los hechos u omisiones que configuren la cancelación de su patente, que sirve para dar inicio al procedimiento de cancelación establecido en los artículos 164 y 165 de la citada legislación, *la Sala debe desaplicarlo al caso concreto, al estar facultada para ello por mandato expreso del artículo 1° de la ley fundamental y a la interpretación que de dicho precepto ha realizado el Máximo Tribunal del País, que autoriza a todos los jueces del país, para que en el ámbito de sus competencias, desapliquen aquellas normas que sean contrarias a los derechos fundamentales, en ejercicio del Control de Convencionalidad*. Séptima época, Publicación: No. 12 Julio 2012, Página: 224. Es decir, concluye que los jueces si pueden dejar aplicar normas inferiores, dando prioridad a la CPEUM y a los tratados internacionales, por ello decidió que debía dejarse de aplicar el artículo 167, de la Ley Aduanera.

La Garantía Estricta del Debido Proceso en las Responsabilidad Disciplinaria de los Servidores Públicos, Considerando el Caso López Mendoza Vs Venezuela

Sobre este tema, la Tercera Sala Regional Metropolitana del TFJFA, determinó a través del diálogo jurisprudencial, con base en el caso de la CIDH, que tratándose del procedimiento sancionador por responsabilidad administrativa, las sanciones se equiparan a las penales y por ello, las garantías del debido proceso son mas estrictas que las administrativas. El criterio es el siguiente: responsabilidades disciplinarias de los servidores públicos. Constituye un criterio orientador en dicha materia, lo resuelto por la corte interamericana de derechos humanos, en el caso 12.668 leopoldo lópez mendoza contra la república bolivariana de venezuela, en relación a que le son aplicables principios propios del derecho penal.- Séptima época, Publicación: No. 10 Mayo 2012, Página: 386. Juicio Contencioso Administrativo Núm. 10213/11-17-03-4.- Resuelto por la Tercera Sala Regional Metropolitana del Tribunal Federal de Justicia Fiscal y Administrativa.

CONCLUSIONES

Diálogo Jurisprudencial Entre el TFJFA y la CIDH

Es aún incipiente el diálogo, pero afortunadamente el tribunal citado, está incorporando los criterios que un tribunal especializado en derechos humanos, como lo es la CIDH ha fijado.

El Carácter Vinculante y Obligatorio de los Casos En Que México Sea Parte, en los Fallos del TFJFA

El diálogo jurisprudencial giro en dos vertientes, considerando criterios vinculantes y criterios orientadores. En los primeros, la presente investigación nos reveló que el TFJFA, invocó los fallos; *Caso Fernández Ortega vs México y Caso Radilla Pacheco vs. México* en sus sentencias. En los criterios orientadores, este trabajo nos reveló que el TFJFA, invocó los fallos dictados por la CIDH, como fueron: (*Caso López Mendoza vs Venezuela y Caso Velásquez Rodríguez vs Honduras).*

BIBLIOGRAFÍA

Ayala corao, carlos, del diálogo jurisprudencial al control de convencionalidad, editorial porrúa, biblioteca porrúa de derecho procesal constitucional, méxico 2013.

Bustos gisbert, rafael, xv proposiciones generales para una teoría de los diálogos judiciales, diálogo jurisprudencial en derechos humanos entre tribunales constitucionales y cortes internacionales, tirant lo blanch méxico, 2013.

Carmona tinoco, j.u., (s.f.) La recepción de la jurisprudencia
de la corte interamericana de derechos humanos en el ámbito interno. El caso de méxico. Recuperado en: http://biblio.juridicas.unam.mx/libros/6/2740/21.pdf

Caso velásquez rodríguez vs. Honduras, sentencia de 29 de julio de 1988 (fondo). Http://www.corteidh.or.cr/docs/casos/articulos/seriec_04_esp.pdf

Caso fernández ortega y otros vs. México, sentencia de 30 de agosto de 2010, (excepción preliminar, fondo, reparaciones y costas). Http://fueromilitar.scjn.gob.mx/resoluciones/fernandez_ortega.pdf

Ferrer mac-gregor, eduardo y alfonso herrera garcía, coordinadores, la interpretación constitucional de los derechos fundamentals y el uso del derecho comparado en el diálogo jurisprudencial, diálogo jurisprudencial en derechos humanos entre tribunales constitucionales y cortes internacionales, tirant lo blanch méxico, 2013.

Fix fierro y lópez ayllón (s.f.), el acceso a la justicia en méxico. Una reflexión multidisciplinaria. Recuperado en: http://biblio.juridicas.unam.mx/libros/1/92/8.pdf

García roca, javier, humberto nogueira alcalá y rafael bustos gisbert, la comunicación entre ambos sistemas y las características del diálogo, el diálogo entre los sistemas europeo y americano de derechos humanos, javier garcía roca, pablo antonio fernández, pablo antonio santolaya y raúl canosa (editores), civitas thomson reuters, españa 2012.

Méndez corcuera, luis alfonso, contradicción de tesis 293/2011. avance o retroces derechos humanos. *Revista in jure anáhuac mayab* [online]. 2013, año 2, núm. 3, issn 2007-6045. Pp. 216-236. Recuperado en: www.anahuacmayab.mx/.../mendez%20corcuera_luis%20alfonso.pdf

Metodología de la investigación. Recuperado en: http://metodologia02.blogspot.mx/p/metodos-de-la-inventigacion.html

Steiner, christian y patricia uribe, coordinadores, convención americana sobre derechos humanos comentada suprema corte de justicia de la nación y konrad adenauer stiftung, méxico 2014, página 660.

Vergottini, giuseppe de, más alla del diálogo entre tribunales. Comparación y relación entre jurisdicciones., thomson ruters, cuadernos civitas, españa 2010.

BIOGRAFIA

Doctor en Derecho, profesor investigador de tiempo completo en el Departamento de Impuestos del Centro Universitario de Ciencias Económico Administrativas (CUCEA) de la Universidad de Guadalajara, México y profesor del ITESM, Campus Guadalajara. Miembro del Sistema Nacional de Investigadores (SNI), nivel 1.

LA EDUCACIÓN CONTINUA EN CIENCIAS ADMINISTRATIVAS Y SU IMPACTO EN LAS ORGANIZACIONES

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RESUMEN

El presente estudio aborda el tema de educación continua y el impacto que ésta tiene en las organizaciones. La investigación se realiza con el objetivo de identificar y documentar el impacto de los proyectos de educación continua proveídos por la Facultad de Ciencias Administrativas de la Universidad Autónoma de Baja California (UABC) a los sectores público y privado en Baja California, México. Es un estudio en el que se da seguimiento a cursos impartidos por la citada institución durante los años 2010 a 2014. La realización de este estudio resulta importante, pues se sabe que la educación continua dota a la sociedad de una educación permanente fuera de la educación formal impartida en universidades, la cual permite desarrollar el potencial personal y profesional del ser humano; educar para la vida. La educación continua en las ciencias administrativas fue estudiada mediante indicadores como la imagen de la empresa, relaciones interpersonales, mejora económica, productividad, relaciones laborales, producto o servicio y logro de objetivos, entre otros. Es un estudio de tipo Mixto, el análisis cualitativo se realizó aplicando la tradición de teoría fundamentada, en tanto que el análisis cuantitativo se realizó aplicando estadística descriptiva. Con los resultados obtenidos se plantearon conclusiones y recomendaciones.

PALABRAS CLAVE: Educación Continua, Productividad, Relaciones Laborales

CONTINUING EDUCATION ON ADMINISTRATIVE SCIENCES AND ITS IMPACT ON ORGANIZATIONS

ABSTRACT

The present study addresses the issue of continuing education and its impact on organizations. The research is conducted in order to identify and document the impact of continuing education projects provided by the Faculty of Administrative Sciences of the Autonomous University of Baja California (UABC) to the public and private sectors in Baja California, Mexico. It is a follow-up study to courses taught by the cited institution during the years 2010-2014. This study is important because it is known that continuing education empowers the society of lifelong learning outside formal education taught in universities, which allows to develop personal and professional potentials of people; educating for life. Continuing education in Administrative Sciences was studied using indicators such as company´s image, interpersonal relations, economic improvement, productivity, labor relations, product or service and achievement of goals, among others. It is a study of mixed type, qualitative analysis was carried out by applying the tradition of grounded theory, while the quantitative analysis was performed using descriptive statistics. With the results, conclusions and recommendations were raised.

JEL: I210

KEYWORDS: Continuing Education, Productivity, Labor Relations

INTRODUCCIÓN

La educación continua en la actualidad aporta las bases para favorecer la vinculación entre los centros de educación superior, la sociedad y el sector productivo. La educación continua logra dotar a quienes ya egresaron de la educación superior y se encuentran insertos en el sector productivo, de una educación permanente que les permite desarrollar su potencial personal y profesional impactando de esta manera la sociedad, al educar a sus miembros para enfrentar los cambiantes retos de la vida diaria. En la actualidad la Facultad de Ciencias Administrativas (FCA) de la UABC, realiza diversos proyectos de educación continua, sin embargo hasta el momento no se ha dado seguimiento a los cursos que la Institución ha ofrecido a diversas organizaciones del sector público y privado. Dado lo anterior, se desconoce el impacto de éstos en la sociedad. Recientemente los programas educativos de la FCA han sido sujetos de evaluación por un organismo internacional y una de las observaciones que éste ha realizado es precisamente que se requiere conocer el impacto o beneficios obtenidos por los usuarios de los proyectos de educación continua de la antes citada Facultad. Por tanto, el objetivo de la presente investigación es identificar y documentar los beneficios de los proyectos de educación continua proveídos por la Facultad de Ciencias Administrativas de la UABC a los sectores público y privado.

REVISIÓN LITERARIA

Para iniciar este recuento, se realizó una revisión literaria, la cual permitió identificar los antecedentes de la educación continua y algunas investigaciones previas sobre el tema. Se pudo saber que la educación continua no es un concepto reciente, pues se tienen registros que ésta surge en "el Siglo XVII, centurias después que los clérigos, primeros letrados – con suficiencia para preparar a otros oficialmente – instauraron en el Siglo XI las primeras instituciones de educación superior para formar personal especializado con grado académico" (Fernández Sánchez, 1999, p. 1) A decir de García González (2004) los antecedentes de la educación continua en México se remontan a 1933, en las I Jornadas Médicas, celebradas en la Universidad Nacional Autónoma de México, la siguiente actividad de esta índole en la citada institución educativa se presentó hasta 1959.

A decir de Vega García (2006), después de la segunda Guerra Mundial la economía occidental sufrió una transformación, la cual demandó la especialización de la mano de obra en los diversos sectores productivos. Los requerimientos que exigió entonces el mercado laboral hizo necesaria una oferta educativa cada vez más actualizada. Dado que las universidades de la época no proporcionaban esta educación "surgen, al término de la última gran guerra, organizaciones internacionales dedicadas a la atención de la educación y la cultura" (p.5). El citado autor refiere que más adelante a partir de los años sesenta, debido al gran crecimiento industrial proliferaron las actividades de educación continua, "desde aquella década y hasta la fecha, la educación dentro del mundo industrializado es considerada como permanente o para toda la vida" (p.5). Quienes vivimos la segunda mitad del Siglo XX en México, para ser precisos en los años setenta, fuimos testigos de una transformación singular de la educación superior mexicana, la cual hubo de asumir un reto que tanto la sociedad y el estado le demandaron. La universidad se transformó para formar impulsores del desarrollo tecnológico, económico y social.

METODOLOGÍA

La presente investigación es un estudio de corte mixto que se realiza en la ciudad de Mexicali, Baja California. Es un estudio de tipo exploratorio y descriptivo, el cual se realiza durante los meses de julio a noviembre de 2015. Se lleva a cabo una investigación cualitativa a través de una revisión documental, en la que se identificaron los antecedentes de la educación continua en México, algunas investigaciones previas realizadas sobre el tema. Asimismo se realizó entrevistas a profundidad a la encargada de los proyectos de educación continua de la Facultad de Ciencias Administrativas de la UABC. Posteriormente se llevó a cabo una investigación cuantitativa en la que se realizó una encuesta entre los beneficiarios de los citados

cursos de educación continua, tanto del sector público como privado. Cabe señalar que de los 14 cursos que se impartieron durante 2010 a 2014, sólo se pudieron encuestar a 9 de ellos, debido al poco interés por participar en el estudio por parte de los beneficiarios de los cursos.

Se llevó a cabo un análisis de resultados cualitativo y cuantitativo. El análisis cualitativo se realizó aplicando la tradición de teoría fundamentada; se trianguló la información obtenida de investigaciones previas sobre el tema, la información documental en registros de educación continua existentes en la institución y la entrevista con la encargada de educación continua. En tanto que el análisis cuantitativo se realizó a través de una encuesta entre los beneficiarios de los cursos de educación continua ofrecidos por la UABC. Se procesaron los datos con apoyo del programa estadístico *Statistical Package for the Social Sciences* (SPSS) aplicando estadística descriptiva. Con los resultados obtenidos se plantearon conclusiones y recomendaciones.

RESULTADOS

La educación continua en las ciencias administrativas y su impacto en la sociedad, fue estudiada mediante los siguientes indicadores: la coordinación de educación continua, opinión de beneficiarios sobre cursos recibidos, cambios positivos de la organización, imagen de la empresa, relaciones interpersonales, mejora económica, productividad, relaciones laborales, producto o servicio y logro de objetivos.

La Coordinación de Educación Continua

Mediante entrevista a la coordinadora de educación continua, se indagó sobre el total de cursos impartidos de 2010 a 2014. Destacó el hecho que no existía un listado de los cursos, sólo una carpeta en la que se encontraban tanto los cursos impartidos como aquellos de los que sólo se había realizado una cotización. La Coordinadora comentó que en muchos de los casos las empresas solicitan cursos, pero que muchas de ellas esperan que los cursos sean a un menor costo, por lo que en muchos casos finalmente el curso no se imparte. La coordinadora amablemente proporcionó algunos nombres, correos y teléfonos para poder realizar la investigación de campo. En la carpeta revisada se pudo constatar lo dicho por la coordinadora, pues aparecían las cotizaciones realizadas para llevar a cabo cursos para diversas empresas, los cuales finalmente no se impartieron. Resultó confuso distinguir cuáles sí se habían llevado a cabo y cuáles no. Finalmente se pudo determinar que los cursos impartidos fueron: Contabilidad Gubernamental, Métodos Estadísticos Agropecuarios, Formulación y Evaluación de Proyectos Financieros, Computación Excel Intermedio, Computación Excel, Sensibilidad y valor de trabajo en tu Empresa, Alineación y Actualización Inmobiliaria, Proyecto Emprendedor hacia una Nueva Etapa de Vida, Manejo de Estrés Laboral, Manejo de Conflictos y Negociación y Manejo de Conflictos desde el Liderazgo. De los cursos que se impartieron, se pudo observar que los cursos que se han dado con mayor frecuencia han sido los de Excel y Excel Intermedio, el cual se ha impartido a varias organizaciones y en repetidas ocasiones.

Los Cursos Recibidos

La encuesta aplicada permitió determinar que el 100% de los beneficiarios de los cursos de educación continua encuestados, considera que el contenido temático de los cursos que se les impartieron resultó ser pertinente para cubrir las necesidades de actualización y capacitación de su empresa. Asimismo el 100% refiere que la atención que se le brindó por parte de la Coordinación de Educación Continua fue buena. El 100% coincidió al decir que el instructor contaba con los conocimientos necesarios para impartir el curso y que los transmitió de manera adecuada. En cuanto al costo, el 100% de los encuestados afirmó que el costo le pareció accesible y que éste cumplió con sus expectativas.

Cambios Positivos en la Organización: En cuanto al grado en que hubo cambios positivos en la empresa por la aplicación de conocimientos y/o habilidades adquiridas en el curso, se obtuvo que el 22% evaluaron el cambio positivo como muy alto, 22% como alto y 56% como medio; destaca el hecho que ninguno de los encuestados consideró que el cambio positivo fue bajo o que no hubo cambio positivo.

Imagen de la Empresa: Al evaluar el impacto de los cursos recibidos en la imagen de la empresa ante sus clientes, 33% de los encuestados contestaron que el grado de impacto fue alto y 11% dijo que fue medio, no obstante el 56% contestó que no hubo impacto.

Relaciones Interpersonales: En cuanto al nivel de mejora en las relaciones interpersonales entre los trabajadores de su empresa como resultado del curso, 22% de los encuestados consideró el nivel de mejora como muy alto, 11% como alto y 11% como nivel medio. No obstante 56% dijo que no hubo mejora.

Mejora Económica: En cuanto al nivel de mejora económica de la empresa, a partir de los cursos recibidos, el 33% de los encuestados manifestó que fue alto y 11% lo evaluó en un nivel medio. No obstante 56% dijo que no hubo mejora económica de la empresa.

*Productividad :*Al evaluar el nivel de mejora en cuanto a la productividad de la empresa, a partir de los cursos recibidos, el 11% dijo que fue muy alto, 22% dijo que alto, 11% dijo que medio y 56% dijo que no hubo mejora en cuanto a la productividad.

Relaciones Laborales: Al evaluar el nivel de relaciones laborales entre la empresa y sus trabajadores, tras los cursos recibidos, 11% de los encuestados las evaluó a un nivel excelente, 22% a un nivel muy bueno, 11% a un nivel bueno y 56% dijo que no hubo cambio.

Producto o Servicio: En cuanto al grado en el que los conocimientos y/o habilidades que se les proporcionaron a los empleados sirvieron para ofrecer un mejor producto o servicio, 22% de los encuestados manifestaron que éste fue a un grado muy alto, 11% a un nivel alto, 11% a un nivel medio y 56% consideraron que no hubo mejora en el producto o servicio.

Logro de Objetivos

Al evaluar el grado en que la capacitación contribuyó a alcanzar los objetivos / visión de la empresa, 33% de los encuestados afirmó que el grado fue muy alto, 11% dijo que el grado fue medio y 56% dijo que la capacitación no contribuyó a alcanzar los objetivos de la empresa.

CONCLUSIONES

Al término de este estudio se pueden plantear las siguientes conclusiones:

Primera: La Coordinación de Educación Continua no cuenta con un registro de los cursos impartidos que brinde información estadística de manera eficiente. Se requiere crear una base de datos para que de manera sistematizada se sepa cuáles y cuantos cursos se han impartido, de tal manera que se facilite el darles seguimiento.

Segunda: Existe interés en la sociedad por mejorar en cuanto habilidades en el uso de las Tecnologías de la Información y la Comunicación, dado que con frecuencia se solicitan cursos sobre el uso de Excel. Sería conveniente ofrecer a las empresas cursos sobre otros programas, no sólo de Excel, que les permitan mejorar en el uso de las TICs.

Tercera: Los resultados obtenidos en cuanto a contenido de cursos, atención recibida por los beneficiarios, conocimientos de los instructores y costos fueron buenos. Lo anterior permite concluir que no se requiere hacer cambios en cuanto a planta docente, encargado de educación continua, ni costos de los cursos que la FCA ofrece.

Cuarta: Todos los beneficiarios de los cursos encuestados coincidieron en decir que a partir de los cursos recibidos, hubo cambios positivos en la empresa, lo que permite concluir que los cursos de educación continua que imparte la FCA impactan positivamente en la sociedad.

*Quinta:*Dado que 56% de los encuestados manifestó que tras los cursos recibidos, no hubo cambio en la imagen de la empresa ante sus clientes, se puede inferir que si bien los cursos logran un impacto positivo, no es en su mayoría en este rubro; lo anterior se podría explicar, ya que algunos cursos no llevan implícita la finalidad de lograr un cambio en la imagen de la empresa ante sus clientes.

Sexta: Considerando que 56% dijo que no hubo mejora en las relaciones interpersonales, se puede inferir que los cursos de educación continua que se han ofertado por la FCA, no han sido encaminados a fortalecer las relaciones interpersonales. Lo anterior resulta congruente con el hecho que los cursos que mayormente se han impartido son sobre Excel, actividad que frecuentemente se realiza de manera individual.

Séptima: Se puede concluir que el impacto de los cursos de educación continua ofrecidos por la FCA no es en su mayoría económico. Lo anterior se sustenta en el hecho que 56% de los encuestados dijo que, tras haber recibido los cursos, no hubo una mejora económica en la organización. No obstante se reconoce el hecho que no todas las organizaciones beneficiarias de los cursos que ofrece la FCA tienen fines de lucro.

Octava: Se concluye que el impacto de los cursos de educación continua ofrecidos por la FCA no es en su mayoría en cuanto a su productividad. Lo anterior se sustenta en el hecho que 56% de los encuestados dijo que, tras haber recibido los cursos, no hubo una mejora en la productividad de la empresa.

Novena: Se puede afirmar que el impacto de los cursos de educación continua ofrecidos por la FCA no es en su mayoría en cuanto a la mejora de relaciones laborales entre la empresa y sus trabajadores. Lo anterior se sustenta en el hecho que 56% de los encuestados dijo que, tras haber recibido los cursos, no hubo una mejora en las relaciones laborales de la empresa. Sin embargo se reconoce que los beneficiarios de los cursos de educación continua de la FCA, no necesariamente solicitaron el curso por tener conflictos laborales.

Décima: Los resultados obtenidos permiten concluir que el impacto de los cursos de educación continua ofrecidos por la FCA, no es en su mayoría en cuanto a la mejora del producto o servicio que ofrecen las empresas que recibieron los cursos. Lo anterior se sustenta en el hecho que 56% de los encuestados dijo que, tras haber recibido los cursos, no hubo una mejora en el producto o servicio que ofrece la empresa.

Décimoprimera: Se concluye que el impacto de los cursos de educación continua ofrecidos por la FCA no es en su mayoría en cuanto al logro de los objetivos de las empresas que recibieron los cursos. Lo anterior se sustenta en el hecho que 56% de los encuestados dijo que la capacitación recibida no contribuyó a alcanzar los objetivos de la empresa.

REFERENCIAS

Fernández Sánchez, N. (1999). Surgimiento y evolución de la educación continúa. Universidad Nacional Autónoma de México. Recuperado de http://www.e-continua.com/ documentos/ antecedentesEC_1999.pdf.

García González, E.L. y otros (2004). Gestión de la educación continua y la capacitación, México., Manual Moderno, pp. 11- 13.

Vega García, R. (2006). La educación continúa en México: hacia la transición a la captación a distancia. Edutec. Revista Electrónica de Tecnología Educativa. No. 20 Recuperado de http://edutec.rediris.es/Revelec2/revelec20/vega20.pdf

IMPORTANCIA DE LA REFORMA FISCAL MEXICANA 2014 COMO ESTRATEGIA ADMINISTRATIVA QUE FOMENTA LA FORMALIDAD, GENERACIÓN DE EMPLEO, FINANCIAMIENTO, CRECIMIENTO Y COMPETITIVIDAD EMPRESARIAL

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RESUMEN

Esta investigación aborda el tema de la Reforma Fiscal 2014, como una estrategia administrativa adoptada por el poder ejecutivo federal para fomentar la formalidad, generación de empleo, acceso al financiamiento, el crecimiento y la competitividad empresarial. Durante varias décadas en todo el país, miles de pequeños comerciantes han realizado sus actividades económicas de manera irregular, sin manifestar a la autoridad competente la fecha en que iniciaron operaciones, ingresos, costos, domicilio, trabajadores a su servicio, mucho menos el pago de impuestos; estos grupos de comerciantes forman lo que ahora se conoce como economía informal. Como respuesta a esta situación y con el ánimo de darle solución a esta problemática, a partir del año 2014 se da a conocer la reforma fiscal, para que los comerciantes se inscriban de manera voluntaria al padrón de contribuyentes, la cual les brinda facilidades administrativas y ventajas económicas. Esta investigación es de tipo descriptivo documental transversal. La población sujeta a estudio fueron 300 pequeños empresarios de Mexicali, Baja California. La información se recabó en un cuestionario diseñado y aplicado a los comerciantes, misma que se procesó mediante estadística descriptiva, los resultados obtenidos permitieron conocer el efecto de la reforma fiscal y hacer recomendaciones a los comerciantes.

PALABRAS CLAVES: Reforma Fiscal, Estrategia Administrativa, Formalidad, Generar Empleos

IMPORTANCE OF 2014 MEXICAN TAX REFORM AS AN ADMINISTRATIVE STRATEGY THAT ENCOURAGES FORMALITY, EMPLOYMENT GENERATION, FINANCING, GROWTH AND BUSINESS COMPETITIVENESS

ABSTRACT

This research addresses the issue of tax reform 2014 as a management strategy adopted by the federal executive to promote formality, job creation, access to financing, growth and business competitiveness. For several decades across the country, thousands of small merchants have made their business illegally, without showing to the competent authority the date they began operations, revenues, costs, address, workers in their service, much less pay taxes; these groups of merchants form what is now known as the informal economy. In response to this situation and with the aim to provide solutions to this problem, from the year 2014 discloses fiscal reform, for traders to register voluntarily to the register of taxpayers, which provides them with administrative facilities and economic advantages. This research is a descriptive cross

documentary. The populations subject to study were 300 small entrepreneurs in Mexicali, Baja California. The information was collected in a questionnaire designed and applied to merchants, same that was processed using descriptive statistics, the results obtained allowed to determine the effect of the tax reform and make recommendations to traders.

INTRODUCCIÓN

Durante décadas en México, los contribuyentes han sido testigos de una infinidad de cambios fiscales en las leyes que establecen la obligación de pagar impuestos. De acuerdo con la constitución mexicana, todos los mexicanos están obligados a contribuir con el pago de impuestos, en el lugar de su residencia, de una manera proporcional y equitativa, con la finalidad de contribuir al gasto público federal, estatal o municipal. En el mismo sentido la Ley del Impuesto Sobre la Renta (LISR), confirma la obligación de las personas físicas o morales residentes en el país de pagar impuestos, por todos los ingresos que obtengan, con independencia de la ubicación de la fuente de la cual provengan, de la misma manera, establece la obligación a los extranjeros de pagar impuestos por los ingresos que obtengan de una fuente establecida en territorio nacional. Uno de los principales retos para cada nueva administración que gobierna el país, es recaudar suficientes recursos financieros para cubrir las necesidades de la población. Si bien, la normatividad mexicana establece la obligación de pagar impuestos a todos los residentes en México, de una manera proporcional y equitativa, el logro de este propósito no ha sido una tarea fácil para los gobernantes. Aun cuando cada administración ha establecido estrategias para alcanzar sus objetivos de recaudación, la informalidad en que millones de mexicanos desarrollan actividades mercantiles, dificulta que éstos sean alcanzados. Por consiguiente, a pesar de los esfuerzos del gobierno y de las oficinas recaudadoras, queda pendiente lograr que todos los obligados cumplan con el pago de sus impuestos en México, de esta manera el reto queda latente para la presente y futuras administraciones que han de coordinar la vida económica del país.

El tema de esta investigación es fundamental para la economía mexicana, considerando que las nuevas disposiciones establecidas en la reforma fiscal, permiten a las personas físicas que realizan actividades empresariales, inscribirse ante el Servicio de Administración Tributaria (SAT) en el Régimen de Incorporación Fiscal (RIF). De esta manera, los empresarios que escojan esta opción tendrán diversas facilidades administrativas y financieras para cumplir con sus obligaciones fiscales y pagar sus contribuciones, entre las que se encuentran: llevar un registro simple de sus ingresos costos y gastos en lugar de registros contables conforme a las diversas leyes fiscales; determinar el monto de sus impuestos por pagar mediante la realización de operaciones aritméticas de suma y resta, en lugar de aplicar los complicados procedimientos establecidos para los demás regímenes fiscales; la presentación de declaraciones bimestrales en lugar de presentarlas cada mes.

Además, estos contribuyentes podrán disminuir el pago de Impuesto Sobre la Renta (ISR) propio, el Impuesto al Valor Agregado (IVA), el Impuesto Especial Sobre Producción y Servicios (IESPS), así como las cuotas obrero patronal por concepto de seguridad social, por los trabajadores que hayan registrado a sus servicio ante el Instituto Mexicano del Seguro Social (IMSS). Las facilidades administrativas y económicas anteriores tienen como finalidad, motivar a que se registren en el padrón de causantes millones de comerciantes que realizan operaciones de manera irregular, con la finalidad de contar con un padrón de causantes más apegado a la realidad nacional, e incrementar de manera gradual la recaudación en el país con la participación de los nuevos contribuyentes.

A partir de 2014 los microempresarios podrán optar por tributar en el RIF, siempre que realicen actividades empresariales y que en el ejercicio inmediato anterior sus ingresos no hubieran excedido de $ 2,000,000.00 (dos millones de pesos). Cabe destacar que los microempresarios siempre han gozado de regímenes de tributación especiales, los cuales les han simplificado el cumplimiento de sus obligaciones de carácter fiscal, para facilitar el cumplimiento y pago de impuestos les han establecido cuotas predeterminadas y les han reducido el importe de los impuestos que deberían pagar. A partir de 2014 con el establecimiento del RIF, los microempresarios en México, tienen la ventaja de poder acudir a las oficinas de la administración local de recaudación del (SAT) de su domicilio, para que personal de esa dependencia federal les apoye con el registro de sus operaciones, a través del uso del programa mis cuentas de la página del portal de internet de la propia dependencia, les ayude a determinar la cantidad del impuesto causado, así como la cantidad que deban pagar; además reciben apoyo en el llenado del formato de declaración, la orientación termina al momento en que el asesor presenta por internet la declaración del contribuyente y le hace entrega del comprobante o certificado digital, en el cual consta que ya cumplió con el pago de impuestos y con la presentación de sus declaraciones fiscales.

Además de lo anterior, como una medida de apoyo a los microempresarios a partir de 2014, la LISR establece que al determinar el contribuyente el importe de los impuestos que debe pagar, éste podrá disminuir: el 100% de los mismos durante el primer año de operaciones, por consiguiente, no pagará nada en el primer año; en el mismo sentido podrá disminuir el 90% en el segundo año y pagará solo el 10%; en el tercer año de operar en este régimen disminuirá el 80%, por lo que pagará solo el 20% del impuesto causado; en los siguientes años seguirá disminuyendo la reducción en un 10% cada año, en consecuencia cada año se incrementará el porcentaje de impuesto que debe pagar, hasta el onceavo año en que pagará el 100% del impuesto que le corresponda. No obstante lo establecido en la LISR 2014, durante 2015 los contribuyentes del RIF, seguirán gozando de una disminución del 100% del subsidio al igual que en 2014, gracias a un decreto del ejecutivo federal, a través del cual, en apoyo del microempresario reduce nuevamente el impuesto causado al 100%.

Las personas físicas que estuvieron tributando como pequeños contribuyentes durante 2013 y años anteriores, a partir de 2014 pasarán de manera automática al RIF con todas las ventajas que éste contiene. De la misma forma los comerciantes que en 2013 estuvieron tributando en el Régimen Intermedio, tienen la posibilidad de empezar a cumplir sus obligaciones fiscales en el nuevo RIF, para ello deberán presentar aviso de cambio de régimen a las autoridades fiscales. En consecuencia puede decirse que el RIF concentra a los contribuyentes del anterior régimen de Pequeños Contribuyentes, a los que tributaban en el régimen intermedio cuyos ingresos del ejercicio fiscal anterior no excedieron de $ 2,000,000.00 de pesos y a los contribuyentes personas físicas del régimen de actividades empresariales, cuyos ingresos no hayan rebasado el importe que aquí se menciona.

Las actividades empresariales a las que se refiere el régimen de incorporación fiscal son las comerciales e industriales, las de agricultura que se dediquen a la siembra, cultivo, cosecha y primera enajenación, también las de ganadería que se dediquen a la crianza, engorda de ganado y animales y primera enajenación siempre y cuando no hayan sufrido transformación industrial, además, las de industrias pesqueras que críen, cultiven, fomenten y cuiden la reproducción de toda clase de especies marinas siempre que no hayan sufrido transformación industrial. Las industrias silvícolas que son las de cultivo de los bosques o montes, así como la cría, conservación, restauración, fomento y aprovechamiento de la vegetación y la primera enajenación siempre que no hayan sufrido transformación industrial. Los beneficios de pertenecer al RIF son diversos, destacan el poder desarrollarse en la formalidad, poder promocionar y publicar los productos y servicios de la empresa, tener acceso a fuentes de financiamiento bancarias y operativas, transmitir confianza y seguridad a la clientela y obtener prestigio empresarial. Los contribuyentes de este régimen podrán cumplir con su obligación de registrar a sus trabajadores ante el Seguro Social, de esta forma ellos y su familia tendrán derecho a medicinas y servicios

médicos cuando sea necesario, además de una pensión, podrán tener acceso a un crédito para una vivienda por parte del Instituto Nacional de Fomento a la Vivienda para los trabajadores (INFONAVIT). Otras prestaciones adicionales pueden ser:

Financiamiento a través de la red de intermediarios de Nacional Financiera, S.N.C., por medio del programa especial dirigido a pequeños negocios que tributen en el RIF. Nacional Financiera dará a conocer los términos y condiciones que los contribuyentes deben cumplir para tener acceso a los créditos que serán otorgados conforme al citado programa. Apoyos que se otorgarán a través del Instituto Nacional del Emprendedor. Los recursos que se otorguen a través del citado órgano desconcentrado tendrán como objetivo fomentar la cultura emprendedora, y deberán destinarse a programas de capacitación administrativa y a la adquisición de tecnologías de la información y comunicaciones. El Instituto Nacional del Emprendedor dará a conocer los términos y condiciones que los contribuyentes deben cumplir para tener acceso a los recursos del Fondo Nacional del Emprendedor.

Capacitación impartida por el SAT, con el fin de fomentar la cultura contributiva y educación fiscal. Las actividades de capacitación serán las siguientes: Capacitación fiscal a las entidades federativas que se coordinen con la Federación para administrar el RIF, para que a su vez orienten a los contribuyentes ubicados dentro de su territorio respecto de la importancia del pago de contribuciones para la obtención de bienes y servicios públicos, y en materia operativa para que puedan cumplir de manera correcta con sus obligaciones fiscales. Conferencias y talleres a instituciones públicas y privadas, así como programas de acompañamiento a las diversas cámaras y agrupaciones, que concentran a contribuyentes que se integren al RIF, con el fin de difundir las herramientas, obligaciones y facilidades para que sus agremiados puedan cumplir con sus obligaciones fiscales. Eventos de capacitación colectiva para el público en general y programas de educación fiscal con universidades que impartan materias dirigidas a emprendedores, profesionistas e incubadoras de empresas para su incorporación al RIF.

Los estímulos fiscales para disminuir los impuestos de ISR, IVA e IEPS, cuando realicen sus operaciones con el público en general, otorgados a través del Artículo Séptimo Transitorio del Decreto que compila diversos beneficios fiscales y establece medidas de simplificación administrativa, publicado en el DOF el 26 de diciembre de 2013; de la misma manera este decreto otorga facilidades para el pago de las cuotas obrero patronales a las personas físicas que tributan en el RIF y a sus trabajadores. Por otra parte los tramites que podrán realizarse en el departamento de asistencia al contribuyente son: la inscripción (alta) al Registro Federal de Contribuyentes (RFC), requisitos: acta de nacimiento, CURP, identificación oficial, comprobante de domicilio, cambio de domicilio (requisitos: identificación oficial y comprobante de domicilio), actualización al RFC (requisitos: identificación oficial) suspensión o reanudación de actividades (requisitos: identificación oficial y tener pagado su impuesto hasta 2013), apertura y cierre de establecimiento (requisitos: identificación oficial), contraseña (requisitos: identificación oficial).

En este primer avance de esta investigación se revisa solo la variable de fomento a la formalidad, como una estrategia administrativa, con la finalidad de incorporar al padrón oficial de contribuyentes a quienes se encuentran trabajando en la informalidad; lo anterior permitirá a los contribuyentes mencionados, desarrollar actividades en un estado de derecho sin limitación legal u operativa alguna, ya que podrán realizar toda clase de operaciones con cualquier tipo de contribuyentes, además les permitirán generar condiciones financieras favorables con el monto de los recursos ahorrados con motivo de los beneficios fiscales, mismos que podrán ser reinvertidos en la misma empresa y generar flujos de efectivos saludables. En consecuencia, la reforma fiscal permitirá que las empresas que trabajen en la legalidad, tengan acceso a fuentes de financiamiento, y aprovechen los diferentes tipos de crédito que ofrecen programas oficiales, cuya finalidad de los mismos, es apoyar la productividad de las pequeñas empresas para que éstas puedan generar condiciones que les ayuden a alcanzar un sano crecimiento y lograr su competitividad en el mercado. Al término de la investigación se espera obtener como resultado, la opinión de los empresarios que realizan actividades mercantiles, estén registrados o no ante el padrón de contribuyentes, a quienes se

les preguntó: si a través del programa de gobierno que fomenta la formalidad les han dado a conocer sus derechos constitucionales? les han informado sobre su obligación de pagar impuestos? les han invitado a registrar a su empresa ante el SAT? les han orientado para realizar el pago de sus impuestos? y si le han otorgado algún subsidio para disminuir el pago de sus impuestos?

Este trabajo en su apartado de introducción da a conocer las facilidades administrativas y beneficios económicos que otorga la reforma fiscal 2014, a los contribuyentes que tributen en el RIF, siempre que realicen actividades empresariales y que en el ejercicio fiscal anterior no hayan obtenido ingresos superiores a $ 2,000,000.00 de pesos; en el apartado de revisión literaria se comenta de manera específica la legislación aplicable a los contribuyentes del RIF y se presentan algunos comentarios hechos sobre la materia por especialistas del área tributaria; en el apartado de metodología se describe el tipo de investigación, el método aplicado, la población de estudio, la muestra encuestada, la obtención de la información y el procesamiento y análisis de la misma; en el apartado de resultados se hace una descripción de los resultados obtenidos de la investigación documental y de campo; en la conclusiones se da respuesta a las preguntas de investigación planteadas a los comerciantes y se hacen las recomendaciones pertinentes.

REVISIÓN LITERARIA

A partir de enero de 2014, entró en vigor la reforma fiscal mandada por el Ejecutivo Federal al Congreso de la Unión para su aprobación, la cual tiene como finalidad combatir la informalidad en la que hoy día trabajan millones de mexicanos, las nuevas disposiciones tienen como finalidad que los empresarios informales, tomen conciencia de su responsabilidad y aprovechen las facilidades administrativas y beneficios fiscales que les ofrece la reforma fiscal, para que puedan desarrollar actividades sin limitaciones de operatividad, además del respaldo que encuentran al trabajar en la legalidad, al tener la oportunidad de realizar operaciones mercantiles a nivel nacional o de comercio exterior, a realizar contratos con cualquier tipo de proveedor o cliente, a tener acceso a crédito, a seguridad social, así mismo a la reducción de sus impuestos, lo anterior les permitirá lograr un flujo de efectivo sano que se reflejará en una mayor creación de empleos, mayor producción y generación de utilidades, mayor crecimiento y competitividad en el mercado. De acuerdo con el artículo 111 de la LISR (2014), los contribuyentes del RIF determinarán sus pagos provisionales de ISR de manera bimestral, mismos que deberán presentar a través de los programas electrónicos que el SAT ponga a disposición del contribuyente para estos fines, el impuesto deberá ser pagado a más tardar el día 17 de mes posterior al del bimestre que se calcule.

El mismo artículo 111 de la LISR (2014) en su fracción V, da a conocer las principales facilidades y beneficios que tienen los contribuyentes que se registran en el régimen de incorporación fiscal, entre la que se encuentran: no pagan impuesto durante el primer año (incluye ISR, IVA e IEPS), salvo que emitan facturas desglosando impuestos (IVA-IEPS). El impuesto se disminuirá gradualmente hasta por 10 años. Expedirán comprobantes de venta en forma simplificada por las ventas que realice al público en general. Las retenciones realizadas a sus trabajadores sí deben ser pagadas a la autoridad. Presentan declaraciones bimestrales durante los meses de: (marzo, mayo, julio, septiembre, noviembre y enero del siguiente año), el primer año solo presenta la declaración de ISR, IVA y en su caso IESPS sin pago. Durante el primer año no se paga el ISR, ya que hay una reducción del 100%, la cual irá disminuyendo en los siguientes nueve años. De acuerdo con el artículo 112 de la LISR (2014), las obligaciones de los contribuyentes serán, inscribirse en el RFC, solicitar y conservar comprobantes fiscales de sus gastos, expedir notas de venta, registrar sus operaciones en el sistema de registro fiscal "mis cuentas", entregar a sus clientes comprobantes fiscales por las operaciones que realicen, los cuales podrá expedir a través del sistema registro fiscal "mis cuentas", emitir comprobante fiscal por las remuneraciones que efectúen por sueldos y salarios y las retenciones de contribuciones que realicen, el pago de nómina podrá generarse en la opción de "generar factura", con tipo de comprobante "gasto" y el RFC del empleado.

Por otra parte la Resolución Miscelanea Fiscal (2014) en su numeral 1.3.12.5. Dispone que los Contribuyentes, podrán calcular y enterar el pago mediante un programa electrónico pre llenado con la información que proporcione, además no estarán obligados a la presentación de la declaración con información de las operaciones con sus proveedores en el bimestre inmediato anterior, siempre y cuando utilicen el sistema de registro fiscal "Mis Cuentas". Además no estarán obligados a presentar declaración anual ni declaraciones informativas, salvo la de retenciones de salarios. Por las declaraciones que envíe el contribuyente, recibirá recibo electrónico como comprobante del cumplimiento de sus obligaciones fiscales. La misma resolución miscelánea establece en su numeral 1.3.12.6 como facilidad administrativa que los contribuyentes del RIF podrán pagar en efectivo el gasto de gasolina cuando este sea por un importe menor de 2,000.00, facilidad aplicable sólo a este régimen de tributación, siempre que la erogación se realice en vehículos utilizados en la actividad empresarial del contribuyente. Por otra parte el Decreto por el que se otorgan beneficios fiscales a quienes tributen en el Régimen de Incorporación Fiscal, publicado en el Diario Oficial de la Federación con fecha 10 de septiembre de 2014, establece en su artículo primero, numeral 1 que dichos contribuyentes si realizan operaciones con el público en general, podrán optar por pagar el IVA, aplicando a los ingresos que obtengan, los siguientes porcentajes:

Tabla 1: Porcentajes Para Determinar el IVA a Pagar

Descripción	Porcentaje
Minería	8.0
Manufacturas y construcción	6.0
Comercio	2.0
Prestación de servicios (incluye restaurantes, fondas, bares y demás negocios similares)	8.0
Negocios dedicados únicamente a la venta de alimentos y bebidas	0.0

La tabla 1, muestra las diferentes actividades y la tasa de IVA que por ellas deben pagar los contribuyentes del RIF.

El mismo decreto de 2014 establece en su artículo primero, numeral II que los contribuyentes pagarán sobre los ingresos cobrados el IESPS, aplicando los siguientes porcentajes:

Tabla 2: Porcentajes Para Determinar el IESPS

Descripción	Porcentaje
Por comercializar alimentos no básicos de alta densidad calorífica	1.0
Por la fabricación de alimentos no básicos de alta densidad calorífica	3.0
Por comercializar bebidas alcohólicas	10.0
Por la fabricación de bebidas alcohólicas	21.0
Por la fabricación de bebidas saborizadas	4.0
Por la fabricación de cerveza	10.0
Por comercializar plaguicidas	1.0
Por la fabricación de puros y otros tabacos hechos enteramente a mano	23.0
Por la fabricación de tabacos en general	120.0

La tabla 2, muestra las diferentes actividades y las tasas que por ellas deben pagar los contribuyentes sujetos al IESPS que tributan en el RIF.

El numeral IV del artículo primero del propio decreto establece que el pago de los impuestos a que se refiere el numeral I y II anteriores será bimestral.

El artículo segundo del propio decreto establece el estímulo fiscal que podrán aplicar los contribuyentes que realicen operaciones con el público en general, para el pago de los impuestos a que se refieren el numeral I y II, los cuales podrán ser reducidos en los siguientes porcentajes:

Con fecha 11 de marzo de 2015 se establece un nuevo decreto en apoyo a los contribuyentes del RIF, respecto del ISR, IVA e IESPS, que durante 2014 tuvieron una reducción del 100% en dichos impuestos y que para el año 2105 les correspondería una disminución del 90 %; el ejecutivo de la unión con el ánimo de fortalecer la facilidad en la determinación y pago de los mismos, así como

Tabla 3: Porcentaje de Reducción de Impuesto Para IVA E IESPS

Años	Porcentaje de Reducción (%)
1	100
2	90
3	80
4	70
5	60
6	50
7	40
8	30
9	20
10	10

La tabla 3 muestra el porcentaje de reducción que pueden aplicar los contribuyentes que realicen operaciones con el público en general, de acuerdo al número de años que tenga el contribuyente tributando en el RIF.

A partir de 201el crecimiento empresarial, considera oportuno se aplique también durante 2015 en lugar del 90% de reducción que corresponde, nuevamente el 100% durante este segundo año de tributación en el RIF. De la misma forma, con el ánimo de ampliar el acceso a la seguridad social que permita una vida digna para las familias mexicanas, el ejecutivo de la unión amplia la reducción del 50% aplicable durante 2015 en el pago de las cuotas obrero patronales, ésta se extienda también para el año 2016. A partir de 2017 la reducción será del 40% y se reducirá en 10 puntos porcentuales por cada dos años que el contribuyente cumpla en el RIF. Como puede apreciarse en este apartado, con la finalidad de incentivar la legalidad entre los grupos de comerciantes informales, las autoridades mexicanas establecieron el RIF, mismo que contiene diversas ventajas, facilidades e incentivos fiscales en diversos impuestos, con la finalidad de incorporar al mayor número posible de personas al padrón de contribuyentes.

METODOLOGÍA

El presente estudio es cuantitativo, de tipo descriptivo documental y explicativo, para su desarrollo se consultó la LISR 2014 y 2015, la resolución miscelánea fiscal 2014, así como decretos emitidos por el ejecutivo federal durante 2014 y 2015. La población de estudio fueron los pequeños empresarios de la ciudad de Mexicali, Baja California, de los cuales se tomó una muestra aleatoria de 300 de ellos, quienes participaron voluntariamente. Se elaboró el siguiente cuestionario que fue aplicado a los participantes, para conocer su punto de vista sobre el fomento a la formalidad, a través de las campañas de orientación puestas en marcha por las autoridades fiscales en apoyo a los pequeños empresarios en México.

Tabla 4: Operacionalización de variables

Variable	Dimensión	Indicadores	Técnica Aplicada	Fuentes Consultadas	
				Primaria	Secundaria
Importancia de la reforma fiscal mexicana 2014 como estrategia administrativa que fomenta la formalidad.	Fomento a la formalidad	1.-Hacienda le ha dado a conocer sus derechos constitucionales?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones
		2.-Hacienda le ha informado que debe pagar impuestos?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones
		3.-Hacienda le ha invitado a registrar su la empresa?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones
		4.-Hacienda le ha orientado para registrar su empresa?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones
		5.-Hacienda le ha asesorado para pagar sus impuestos?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones
		6.-Hacienda le ha otorgado subsidio para pagar menos impuesto?	Encuesta y revisión documental	Micro empresarios	Leyes, decretos y resoluciones

La presente tabla muestra la operacionalización de la variable fomento a la formalidad, con sus indicadores, para conocer el punto de vista de los pequeños comerciantes, se muestra también la técnica de investigación aplicada, así como las fuentes consultadas.

La información obtenida se organizó para procesarse mediante estadística descriptiva, los resultados obtenidos muestran la opinión de los entrevistados sobre el tema analizado, mismos que servirán de base para poder realizar las conclusiones y recomendaciones de esta investigación.

RESULTADOS

La información encontrada en este estudio a través de la revisión documental a la LISR, resoluciones misceláneas y decretos emitidos por el ejecutivo federal, muestra las facilidades administrativas contenidas en la ley para el RIF, a favor de los pequeños empresarios; por otra parte la investigación de campo muestra el punto de vista de los pequeños empresarios entrevistados, respecto del programa oficial que fomenta la formalidad de la economía mexicana de la forma siguiente: En el indicador uno, al preguntar a los participantes si hacienda les ha dado a conocer sus derechos constitucionales, el 25% de ellos contestó que totalmente, un 26% coincidió en conocerlos bastante, un 34% más dijo que los conoce en forma regular, un 10% manifestó que los conoce poco y el 5 % restante dijo que no los conoce; de acuerdo al indicador dos, al preguntarles si hacienda les ha informado que deben pagar impuestos, un 37% dijo que totalmente, un 28% más dijo que bastante, otro 20% coincidió en que regular, de acuerdo con un 7% poco y el 8% restante dijo na haber recibido información de hacienda; en el indicador tres, al preguntarles si hacienda les ha invitado a registrar su empresa, el 35% contestó que totalmente, un 24% dijo que bastante, otro 12% más dijo que regular, un 7% coincidió en que poco, y el 8% restante dijo no haber recibido invitación por parte de hacienda; en cuanto al indicador cuatro, al preguntarles si hacienda les ha orientado para registrar su empresa, un 22% manifestó que totalmente, un 21% más dijo que bastante, otro 21% más contestó que regular, según un 15% poco, y de acuerdo al 21% restante no han recibido orientación alguna por parte de hacienda; al preguntar en el indicador cinco si hacienda les ha asesorado para pagar sus impuestos, el 19% manifestó que totalmente, otro 19% dijo que bastante, por su parte el 24% coincidió en que regular, un 16% dijo que nada y el 22% restante manifestó no haber recibido asesoría; Por último al preguntarles en el numeral seis, si hacienda les ha otorgado subsidio para pagar menos impuesto, un 6% dijo que totalmente, un 5% mas dijo que bastante, según un 17% regular, un 25% más dijo que poco y el 47% restante dijo que no sabe de la existencia de subsidios para pagar menos impuesto.

Tabla 5: Opiniones de 300 Entrevistados Sobre El Programa Oficial de Fomento a la Formalidad

Indicadores	Totalmente %	Bastante %	Regular %	Poco %	Nada %
1.-Hacienda le ha dado a conocer sus derechos constitucionales?	25	26	34	10	5
2.-Hacienda le ha informado que debe pagar impuestos?	37	28	20	7	8
3.-Hacienda le ha invitado a registrar su empresa?	35	24	12	12	17
4.-Hacienda le ha orientado para registrar su empresa?	22	21	21	15	21
5.-Hacienda le ha asesorado para pagar sus impuestos?	19	19	24	16	22
6.-Hacienda le ha otorgado subsidio para pagar menos impuesto?	6	5	17	25	47

La presente tabla muestra las opiniones de los entrevistados sobre el programa oficial de fomento a la formalidad.

Una vez obtenidos los resultados de la investigación se cuenta con información para dar respuesta a las preguntas planteadas en el presente estudio. En el caso de la pregunta uno, hacienda le ha dado a conocer sus derechos constitucionales?, de la información se puede interpretar que el 51% sí se considera informado, sin embargo un 34% no se considera bien informado y el 15% restante de la población se considera desinformado; en cuanto a la pregunta dos, si hacienda les ha informado que deben pagar impuestos? un 65% sí se siente informado, de acuerdo con sus respuestas un 20% considera que le falta información, y el 15% restante se considera desinformado; respecto de la pregunta tres, si hacienda les ha invitado a registrar su empresa?, un 59% considera que sí le han invitado, un 12% requiere más información y para el 29% restante no han tenido invitación por parte de hacienda; en lo que concierne a la pregunta cuatro, si hacienda le ha orientado para registrar su empresa?, un 59% de los entrevistados afirma que si han recibido orientación, un 21% más manifiesta necesitar mayor información, el 36% restante considera no haber contado con orientación; En cuanto a la pregunta cinco, si hacienda le ha asesorado para pagar sus

impuestos, un 38% sí se considera asesorado, un 24% más manifiesta la necesidad de información, y el 38% restante manifiesta no haber recibido orientación alguna; en el mismo sentido en la pregunta seis, si hacienda le ha otorgado subsidio para pagar menos impuestos?, sólo el 11% dijo haberlo recibido, un 17% requiere de mayor información sobre el subsidio y el 72% restante desconoce la existencia de subsidios para disminuir sus impuestos.

CONCLUSIONES

Los resultados de la investigación permiten concluir que el programa puesto en marcha por el gobierno federal para fomentar la formalidad de la economía en México, éste si ha logrado llegar a un 51% de los empresarios que comentaron que si les dieron a conocer sus derechos constitucionales, por consiguiente, se puede decir que sí está funcionando y que la autoridad está logrando sus objetivos. De igual manera en los diferentes indicadores analizados en este estudio que forman parte del programa implementado por hacienda a saber: informar al empresario sobre la obligación de pagar impuestos, invitarlos a registrarse al padrón fiscal, proporcionarles orientación para el registro de su empresa ante el SAT y brindar asesoría en el pago de impuestos; se puede considerar que el programa sí está funcionando de acuerdo con las respuestas recibidas, sin embargo es necesario que el SAT, establezca convenios con las universidades del país para que se sumen los esfuerzos a esta campaña de millones de alumnos, ya que lograr el cambio a la formalidad es un gran paso para el país, puesto que los recursos de los impuestos que dejan de pagar cada mes millones de mexicanos, son muy necesarios para fortalecer las finanzas públicas de la nación.

En cuanto a al otorgamiento de subsidios se encontró que el 89% de los entrevistados desconocen la existencia de los mismos, como justificante se puede comentar que como durante 2014 los contribuyentes del RIF, disminuyeron su impuesto al 100% y esta medida se amplió a 2015, debido a la buena respuesta de los empresarios por registrarse, a partir de 2016 que empiecen a pagar su impuesto, se darán cuenta que efectivamente sí existió un subsidio durante 2014 y 2015. Se puede decir que el establecimiento del subsidio es de gran importancia, para poder incorporar un mayor número de empresarios a la formalidad, pues permite que el contribuyente valla pagando de manera reducida su impuesto, lo cual se compensará con los beneficios que trae consigo la formalidad.

REFERENCIAS BIBLIOGRÁFICAS

Código Fiscal de la Federación (CFF, DOF. 14-03-2014)

Ley del Impuesto Sobre la Renta (LISR, DOF. 11-12-2013)

Resolución Miscelánea 20414 (RM, DOF,30-12-2013)

Decreto por el que se otorgan beneficios fiscales a quienes tributen en el Régimen de Incorporación Fiscal (10-09-2014)

PROCESOS PRODUCTIVOS Y COMPETITIVIDAD

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RESUMEN

Se presenta en este trabajo una aplicación de la técnica de costos denominada procesos productivos, dicha técnica permite la aplicación de los costos a los respectivos procesos de producción, el caso de estudio se refiere a una empresa dedicada a la elaboración del tequila, bebida típicamente mexicana. Muchas de las empresas tequileras, siguen realizando sus procesos de una manera artesanal, esto debido a las características de la producción, sin embargo estas empresas han tenido que adaptarse a los cambios tecnológicos para poder ser competitivas, los procesos productivos aplicados a la elaboración del tequila están bien definidos y permiten la asignación de los costos en cada uno de los procesos, lo importante de este procedimiento sin duda tiene que ver con la capacitación del personal de producción, lo cual permitirá hacer la diferencia en cuanto a calidad, pero también en costos, lo que se requiere para ser competitivos.

PALABRAS CLAVE: Procesos Productivos, Competitividad, Costos

PRODUCTION PROCESSES AND COMPETITIVENESS

ABSTRACT

An application of the technique called cost production processes are presented in this paper, this technique enables the application of the respective costs of production processes, the case study refers to a company dedicated to the production of tequila, drink typically Mexican . Many of the tequila companies continue to perform their processes in a traditional way, this due to the characteristics of the production, however, these companies have had to adapt to technological changes in order to be competitive, the production processes used to produce tequila they are well defined and allow the allocation of costs in each of the processes, the importance of this procedure certainly has to do with the training of production, which will make the difference in quality but also in cost , which is required to be competitive.

KEYWORDS: Production processes, Competitiveness Costs

JEL: A13, F65, L23, M41

INTRODUCCIÓN

La principal finalidad de la Contabilidad de Costos es determinar el costo de producir un artículo con el fin de determinar su verdadero precio de venta, además de determinar el costo de los inventarios de productos terminados, para una correcta elaboración del Balance General. Determinar el costo de los productos o servicios vendidos, con el fin de poder calcular la utilidad o pérdida en el periodo y poder preparar el Estado de Resultados y dotar de una herramienta útil a la administración para la planeación y control sistemático de los costos de producción. Una de las formas de lograrlo es mediante el uso del procedimiento Procesos Productivos, los cuales en la actualidad tienen que regirse por los cambios tecnológicos para poder adaptar la producción a las necesidades del mercado, todo esto con la finalidad de ser competitivos en un mundo

cada vez más globalizado. Las empresas artesanales han tenido que ingresar a los procesos de innovación para seguir vigentes y tener productos competitivos, frente a competidores que evidentemente ya no son locales, sino de clase mundial. Se menciona además en este trabajo el caso de una empresa que ha logrado tener presencia en los mercados internacionales con un producto de carácter artesanal, pero que ha tenido que ir adaptándose a los cambios necesarios, sin perder su esencia artesanal.

REVISIÓN LITERARIA

Concepto de Procesos Productivos

Es un procedimiento que se aplica a aquellas industrias cuya transformación representa una corriente constante en la elaboración del producto, en donde se pierden los detalles de la unidad producida, cuantificando la producción por metros, litros, etc., y refiriendo esta producción a un periodo determinado. Existen industrias en las que en el primer proceso se ocupa la totalidad del material y en los siguientes sólo intervienen los otros dos elementos del costo; existen otras en las que se agrega el material en dos o más procesos (Reyes E., 2005). Características: La corriente de producción es continua, en masa. La transformación del material se lleva a cabo a través de uno o más procesos. Los costos se acumulan en el proceso a que correspondan. El costo unitario se obtiene dividiendo el costo total de producción acumulado en cada proceso, entre las unidades equivalentes producidas de cada tipo igual de artículos, lo cual indica lo siguiente.

Competitividad

En la primera mitad del siglo pasado, Schumpeter (1978) consideraba que el crecimiento de la producción no solamente respondía a los factores productivos ortodoxos: capital, tierra y trabajo, sino que también dependía de aspectos relacionados con la tecnología y con la organización social, encontramos aquí una de las primeras definiciones de competitividad, concepto que se ha ido ampliando sobre todo en la década de los 80's, cuando se empieza a hablar de Globalización. En la actualidad las empresas están obligadas a innovar para sobrevivir, dejar de innovar implica ser alcanzado por sus competidores. La capacidad para mantener un crecimiento económico depende de la estructura productiva, la cual debe evolucionar en dos sentidos:

Manteniendo condiciones que le permitan enfrentarse a la competencia mundial debido a la globalización.

Asegurando las condiciones de reproductibilidad del proceso económico (incluye Recursos Humanos), (Nelson y Nelson, 2002).

Una pregunta interesante es: ¿qué tanto pueden innovar las empresas artesanales?, cuando tienen como principio fundamental la elaboración de productos únicos, que satisfagan al cliente, pero que además dejen satisfecho al propio artesano, de esta manera el margen de cambio se vuelve muy limitado, ya que en la medida que cambien, innoven, estarán dejando atrás la producción que los ha mantenido en un cierto sector "el artesanal". Sin embargo en la actualidad la única forma de ingresar en nuevos mercados, invadir fronteras y ser competitivo, es innovado, es por eso que se presenta a continuación un ejemplo típico de empresa artesanal que ha tenido que cambiar para competir y lograr posicionarse en el mercado.

Proceso de Elaboración del Tequila

El tequila es un destilado originario de la ciudad del mismo nombre en el estado de Jalisco México. Se elabora a partir de la fermentación y destilado del jugo extraído del agave, en particular el llamado agave azul (Agave tequilana, Weber Variedad Azul). La palabra tequila viene del náhuatl 'tequitl', trabajo u oficio y 'tlan', lugar. Es quizás la bebida más conocida y representativa de México en el mundo. La anatomía del

agave está compuesta por: Cogollo o meristemo, espina apical, hoja o penca, tallo o bola (futura piña), espinas laterales, sistema redicular, chirrión o rizoma.

Procesos de Producción

Cultivo: El tequila es una bebida única debido al tiempo que requiere para ser producido, el tiempo de maduración del agave antes de ser cosechado es de 8 años, tiempo durante el cual los agricultores lo cuidan con paciencia y esmero.

Selección de la piña de agave/cosecha: Expertos jimadores cosechan los agaves azules que ya han alcanzado la madurez necesaria. El agave azul es la materia prima utilizada para la elaboración del tequila. El jimador selecciona un agave maduro y lo limpia con ayuda de la coa, una herramienta muy afilada.

Recepción de piñas de agave: Cuando las piñas o corazón del agave están limpias son transportadas al lugar donde se procesarán, en esta parte las piñas son cortadas en trozos con una sierra eléctrica, antes de la cocción.

Cocción/horneado: Se hornean las piñas en hornos especiales de piedra, los cuales le dan el característico sabor artesanal. Los trozos de piña se colocan en un horno donde se lleva a cabo la cocción por inyección de vapor. En el proceso de cocción tradicional se emplean hornos de mampostería, aunque en la actualidad algunos productores de tequila realizan el cocimiento de agave en autoclaves. La cocción mediante autoclaves disminuye el tiempo, lo cual se refleja en una disminución en el proceso de producción.

Molienda: Una vez que el agave esta cocido se manda al tren de 8 molinos, en los cuales se hace la extracción del jugo del agave. Esta máquina las corta en tiras y extrae el jugo. Como resultado de este proceso se obtiene un jugo de agave que contiene un 12% de azúcares. Con esta materia prima se formula el mosto o caldo para la fermentación.

Fermentación: El jugo o agua miel obtenido del agave, se lleva a depósitos de acero inoxidable para su fermentación, donde se deja reposar por alrededor de 96 horas en su fase tradicional. Preparado el mosto para fermentación éste se inocula con un cultivo microbiano, el cual puede ser una cera pura de levadura saccaromyces cerevisiae o bien de alguna otra especie, en épocas anteriores, esta parte se dejaba al proceso normal de fermentación, con lo que esto implicaba en tiempo y costo. En esta fase se produce el alcohol y otros componentes organolépticos que conforman el tequila. Este proceso fermentativo puede durar entre 12 y 72 horas, dependiendo del grado de alcohol deseado que puede ser de 6% para tequila mixto y 4.5% para tequila 100%. Terminada la etapa de fermentación, se deja en reposo el mosto para propiciar la generación de compuestos aromáticos importantes en el producto.

Destilación: El jugo fermentado pasa a las columnas de destilación, donde se somete a un cuidadoso proceso de doble destilación, del cual se obtiene tequila blanco a 70°, que posteriormente es diluido a 38°. Existen dos formas de realizar la destilación: mediante la utilización de alambiques o en columnas, siendo el primero el más usual. En el primer caso, regularmente se utiliza un tándem de dos alambiques de cobre, material que ayuda a eliminar compuestos sulfurados indeseables. Normalmente cuando se emplean columnas en vez de alambiques el producto es más neutro, debido a que la destilación es más selectiva. En el primer alambique, el mosto muerto se calienta con vapor y se destila hasta tener un producto intermedio ordinario, con una concentración de alcohol de entre el 25 y el 30%, al cual se le han removido los sólidos, parte del agua y las cabezas y colas.

Las primeras contienen componentes volátiles que destilan antes que el etanol, debajo de los 80 grados centígrados, como metanol, isopropanol y acetato de etilo, y las segundas contienen alcoholes menos volátiles como amílico y algunos ésteres. En el segundo alambique, se destila nuevamente para enriquecer

el contenido alcohólico hasta el 55%, además de refinar considerablemente el producto. Este tequila al 55% se considera un producto final, ya que de hecho es el que se comercializa a granel. Antes de envasarse, este destilado se diluye con agua desionizada, para lograr productos finales de 35% a 40%.

Maduración/añejamiento: El tequila que se destina a maduración se manda a barricas de roble blanco o encino, las cuales le dan su aroma y sabor característico. Al concluir la destilación, el tequila se almacena en dos partes: Una es llevada a barricas para su añejamiento. Otra solamente se guarda en tanques de acero inoxidable para el embotellado.

Embotellado: El tequila que se almacenó en tanques de acero se embotella de inmediato y es lo que conocemos como tequila blanco. Finalmente de la empresa a su mesa, el tequila con todo el sabor de nuestra tierra. El tequila almacenado en barricas de roble blanco o encino, cumple determinado tiempo en ellas: para el tequila reposado debe permanecer en ellas un mínimo de dos meses. El tequila añejo debe permanecer en las barricas por lo menos un año.

La Leyenda del Tequila

Se cuenta que en la época prehispánica en las tierras donde ahora es el estado de Jalisco se encontraban un grupo de indígenas refugiándose en una cueva protegiéndose de una fuerte tormenta que azotaba su pueblo. Fue entonces que por obra de Mayahuel un rayo cayó sobre el corazón del maguey, el cual ardió. Después de que Tláloc contuvo su torrencial lluvia los antiguos mexicanos percibieron un extraño pero agradable aroma que provenía del maguey, se acercaron intrigados, fue entonces que uno de ellos tomó un pedazo y al probarlo lo sintió dulce y lo ofreció a los demás y así fue que descubrieron los tesoros que está planta poseía. Con el paso del tiempo lo utilizaron como endulzante en sus bebidas, y en alguna ocasión, este jugo se les olvido por varios días en una cabaña, después de ese tiempo se dieron cuenta que el olor que despedía era diferente, además de tener burbujas y espuma, al retirar la espuma y probarlo, experimentaron un sabor exquisito, además de que dicho néctar les provocaba una alegría indescriptible, fue así como empezaron a dejarlo fermentar y lo consideraron como un "regalo de los dioses".

METODOLOGÍA

La metodología de investigación utilizada en este trabajo, es el estudio de casos (Babbie, 2000), el cual consiste en varios niveles de construcción teórica, además de la realización de un estudio de tendencia que consiste en registrar los cambios con el tiempo de alguna población en general, utilizando como herramientas la encuesta y la entrevista. La presente investigación se basó tanto en información documental como de campo, ya que se utilizó información secundaria como revistas, publicaciones de artículos, noticias, libros, investigaciones previas y otros medios impresos con la finalidad de obtener un marco referencial de la situación a través del tiempo hasta nuestra actualidad del desarrollo y aplicación de los procesos productivos.

RESULTADOS

Lo que busca la empresa tequilera es ser competitiva y una forma de lograrlo es optimizar el flujo de materiales y productos a lo largo de los diferentes procesos de producción que se requieren para la elaboración del tequila y con ello descubrir nuevas fuentes de ventajas competitivas, y la mejor forma de hacerlo es a través de la correcta aplicación de los costos por cada uno de los procesos productivos. Con la aplicación correcta de los costos por proceso, la empresa tequilera podrá llevar un control tanto de bienes, servicios e información desde el punto de origen hasta el punto de consumo con el propósito de cumplir con las necesidades y requerimientos del cliente o consumidor. Además de llevar un control de flujos de productos y flujos de información, el objetivo fundamental que se pretende alcanzar con la aplicación de la

correcta aplicación de costos, es el de ofrecer la máxima calidad de servicios a los consumidores a unos costos totales mínimos.

Uno de los aspectos importantes que se detectó en esta investigación, sin duda tiene que ver con la capacitación del personal, a través de la transición de los procesos productivos característicamente artesanales, a muchos procesos donde se tiene que considerar ya la aplicación de nuevas tecnologías que permitan ser más eficientes los procesos, más cortos los tiempos y por tanto una disminución en los costos. Lo anterior se detectó desde uno de los primeros procesos, *la cocción/horneado*, donde se hornean las piñas en hornos especiales de piedra, los cuales le dan el característico sabor artesanal, sin embargo, en el proceso de cocción tradicional se emplean hornos de mampostería, aunque en la actualidad algunos productores de tequila realizan el cocimiento de agave en autoclaves. La cocción mediante autoclaves disminuye el tiempo, lo cual se refleja en una disminución en el proceso de producción y en consecuencia en la disminución del costo.

CONCLUSIÓN

Los costos son una herramienta de control que ayudan a la toma de decisiones, además de ayudar a realizar un trabajo más eficiente y permitir la planeación del trabajo de forma exacta. En este trabajo se presenta una perfecta aplicación de la técnica denominada procesos productivos y como está técnica permite no sólo la división de los diferentes procesos, sino la asignación de los costos a cada uno de los procesos productivos, permitiendo con esto una mejor asignación de los precios de venta. Los sistemas de producción aplicados de acuerdo a las necesidades de cada empresa, pueden hacer la diferencia, sin importar el tamaño o el giro, de lo único que tenemos que estar convencidos, es que la capacitación del personal en primera instancia y el compromiso de ese personal en la aplicación de las técnicas adecuadas, es lo que nos puede dar una competitividad en el mercado mundial. La globalización está aquí y la competencia local ya no existe. Por lo que las empresas artesanales han tenido que adaptarse a los cambios tecnológicos para seguir compitiendo en un mercado cada vez más globalizado y estandarizado, donde los productos deben tener precios competitivos que les permitan no sólo su permanencia en los mercados, sino su trascendencia en mercados internacionales.

BIBLIOGRAFÍA

Babbie, E., (2000). *Fundamentos de la investigación social.* México: Thomson Editores.

Horngren, Ch., Foster, G., Srikant, M. (2007). *Contabilidad de costos.* México: Pearson, 896 pp.

Reyes, E. (2005), *Contabilidad de costos I.* México: Limusa. 424 pp.

Nelson, R. y Nelson, K. (2002). *Technology, institutions, and innovation systems Research Policy*. vol. 31, 272 pp.

Schumpeter, J. (1978). *Teoría del desenvolvimiento económico.* México: Fondo de cultura económica.

www.lavina.com.mx/salud/tequisalu

www.tequilacorralejo.com.mx

Visita a la empresa Tequilera Corralejo, Pénjamo, Guanajuato México.

BIOGRAFÍA

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SUSTENTABILIDAD DEL SECTOR RESTAURANTERO DE MORELIA, MICHOACÁN, MÉXICO

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RESUMEN

La presente investigación se realizó con la finalidad de identificar los elementos, que determina la sustentabilidad en el sector restaurantero en Morelia Michoacán, México. Se utilizó el método científico, en cual se incluyeron las técnicas de observación, reglas para el razonamiento y la predicción, ideas sobre la experimentación planificada y los modos de comunicar los resultados. La población estuvo constituida por restaurantes del centro histórico en Morelia Michoacán. El trabajo desarrollado arrojó resultados claros, apegados a la realidad y fáciles de interpretar, ya que se logró identificar que, los elementos: costos ambientales y el manejo de desechos son los indicadores que determinan la sustentabilidad del sector restaurantero, sin embargo no incluyen elementos de apoyo ambiental, económico y social a la comunidad.

PALABRAS CLAVE: Responsabilidad Social, Mercadotecnia, Sustentabilidad, Sector Servicios

SUSTAINABILITY RESTAURANT SECTOR OF MORELIA, MICHOACÁN, MÉXICO

ABSTRACT

This research was made in order to identify the elements that sustainability determines in the restaurant industry in Morelia Michoacan, Mexico. The scientific method, in which the techniques of observation, rules for reasoning and prediction, ideas about the planned experimentation and ways of communicating the results were included. The population consisted of restaurants in the historic center of Morelia Michoacan. The work yielded clear results, attached to reality and easier to interpret, as it was possible to identify the elements: environmental costs and waste management are the indicators that determine the sustainability of the restaurant industry, but exclude environmental elements, economic and social support to the community.

JEL: M3, M140, Q2, L8.

KEYWORDS: Social Responsibility, Marketing, Sustainability, Service Sector

INTRODUCCIÓN

A lo largo de los años la sociedad va creciendo y teniendo nuevas necesidades, o generando nuevas necesidades, esto ha hecho que las personas y/o empresas busquen la manera de satisfacerlas, minimizando los costos de producción y dejando a un lado los riesgos que provocan al planeta todo el proceso desde la producción hasta la comercialización, distribución y venta, incluso después de haber consumido el producto. Lo ideal deberá ser que cada empresa se haga responsable del destino final de su producto, del envase y embalaje, desechos de residuos químicos, entre otros. En este trabajo se analizan las prácticas que realizan los dueños y/o administradores de las empresas de servicios dedicadas a la preparación y venta de alimentos y bebidas en relación a la sustentabilidad. Es relevante, ya que establece los indicadores estratégicos de mercadotecnia para influir y modificar las decisiones prosustentables de servicios, estableciendo por consecuencia un movimiento en los mercados. También contribuye a la competitividad empresarial y nacional, ya que se ha desencadenado un movimiento mundial hacia la sustentabilidad,

estableciéndola como un indicador de competitividad, obligando a las empresas a replantear su misión y visión. Por lo tanto, se planteó como objetivo *Identificar los elementos que determinan la sustentabilidad del sector restaurantero en Morelia Michoacán,* que permitan establecer estrategias para fortalecer el sector. En primer lugar se presenta la revisión literaria sobre temas relacionados con la sustentabilidad, en seguida se presenta la metodología, resultados y conclusiones.

REVISIÓN LITERARIA

La Responsabilidad Social Empresarial (RSE) tiene una relación directa con la dimensión social de la sustentabilidad, en cuanto a la responsabilidad implicita en torno al impacto de sus procesos operacionales. Deben establecer un balance entre los aspectos ecológicos, económicos y sociales que los involucre en el desarrollo sectorial de su comunidad. En el mismo sentido, las empresas tienen la responsabilidad de conocer el entorno en el que operan. Deben tener un claro conocimiento de todo lo que rodea su empresa, no solo en términos geográficos, sino en términos del conjunto de reglas, leyes que rigen su operación, y todas las actividades relacionadas directa e indirectamente con la empresa (Sánchez, 2013).

Por otra parte, el concepto "Empresa Sustentable", es un término que con mucha fuerza viene imponiéndose a nivel mundial y se va incorporando en el quehacer cotidiano de las empresas en general. En el léxico de sociedades, gobiernos y organismos multilaterales y está dentro de lo que también se denomina RSE. En general la opinión pública hoy espera que las empresas aporten a un cambio positivo en la sociedad, contribuyendo de manera sustentable, ecológica y saludable al desarrollo de las comunidades. (Rostagno, 2007). De acuerdo con Mercado (2005), casi toda la actividad productiva de la economía genera daños ambientales y con ello limita las posibilidades de bienestar de las generaciones futuras. Es decir, al crecimiento económico le puede faltar sustentabilidad ambiental. Según la revista Forbes México (2013), presentó el listado de las empresas más sustentables del país. Con ello se demuestra que la sustentabilidad es una práctica que ya gobierna en muchas empresas, que no necesariamente cotizan en las Bolsas de Valores y basado en ello, se considera que los principales indicadores para considerar una empresa sustentable son los siguientes:

Políticas ambientales.
Costos ambientales.
Manejo de desechos.
Impacto ambiental en su localidad.

Contar con programas de apoyo a su comunidad en el ámbito social, ambiental y económico. (Montes & Berges, 2007). En la tabla siguiente se describen dichas variables que son sujetas a estudio.

METODOLOGÍA

Se realizó una investigación no experimental, descriptiva, correlacional con diseño transversal simple. Se planteó como hipótesis que, "Las Políticas y Costos ambientales, el manejo de desechos, el Impacto ambiental y los programas de apoyo a la comunidad, son los elementos que determinan la sustentabilidad del sector restaurantero de la ciudad de Morelia Michoacán". Para medir las actitudes, se utilizó un instrumento de 14 ítems que incluyó las escalas nominales, ordinales y de intervalo (Malhotra, 2008: Kerlinger, 1979, Guerra, 2012 & Hernández, 2006). La población estuvo constituida por 250 restaurantes del centro de la ciudad de Morelia, Michoacán México (Cámara Nacional de Comercio, Servicio y Turismo de Morelia, CANACO 2014) y se obtuvo una muestra 83 empresas.

Toda medición o instrumento de recolección de datos debe reunir los requisitos de confiabilidad, validez y objetividad. Para Hernández et al (2006), la confiabilidad se refiere al grado en que el instrumento produce resultados consistentes y coherentes. La confiabilidad de un instrumento de medición se refiere al grado en

que su aplicación repetida al mismo sujeto u objeto produce resultados iguales. De igual manera, la validez se refiere al grado en que un instrumento realmente mide la variable que pretende medir. La validez de contenido se refiere al grado en que un instrumento refleja un dominio específico de contenido de lo que se mide. La confiabilidad del instrumento de medición que se ha aplicado, ha sido a través del método del Alfa de Cronbach, el cual requiere una sola administración del instrumento de medición y produce valores que oscilan entre 1 y 0. *En la presente investigación en resultado fue de: .797* lo que determina una confiabilidad aceptable.

Tabla 1: Definición Conceptual la Variables

VARIABLES	DEFINICIÓN CONCEPTUAL
Sustentabilidad	Es el desarrollo que satisface las necesidades de las generaciones presentes sin comprometer la capacidad de las generaciones futuras para satisfacer sus propias necesidades. (UNESCO, 2015).
Sustentabilidad del Sector Restaurantero.	Surgido de la necesidad de satisfacer a una cada vez más alta cantidad de consumidores que demandan una alimentación sostenible y saludable, y que ya están concienciados de llevar unos hábitos de vida que reduzcan el impacto medioambiental. (ACCIONA, 2013).
Políticas ambientales.	Son el conjunto de objetivos, principios, criterios y orientaciones generales para la protección del medio ambiente de una sociedad particular. (RDS, 2012).
Costos ambientales.	Son aquellos en los que se incurre, debido a que existe o a que puede existir una calidad ambiental deficiente. Estos costos están asociados con la creación, la detección, el remedio y la prevención de la degradación ambiental. (Marín, 2013).
Manejo de desechos.	El manejo de desechos sólidos es la gestión de los residuos, la recogida, el transporte, tratamiento, reciclado y eliminación de los materiales de desecho. El término generalmente se refiere a los materiales producidos por la actividad humana, y, en general, para reducir sus efectos sobre la salud y el medio ambiente. (Mantra & WordPress, 2013)
Impacto ambiental en su localidad.	Se entiende el efecto que produce una determinada acción humana sobre el medio ambiente en sus distintos aspectos. El concepto puede extenderse, con poca utilidad, a los efectos de un fenómeno natural. (Portal Educativo, 2013).
Programas de apoyo a su comunidad en el ámbito social, ambiental y económico	*Social*: es la presencia o ausencia relativa de recursos de apoyo psicológico provenientes de otras personas significativas". (Ministro de Trabajo y Asuntos Sociales de España, 2012). *Ambiental:* este programa identifica líneas de actuación, medidas y acciones encaminadas a promover, consolidar y fortalecer el asociacionismo y el voluntariado ambiental, y a reconocer la tarea social que realizan las entidades Ambientales. (Ribera, 2011). *Económico:* un proceso de crecimiento y cambio estructural que, mediante la utilización del potencial de desarrollo existente en el territorio, conduce a elevar el bienestar de la población de una localidad o una región. (Barquero, 2001).

Fuente: Elaboración propia con base en la revisión de la literatura.

Los 3 primeros resultados corresponden a información de identificación de los sujetos de investigación, y los 6 siguientes muestran las variables que se presentan en la medición de la escala, donde el valor mínimo sería 30 (5×6) y el puntaje total máximo 6 (6×1). Se tiene por consecuencia que el puntaje quedaría entre 6 y 30, resultando de la siguiente forma:

Tabla 2: Puntaje

Siempre	Casi Siempre	Indeciso.	Casi nunca	Nunca	
30	25.2	20.4	15.6	10.8	6

Pedraza y Navarro (2006), mencionan que los resultados de cada uno de los ítems se colocan sobre la escala correspondiente y se tiene de inmediato una referencia clara de la calificación alcanzada en dicha escala

RESULTADOS

Sobre los datos de identificación del sujeto, se encontró que el 61.45% son del sexo masculino, el 80% son encargados o administradores de los cuales el 44.6% solamente cuenta con educación media superior. A continuación se presentan los resultados de cada variable.

Tabla 3 Variable "programas de sustentabilidad"

	Siempre.	Casi Siempre	Ni Siempre Ni Nunca.	Casi Nunca	Nunca.
1	1.8 ↑2.04	2.6	3.4	4.2	5

Considerando que el valor máximo es 1, los datos demuestran que la mayoría de los encargados y administradores consideran contar con dichos programas.

Tabla 4: Variable "Políticas ambientales"

	Siempre.	Casi Siempre	Ni Siempre Ni Nunca.	Casi Nunca	Nunca.
1	1.8- ↑2.16	2.6	3.4	4.2	5

El resultado de la variable, determina también que los encargados o administradores consideran que cuentan con políticas relacionadas con el cuidado del medio ambiente.

Tabla 5: Variable "Costos ambientales"

	Siempre.	Casi Siempre	Ni Siempre Ni Nunca	Casi Nunca	Nunca.
3	5-4 ↑4.41	7-8	10-2	12.6	15

Para medir la variable "costos ambientales" se consideraron los costos de agua, de energía y de combustible. El resultado demuestra una orientación absoluta al control del indicador, mostrando los datos más altos a considerar dentro del análisis.

Tabla 6: Variable "Desechos"

	Siempre.	Casi siempre	Ni siempre ni nunca	Casi nunca	Nunca.
2	3-6 ↑3.6	5.2	6-8	8.4	10

Para la variable "Desechos" se consideró los líquidos y sólidos. Los datos determinan una fuerte disposición por indicarlos como una medida "sustentable".

Tabla 7: Variable "Impacto ambiental"

	Siempre.	Casi siempre	Ni siempre ni nunca	Casi nunca	Nunca.
1	1.8-	2.6 ↑**2.88**	3.4	4.2	5

En cuanto a considerar el impacto ambiental que genera la empresa, comienzan a cambiar los resultados al desconocer su generación, ubicando su resultado en un nivel de indecisión.

Tabla 8: Variable "Indicadores Sustentables"

	Siempre.	Casi siempre	Ni siempre ni nunca	Casi nunca	Nunca.
3	5-4	7-8	10-2 ↑11.36	12.6	15

Los Indicadores sustentables incluyen los apoyos económicos, sociales y ecológicos a las comunidades en las que se encuentran instaladas las empresas. El resultado indica que existe un bajo nivel de apoyos a la comunidad.

Tabla 9: Variable "Sustentabilidad del Sector"

Siempre	Casi Siempre	Ni siempre ni nunca	Casi nunca	Nunca	
30	25.2 ↑**26.45**	20.4	15.6	10.8	6

El resultado de la variable dependiente demuestra la gran disponibilidad de los encargados de la administración del sector restaurantero por establecer la sustentabilidad, sin embargo, los resultados demuestran los elementos que tienen que ser sujetos a análisis por futuras investigaciones

CONCLUSIONES

Por medio de la investigación que se realizó se puedo conocer las diversas opiniones de los restauranteros acerca de los elementos que determinan la sustentabilidad, en el sector restaurantero de Morelia, Michoacán. En relación con las variables, los resultados respecto a: Políticas ambientales, Costos ambientales, Manejo de desechos, Impacto ambiental en su localidad y Contar con programas de apoyo a su comunidad en el ámbito social, ambiental y económico. Los datos muestran que de acuerdo a programas de sustentabilidad la mayoría de las empresas cuentan con dichos programas, lo cual es de suma importancia dentro de la investigación, ya que nos permite lograr el objetivo de la misma.

En cuanto a las políticas ambientales observamos que un porcentaje alto de las empresas del sector restaurantero de la ciudad de Morelia zona centro, manejan políticas ambientales, por diversas razones entre las cuales están las regulaciones gubernamentales. De acuerdo a los costos asociados con la creación, detección y la prevención de la degradación ambiental, tales como la determinación de los costos de agua, combustible y energía, se pudo comprobar mediante la investigación que se determinan de manera anticipada lo cual significa que hay una prevención en cuanto al uso excesivo de estos costos, mismo que favorece significativamente al ambiente y de manera económica a las empresas El tema de manejo adecuado de desechos sólidos como envases PET, vidrios y restos de aceite, se detectó que las empresas realizan un

manejo adecuado de estos desechos lo cual favorece para la reducción de los efectos en la salud y el medio ambiente.

Sobre los efectos que produce la actividad humana sobre el medio ambiente en la localidad se descubrió que la gran mayoría de las empresas desconocen el impacto ambiental que estas tienen sobre la comunidad. De acuerdo a los programas de apoyo a la comunidad en las diversas áreas: social, ambiental y económico, se observó que las empresas no ofrecen estos programas de apoyo a la comunidad. Por lo tanto, se concluye que los elementos: costos ambientales y el manejo de desechos son los dos elementos que más influyen en la sustentabilidad del sector restaurantero. Con lo cual se alcanzó el objetivo de Identificar los elementos que determinan la sustentabilidad del sector restaurantero de la ciudad de Morelia, Michoacán. Los resultados de la investigación se han descrito en los apartados anteriores que contienen los niveles alcanzados por cada una de las variables en escala de Likert. La información cualitativa obtenida en los cuestionarios fue aportada con seguridad y sin inconvenientes. Las herramientas estadísticas que se utilizaron fue la distribución de frecuencias, porque se indujo que fueron las adecuadas para el tipo de información que se recogió y que permitieron sistematizarla de una manera sencilla y así facilitar su análisis y obtención de resultados.

REFERENCIAS

ACCIONA. (2013).Conoces los Restaurantes Sostenibles?. 10 - OCTUBRE - 2013, de ACCIONA Sitio web: http://www.sostenibilidad.com/conoces-los-restaurantes-sostenibles

Antonio Vázquez Barquero. (2001). LA POLÍTICA DE DESARROLLO ECONÓMICO LOCAL. 12 - NOIEMBRE - 2013, de CEPAL/GTZ Sitio web: http://archivo.cepal.org/pdfs/2001/S2001704.pdf

Castellanos Suarez. (2014). Sistemas-Integrados-de-Gestion. 15 - DICIEMBRE - 2014, de Awesome Inc Sitio web: http://sistemas-integrados-de-gestion.blogspot.mx/2014/06/que-es-iso-140012004.html

Castellanos,. J.. (2014). Sistemas-Integrados-de-Gestion. noviembre 8, 2014, de Awesome Inc. Sitio web: http://sistemas-integrados-de-gestion.blogspot.mx/2014/06/que-es-iso-140012004.html
CEMEFI. (2012). Acerca de CEMEFI. octubre 4, 2015, de Centro Mexicano para la Filantropía A.C. Sitio web: https://www.oscdigital.org/about_pngo

COMISIÓN DE LAS COMUNIDADES EUROPEAS (2001). Responsabilidad Social. Agosto 2015, de ETNOR Sitio web: http://www.etnor.org/html/pdf/pub_guia-rse.pdf

Conagua. (2006). Recomendaciones para el ahorro de agua. México: Comunicación Social de Conagua.

Consulta Mitofsky (2010). Calculo del tamaño de la muestra. http://www.consulta.mx/Default.aspx
CONUEE. (2015). Ahorro de agua. octubre 5, 2015, de SENER Sitio web: http://conuee.gob.mx/wb/CONAE/ahorro_de_agua/_rid/3113/_mto/3/_wst/maximized?url2print=%2Fwb%2FCONAE%2Fahorro_de_agua&imp_act=imp_step3&page=0

CONUEE. (2015). Consejos para ahorrar energía eléctrica en las PyMEs. octubre 5, 2015, de PEPEYTOÑO Sitio web: http://www.pepeytono.com.mx/mejora_tu_empresa/consejos_para_ahorrar_energia_electrica_en_las_py mes

Definición abc. (2007). Definición de Responsabilidad social. Agosto 2015, de Definición abc Sitio web: http://www.definicionabc.com/social/responsabilidad-social.php

ECO RED. (2008). Certificación Ambiental. mayo 15, 2014, de ECO RED S.A. de C.V. Sitio web:
Ecologic Barna. (2008). Ahorro de Agua y Energía en Restaurantes, Bares y Sitios Públicos. septiembre
6, 2014, de ECOLOGIC BARNA Sitio web: http://www.ecologicbarna.com/restaurantes-bares.html

Empresa saludable, empresa sustentable. 09-07-2014, de Empresalud Sitio web:
http://www.empresalud.com.ar/nota/empresa-saludable-empresa-sustentable)
Espacios Naturales y Desarrollo Sustentable. (2015). Desarrollo sustentable. septiembre 20, 2015, de
Espacios Naturales y Desarrollo Sustentable A. C. Sitio web: http://www.endesu.org.mx/desarrollo-
sustentable/

Espitia, I. & Pedraza, O. (2010). El Comportamiento del Consumidor. México: UMSNH.
Estrategias de Inversión. (2012).Qué son los indicadores y para qué sirven?. agosto 2015, de estrategias
de Inversión Sitio web: http://www.estrategiasdeinversion.com/noticias/20120705/son-indicadores-para-
sirven

Gonzales, H.. (2013). Como Certificar ISO 14001. agosto 2015, de Calidad y Gestión Sitio web:
https://calidadgestion.wordpress.com/tag/implementar-iso-14001/page/2/

González, C.. (2012). Desarrollo sustentable. diciembre 20, 2014, de Informe de la Comisión Mundial
sobre el Medio Ambiente y el Desarrollo (Comisión Brundtland) Sitio web:
http://academic.uprm.edu/gonzalezc/id24.htm

Greenpeace http://www.pucp.edu.pe/climadecambios/index.php?tmpl=articulo&id=1041
GRUPO AZOR. (2010). Empresa Limpia. noviembre 5, 2014, de GRUPO AZOR MÉXICO S.A. DE
C.V. Sitio web: http://www.azor.com.mx/industria_limpia.php

Guerra, (2012). Metodología de la Investigación. Sesión 6. Julio 18, 2014, de BiblioCuba Sitio web:
http://bibliocuba.es/wp-content/uploads/2013/08/SESION_6-Met-Inv.pdf)

Hernández, R., Fernández, C., Baptista, P. (1991). Metodología de la Investigación. México, D.F.:
Mc.Graw-Hill

Hernández, R.,Fernández, C., & Baptista, M. . (2010). METODOLOGÍA DE LA INVESTIGACIÓN.
México: McGRAW-HILL.
ISO. (2004). Sistemas de gestión ambiental. agosto 2015, de ISO Sitio web:
www.uco.es/sae/archivo/normativa/ISO_14001_2004.pd

Kotler y Armstrong. (2007). Marketing . México: Pearson.

Kotler y Armstrong. (2008). Fundamentos de marketing. Octava edición. México: Ed. Pearson Educación.

Landero, A.. (2013). Raíces de responsabilidad social. Agosto 2015, de crónica Sitio web:
http://www.cronica.com.mx/notas/2013/727560.html

Life Optima. (2004). Modelo de implantación EMAS en PYMES. Agosto 2015, de Life Optima Sitio
web:sie.fer.es/.../Modelo_implantacion_EMAS_Pymes_Administraciones

Mantra & WordPress. (2013). Manejo de los desechos sólidos. 15 - 0ctubre -2014, de DESECHOS-
SOLIDOS.COM Sitio web: http://desechos-solidos.com/manejo/

Marker, G.. (2015). El uso eficiente del agua para mejorar el negocio. 08 agosto, de Gestión. org Sitio web: http://www.gestion.org/rsc/35545/el-uso-eficiente-del-agua-para-mejorar-el-negocio/

martínez, j. (2013). el impacto ambiental y su medición. 07,2015, de Desarrollo Local Sostenible Sitio web: http://www.eumed.net/rev/delos/16/medicion-impacto-ambiental.html

Michoacán. (2013). Michoacán Alto Nivel en Capacitación. Agosto 2015, de visitmichoacan Sitio web: http://www.visitmichoacan.com.mx/noticias_Michoacan,-lider-en-capacitacion-de-alto-nivel_197.aspx

ministro de trabajo y asusntos sociales de españa. (2012). el apoyo social. 25 - octubre - 2015, de instituto nacional de seguridad e higiene en el trabajo Sitio web: http://www.insht.es/InshtWeb/Contenidos/Documentacion/FichasTecnicas/NTP/Ficheros/401a500/ntp_439.pdf

Montes, L., Berges, G. (2007). Las empresas más sustentables de México. 09-07-2014, de Forbes Sitio web: http://www.forbes.com.mx/sites/las-empresas-mas-sustentables-de-mexico/)

Montes., L., & Berges,. G.. (2013). Las empresas más sustentables de México. noviembre 28, 2014, de Forbes MÉXICO Sitio web: http://www.forbes.com.mx/las-empresas-mas-sustentables-de-mexico/

Nova, L.. (2008). Manual para la Formación Del Medio Ambiente. Unión Europea: PACMA.

Pájaro, Huertas, David. (2002). La Formulación de Hipótesis. Cinta de Moebio, diciembre 2002)

Pájaro, Huertas, David. (2002). La Formulación de Hipótesis. Cinta de Moebio, diciembre 2002

Portal Educativo. (2013). Impacto ambiental de la actividad humana. 20- OCTUBRE - 2014, de Portal Educativo Sitio web: http://www.portaleducativo.net/sexto-basico/464/Impacto-ambiental-de-la-actividad-humana

PROFEPA. (2012). Sistema Nacional de Indicadores Ambientales - SNIA. agosto 2015, de PROFEPA Sitio web: http://www.semarnat.gob.mx/temas/estadisticas-ambientales/snia

 PROFEPA. (2013). PROGRAMA NACIONAL DE AUDITORÍA AMBIENTAL. Agosto 2015, de PROFEPA Sitio web: http://www.profepa.gob.mx/innovaportal/v/26/1/mx/programa_nacional_de_auditoria_ambiental.html

PROFEPA., MÉXICO. (2013). ACERCA DE PROFEPA. octubre 28, 2014, de PROFEPA Sitio web:

proyecto life óptima. (2004). ¿que es emas y cual es su objetivo?. julio 29, 2014, de proyecto life óptima sitio web: sie.fer.es/esp/.../Medioambiente/...EMAS...Publicas/file_8615.htm

PYME. (2015). Plan de reciclaje para restaurantes. octubre 5, 2015, de LA VOZ DE HOUSTON Sitio web: http://pyme.lavoztx.com/plan-de-reciclaje-para-restaurantes-8894.html

Pymeempresario. (2013). Maneras de ahorrar energía. Agosto 2015, de pymeempresario Sitio web: http://www.pymempresario.com/

ramirez, r.. (2006). distintivo "m". Agosto 2015, de Tecnología y Calidad Sitio web:file:///C:/Users/USUARIO/Downloads/112_El%20Distintivo%20M%20para%20mejorar%20la%20gesti%C3%B3n%20empresarial%20de%20las%20pyme%20(1).pdf

Reconecta . (2008). formas de reducir basura en tu empresa. Agosto 2015, de Reconecta Sitio web:
http://www.reconecta.com/formas-de-reducir-basura-en-tu-empresa/
Reglamento de la Ley General del Equilibrio Ecológico (2000) la Protección al Ambiente en Materia de
Evaluación del Impacto Ambiental

reglamento de la ley general del equilibrio ecológico y la protección al ambiente en materia de evaluación
del impacto
ambiental. (2000). Reglamento de la ley general de equilibrio y la protección del ambiente en materia de
evaluación del impacto ambiental. Agosto 2015, de Cámara de Diputados del H. Congreso de la Unión
Secretaría General Secretaría de Servicios Parlamentarios Dirección General de Bibliotecas Sitio web:
http://www.cnsns.gob.mx/acerca_de/marco/reglamentos/equilibrio_ecologico_impacto_ambiental.pdf

Responsabilidad Social y Sustentabilidad. (2015). "3R" La regla de las tres erres (Reducir, Reciclar y
Reutilizar). Agosto 2015, de Doctorado en innovación y Responsabilidad Social Sitio web:
http://www.responsabilidadsocial.mx/colaborar-con-responsabilidad-social-y-sustentabilidad/110-
articulos/especiales/262-3r-la-regla-de-las-tres-erres-reducir-reciclar-y-reutilizar.html

ricardo uribe marín. (2013). costos ambientales. 19 - octubre - 2014, de consultorio contable sitio web:
http://www.eafit.edu.co/escuelas/administracion/consultorio-
contable/Documents/Nota%20de%20Clase%2014%20Costos%20Ambientales.pdf

Robles, F.. (2004). Compost doméstico: Una alternativa ecológica y económica. 08 agosto, de Rebelión
ecológica Sitio web: http://www.rebelion.org/hemeroteca/ecologia/040206compost.htm
Rodríguez, J. (2015). Porque es importante la responsabilidad social empresarial.: Julio Rodríguez.

(2015). porque es importante la responsabilidad social empresarial. 30 julio, de conciencia eco Sitio web:
http://www.concienciaeco.com/2015/07/30/porque-es-importante-la-responsabilidad-social-empresarial/

Rodríguez, M.. (2006). composta. En Manual de Composta Municipal(101). México: GTZ.
Ruiz, T.. (2015). La UMSNH sus raíces de responsabilidad social . agosto 2015, de Cuadratin Sitio web:
https://www.quadratin.com.mx/educativas/La-UMSNH-fija-sus-raices-en-la-responsabilidad-social-
Tinoco-Ruiz/

Sánchez, L. (2013). La Responsabilidad Social Empresarial. Global Conference on Business and Finance
Proceedings, 8, 1. 10-07-2014, EBSCOHOST

sánchez, m. . (2011). la responsabilidad social organizativa: stakeholders futuros directivos. febrero 2,
2014, de revista internacional administracion & finanzas sitio web:
ftp://ftp.repec.org/opt/redif/repec/ibf/riafin/riaf-v4n4-2011/riaf-v4n4-2011-7.pdf

sectur. (2013). agenda de competitividad del destino turístico mazatlán. 08 agosto, de sectur Sitio web:
www.sectur.gob.mx/wp-content/uploads/2015/02/PDF-Mazatlan.pdf

sectur. (2013). distintivo m. mayo 7, 2015, de sistema de gestión de calidad moderniza Sitio web:
http://distintivom.net/

semarnat. (2010). ecosistemas costeros. octubre 12, 2014, de guía de normatividad ambiental aplicable al
ecoturismo comunitario Sitio web:
http://www.cdi.gob.mx/ecoturismo/docs/guia_normatividad_ambiental_semarnat.pdf

Semarnat. (2013). Antecedentes. Septiembre 20, 2015, de la secretaría de medio ambiente y recursos naturales sitio web: http://www.semarnat.gob.mx/conocenos/antecedentes
Semarnat. (2015). Temas relevantes de la normatividad ambiental aplicable al ecoturismoambiental aplicable al ecoturism. septiembre 10, 2015, de Powered By Documents.mx Sitio web: http://documents.mx/documents/normatividad-ambiental-aplicable-a.html

Servicio de Evaluación Ambiental. (2014). Normativa general Sistema Evaluación de Impacto Ambiental. 08 agosto, de Servicio de Evaluación Ambiental Sitio web: http://www.sea.gob.cl/contenido/normativa-ambiental-aplicable
Sistema de Gestión de Calidad Moderniza. (2015). Distintivo M. agosto 2015, de Programa Moderniza Sitio web: http://distintivom.net/

SPSS (2010). Software de Análisis Predictivo de SPSS Inc. Versión 17. Disponible en: http://www.spss.com/es/software/.

UMSNH (2010). Programa Ambiental Institucional. Disponible en: http://www.umich.mx/pai/index.html.

UNESCO. (2015). Desarrollo Sostenible. 10-SEPTIEMBRE-2014, de UNESCO Sitio web: http://www.unesco.org/new/es/education/themes/leading-the-international-agenda/education-for-sustainable-development/sustainable-development/

Universidad de Guanajuato. (2013). Indicadores para Medir la Contribución de las Instituciones de Educación Superior a la Sustentabilidad. . noviembre 2, 2014, de Consorcio Mexicano de Programas Ambientales Universitarios para el Desarrollo Sustentable (COMPLEXUS) Sitio web: Consorcio Mexicano de Programas Ambientales Universitarios para el Desarrollo Sustentable (COMPLEXUS)

Van, B.. (2003). Necesidades de bienes y servicios de las pyme. Santiago De Chile: Naciones Unidas.

Vargas, A.. (2014). Legislación y Normas de Ecología y Medio Ambiente. Agosto 2015, de AUDITORIAS AMBIENTALES EN EL MUNICIPIO DE CUAUTITLÁN IZCALLI ESTADO DE MEXICO Sitio web: http://legislacionynormasfesacatlan.blogspot.mx/2014/06/auditorias-ambientales-en-el-municipio.html

Vázquez, A.. (2000). Permisos y autorizaciones ambientales. agosto 2015, de Pnuma Sitio web: web.pnuma.org/.../42%20Vazquez%20Permisos%20y%20autorizaciones.

LA RESPONSABILIDAD SOCIAL CORPORATIVA: UN ANÁLISIS INTEGRAL DE SUS DIMENSIONES

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RESUMEN

Es un verdadero reto implementar la Responsabilidad Social Corporativa como una política que rija las actividades del quehacer cotidiano, no obstante a pesar de conocerse la importancia y actualidad del tema, se reconoce en la literatura que uno de los déficits más significativos en el ámbito de la RSC es la escasez de análisis y estudios que permitan a las entidades entender, evaluar y comparar, de forma objetiva, los resultados del comportamiento que va teniendo el cumplimiento de la RSC y la adecuación técnica de las informaciones que se necesitan sobre aspectos de gestión de la RSC que les permitan tomar decisiones en este sentido. Así pues los análisis son fragmentados viéndose de forma aislada las dimensiones económica, social y ambiental de la RSC.

PALABRAS CLAVE: Responsabilidad Social Corporativa, Análisis, Gestión Empresarial

ABSTRACT

It is a real challenge to implement Social Corporate Responsibility as a policy that covers everyday activities, however even after knowing the importance and actuality regarding this matter, it is widely know with documentation that one of the most significant deficits in the scope of SCR is the scarcity of analysis and studies that would otherwise permit other entities to understand, evaluate, and purchase objectively the results of the behavior that comprises SCR and its technical capacity to manage information necessary over its gestation aspects that would permit SCR to manage decisions in that manner. So in this way, the analysis of the SCR are fragmented and the social, ambient, and economic dimensions are viewed separately.

JEL: M14, M49

KEYWORDS: Social Corporate Responsability, Analysis, Business Management

INTRODUCCIÓN

A partir de analizar la RSC de forma fragmentada y ante la carencia de metodologías que desde el interior de las organizaciones y contextualizadas a las particularidades de la industria guíen estos análisis, se manifiesta la necesidad de un enfoque integral de la Responsabilidad Social Corporativa para el contexto de la industria agrícola, buscando que quede materializado en un índice integral de la RSC y por dimensiones. Así pues se reconoce que las organizaciones deben establecer e implementar procedimientos para el seguimiento, la medición y la mejora del desempeño de la gestión de la RSC; de tal manera que se le posibilite establecer políticas y estrategias a nivel empresarial en este sentido. Por lo que la autora de la presente investigación, a partir de lo planteado, asume el enfoque integral del análisis de la RSC como el análisis de sus tres dimensiones como un todo, lo que presupone analizar cada dimensión y sus interrelaciones que se manifiestan en un índice integral de RSC.

REVISIÓN LITERARIA

El tratamiento terminológico de las dimensiones de la RSC está evaluado desde diferentes criterios y enfoques, asumiendo diferentes matices por parte de investigadores y autores que estudian esta

problemática. Tal es el caso de Moneva (2005) que asume que "la RSC desde su enfoque evalúa su desarrollo a través de tres dimensiones particulares que posteriormente y de forma integrada logran dar una visión de los reales compromisos que debe asumir en la actualidad una empresa. Las dimensiones son: la social, la económica y la medioambiental. En cada una de estas áreas se pueden encontrar diversas formas de entender el comportamiento social de la empresa; todas ellas con consecuencias positivas para el entorno social, pero de distinto origen, intensidad y consistencia". Se puede plantear entonces que la RSC crea un valor a la empresa cuando está en consonancia con el rendimiento económico, beneficiando a la sociedad y respetando el medio ambiente La idea de que las empresas no sólo son responsables ante sus accionistas (propietarios) sino también ante todas las partes implicadas en su funcionamiento es una de las ideas esenciales comprendidas en el concepto de RSC. La complejidad de las empresas supone identificar como sujeto de la RSC de una organización al contexto más amplio sobre el que interactúa o puede hacerlo, en la búsqueda de un equilibrio en términos de aporte de valor a los grupos de interés.

METODOLOGÍA

El análisis de la gestión empresarial, del cual es parte integrante el análisis de la RSC, constituye un instrumento del mecanismo económico y un elemento de la función de dirección de control. El análisis de la gestión empresarial pretende examinar a la empresa globalmente, lo cual abarca la organización, la administración, los sistemas contables y financieros, el estilo y la forma de gestionar la empresa, las herramientas e información que dispone la gerencia para gestionar la empresa y tomar decisiones, con el objeto de saber el estado de situación actual y guiar la toma de decisiones empresariales. Su objetivo es identificar detalladamente los elementos de mal funcionamiento, y sus causas, que necesitan ser revisados y ajustados. El análisis de la RSC a partir del estudio teórico realizado, se asume como la función directiva que permite identificar y medir, a partir de indicadores, las variables que influyen en el comportamiento de las dimensiones de la RSC en la empresa y tiene como expresión final un índice integral de RSC, que mide la posición de la empresa en cuanto a RSC, permitiendo el diseño de estrategias para su implementación o perfeccionamiento.

El objetivo fundamental del análisis de la RSC va dirigido hacia el análisis del comportamiento de sus dimensiones en cualquier nivel jerárquico- organizativo de la organización, lo que fundamenta que cada uno de estos niveles posea diseñado su propio sistema analítico y adecuado a las exigencias de cada uno de los mismos. El análisis de la RSC no constituye una suma mecánica de las diferentes dimensiones que la conforman. El mismo debe abordarse desde el punto de vista de "¿Cómo debe ser?", lo cual garantiza que la aplicación del análisis se distinga en uno u otro objeto de estudio por la manera de analizarlo. La clasificación de las formas analíticas en operativa, corriente y perspectiva constituye una premisa indispensable para la aplicación de los principios para el diseño de procedimientos analíticos.

La necesidad de que las valoraciones cualitativas de los fenómenos que se manifiestan en cualquier nivel jerárquico alcancen un mayor grado de integralidad, requieren que el diseño y la aplicación de las tres formas analíticas, respondan a esta necesidad, con vistas a que el proceso de dirección de la RSC llegue a ser lo más objetivo y acabado posible, de esta manera se puede proyectar y pronosticar el desarrollo de sus dimensiones sobre una base mucho más científica, partiendo de los resultados derivados del análisis perspectivo. La utilización de las tres formas analíticas mencionadas, en los distintos niveles jerárquicos trae resultados positivos para los métodos de dirección, ya que en estos niveles están los factores que tienen la responsabilidad de asegurar y ejecutar el proceso, también le imprime un contenido más integral a los resultados y brinda la posibilidad de precisar y definir las tareas que deben ser ejecutadas y los responsables de su cumplimiento, todo esto se manifiesta en mayor grado en los niveles inferiores o subdivisiones estructurales de la empresa, ya que, es en este nivel donde el proceso productivo y tecnológico se materializa, donde se utilizan los recursos productivos, donde se relacionan directamente la fuerza de trabajo y los medios de producción.

La ejecución práctica del sistema analítico se manifiesta e instrumenta a través de los procedimientos analíticos y este concepto está explicado en la bibliografía existente. Se trata de una serie común de pasos definidos que permiten realizar un trabajo de forma correcta, por lo cual está compuesto por pasos metodológicos y las técnicas a aplicar.

RESULTADOS

1er paso: Definición de la forma analítica a trabajar prioritariamente en correspondencia al nivel jerárquico. En correspondencia al nivel jerárquico donde se desarrollará el trabajo se definirá la forma analítica prioritaria a trabajar.

2do paso: Identificación de las variables que condicionan el sistema de indicadores. Dentro de cada dimensión se manifiestan variables que influyen en el comportamiento de la RSC, la definición de las variables depende de las particularidades de la industria o sector donde se realice el análisis, aunque pueden existir variables que son válidas para cualquier empresa, como la rentabilidad o la seguridad o higiene del trabajo y otras que son más específicas de una industria.

3er paso: Adecuación de los elementos estructurales. Del Pozo (2005) comenta que en el diseño de cualquier procedimiento analítico "se manifiestan momentos que se repiten en la ejecución de esta tarea y esos momentos les hemos denominado elementos estructurales cuya manifestación particular depende del nivel jerárquico administrativo y de la forma analítica seleccionados". A partir del criterio de Del Pozo (2005) sobre los elementos estructurales del análisis económico – financiero y las características de la RSC con sus dimensiones económica, social y medioambiental, adecua estos elementos estructurales a las particularidades de la RSC:

Objetivos analíticos: Define el objetivo en dependencia de la forma analítica y el nivel jerárquico-organizativo donde se ejecutará el análisis de la RSC.

Sistema de indicadores por dimensiones e integral de la dimensión: Se definen tres bloques analíticos, uno por cada dimensión donde existirán indicadores por dimensiones en correspondencia a las variables identificadas, estos indicadores serán diseñados por el analista a partir de las particularidades propias del objeto específico de aplicación, reflejándose en un indicador integral de la dimensión a través de técnicas deterministas.

Sistema informativo: Es un conjunto de flujos informativos (técnicos, tecnológicos, normativos, contables, estadísticos,) que constituyen el soporte del análisis de la RSC.

Forma de elaboración del proceso analítico: Es el procesamiento manual, automatizado o combinado del proceso analítico de la RSC que concluye con el informe cualitativo.

Organización y etapas: La organización del proceso analítico está en dependencia de la forma y la dimensión. Por ello, los ejecutores, plazos de realización y las etapas del trabajo analítico, dependen del objetivo analítico.

Los primeros tres elementos abarcan el momento cuantitativo del análisis de la RSC; el cuarto representa el elemento cualitativo y el quinto el elemento organizativo.

4to paso: Diseño de las tablas analíticas. A partir de los componentes diseñados en los pasos anteriores se elaboran las tablas analíticas.

5to paso: Determinación del Índice de Responsabilidad Social Corporativa. Con relación a la medición de la RSC, que constituye uno de los campos actuales de la investigación científica, y reconociendo la necesidad de mostrar en un índice integral la expresión que alcanza la responsabilidad social, se procede a modelar dicho índice a través de un modelo determinista aditivo conformado por los índices particulares de cada dimensión, los cuales son la expresión de la suma algebraica del comportamiento ponderado (condición que permitirá la homogenización de estos y su posible tratamiento) de cada uno de los indicadores que conforman la misma. Esto posibilitará al analista conocer como es la influencia de cada dimensión (factor) en el comportamiento del índice de responsabilidad social considerándose este el indicador objeto de análisis. Dicho resultado conducirá a buscar particularmente dentro de cada dimensión la influencia de cada uno de los indicadores que la conforman y finalmente resumir aquellos indicadores que están comprometiendo o deteriorando el resultado del índice de responsabilidad social corporativa de la entidad.

CONCLUSIONES

El estudio realizado permite plantear que la RSC alcanza cada vez más un espacio en las preocupaciones y ocupaciones del empresario moderno, pero aún subsisten limitaciones en el campo de la ciencia que limitan su aplicación, por lo que el diseño de procedimientos que contextualicen la definición de indicadores que posibiliten el análisis de la RSC desde la integralidad ayudaría a la toma de decisiones más argumentada y efectiva.

BIBLIOGRAFÍA

Alea García, A. (2007): «Responsabilidad social empresarial. Su contribución al desarrollo sostenible», Revista Futuros no. 17, vol. 5, pp. 1-9.

Asociación Española de Contabilidad y Administración de Empresas (2004): «Marco Conceptual de la Responsabilidad Social Corporativa», Documentos AECA, Serie Responsabilidad Social Corporativa, no. 1, España.

Austin, J.A. (2001): «Business Partnering Frontiers: Social purpose Alliances», Cambridge, Harvard Business School.

Cardozo, M. (2003): «Las empresas y su responsabilidad en el campo social», Economía, Sociedad y Territorio, vol. 4, no. 13, pp.163-187.

De La Cuesta González, M. (2005): «Las inversiones socialmente responsables como palanca de cambio económico y social», Revista Futuros, no. 11, vol. III, pp. 1-14.

De La Cuesta González, M.; Valor Martínez, C. (2003): «Responsabilidad Social de la empresa; Concepto, medición y desarrollo en España», Boletín económico de ICE no. 2755, pp. 7-19.

Friedman, M. (1970): «The social responsibility of business is to increase its profits», New York Times Magazine, pp. 32-33,122,124,126.

Del Pozo Alvarez Pedro L. (2005): «Bases metodológicas para el diseño de un procedimiento analítico», Cap. 1.

Mercado, A.; Aguilar, I. (2005): «Sustentabilidad ambiental en la industria: Conceptos, tendencias internacionales y experiencias mexicanas», El Colegio de México; Monterrey, N.L.

Moneva, J. M. (2005): «Información sobre Responsabilidad Social Corporativa: Situación y tendencias», Revista Asturiana de Economía RAE no. 34, pp. 43-67.

Vaca Acosta, R. M.; Moreno Domínguez, M.; Riquel Ligero, F. (2007): «Análisis de la Responsabilidad Social Corporativa desde tres enfoques: Stakeholders, Capital Intelectual y Teoría Institucional». Ayala Calvo, Conocimiento, innovación y emprendedores: camino al futuro, Universidad de la Rioja.

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IMPACTO ECONÓMICO DEL IMPUESTO APLICADO A ALIMENTOS NO BÁSICOS CON ALTO CONTENIDO CALÓRICO EN EL GIRO DE PANADERÍA

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RESUMEN

El presente estudio aborda el tema del sobrepeso y obesidad en México, ilustra estadísticas nacionales y de Baja California que permiten reconocer la presencia de un problema social relevante que debe atenderse con políticas públicas. Una de las medidas tomadas por el gobierno fue el incorporar a partir de 2014 un gravamen en el Impuesto Especial sobre Producción y Servicios (IEPS) al grupo de alimentos considerados no básicos que contienen un alto contenido calórico. Por ello el interés de analizar cómo impacta este cambio a las empresas del giro de panadería a través de un estudio comparativo de las ventas en volumen y pesos, encontrando una diferencia significativa entre las ventas de 2014 respecto a las de 2013 con una variación negativa de poco más de 5%, situación que afectó las utilidades de las empresas y ocasionó la pérdida de 10 plazas de trabajo. Aunque contribuyó al pago por este concepto de más de 300,000 pesos.

PALABRAS CLAVE: IEPS, Alimentos Con Alto Contenido Calórico, Panadería

ABSTRACT

This study addresses the issue of overweight and obesity in Mexico, illustrates national statistics and Baja California for recognizing the presence of a significant social problem that must be addressed by public policies. One of the measures taken by the government was incorporated in 2014 an assessment on the Special Tax on Production and Services (IEPS) the group not considered basic foods that contain a high caloric content. Hence the interest to analyze what impact this change to turn bakery companies through a comparative study of sales in volume and weight, finding a significant difference between sales in 2014 compared to 2013 with a negative variation just over 5 %, which affected the profits of companies and caused the loss of 10 jobs. Although he contributed to sharing payments of more than 300,000 Mexican pesos.

JEL: M2, M4

KEYWORDS: IEPS, High-Calorie Foods, Bakery

INTRODUCCIÓN

De acuerdo con Dávila-Torres, González-Izquierdo y Barrera-Cruz (2015, p.242) "el exceso de peso corporal (sobrepeso y obesidad) se reconoce como uno de los retos más importantes de la salud pública en el mundo debido a su magnitud, la rapidez de su incremento y el efecto negativo que ejerce sobre la salud de la población que la padece". Sobrepeso y obesidad son enfermedades derivadas del estilo de vida urbano, que afecta a un alto porcentaje de la población citadina, en México, la Encuesta Nacional de Salud y Nutrición 2012 (ENSANUT2012) señala que 26 millones de adultos presentan sobrepeso y 22 millones, obesidad. Cifras que representan un reto para la Secretaría de Salud (SS) en términos de promoción de

estilos de vida saludables y desarrollo de políticas públicas para revertir el entorno obesigénico, caracterizado por mayor acceso a alimentos con alta densidad energética y bebidas con aporte calórico, mayor tamaño de porción de alimentos, vida sedentaria y un ambiente de constante promoción del consumo de productos no saludables (Instituto Nacional de Salud Pública, 2013a).

En el caso de Baja California la ENSANUT2012 indica que la prevalencia de sobrepeso y obesidad en los menores de cinco años fue de 11.9%. Mientras las prevalencias de sobrepeso y obesidad para niños en edad escolar (5-11 años) fueron 24.9 y 17.3%, respectivamente (la suma de sobrepeso y obesidad, resulta de 42.2%, cifra mayor al reporte nacional de 34.4%). En el caso los adolescentes (12-19 años) las prevalencias nacionales de sobrepeso y obesidad fueron 19.8% y 14.6%, respectivamente, condición que es mayor para las niñas. En Baja California un 40.7% de los adolescentes presentan sobrepeso más obesidad, prevalencia que también es mayor a la reportada en el ámbito nacional (35%). De igual forma se mostró una prevalencia mayor para las mujeres (42.5%), en comparación con los hombres (39.2%) (Instituto Nacional de Salud Pública, 2013b).

Estas cifras crecen en el caso de los adultos, donde la prevalencia de sobrepeso y obesidad en mujeres fue de 73.8% y en hombres de 75.9%. La prevalencia de obesidad fue 24.0% más alta en mujeres (43.8%) que en hombres (35.3%), mientras que la prevalencia de sobrepeso fue mayor en hombres (40.6%) que en mujeres (30.1%) (Instituto Nacional de Salud Pública, 2013b). Estos datos son de llamar la atención, al respecto Dávila-Torres *et al.* (2015, p.243) refieren estudios de Franco (2010 y 2012), Stevens *et al.* (2008), García *et al.* (2008) y Márquez (2011) para argumentar que hoy día México y Estados Unidos "ocupan los primeros lugares de prevalencia mundial de obesidad en la población adulta (30%), la cual es diez veces mayor que la de países como Japón y Corea (4%). Respecto a la población infantil, México ocupa el cuarto lugar de prevalencia mundial de obesidad, aproximadamente 28.1% en niños y 29% en niñas, solo superado por Grecia, Estados Unidos e Italia".

Las estadísticas anteriores ilustran la urgente necesidad de intervenir sobre los factores de riesgo que inducen la obesidad en la población, tema que debe ser prioridad al planificar acciones y políticas para su prevención y control (Instituto Nacional de Salud Pública, 2013b). En tal sentido en México estableció incorporar un gravamen en el Impuesto Especial sobre Producción y Servicios (IEPS) a un grupo de alimentos considerados no básicos y que contienen un alto contenido calórico. Propuesta de la Cámara de Diputados con el fin de combatir los problemas de sobrepeso y obesidad, para inhibir el consumo de alimentos considerados riesgosos y causa de enfermedades crónicas (PAF, 2014).

Este impuesto entró en vigor a partir del 1º de enero de 2014, grava las personas físicas o morales, que enajenen alimentos no básicos, con una densidad calórica de 275 kilocalorías o mayor por cada 100 gramos, entre los que se encuentran: botanas, productos de confitería, chocolate y demás productos derivados del cacao, flanes, dulces de fruta y hortalizas, cremas de cacahuate y avellanas, dulces de leche, alimentos preparados a base de cereales, helados, nieves y paletas de hielo (LIESPS, 2015). El objetivo del impuesto es desalentar la compra de estos alimentos, así los consumidores en condiciones de elegir optaran por los mejores para su salud, también busca incentivar a la industria a adecuar sus productos con menores contenidos de grasas y azucares. Es pertinente destacar la naturaleza del IEPS, impuesto indirecto que grava ciertos productos que tienen un gran impacto en la sociedad como son: bebidas alcohólicas, cigarros, refrescos, plaguicidas, combustibles fósiles y alimentos no básicos con alto contenido calórico. Los contribuyentes al enajenar este bien lo trasladan al comprador, siendo este quien finalmente paga el impuesto por la adquisición de los productos, para el presente caso son los denominados alimentos no básicos con alto contenido calórico, y dentro de estos se encuentra el pan dulce, al respecto este estudio se enfoca a medir el impacto económico de los negocios con el giro de panadería que se ven afectados por la causación de este impuesto, ya que el precio de varios de sus producto se elevó. Además dichos contribuyentes están obligados a identificar en sus sistemas qué productos tasan IEPS y cuáles no están obligados al pago de este impuesto, de manera que deben reportar la información requerida para dar

cumplimiento con esta obligación, misma que deben hacer a través del pago referenciado, debiendo anotar el importe mensual de la venta de los mismos y obtener el cálculo en forma automáticamente, al cual se le podrá disminuir el impuesto acreditable que se obtiene al realizar compras de materias primas para su elaboración.

De acuerdo con el artículo segundo de la LIEPS en su fracción primera, inciso J, se establece que las personas ya sean físicas o morales que enajenen estos alimentos no básicos de los cuales presenta una lista de productos con una densidad calórica de 275 kilocalorías o mayor por cada 100 gramos deberán cubrir un impuesto del 8%. Cuando estos alimentos cumplan con las disposiciones relativas a la información de la etiqueta, los contribuyentes podrán tomar en consideración las kilocalorías ahí manifestadas. Tratándose de alimentos que no tengan la etiqueta mencionada, se presumirá, salvo prueba en contrario, que tienen una densidad calórica igual o superior a 275 kilocalorías por cada 100 gramos, para las personas que venden a granel como pueden ser: pepitas tostadas, cacahuates, dulces a granel, entre otros, son sujetos de este impuesto, para demostrar que los artículos no rebasan las kilocalorías ya indicadas podrán acudir a un especialista, un químico en alimentos quien podrá asegurar su contenido calórico. Los contribuyentes causantes de este impuesto tendrán la obligación de proporcionar trimestralmente al Sistema de Administración Tributaria (SAT), en los meses de abril, julio, noviembre y enero del año, información sobre sus 50 principales clientes y proveedores del trimestre inmediato anterior al de su declaración. Toda esta serie de actividades y obligaciones que tienen que realizar los contribuyentes, son como consecuencia del cumplimiento de la Estrategia Nacional para la Prevención y el Control del Sobrepeso, la Obesidad y la Diabetes, emitido el 31 de octubre de 2013, debido a que México tiene una de las mayores prevalencias de esas enfermedades en el mundo.

El gravar estos alimentos con este impuesto, con el fin de erradicar la obesidad, no es considerada una acción correcta para los nutriólogos, indican que lo que se busca con esta medida es que el gobierno obtenga más ingresos, aprovechándose de esta epidemia que afecta a la población mexicana. Para ellos la solución es bajar el precio de la comida sana, como son las frutas, verduras y cereales, para que estos tengan mayor preferencia sobre los productos chatarra, porque a pesar del incremento a su precio, los ciudadanos seguirán consumiéndolos, porque es sencillo obtenerlos en cualquier lugar, o porque la comida sana es costosa (Crespo, 2013).

REVISIÓN LITERARIA

Perea-Martínez, López-Navarrete, Padrón-Martínez, Lara-Campos, Santamaría-Arza, Ynga-Durand, Peniche-Calderón, Espinosa-Garamendi y Ballesteros-del Olmo (2014, p. 317) definen a la "obesidad como una enfermedad inflamatoria, sistémica, crónica y recurrente, caracterizada por el exceso de grasa corporal y un sinnúmero de complicaciones en todo el organismo". Para la Organización Mundial de la Salud (OMS) la obesidad es una epidemia de una enfermedad crónica no transmisible que inicia a edades tempranas con un origen multicausal (Álvarez-Dongo, Sánchez-Abanto, Gómez-Guizado, y Tarqui-Mamani, 2012). Es importante destacar que tanto el sobrepeso y la obesidad se definen como "una acumulación excesiva de grasa", que el índice de masa corporal (IMC) "es un indicador de la relación entre el peso y la talla", que se considera la medida más útil para diagnosticarlo en la población, puesto que es la misma para ambos sexos y para los adultos de todas las edades. Para la OMS un IMC igual o superior a 25 determina sobrepeso y un IMC igual o superior a 30 determina obesidad (Franco, 2010 en Dávila-Torres, González-Izquierdo y Barrera-Cruz, 2015, p. 242).

Para Álvarez-Dongo, Sánchez-Abanto, Gómez-Guizado, y Tarqui-Mamani (2012) la adopción de dietas con alto contenido de grasas saturadas, azúcares, carbohidratos, y bajas en grasas polinsaturadas y fibras, obedece a la mayor disponibilidad y bajo costo de los alimentos con alto contenido energético, a pesar de que se reconoce al sobrepeso y obesidad como factores de riesgo para el desarrollo de enfermedades crónicas como la diabetes, la hipertensión arterial, y las enfermedades cardiovasculares.

Por ello, desde la perspectiva económica, se calcula que la obesidad representa un 17.4% de incremento en los costos individuales directos asociados con su tratamiento en comparación con las personas de peso normal, lo que ocasiona un promedio de 15.8 días de ausentismo laboral anual (Aquino-Vivanco, Aramburu, Munares-García, Gómez-Guizado, García-Torres, Donaires-Toscano y Fiestas, 2013).

Considerando estos señalamientos, en su exposición de motivos las comisiones de Hacienda y de Estudios Legislativos del H. Congreso de la Unión, justifican gravar con IEPS a un grupo de alimentos no básicos con alta densidad calórica, como son las frituras, confitería, dulces, alimentos preparados a base de cereales, entre otros, debido al grave problema de obesidad de México, que incide en riesgos de padecer enfermedades crónicas como son: diabetes mellitus, hipertensión arterial, enfermedades coronarias, embolias cerebrales, así como el cáncer de mamá, esófago, colón, cervicouterino, riñón entre otros.

Por ejemplo, la diabetes mellitus no aparecía en las principales causas de muerte hasta 1990. Hoy en día es la principal causa de defunción en todo el país; indicadores básicos de México en 2008, señalaban ya porcentajes preocupantes, su prevalencia en adultos era de 14.4%, una de las más altas del mundo, correspondiendo un 16.74% para mujeres y el 11.87% para hombres, en el caso de hipertensión arterial era de 43.2% (Dantés, 2011). Las estadísticas internacionales indican que la obesidad es la principal causa de muerte en países de la Organización para la Cooperación y Desarrollo Económico (OCDE) y que México es el segundo país del organismo con más obesidad con el 30% de su población adulta, superado sólo por los Estados Unidos que tiene el 35%, el promedio de obesidad en los países pertenecientes a esta organización es del 22%. Ponderando el problema de obesidad infantil internacionalmente, México es el octavo país en niños y cuarto en niñas, muy por encima del promedio de los países miembros de la OCDE (Lucero, 2012). En México la obesidad va en aumento y como enfermedad tiene un costo por servicios de salud que afecta su desarrollo económico y social. Estimaciones de la Universidad Nacional Autónoma de México (UNAM) señalan que su costo fue de 67,000 millones de pesos en 2008, esto obliga a las autoridades a tomar medidas para reducirla. La ENSANUT2012 indica que de no hacer nada para reducirla en 2017 los costos podrían ascender a 101,000 millones de pesos. Además, se debe considerar que existen otros costos asociados, como los relacionados con la muerte prematura y la disminución en la productividad laboral, la problemática financiera que enfrentan las familias que tienen que ejercer los gastos ocasionados por una enfermedad crónica debido al sobrepeso y la obesidad (Pacheco, 2015).

Estas cifras y estudios ilustran que el crecimiento del sobrepeso y obesidad en los mexicanos representan un grave problema sanitario que provoca efectos negativos en la productividad de las empresas, el desempeño escolar y el desarrollo económico del país. Pero se trata de un problema mundial, por ejemplo, en Brasil, estudios nacionales realizados en los años 1974-1975, 1989, y en la Encuesta de Presupuestos Familiares (POF 2002-2003), evidenciaron un aumento en las prevalencias de obesidad, viéndose más acentuado en el grupo femenino, especialmente en las mujeres de bajos ingresos (Nogueira 2010 y Ferreira 2006 en Beltrán, Saldívar, Nava, y Martínez, 2014). De ahí la pertinencia de la política al incrementar los impuestos e inducir un aumento de los precios. Los individuos, al enfrentar precios más altos, teóricamente responden con la reducción de su consumo.

Desde el punto de vista recaudatorio, una vez que entró en vigor la Reforma Hacendaria de 2014, la recaudación de impuestos al finalizar el primer trimestre fue mayor en un 3.8% en relación con el mismo periodo del año 2013; de Impuesto Sobre la Renta (ISR) se obtuvo una recaudación mayor en un 6.9%; del Impuesto al Valor Agregado (IVA) también se tuvo un incremento del 17.1% y el IEPS se aumentó en un 18.2% debido principalmente al impuesto a las bebidas azucaradas y a los alimentos con alto contenido calórico (Zamudio, 2014), este incremento representa 25 mil millones de pesos (ver tabla1).

Tabla 1: México: Ingresos Tributarios, Enero-Marzo 2014, Millones de Pesos

Concepto	Programado	Observado	Diferencia
ISR, IETU E IDE	270,145.8	273,773.20	+3,627.40
IVA	151,782.2	169,706.70	+17,924.5
IEPS	27,277.9	29,277.90	+2,000.00
OTROS	12,903.8	14,322.90	+1,419.10
TOTAL	462,109.7	487,080.70	+24,971.00

Fuente: SHCP (2014)

Por otra parte, es importante destacar que el giro de panadería es uno de los que padece el efecto del IEPS o impuesto no básico con alto contenido calórico. Aun cuando líderes del sector como Daniel Servitje de Bimbo apoyaron desde su inicio esta medida, el consumo de pan dulce ha descendido un 9%, casi la misma cantidad que el impuesto (8%). Sin embargo, otros productos como el bolillo y la telera han aumentado sus ventas. Para la Asociación Nacional de Proveedores de Pan (ANPROPAN), se tiene una disminución de 6% en la venta de pan dulce y pastelillos industrializados, esto en tiendas pequeñas y en tiendas de conveniencia. En cambio, se estima que ese descenso ha podido ser del 15% en mercados de autoservicio.

METODOLOGÍA

Esta investigación se define como exploratoria descriptiva con un diseño no experimental, se utilizó la investigación documental de estados financieros en una muestra de diez empresas seleccionadas por medio de muestreo no probabilístico en su versión sujeto tipo, todas las empresas se localizan en la ciudad de Ensenada, Baja California, y tienen por giro ser panaderías, ello para poder determinar el impacto económico por el impuesto aplicado a los artículos que enajenan. Además de realizar una comparación entre las ventas de 2013 y 2014, al no existir el impuesto señalado y después al darse el aumento de precio debido al gravamen indicado.

RESULTADOS

El estudio se realizó en 10 microempresas del giro panadería, localizadas en la zona urbana de la ciudad de Ensenada, Baja California. La tabla 2 ilustra las ventas anuales en los años 2013 y 2014 de las 10 panaderías, donde el 80% experimentó una reducción en sus ventas de 5.32% en promedio. Las dos que experimentaron incremento en las ventas lo hicieron con un 2.69% en promedio.

Tabla 2: Comparación de Ventas 2013-214, Diferencia y Porcentaje de Variación

Panadería	Ventas 2014	Ventas 2013	Diferencia	Porcentaje
1	2,632,536	2,831,585	-199,049	-7.02%
2	826,044	964,009	-137,965	-14.31%
3	1,246,573	1,347,147	-100,574	-7.46%
4	1,696,797	1,742,129	-45,332	-2.60%
5	1,528,180	1,564,110	-35,930	-2.29%
6	1,170,229	1,213,972	-43,743	-3.60%
7	977,578	1,015,618	-38,040	-3.74%
8	785,466	764,186	+21,280	+2.70%
9	868,303	882,008	-13,705	-1.55%
10	272,057	264,745	+7,312	+2.68%

Fuente: Elaboración propia

A simple vista se aprecia una diferencia en las ventas con tendencia negativa, para valorar su significancia se realiza una prueba de hipótesis, Ho: $\mu_{2013}=\mu_{2014}$ (o $\mu_d=0$), la cual se valida con un nivel de significancia: $\alpha=0.05$ y por tratarse de una muestra pequeña (n=10) la prueba t de *Student*, para muestras apareadas. Se utiliza este tipo de prueba porque se trata de un grupo de muestras sometido a dos escenarios, antes y

después de un experimento. Los cálculos de la prueba se obtuvieron con apoyo de Excel y se presentan en la tabla 3. El valor p de dos colas 0.023, y resulta menor que α=0.05, por lo tanto se rechaza la hipótesis de que la media de la distribución de las diferencias entre las ventas de pan es cero, es decir, $\mu_{2013} \neq \mu_{2014}$. A fin de establecer un análisis fino se desglosan las ventas por unidades de pan blanco y pan dulce (tabla 4) para determinar si existe una diferencia entre las ventas. Respecto al pan dulce en las 10 panaderías el volumen de unidades vendidas es menor en 10,645 piezas en promedio. Mientras las unidades vendidas de pan blanco solo disminuyeron en tres empresas, el promedio arroja un incremento en ventas por 1654 piezas.

Tabla 3: Prueba T Para Medias de dos Muestras Emparejadas

	Ventas 2013	Ventas 2014
Observaciones	10	10
Grados de libertad	9	
Estadístico t	2.71598436	
P(T<=t) dos colas	0.02376352	
Valor crítico de t (dos colas)	2.26215716	

Fuente: Elaboración propia

Tabla 4: Ventas en Unidades de Pan Dulce y Pan Blanco en los Años 2014 Y 2013

Empresa	Venta Pan Dulce Unidades		Diferencia	Venta Pan Blanco Unidades		Diferencia
	2014	2013		2014	2013	
1	258,200	296,227	-38,027	182,106	175,558	+6,548
2	83,207	100,850	-17,643	54,594	59,769	-5,175
3	131,235	140,932	-9,697	77,661	83,523	-5,862
4	180,905	182,253	-1,348	98,482	108,012	-9,530
5	152,005	163,630	-11,625	104,916	96,975	+7,941
6	116,453	127,000	-10,547	80,176	75,266	+4,910
7	97,177	106,249	-9,072	67,075	62,968	+4,107
8	78,108	79,946	-1,838	53,812	47,380	+6,432
9	86,264	92,272	-6,008	59,645	54,684	+4,961
10	27,049	27,696	-647	18,620	16,414	+2,206

Fuente: Elaboración propia

Para valorar si la diferencia es significativa también se aplica la prueba Ho: $\mu_{2013}=\mu_{2014}$ (o $\mu_d=0$), con α=0.05 usando t de *Student*, para muestras apareadas. Los resultados se muestran en la tabla 5. Para pan dulce el valor p de dos colas 0.013, el cual resulta menor que α=0.05, por lo tanto se rechaza la hipótesis de que la media de la distribución de las diferencias entre el volumen de unidades vendidas de pan es cero, es decir, $\mu_{2013} \neq \mu_{2014}$. En el caso del pan blanco el valor p de dos colas 0.418, resulta mayor que α=0.05, por lo tanto se acepta la hipótesis de que la media de la distribución de las diferencias entre las ventas de pan es cero, es decir, $\mu_{2013}=\mu_{2014}$.

Tabla 5: Prueba T Para Medias de dos Muestras Emparejadas

	Pan Dulce		Pan Blanco	
Observaciones	10	10	10	10
Grados de libertad	9		9	
Estadístico t	-3.06091485		0.84791807	
P(T<=t) dos colas	0.01355156		0.4184622	
Valor crítico de t (dos colas)	2.26215716		2.26215716	

Fuente: Excel

Es decir, el impuesto si está afectando, se tiene una disminución de las ventas en pesos, la cual se debe a una disminución del volumen de ventas en el pan dulce y a un nulo crecimiento de las ventas de pan blanco. Conocidos estos resultados se buscó determinar si había una afectación en la planta laboral, la figura uno ilustra el número de empleados en 2013 y 2014 para cada una de las panaderías estudiadas, destaca que en

ocho de ellas en 2014 disminuyó el personal, en total 10 personas dejaron de trabajar. Resulta lógico, al tener menos ventas, hay menor producción y por ende se requiere menos personal.

Figura 1: Empleados de las Panaderías en 2013 Y 2014

Fuente: Elaboración propia

Es importante señalar que las primeras cuatro empresas (tabla 2) tributan en el régimen general, por ello están obligadas a declarar y pagar el IEPS por alimentos no básicos con alto contenido calórico (tabla 6). Cabe aclarar que la información es únicamente del ejercicio de 2014, debido a que en el 2013 no se tenía un registro separado de pan dulce y pan blanco, solo se manejaba con las bebidas gravadas por el impuesto al valor agregado.

Tabla 6: Integración del Monto de Ingresos de las Empresas Que Tributan en el Régimen General, E Impuesto Pagado, 2014

Empresa	Importe Pan Dulce	Importe Pan Blanco	Bebidas Que Grava El IVA	Total Ingresos 2014	IEPS Pagado
1	1,678,298	910,530	43,708	2,632,536	127,565
2	540,844	272,972	12,228	826,044	39,088
3	853,029	388,307	5,237	1,246,573	63,380
4	1,175,880	492,410	28,507	1,696,797	89,084

Fuente: Elaboración propia

Por otro lado, las empresas tienen que enterar al fisco por la enajenación de este tipo de artículos, son cantidades que antes del 1º de enero de 2014 no tenían obligación de pagar, lo cual impacta significativamente en su economía, dado que disminuye en promedio un 5% sus utilidades. En lo referente a las empresas restantes, estas tributan en el Régimen de Incorporación Fiscal (RIF), las cuales por decreto del 26 de diciembre de 2013, se les otorgó para el ejercicio de 2014 un estímulo fiscal que consiste en un 100% del IVA y del IEPS que deba trasladarse en la enajenación de sus bienes, que efectúen con el público en general y que está condicionado a que no se traslade al adquirente de los bienes cantidad alguna por concepto de los impuestos mencionados, así como también a que cumplan con las obligaciones de proporcionar información referente a los ingresos obtenidos y a las erogaciones realizadas. Este beneficio fiscal fue extendido para el 2015 en el decreto del 11 de marzo de 2015. Por ello estos negocios se encuentran eximidos de declarar y realizar el pago al fisco de estos impuestos y su afectación es menor.

CONCLUSIONES

La estrategia empleada por el gobierno de tasar con impuesto productos como medio inhibidor de su consumo es una práctica común en el mundo, al respecto Gregori (2014) señala que en 40 estados de Estados Unidos se tasa con impuestos a los refrescos, papas fritas, dulces y goma de mascar. Política aplicada sobre la base de la evidencia de estudios experimentales, con resultados no concluyentes que efectos insignificantes. En este caso de igual forma se evidencia que si hay una reducción en las ventas principalmente de pan dulce, las cuales se redujeron en un 5%, lo cual en términos de obesidad puede ser

positivo, aunque de acuerdo con Mussini y Temporelli (2013) las externalidades se manifiestan a través de los costos individuales de la obesidad que no son financiados por el propio paciente (el costo privado es inferior a su costo social) de ahí que continúe consumiendo productos no saludables, con o sin impuestos. Por ello la propuesta de Perea-Martínez *et al.* (2014, p. 330) quienes afirman "la magnitud de los problemas de sobrepeso y obesidad, cuya prevalencia y comorbilidades aumentan a medida que avanza la edad, ha hecho declarar a los organismos internacionales como la OMS y la *International Obesity Task Force* (IOTF) que su solución está en la prevención".

Sin embargo, la creación de este impuesto viene afectando las ventas de las panaderías, lo cual ha ocasionado la pérdida de 10 plazas de trabajo, empero ha representado el pago de $319,117 pesos al fisco por concepto del pago del impuesto. La presente investigación tiene las limitaciones propias de una muestra pequeña, en el futuro sería conveniente realizarla con un mayor número de panaderías. Además es importante analizar el impacto real de la medida, si cumple con su objetivo o solo tiene fines recaudatorios que afectan a las microempresas y ponen en riesgo las fuentes de empleo.

REFERENCIAS

Álvarez-Castaño, L. S., Goez-Rueda, J. D., & Carreño-Aguirre, C. (2012). Factores sociales y económicos asociados a la obesidad: los efectos de la inequidad y de la pobreza. *Revista Gerencia y Políticas de Salud*, *11*(23), 98-110.

Aquino-Vivanco, Ó., Aramburu, A., Munares-García, Ó., Gómez-Guizado, G., García-Torres, E., Donaires-Toscano, F., & Fiestas, F. (2013). Intervenciones para el control del sobrepeso y obesidad en niños y adolescentes en el Perú. *Revista Peruana De Medicina Experimental Y Salud Pública*, *30*(2), 275-282.

Beltrán Guzmán, F. J., Saldívar González, A. H., Nava, F. V., & Martínez Perales, G. M. (2014). Obesidad, diabetes mellitus y pobreza. *Revista Electrónica Medicina, Salud y Sociedad*, *4*(2), 257-264.

Congreso de Argentina (2008) Ley 26.396 Disponible en: *http://www.msal.gov.ar/ent/images/stories/insitucional/pdf/ley-26396-trastornos-alimentarios.pdf*

Crespo Gilberto. (2013). Impuestos a comida chatarra no son solución: nutrióloga. 08 mayo 2015, de NTR periodismo critico Sitio web: http://ntrzacatecas.com/2013/11/06/impuestos-a-comida-chatarra-no-son-solucion-nutriologa/

Dantés, O. G., Sesma, S., Becerril, V. M., Knaul, F. M., Arreola, H., & Frenk, J. (2011). Sistema de salud de México. *Salud pública de México*, *53*, s220-s232.

El conta (2013). Decreto de beneficios fiscales y administrativos para 2014. En El conta. Consultado el 15 de Mayo de 2015. Disponible en: http://elconta.com/2013/12/26/dof-26-dic-2013-decreto-de-beneficios-administrativos-para-2014/

Dávila-Torres, J., González-Izquierdo, J. J., & Barrera-Cruz, A. (2015). Panorama de la obesidad en México. *Revista Médica del IMSS*, *53*(2), 240-249.

Enciso L. Angélica. (201 3). México entra en emergencia alimentaria, afirman en la OPS. Sociedad y Justicia, 15

Gregori, D. (2014). Evidences to validate public policies: a review with an international research perspective. *Salud Pública De México*, *56*S157-S161.

Gutiérrez, E. (2013). Sancionar la gordura, un camino.

Instituto Nacional de Salud Pública (2013a). Encuesta Nacional de Salud y Nutrición 2012. Disponible en http://ensanut.insp.mx/

Instituto Nacional de Salud Pública (2013b). Encuesta Nacional de Salud y Nutrición 2012. Resultados por entidad federativa. Baja California. Disponible en http://www.insp.mx/images/stories/ENSANUT/norte/Baja_California-OCT.pdf

Ley del Impuesto Especial sobre Producción y Servicios LIEPS, (2015). Cámara de Diputados del H. Congreso de la Unión, 3 de mayo de 2015, Sitio web: http://www.diputados.gob.mx/LeyesBiblio/pdf/78_010115.pdf

Mussini, Micaela; Temporelli, Karina (2013). Obesidad: un desafío para las políticas públicas. Estudios Sociales, vol. XXI, núm. 41, enero-junio, 2013, pp. 166-184. Coordinación de Desarrollo Regional, Hermosillo, México.

Pacheco Jessica. (2015). Come sano, tus hijos te observan. 13 mayo 2015, de Innutrition Sitio web: http://www.innutrition.mx/blog-innutricionando/come-sano-tus-hijos-te-observan

Perea-Martínez, A., López-Navarrete, G. E., Padrón-Martínez, M., Lara-Campos, A. G., Santamaría-Arza, C., Ynga-Durand, M. A., &... Ballesteros-del Olmo, J. C. (2014). Evaluación, diagnóstico, tratamiento y oportunidades de prevención de la obesidad. *Acta Pediátrica de México*, *35*(4), 316-337.

Prontuario de Actualización Fiscal PAF, (2014). IEPS para productos con alta densidad calórica, 29 de abril de 2014, en: http://www.e-paf.com/index.php/noticias-y-articulos/noticias-y-articulos-web/impuestos-federales/746-ieps-para-productos-de-alta-densidad-calorica.

Zamudio Eneas (2014). Sobre el crecimiento y las finanzas publicas de México en 2014. *Economía Informa núm. 387 julio-agosto 2014.*

BIOGRAFÍA

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EL CARACTER SOCIAL DE LA EDUCACIÓN SUPERIOR

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RESUMEN

Se ha depositado la esperanza de muchos países en la educación superior. El desarrollo económico de un país; así como la disminución de la inequidad en la distribución de la riqueza se considera se obtiene con una sociedad con más educación superior por lo que han decidido aumentar la matrícula. Por otro lado se cuenta con un mercado de trabajo que ha mostrado un incipiente crecimiento que ha sido incapaz de ofrecer el número de oportunidades que se requieren para satisfacer a una población económicamente activa, altamente demandante, esto ha provocado que cada vez sea más común ver que algún individuo que ostente el título universitario se enfrente al problema del desempleo, esta situación tan común ha llevado a que muchas personas y organizaciones cuestionen el incremento de la matrícula de la educación superior en nuestro país. Una tendencia mundial ha mostrado que en lugar de desaparecer la inequidad en la distribución de la riqueza, la educación superior ha ayudado a ampliar la inequidad. Hacemos una revisión de la situación de los egresados de la FCCA de la UMSNH y destacamos entre otros aspectos el del carácter social de la educación superior.

PALABRAS CLAVE: Educación Superior, Sentido Social, Inequidad

SOCIAL NATURE OF HIGHER EDUCATION

ABSTRACT

Hope has been deposited in many countries in higher education. The economic development of a country; as well as reducing inequality in the distribution of wealth is considered is obtained through a partnership with higher education more so they have decided to raise tuition. On the other hand it has a labor market that has shown incipient growth has been unable to provide the number of opportunities that are required to satisfy an economically active, highly demanding population, this has meant that it is increasingly common to see that any individual holding a university degree will face the problem of unemployment, this common position has led many people and organizations question the increase in enrollment in higher education in our country. A global trend has shown that instead of disappearing the unequal distribution of wealth, higher education has helped expand inequality. We review the status of the graduates of the FCCA of the UMSNH and we include among other aspects of the social nature of higher education.

KEYWORDS: Higher Education, Social Nature, Inequality

JEL : A2, A23, J3, J31,J32

INTRODUCCIÓN

En la actualidad la sociedad ha manifestado una serie de problemáticas de diferente naturaleza, sin embargo casi es seguro que en la mayoría de los casos se considere como una medida de solución de raíz, a la educación superior. Se ha concebido a la educación como uno de los elementos más virtuosos de la humanidad y por tanto se ha depositado en ella, la esperanza de toda sociedad, esperando se resuelvan un

sin fin de problemáticas mediante el fomento y ampliación de su matrícula en todos sus niveles y particularmente en el nivel superior. Sin embargo, la insuficiente oferta que presenta el mercado laboral para una sociedad altamente demandante, da como resultado a un nutrido grupo de egresados de nivel superior en situación de desempleo, lo cual deriva en el cuestionamiento de la puesta en práctica de esta política pública. Adicional a este problema, se ha considerado a la educación y particularmente a la educación superior como el principal elemento de movilidad social, esperando también, abatir de esta manera la desigualdad abismal que existe en la distribución de los ingresos, sin embargo la naturaleza de este fenómeno de expansión de la matrícula de la educación superior ha dado como consecuencia que el problema se agrave. Quitándole el carácter social que de la educación superior se espera.

Evidencia de la Pérdida del Carácter Social de la Educación Superior

La educación superior se ha considerado como el principal elemento de movilidad social, en ese contexto se tiene que para América Latina la matrícula de la educación superior marcó un crecimiento de manera significativa durante la década pasada, sin embargo su carácter social ha desaparecido. La tendencia que el crecimiento para la cohorte de individuos de 25 a 29 años de edad, muestra lo siguiente: Tan sólo el 0.7% de los individuos del quintil de más bajos ingresos tuvo acceso a la educación superior, por otro lado, el 18.3% de los individuos del quintil más rico alcanzó estudios de educación superior, evidentemente en términos absolutos durante la década pasada el avance más rápido, se observa en los quintiles de más altos ingresos, y en términos relativos el crecimiento más importante lo presentan los de ingresos más bajos. Sin embargo, estos hechos han conducido a incrementar las diferencias abismales en la distribución de los ingresos y hacer que la educación superior pierda su carácter social. CEPAL (2010).

Existen otros estudios que conducen a las mismas conclusiones del párrafo anterior, estos estudios se basan variables que inciden de manera significativa en el acceso a la educación superior de los individuos y consideran que el acervo educacional de los padres del individuo tienen una fuerte influencia en la realización de estos estudios por parte de ellos. En encuesta aplicada a países de la OCDE se encontró que: El 68% de individuos que al menos uno de sus padres contaba con grado universitario también había alcanzado la educación superior, mientras que sólo el 24% de los individuos cuyos padres no contaban con estudios de educación superior conseguían graduarse a este nivel. OCDE (2014). En un estudio para México, se encontró que los ingresos de los individuos tienen una fuerte relación con el nivel de estudios del individuo como lo indica el modelo de Mincer, sin embargo se encontró que la variable que incide de manera más significativa en este fenómeno es el que la madre cuente con nivel de estudios superiores, esto aporta a los ingresos de los individuos entre 2 a 2.4%. Morales-Ramos, E. (2011).

Lo anterior ratifica lo dicho, al incrementar la matrícula de la educación superior haciéndola con iguales oportunidades para todos pretendiéndose, que preferentemente los de más bajos ingresos tuvieran altas aspiraciones para ingresar a la educación superior, y buscando en la educación superior, la gran oportunidad, aprovechando que la educación superior es el principal instrumento de movilidad social. Ocurriendo lo contrario, tal como las evidencias anteriormente expuestas denotan que quienes han aprovechado la oportunidad son aquellos que conducidos particularmente por sus propios padres han mejorado sus condiciones o al menos mantenido sus circunstancias sociales, mientras aquellos que se consideró pudieran haber mejorado han desaprovechado la oportunidad y con esto, las diferencias que ya existían en la distribución de los ingresos han aumentado. Así el carácter inminentemente social de la educación superior se perdió. Se realizaron estudios para el caso de los egresados de la FCCA de la UMSNH y los resultados marcaron resultados satisfactorios rescatando el carácter social de la educación superior.

Para el ciclo 2010-2011 se aplicaron 1,232 encuestas a los alumnos de nuevo ingreso de la FCCA de la UMSNH con datos socioeconómicos: El 29.7% de los padres o tutores cuentan con estudios de primaria; el 21.2% con nivel secundaria; el 18.8% con preparatoria; el 17% con licenciatura y el 5% con algún posgrado. El 5.4% de los padres o tutores trabajan fuera del país. Como podemos observar estos datos

contrastan de manera categórica a las tendencias internacionales que se publican por organismos como OCDDE, CEPAL , Banco de México. Y esto da un respiro y aliento para continuar hacia adelante, una vez recobrado el carácter inminentemente social de la educación superior en nuestra casa de estudios.

CONCLUSIONES

La educación superior será una oportunidad para resolver muchas circunstancias negativas en toda sociedad moderna; sin embargo es tarea de todos partcipar para que sus efectos sean los deseables.
No perdamos el rumbo y mejor sigamos apostando por el mejor de los caminos.

BIBLIOGRAFÍA

Avila, Figueroa y Aguilasocho (2012), "La rentabilidad de la inversión en educación superior en México". Editorial académica española. España.

Avila, Aguilasocho y Medina (2012), "México cuenta con un bono poblacional, la educación superior es el elemento para obtener ventaja de esta situación", Tercer Congreso Internacional de la Facultad de Contaduría y Ciencias Administrativas, Morelia Michoacán.

Becker G. S. (1964), "Human Capital and the Personal Distribution of Income", New York: NBER, 1964.

Becker G. S.(1966), and Chiswick, B. R. "Education and the Distribution of Earnings", American Economic Review, May 1966.

Becker G. S. (1967), "Human Capital" Woytinsky Lecture No. 1. Ann Arbor: University of Michigan, 1967.

Ben-Porath, Y. (1967), "The Production of Human Capital and the Life-Cycle of Earnings", Journal of Political Economy, August 1967.

Bell D. (2001), "El advenimiento de la sociedad post-industrial". Madrid, Alianza.

Brunner José Joaquín (2013), "The rationale for higher education investment in Ibero-America". OCDE 2013.

Castells M. (2000), "La era de la información", vol. I. Madrid: Alianza.

CEPAL (2010), "Panorama Social en América Latina". Santiago. CEPAL.

Lächler U (1998), "Education and Earnings Inequality in Mexico", Policy Research Working Paper. The World Bank.

Levy F. y Murnane (2004), "The new division of labor: how computers are creating the next job market", Princeton University Press, New Jersey.

López G. (2006), "Mexico: Two Decaes of the evolution of Education and Inequality", World Bank Policy Research Working Paper 3919, May 2006.

Morales-Ramos, E. (2011), " Los Rendimientos de la Educación en México". Cd. de México: Banco de México.

OCDE (2012), " Equity and Quality in Education: Supporting Disadvantaged Students and Schools, OECD Publishing.
http://dx.doi.org/10.1787/9789264130852-en

OCDE (2014), "Educaction at a Glance 2014: OECD Indicators", OECD Publishing.
http://dx.doi.org/10.1787/eag-2014-en

Presidencia de la República, Estados Unidos Mexicanos (2011): "Quinto Informe de Gobierno".

Psacharopoulos G. (1994), "Returns to investment in Education: A Global Update", World Development, Vol 22, No 9, pp 1325-1343.

Psacharopoulos G. & Patrinos H. A. (2004), "Returns to Investment in education: A Further Update", Education Economics, Vol 12, No 2, August 2004.

Psacharopoulos G. (2005), "The Profitability of investment in education: Concepts and Methods" Human Capital Development and Operations Policy. Working Papers.

Rojas, M., Angulo, H. Velázquez, I. (2000), "Rentabilidad de la inversión en capital humano en México", Economía Mexicana, Nueva Época, vol IXNo 2 p 112-141.

Salas, M.V. (2001), "Aspectos económicos de la educación", Grupo editorial Universitario.

San Segundo, M.J. (2001), "Economía de la Educación", Editorial síntesis, Madrid

SEP (2012), "Sistema Educativo de los Estados Unidos Mexicanos: Principales Cifras, Ciclo Escolar 2011-2012". Secretaría de Educación Pública. Gobierno Federal.

STPS (2014), "Observatorio Laboral", Secretaría del Trabajo y Previsión Social México 2014.

Shavit, Arum, & Gamoran (2007), "Stratification in higher education, A Comparative study", Stanford University Press, Stanford.

Shultz T. (1961), "Investment in human capital", The American Economic Review, Vol 51, No 1.
The world bank (2014), "Indicators", Retraido 9 de noviembre de 2014, http://www.worldbank.org

UNESCO (2013), "Situación Educativa de América Latina y el Caribe: Hacia la Educación de calidad para todos al 2015". UNESCO Santiago 2013.

DE LA IMPORTANCIA DE APLICAR LAS NUEVAS TECNOLOGÍAS DE LA INFORMACIÓN Y LA COMUNICACIÓN EN LA IMPARTICIÓN DE LA ENSEÑANZA SUPERIOR EN LOS SISTEMAS ABIERTO Y A DISTANCIA

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RESUMEN

Considerar las nuevas Tecnologías de la Información y la Comunicación como una opción es muy importante para la enseñanza en los sistemas abierto y a distancia, aunque es una realidad que las TIC´s no se emplean en mejorar el desempeño de los alumnos, esto por la falta de capacitación de los mismos instructores para el manejo de la información que se tiene; aunque las escuelas tienen cada vez más acceso a las TIC´s, la presencia de las nuevas tecnologías dentro de la metodología de enseñanza todavía es muy escasa. De nuevo la falta de formación es lo que lo dificulta: muchos maestros no poseen conocimientos informáticos suficientes para sentirse cómodos empleándolas, ni formación específica para aplicar los nuevos recursos en el aula. Por tanto este trabajo de investigación tiene la finalidad de resaltar la importancia del aprovechamiento de las nuevas Tecnologías de la Información y la Comunicación (TIC´s), en la impartición de la educación superior en los sistemas abierto y a distancia.

PALABRAS CLAVE: Educación a Distancia, TIC's, Educación Superior

THE IMPORTANCE OF APPLYING NEW INFORMATION AND COMMUNICATIONS TECHNOLOGY IN TEACHING IN HIGHER EDUCATION OPEN AND DISTANCE LEARNING SYSTEMS

ABSTRACT

Considering the new Information Technology and Communication as a very important in distance learning, although it is a reality that at present this technology is used more in the business, the information is not used on improving student performance, this lack of training by the same instructors for the management of information held; While schools increasingly have access to ICT, the presence of new technologies in the methodology education is still very low. Again the lack of training is what makes it difficult: many teachers lack sufficient computer skills to feel comfortable using them, or specific training to implement the new resources in the classroom. This research aims to highlight the importance of the use of new Information Technologies and Communication Technologies (ICTs) in education delivery systems to Open and Distance.

KEY WORDS: Distance Education, ICT, Higher Education

INTRODUCCIÓN

Desde el nacimiento de Internet en 1992, ha crecido el número de usuarios vertiginosamente. A finales del año 2000 el número de personas con acceso a Internet superó los 300 millones en todo el mundo, un incremento de casi un 80% con respecto a 1999 (Epper, 2004). A enero de 2007, el número de usuarios en todo el mundo supera los mil millones, un incremento sobre el 200% con respecto a 2001. La sociedad de

la información o la sociedad del conocimiento es un consenso entre las comunidades que tienen acceso a las nuevas tecnologías o tecnologías de la información (TIC). Internet rompe las barreras del tiempo y el espacio para desarrollar las actividades de enseñanza y aprendizaje, permite extender los estudios y formación a personas que por distintos motivos no pueden acceder a las aulas convencionales. Además la red rompe con el monopolio del profesor como fuente principal del conocimiento y el proceso de aprendizaje no puede consistir en la mera recepción y memorización de datos recibidos en la clase, sino la permanente búsqueda, análisis y reelaboración de informaciones obtenidas en las redes (Área, 2002; García del Dujo, 2004). La implementación de plataforma de tele-formación o sistemas de gestión de aprendizaje en red posibilitan el acceso remoto tanto a profesores como a alumnos en cualquier momento, desde cualquier lugar con conexión a Internet presentando la información en diferentes formatos, además en hipertexto, pueden utilizarse gráficos, animaciones, audio y vídeo. Permite al usuario acceder a recursos y a cualquier información disponible en Internet, bien a través de enlaces y las herramientas de navegación que le proporciona el navegador en Internet, bien a través del propio entorno de la plataforma. Posibilita la actualización y la edición de la información con los medios propios, puede estructurar la información y los espacios en formato hipertextual, de esta manera la información se puede organizar, estructurada a través de enlaces y asociaciones de tipo conceptual y funcional, de forma que queden diferenciados distintos espacios y que esto sea percibido por los usuarios (Arriagada, 2005; Zapata, 2003)

Las Nuevas Tecnologías

Las nuevas tecnologías de la Información y Comunicación son aquellas herramientas computacionales e informáticas que procesan, almacenan, sintetizan, recuperan y presentan información representada de la más variada forma. Es un conjunto de herramientas, soportes y canales para el tratamiento y acceso a la información. Constituyen nuevos soportes y canales para dar forma, registrar, almacenar y difundir contenidos informacionales. Las TIC agrupan un conjunto de sistemas necesarios para administrar la información, y especialmente los ordenadores y programas necesarios para convertirla, almacenarla, administrarla, transmitirla y encontrarla. Los primeros pasos hacia una sociedad de la información se remontan a la invención del telégrafo, eléctrico, pasando posteriormente por el teléfono fijo, la radiotelefonía y, por último, la televisión internet, la telecomunicación móvil y el GPS pueden considerarse como nuevas tecnologías de la información y la comunicación.

La revolución tecnológica que vive en la humanidad actualmente es debida en buena parte a los avances significativos en las tecnologías de la información y la comunicación. Los grandes cambios que caracterizan esencialmente esta nueva sociedad son: la generalización del uso de las tecnologías, las redes de comunicación, el rápido desenvolvimiento tecnológico y científico y la globalización de la información. Existen ciertos riesgos en el uso de las TIC, entre otros se pueden mencionar: el naufragio informativo; la amplitud de la información que se distribuye en Internet; la caducidad de la información; intoxicación informativa, dificultad para saber cuándo una información es fiable, verídica, bienintencionada, creíble; aislamiento por uso excesivo de las TIC; la brecha digital.

Por otro lado la formación on-line presenta algunos puntos débiles, tales como que requiere más trabajo que la convencional tanto en la preparación del material como en el contacto del profesor con los alumnos, ya que la falta de contacto provoca en el alumno una mayor demanda, todos demandan. En otros casos los requerimientos técnicos de programación y diseño de interfaz incrementan la sensación de complejidad por parte del usuario. Además, la formación on-line se desarrolla en un contexto poco favorable al aprendizaje (Moreno, 2003). Es inútil comparar la efectividad relativa de la enseñanza basada en la tecnología con la enseñanza tradicional presencial. Ya se conocen los resultados de tales comparaciones (es decir sin diferencias significativas) (Epper, 2004). Así es que, ¿cuáles son exactamente los "nuevos resultados del aprendizaje" que los alumnos pueden obtener con mayor facilidad a través de la tecnología? Podría ser que los aprendizajes no sean tan nuevos después de todo, sino que de hecho sean diferentes a los de las aulas tradicionales.

El concepto de aula es entendido, en el contexto de los espacios virtuales, no como un lugar en que sucede algo, sino más bien como ambiente de aprendizaje, como un lugar social, El horario escolar y el espacio de las clases deben ser más flexibles y adaptables a una variabilidad de situaciones de enseñanza. Las redes transforman sustantivamente los modos, formas y tiempos de interacción entre docentes y alumnado. El e-learning no es una tecnología más. Todos los indicios apuntan a que transformará la enseñanza y el aprendizaje (Garrison, 2005), la incorporación de las nuevas tecnologías en la educación supone un cambio cultural, esto es un enfoque y un modo de trabajar distintos a los tradicionales (García Carrasco, 2002) posibilita y facilita la auto instrucción, con lo cual las estrategias en la perspectiva de la tecnología y de las competencias a alcanzar según los estándares internacionales. Poco a poco se irá configurando una mente virtual sustancialmente distinta a la mente letrada que conocemos y con la que interpretamos y respondemos al mundo.

Educación Abierta y a Distancia

Considerando lo que nos señala la Universidad Michoacana de San Nicolás de Hidalgo en relación a la Educación abierta y a Distancia que señala lo siguiente: La creciente necesidad de ofrecer Educación superior a un número mayor de estudiantes hace apremiante encontrar la manera de cumplir con el compromiso de atender al mayor número posible de estudiantes con el menor presupuesto disponible, esto supone dejar de lado la educación como se viene dando en la mayoría de las Instituciones, el profesor físicamente ubicado frente a un conjunto de alumnos en un espacio destinado para la actividad educativa, ya que esta modalidad involucra la erogación de un enorme cantidad de presupuesto, entre otros factores, implica tener cada vez más espacios físicos disponibles para la matrícula que va incrementando (aulas, laboratorios, auditorios, espacios de recreación, centros de cómputo, etc.), amén de la contratación de profesores especializados en cada una de las asignaturas impartidas, personal administrativo y de apoyo general para la atención de la creciente cantidad de alumnos. Una solución al problema, que en la actualidad ya se ha salido de control, es la implementación de los Programas Educativos bajo la modalidad de Educación a Distancia, esta modalidad, completamente profesional, más flexible y menos escolarizada, ofrece muchas ventajas, entre las más relevantes se pueden subrayar:

Los planes, programas, cursos, tareas y trabajos de las asignaturas, se colocan en Internet por lo que una gran cantidad de estudiantes puede hacer uso de ellos desde su lugar de residencia sin tener que concentrarse en un solo sitio, el estudiante puede acceder a los documentos a cualquier hora, con sólo contar con una computadora con acceso a Internet. Existe la posibilidad de tener acceso a todos los cursos y materiales de todas las ramas de la Universidad y también de otras Universidades hermanas con la finalidad de conceder el acceso simultáneamente a diferentes estudiantes en diferentes ubicaciones. A medida que el programa de Educación a Distancia va creciendo, todos los cursos deben estar disponibles para todas las ramas de la Universidad y para otras Universidades que realicen un convenio de colaboración, con la finalidad de ofrecer los cursos de manera simultánea a la mayor cantidad de alumnos posible en sus lugares de residencia. Al alumno se le debe poder dejar elegir los programas de estudio que cumplan con sus necesidades y objetivos, por lo que, éstos programas deberán ser de calidad. Para completar el programa de estudio no es necesaria la interacción física, por lo que todos los servicios y funciones de una Universidad (administración, biblioteca, vida social, reuniones con profesores, etc.) son simulados en Internet.

Nos encontramos en una era en donde tiene más poder aquél que más información posee, el volumen de la información nueva se duplica cada 7 años, se incrementa de forma tan rápida, que un alumno de nuestro tiempo está expuesto a más datos nuevos en un año, que sus abuelos en toda su vida. Seguir pensando que el modelo educativo tradicional proporciona las habilidades y aptitudes necesarias para competir en esta era, es seguir propiciando el atraso social, tecnológico, educativo y cultural en el que se vive, es decir, se debe migrar de una Universidad de la era industrial a una Universidad de la era de la información,

intercambiando el concepto de Universidad como hasta ahora se conoce por una Universidad basada en componentes electrónicos, de una Universidad rodeada de paredes a una Universidad rodeada de cables, de libros de pasta dura a libros electrónicos (e-books), de una Universidad física a una *Universidad Virtual*. El papel del Profesor como hasta ahora se conoce, cambia completamente al introducirse a la modalidad de Educación a Distancia, al hacer uso de diferentes técnicas para impartir las clases como: cintas de audio, cintas de video, CDs multimedia, TV interactiva, TV/TV por cable/TV vía satélite, correspondencia postal, e-mail, Internet/WEB. Lo que supone que el profesor deberá convertirse en un escritor de contenidos, no en un "repetidor" de contenidos. Para el desarrollo de los contenidos existen diversos formatos (sistemas, multimedia, software, recursos en línea, etcétera), y para diferentes fines, ya sean didácticos, de gestión, organización y comunicación.

En la modalidad de Educación a Distancia, se tiene un recurso muy importante que es el de la videoconferencia, que es la transmisión de audio e imagen en tiempo real, entre los alumnos localizados en ubicaciones remotas y el profesor, este recurso se utiliza para discutir los temas de la materia que previamente se han dado a conocer a los alumnos por los diversos medios mencionados, en este aspecto es importante no caer en el error de que el profesor quiera impartir los contenidos como si estuviera dando una clase por televisión, por esta razón, uno de los principales objetivos de un Programa de Educación a Distancia es motivar el desarrollo y producción de materiales educativos multimedia (video, televisión, audio, CD, páginas Web, cursos en línea, software educativo y audiovisuales), por medio del ofrecimiento de cursos continuos en estas competencias a los profesores que deseen ingresar en este programa. Y que tiene su propia misión y visión que nos dice:

Misión: La Universidad Michoacana de San Nicolás de Hidalgo tiene como finalidad esencial servir a la sociedad, contribuyendo con su quehacer diario a la formación de hombres calificados en la ciencia, la técnica y la cultura, que eleven cualitativamente los valores y costumbres sociales. Las actividades que realice la Universidad están encaminadas a estimular y respetar la libre expresión de las ideas, útiles en la búsqueda de la verdad científica y para impulsar a la excelencia la enseñanza, la investigación, la creación artística y la difusión de la cultura; combatir la ignorancia y sus efectos, las servidumbres, los fanatismos y los prejuicios; crear, proteger y acrecer los bienes y valores del acervo cultural de Michoacán, de México y universales, haciéndolos accesibles a la colectividad; alentar en su vida interna y en su proyección hacia la sociedad, las prácticas democráticas, como forma de convivencia y de superación social; promover la mejoría de las condiciones sociales y económicas que conduzcan a la distribución equitativa de los bienes materiales y culturales de la nación, y propiciar que la innovación y la tradición se integren en armonía productiva para conseguir una sólida y auténtica independencia cultural y tecnológica.

Visión: La Educación a Distancia es un modelo tutorial de plataforma cultural, desarrollada para fortalecer la calidad de la Educación Superior y ampliar la oferta educativa más allá de nuestras fronteras políticas. Es un modelo educativo de respeto intrínseco a la personalidad legal y social de la educación superior autónoma y federativa. La Coordinación de Educación a Distancia pretende que el Estado de Michoacán cuente con personalidad propia en su sistema de formación tutorial en la educación terciaria, con perfil flexible y de cobertura electrónica local e internacional, además, así como sentar las bases para que en un corto plazo los michoacanos y sus familias en el extranjero –en particular en Norteamérica- puedan acceder a estudios de Licenciatura y Posgrado.

La Aplicación de las Tecnologías de Información y Comunicaciones (TIC´S) en la Educación Abierta y A Distancia

El impacto en el uso de las herramientas tecnológicas es incuestionable, éstas forman parte de una nueva cultura tecnológica, amplían nuestras capacidades laborales, físicas y mentales, nos ayudan en la solución de actividades cotidianas, nos ayudan a desarrollarnos en el ámbito social actual. Debido al auge que las TIC han tomado en la actualidad fue necesario indagar dentro de la FCCA de la Universidad Michoacana

de San Nicolás de Hidalgo el impulso que como institución pública la FCCA brinda a sus alumnos para que estos puedan incluirse en el ámbito laborar con herramientas innovadoras que les permitan hacer frente a los retos laborarles y globales. La aplicación de las Tecnologías de Información y Comunicaciones (TIC´s) como apoyo a la docencia ha sido temática de diversos foros y una recomendación reiterativa de organismos nacionales e internacionales (UNESCO, ANUIES, entre otros), no sólo por el hecho de ser un medio de innovación en la práctica docente y diversificación de las actividades de aprendizaje, sino por constituir un impulsor del desarrollo económico y humano de los países, pero sobretodo, un mecanismo, que bajo ciertas circunstancias en la disposición de infraestructura de comunicaciones y cómputo, puede reducir las desigualdades (Cota y Ramírez 2006). Sin embargo, elementos como la resistencia al cambio, la falta de competencias en el manejo de estas tecnologías, o incluso de las propias teorías y modelos educativos que impiden la producción de materiales adecuados, y otras que no tienen mucho que ver con el entorno académico, limitan su explotación en las aulas.

A menudo se aducen factores como la "distancia" y la "deshumanización" del acto docente por la aplicación de las tecnologías como motivo para no implementarlas, sin embargo también, ¿cuántas veces se escucha en diversos foros que en la modalidad presencial se presenta una deshumanización y una verdadera distancia? Existen, como se mencionó anteriormente, tecnologías que constituyen una oportunidad para apoyar las actividades de aprendizaje en aquellos modelos y enfoques basados en la construcción social del conocimiento y que impulsan la creatividad, como un medio para conseguir aprendizajes duraderos para toda la vida, que puedan aplicarse en diversos entornos y situaciones y que además trasciendan a través de la innovación y la transformación, es decir, de la autonomía intelectual del ser humano. Este es el caso de las aplicaciones de las nuevas TIC´s, debido a sus características de "convivencia social", es decir, que permiten el trabajo en grupo, la construcción de contenidos y redes sociales en un ambiente colaborativo y además, sin la necesidad de instalar plataformas de educación virtual para tal fin, ya que el trabajo es totalmente en línea, a través de la Internet.

El Aprendizaje a lo Largo de la Vida

La influencia de las tecnologías de la información y la comunicación está cambiando las economías y su organización. En este escenario, la utilización de tecnologías avanzadas de aprendizaje y sobre todos de las redes telemáticas se están convirtiendo en un instrumento para potenciar el aprendizaje a lo largo de la vida, mientras que surgen instituciones académicas nuevas, o se reciclan las ya existentes para conseguir estos fines. Las universidades o los campus virtuales basados en la utilización de las nuevas tecnologías de la información y la comunicación son en este sentido el punto de partida de esta política. En este sentido es necesario atender las necesidades de capacitación, innovación y empleo de las TIC en el proceso de enseñanza-aprendizaje en los profesores de la institución y fortalecer los aprendizajes que le servirán a los alumnos a lo largo de la vida.

En la educación abierta y a distancia se concibe al docente como mediador del aprendizaje, toda vez que está obligado y debe identificar los requerimientos de asesoría y retroalimentación de sus estudiantes, formulando estrategias didácticas que permitan desarrollar la constancia de la actividad intelectual. Se concibe la mediación, como la modalidad de interacción y orientación del proceso de enseñanza-aprendizaje, en donde los esquemas de pensamiento y acción, ayudando a mejorar las capacidades del alumno, planeando y organizando su propio aprendizaje, en función de una adaptación y al mismo tiempo, en función de un cambio permanente de evolución encaminado al sector profesional. En suma, el estudiante y el docente en estas modalidades son agentes responsables de su propio proceso formativo y de desarrollo de competencias.

El Diseño Instruccional en la Educación Abierta y a Distancia

La instrucción basada en el e-learning como método de enseñanza transmitida en la Red Informática Mundial (Web) es un término que sin duda en la actualidad ha encontrado soluciones óptimas en el aprendizaje significativo de los alumnos. Se habla de a-learning (electronic action learning) como el paso siguiente al e-learning (electronic learning). El a-learning (al contrario del e-learning que se centra en la construcción de conocimientos y conceptos) se concentra más en el desarrollo de habilidades concretas, a través del cumplimiento por parte del estudiante de actividades prácticas y colaborativas ligadas a la vida real, dándole un nuevo giro al combinar el a-learning con el blended learning definiéndolo como un aprendizaje híbrido combinando actividades del e-learning con actividades presenciales (García, 2003).

Cuando se habla sobre la Educación a Distancia, lo primero que viene a la mente son las herramientas, recursos tecnológicos y digitales que apoyarán el proceso educativo. Molina y Molina (2002) estipulan que considerar esto de primera instancia, es un error. Como cualquier transmisión de información a través de estrategias didácticas se deben planear los contenidos, actividades y formas de evaluación. Al existir un alto índice de fracaso en incursiones educativas a distancia, se debe reiterar la importancia de centralizar los objetivos en cuestiones educativas, y no permitir opacar la guía que proporciona el instructor, las oportunidades de aprendizaje que permiten las actividades colaborativas y evitar integrar excesivamente o apresuradamente herramientas o recursos que solo busquen causar una buena impresión del uso de la tecnología.Con el fin de determinar qué es el diseño instruccional, Cuesta (2010) lo define como un proceso para llevar a cabo la creación o adaptación de contenidos académicos. El diseño instruccional para modalidades a distancia considera la psicología, la tecnología computacional, la comunicación y la colaboración, la capacidad o posibilidad de acceder y utilizar los instrumentos designados.Para especificar los aspectos a considerar al crear un diseño instruccional adecuado para una modalidad a distancia, Cuesta (2010) presenta el método Análisis, Diseño, Desarrollo, Implementación y Evaluación (ADDIE):

Análisis: En esta fase se deberá definir la audiencia a quién está dirigido, necesidades y fortalezas. Las evaluaciones y actividades deben esquematizarse. Es importante recolectar datos para la elaboración de instrumentos tanto de evaluación como de observación.

Diseño: Deberá ser sistemático y específico, utilizar métodos lógicos y secuenciales que logren el objetivo instruccional, y se debe prestar cuidadosa atención a preguntas generadoras: ¿Qué tipo de materiales de aprendizaje estamos creando? ¿Cuál es la audiencia a la que se dirigen los materiales? ¿Qué recursos se encuentran disponibles para el diseño de materiales? ¿De qué manera se llevará a cabo el pilotaje para estos materiales? ¿De qué manera se evaluará la eficacia y efectividad de los materiales?

Desarrollo: Requiere una elaboración de un plan de acción con directrices y tiempos determinados. Se designarán responsables con sus respectivas tareas.

Implementación: Las circunstancias necesarias para llevar a cabo esta fase de una manera exitosa serán: Capacitación previa a maestros y a los mismos aprendices, en el caso de existir herramientas o conceptos que requieran preparación; realizar evaluaciones apropiadas y en tiempo a los estudiantes; contar con las condiciones y requerimientos necesarios como herramientas, espacios y tiempos disponibles, y el personal apropiado y con alto nivel de compromiso.

Evaluación: Será formativa y sumativa. La formativa, toma lugar en las etapas tempranas. Identifica debilidades y áreas de oportunidad en el proceso. La sumativa, después del desarrollo y la implementación, se medirán los resultados finales y el aprovechamiento.

CONCLUSIONES

Es importante el considerar las TICS como una herramienta que es de gran relevancia en la actualidad para la educación Abierta y a Distancia de la Facultad de Contaduría y ciencias Administrativas de la UMICH; para esto es indispensable conocer el esfuerzo que están haciendo autoridades de las Instituciones de Educación Superior (IES), como son:

Lograr el fortalecimiento de los sistemas de apoyo académico a través de las tecnologías de la información y comunicación (TIC's).
Lineamientos de acción:

Hacer uso de las tecnologías de información y comunicación en el proceso enseñanza–aprendizaje, como apoyo a la educación.

Fortalecer eficientemente los laboratorios de cómputo.

Lograr el fortalecimiento de las actividades administrativas a través de las tecnologías de la información y comunicación (TIC's). Lineamientos de acción:

Capacitación al personal administrativo con diferentes cursos para el mejoramiento del desempeño de su trabajo. Optimizar los trámites administrativos con la implantación de tecnologías de información y comunicación Adquisición de equipo y redes de computo, de manera que cada alumno sepa su situación escolar en el momento en que lo requiera (tiempo real).

Creación del reglamento de estímulos a la productividad del personal administrativo.

Modernización de la biblioteca y creación de la videoteca. Lineamientos de acción:

Establecer un sistema automatizado e integral, compatible con la dirección general de bibliotecas.
Actualizado permanente del acervo bibliográfico.
Adquisición de equipos y redes de cómputo para el manejo de información en línea.
Ampliar el horario de consulta (sábados).
Buscar convenios con editoriales y lograr descuentos para alumnos y profesores.

Vivimos una nueva organización social que preside actualmente la nueva vida comunitaria de todas las sociedades avanzadas y que se conoce como "sociedad del conocimiento". Adaptarse a las características (nuevos conocimientos, patrones culturales, avances tecnológicos, valores dominantes, etc.), que rigen en este nuevo orden social implica un proceso de constante actualización para lo cual se exige a cada uno de nosotros como profesionales y profesores una capacitación personal crítica que favorezca la interpretación de la información que se encuentra a nuestro alrededor y la generación del conocimiento propio que le permita aprender de forma continua.

REFERENCIAS BIBLIOGRÁFICAS

Arriaga, j. (Director) (2005): *Determinación de un modelo causal de los factores de calidad docente en entornos virtuales de aprendizaje*, Dirección General de Universidades, Secretaría de Estado de Universidades e Investigación Ministerio de Educación y Ciencia, Universidad Politécnica de Madrid.

Consideraciones para la vinculación disponible en www.didactica.umich.mx/.../Ma.%20Luisa%20Sáenz%20y%20Josefina%20Valenzuela.doc -(consultado 5 Marzo 2010).

Cuesta, l. (2010). The design and development of online course materials: Some features and recommendations. Profile issues in teachers' professional development, 12(1), 188-201. Disponible en http://www.redalyc.org/articulo.oa?id=169216302012. Recuperado el 04 de abril de 2014.

Educacion abierta y a distancia de la universidad michoacana de san nicolas de hidalgo disponible en http://www.univirtual.umich.mx/coedudis_web/coedudis_cont/eduadis.html (consultado 5 Marzo 2010).

Educacion abierta y a distancia de la universidad michoacana de san nicolas de hidalgo disponible en http://www.univirtual.umich.mx/coedudis_web/coedudis_cont/mision.html(consultado 5 Marzo 2010). EPPER, R. y BATES, A.W. (2004): *Enseñar al profesorado cómo utilizar la tecnología*. Buenas prácticas de instituciones líderes, Barcelona, Editorial UOC.

García carrasco, j., garcía peñalvo, f. (2002): *Marco de referencia pedagógico en el contexto informacional*, Bordón: Revista de Orientación Pedagógica, vol. 54, Nº 4, p. 527-544.

García, s. (2003). Educación basada en la web. Situación actual y perspectivas. Parte I. Disponible en http://nuevastecnologiaseneducacion.wikispaces.com/file/view/Educaci%C3%B3n+en+la+Web.pdf. Recuperado el 04 de abril de 2014.

Garrison, d. Y anderson, t. (2005): *El e-learning en el siglo XXI. Investigación y práctic*a, Barcelona, Ediciones Octaedro.

Las tics en el instituto politécnico nacional disponible en http://www.dcyc.ipn.mx/dcyc/quesonlastics.aspx (consultado 5 Marzo 2010).

Molina, m. Y molina, j. (2002). Diseño instruccional para la educación a distancia. Unión de universidades de América Latina y el Caribe, 24, 53-58. Disponible en http://redalyc.org/articuloBasic.oa?id=37302408. Recuperado el 04 de abril de 2014.

Moreno, f. Y santiago, r. (2003): *Formación on-line*. Guía para profesores universitarios, España, Universidad de la Rioja.

Proyecto de plan de desarrollo para la facultad de contaduría y ciencias administrativas de la universidad michoacana de san nicolás de hidalgo 2009 DISPONIBLE EN http://miguellopezmiranda.blogspot.com/2009/11/programas-estrategicos.html (consultado 5 Marzo 2010).

LA TELEVISIÓN INTELIGENTE EN EL AULA COMO APOYO AL PROCESO EDUCATIVO DEL ESTUDIANTE UNIVERSITARIO

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RESUMEN

A través de una investigación exploratoria, el presente trabajo identifica las ventajas que la televisión inteligente ofrece y que son susceptibles a utilizar en el proceso de enseñanza aprendizaje en un aula de nivel superior, desde el punto de vista de los propios estudiantes. Se identificaron las principales ventajas de las televisiones inteligentes sobre otras televisiones de alta definición, siendo la principal su conexión inalámbrica a través del protocolo WiFi Direct. Se seleccionaron a estudiantes de la licenciatura de informática, a quienes se les aplicaron una encuesta para conocer el tipo de conexión, tipo de dispositivo móvil, sistema operativo, software que más utilizan y para qué utilizan su dispositivo móvil. La información anterior sirvió para detectar si las ventajas de las televisiones inteligentes las pueden aprovechar los estudiantes en su proceso de enseñanza aprendizaje. La totalidad de los estudiantes cuenta con un dispositivo móvil, el cual técnicamente se puede conectar a la televisión inteligente a través de WiFi Direct. La televisión inteligente se convierte en un puente para el acceso a internet en el aula, abriendo la posibilidad de utilizarla bajo nuevos escenarios en actividades académicas de apoyo al proceso educativo del estudiante universitario.

PALABRAS CLAVE*: Wi-Fi Direct, Millenials, Innovación Tecnológicas en el Aula, Televisión Inteligente*

SMART TV IN THE CLASSROOM TO SUPPORT THE COLLEGE STUDENT EDUCATIONAL PROCESS

ABSTRACT

Through an exploratory research, this paper identifies the benefits Smart TV offers that are susceptible to be used in the teaching-learning process in a classroom of higher level, from the point of view of the students themselves. The main advantages of smart TVs on other HDTVs were identified, the main its wireless connection via WiFi Direct protocol. They were selected students of the degree in computer science, who were applied a survey to know the connection type, mobile type, operating system, software they use and what they use their mobile device. The above information was used to detect whether the benefits of smart TVs can benefit the students in their process of learning. All the students have a mobile device, which technically can connect to the Smart TV via WiFi Direct. Smart TV becomes a bridge for internet access in the classroom, opening the possibility of using low new scenarios in academic support activities college student educational process.

JEL: I230

KEYWORDS: Wi - Fi Direct, Millennials , Technological Innovation in the Classroom, Smart TV

INTRODUCCIÓN

El nacer es comenzar a aprender, desde nuestros primeros minutos de conciencia nuestro cerebro comienza a tratar de razonar, entender, descifrar un cúmulo de datos que están rigiendo nuestra existencia, obtener

estos conocimientos es esencial para nuestra supervivencia. El entorno y tiempo en el que se nace rige las formas, maneras y técnicas de hacerse de estos conocimientos; en la actualidad estas palabras tienen un significado muy fuerte y preciso respecto a cómo desde nuestra infancia y en el desarrollo de nuestra vida vamos adquiriendo destrezas y habilidades necesarias para poder analizar, resumir y jerarquizar lo que necesitamos como información para nuestra existencia.

La convivencia y las relaciones entre los seres humanos es una prioridad para el desarrollo de la sociedad, buscamos satisfacer la continua necesidad de comunicación e integración a grupos sociales que están regidos por distintos factores; nivel económico, religiones, rasgos psicológicos, preferencias sexuales, nivel de educación, gustos afines, etc. Estas generaciones que los forman tienen la necesidad de adquirir nuevos y constantes conocimientos, que les permitan coexistir con los rápidos cambios sociales. En la constante evolución de la sociedad se van creando nuevos escenarios y herramientas que nos apoyan para lograr una integración social de cada individuo, en la actualidad se nace con adelantos tecnológicos sorprendentes y que están a nuestro alcance como por ejemplo los dispositivos móviles con un enorme poder de procesamiento (teléfonos inteligentes, tabletas, laptop, televisiones inteligentes, por nombrar algunos), con sistemas operativos amigables para el usuario y que soportan una gran diversidad de prácticas y útiles que hacen nuestras vida diaria más placentera.

Para entender la actualidad de las generaciones, un aspecto importante a considerar es la definición de las brechas generacionales influenciadas por los acontecimientos sociales, y culturales que impactaron las conductas de los jóvenes nacidos en esos lapsos de tiempo (Martín, 2013). Dichas generaciones son:

GI Generation (1901 y 1926): Son la generación de la primera y segunda Guerra Mundial. Se destacaron por su conciencia colectiva, misma que engendró un profundo sentido nacionalista.

Silents (1972-1945): Son los hombres y mujeres que nacieron justo en la brecha de la reconstrucción. Una generación con idas de cambio y modernización.

Baby Boomers (1946- 1964): Una generación postguerra. Es el periodo de los Yuppies y del consumismo a gran escala. Comenzaron a perder el sentido de "comunidad" y lo cambiaron por un enfático ensimismamiento profesional. Son la primera generación televisiva.

Generation X (1965- 1980): La generación X está caracterizada por el individualismo, inmersos en un mundo cada día más globalizado, emprendieron el camino de la Era Digital.

Millenials (1981-2000): También denominados "Generación Y", los millenials son personas con grandes aspiraciones académicas. Conocieron desde pequeños el mundo globalizado, la computación y las comunicaciones digitales. Son hijos de padres optimistas.

Boomlets (nacieron después del 2001): Esta generación pertenece al mundo de la información inmediata. Cuentan con computadora, televisión y teléfonos inteligentes y son, en gran medida, el nuevo blanco de las empresas que concentran sus esfuerzos en las plataformas digitales. Para ellos no existen las fronteras o brechas culturales.

Este trabajo exploratorio nos posiciona en la clasificación de la "Generación Y", los del Milenio o Millenials, ya que el foco de los estudiantes a encuestar que componen el universo, cuyas edades fluctúan entre 18 a 34 años, con un promedio de 22 años, presentan las siguientes características:

Son idealistas, se consideran activos y críticos frente a las decisiones gubernamentales.

Son optimistas, pero conscientes de las problemáticas de sus países.

Son competitivos, buscan mantener su propio estilo de vida, siendo esta su prioridad.

Son precavidos y curiosos con las decisiones que puedan afectar su futuro.

Son pragmáticos, inquietos y arriesgados por eso siempre están buscando mejores oportunidades.

Producen contenidos de interés de acuerdo a sus gustos y áreas de afinidad, compartiéndoles en sus redes personales.

Utilizan la Internet como una herramienta de búsqueda de información e intercambio de experiencias, así como medio de consulta antes de realizar cualquier compra física. Buscan comparar precios, productos, es decir se toman su tiempo para hacer una buena adquisición ya sea a través de la web o dirigiéndose al centro comercial. Uso masivo de las redes sociales. Además de intercambiar información con sus amigos y contactos, también están permanentemente informados sobre las tendencias y noticias de su interés. Comparten contenidos, crean nuevas relaciones, conexiones y círculos. Las comunidades online hacen parte de su vida social.

Son críticos y participativos.
Familiarización innata con la comunicación, los medios y el universo digital.
Confianza plena en sus capacidades y habilidades.
Abiertos al cambio.
Quieren el control entre su vida laboral y personal.
Buscan desarrollar nuevas ideas y emprender proyectos.
Sacan el mejor provecho a todo lo que hacen.
Viven por lo que les apasiona.

Generación es encabezada por un grupo de personas que comparte una serie de características y objetivos comunes de acuerdo al contexto sociocultural y político. También existen dos patrones que identifican a las generaciones: intentan diferenciarse de las anteriores y buscan evolucionar. Así lo sostiene el experto, Ignacio Martín (2013), quien explica que los 'Millennials' son una generación influenciada por la globalidad, por las mismas series de televisión, las películas y las tecnologías, a diferencia de la Generación X, lo que los impulsa a emprender nuevos desafíos es la capacidad de adaptarse a los cambios, siempre teniendo claro que la vida está hecha de propósitos y de pasión.

Una vez definido nuestro entorno actual, las características propias de la generación a ser analizada y sus preferencias por las nuevas tecnologías nos permiten agregar un elemento más a nuestro tema de investigación la relación de las instituciones de educación superior en México. Ruiz y Velasco (2012), comenta que el panorama que hoy en día presentan las universidades en México se distingue por el cambio en sus estructuras, organizaciones y modelos de enseñanza-aprendizaje. Las instituciones de educación pública a menudo manifiestan estar en una etapa de transformación. Lo que invita a investigar lo que está sucediendo. La modernización educativa parece ser la intención común, lo cual se justifica en la práctica y discursos por el uso continuo de conceptos como crisis, reforma, cambio, innovación y desarrollo, entre otros; esta realidad nos lleva a considerar que las instituciones de educación superior, en su papel de generadoras y trasmisoras de conocimientos frente al futuro, tendrán que transformarse y adaptarse ante las nuevas circunstancias que han dado origen al concepto de sociedad del conocimiento, llamada también sociedad del aprendizaje o de la información.

No obstante, es importante señalar que todavía hay mucho que aportar a los fundamentos teóricos y metodológicos de la socialización tecnológica, a los usos educativos de las tecnologías de la información y comunicación, a la educación basada en competencia. Es por ello que las actuales tecnologías y los medios

de comunicación están creando nuevos escenarios, un mundo realmente distinto al que debemos ingresar con mejores conocimientos y estrategias. Por eso las nuevas tecnologías pueden ser eficaces sin ser concebidas y aplicadas con el propósito de aumentar en los alumnos el aprendizaje y la colaboración.   En la actualidad, la enseñanza en las aulas es un gran reto con la que se enfrentan las instituciones educativas. Por una parte tienen que formar individuos que sean competentes, y por otra que puedan insertarse en la sociedad que exige el constate aprendizaje a lo largo de su vida. Estos nuevos retos aunados a los avances tecnológicos y nuevos paradigmas en la educación, son tratados en este trabajo ya que las circunstancias actuales permiten la investigación exploratoria en un escenario real donde podemos interactuar con los encuestados.

Instituciones de Educación Superior en México, como la Universidad Autónoma del Estado de Baja California (UABC), están haciendo esfuerzos para "formar integralmente ciudadanos profesionales, competentes en los ámbitos local, nacional, transfronterizo e internacional, libres, críticos, creativos, solidarios, emprendedores, con una visión global, conscientes de su participación en el desarrollo sustentable global y capaces de transformar su entorno con responsabilidad y compromiso ético" (UABC, 2015a). El compromiso hacia esta misión institucional, está apoyado por una serie de políticas y estrategias previstas en el Plan de Desarrollo Institucional (PDI), dentro de las cuales se encuentran que "se procurará que la Universidad cuente con la infraestructura y el equipamiento necesarios para el desarrollo de sus programas académicos y de gestión" (UABC, 2015b) y "fortalecer la infraestructura tecnológica para la impartición de programas educativos en las modalidades presencial y mixta" (UABC, 2015b). Como resultado de estos esfuerzos institucionales y que es de competencia a este trabajo, es la convergencia de nuevas tecnologías que llegan directamente hasta el aula de clases, propiciando un escenario rico en opciones tecnológicas para que los académicos faciliten el proceso de enseñanza aprendizaje y a los estudiantes le sea más sencillo, intuitivo y moderno, con el propósito de ofrecer servicios con los mejores estándares de calidad y procurando niveles equiparables de aprendizaje de todos los alumnos (UABC, 2015c). Dentro de las tecnologías que ya son una realidad en la Universidad están: la plataforma de correo electrónico con la posibilidad de incorporar una gran diversidad de aplicaciones en línea; la plataforma institucional de administración de cursos en internet, Blackboard que se utiliza como herramienta de apoyo a cursos impartidos en modalidad presencial, semipresencial y a distancia ofertados en los programas educativos de licenciatura, posgrado y educación continua de la institución.

REVISIÓN LITERARIA

El desarrollo de la tecnología móvil ha sido de constante crecimiento, los tipos de dispositivos móviles se clasifican en teléfonos celulares (o simplemente celulares), mini tabletas, tabletas y computadoras portátiles (laptop o notebook en inglés). Dentro de cada tipo hay una gran gama de marcas, modelos, tamaños y poder de procesamiento. En el caso de las televisiones, también se ha desarrollado vertiginosamente, pasando desde la definición estándar (en inglés, Standard Definition Television, SDTV), a la televisión de alta definición o HDTV (en inglés, High Definition Television, HDTV) mejorando al menos el doble de la resolución, hasta la televisión de Ultra Alta Definición (en inglés, Ultra High Definition TeleVision Television, UHDTV) (Yunlong, 2012).

Figura 1: Diferencias de Resoluciones Entre SDTV, HDTV Y UHDTV en Sus Versions de 4K Y 8K

En la Figura se muestra las diferencias entre las definiciones de SD (576 o 480 pixeles), FDH (1080 pixeles), 4K UHD (2160 pixeles) y 8K UHD (4320 pixeles). Fuente: (Libron, 2014)

La convergencia del internet con la televisión digital, da origen a las televisiones inteligentes (en inglés, Smarth TV), es decir, la integración de que la televisión digital se conecte directamente a internet. Permite funcionar como un enlace para conectar a internet diferentes dispositivos entre ellos consolas de juegos, celulares y laptops (Kim et al, 2015). Se incorpora en este tipo de televisiones, el protocolo de comunicación WiFi Direct con una velocidad de hasta 250 Mbps, el cual abre la oportunidad de crear redes con dispositivos móviles. Para Conti et al (2013), con la incorporación del protocolo de conexión WiFi Direct en las televisiones inteligentes, se abre la oportunidad de crear redes domésticas alrededor de ellas, con velocidades superiores a las ofrecidas por Wifi.

Los escenarios que se pueden crear alrededor de las televisiones inteligentes, no solamente son domésticos, también pueden ser en el ámbito de la educación, incorporándolas en el aula universitaria. Aunque no abundan los experimentos reportados en la literatura científica, si existen reportes del uso de los celulares, como el estudio realizado en el 2013, sobre la cobertura y usos educativos del celular con estudiantes y docentes de dos campi de la Universidad Autónoma de Baja California. Como resultados: los estudiantes utilizan los celulares principalmente para pedir ayuda, para trabajos en equipo o para solicitar informes; en cuanto al acceso a la información, dan mayor importancia a la posibilidad de acceder a información desde su Smartphone, ya sea para descarga y consulta. Las aplicaciones o los programas mayormente utilizados desde el smartphone fueron los mensajes textuales breves (SMS), llamadas por voz (Organista et al, 2013)

En un trabajo previo de los autores del presente, realizaron una investigación exploratoria, en donde se experimentó con el prototipo de un aula equipada con una televisión inteligente de 65" en lugar del proyector tradicionalmente utilizado. La televisión está montada en una base metálica afianzada en la pared del aula, posicionada al frente y al centro para lograr el mejor ángulo de visión desde cualquier punto del salón de clases, tomando en cuenta la seguridad de los usuarios y la de las televisiones en la misma base a través de tuercas especiales. Se agregó el servicio eléctrico a pared atrás de las televisiones así como el servicio inalámbrico de Internet para las mismas. A partir de los resultados obtenidos en ese proyecto, se decidió invertir en treinta nuevas televisiones inteligentes de 65" para el mismo número de aulas, sustituyendo a los proyectores tradicionales. En octubre de este año se pusieron en uso, siendo muy bien aceptados por los estudiantes y profesores (Padilla et al, 2015).

METODOLOGÍA

El presente trabajo es de tipo exploratorio ya que tiene por objeto familiarizarnos con un tópico poco estudiado y novedoso, en este caso la utilización de televisiones inteligentes en las aulas para apoyar el proceso de enseñanza aprendizaje en el nivel universitario. Se utilizó un enfoque cualitativo dado que la recolección de los datos consiste en obtener las perspectivas y puntos de vista de los participantes como experiencias, significados y otros aspectos subjetivos (Sampieri, 2010). La técnica de recolección de datos utilizada fue la encuesta, aplicada a una muestra poblacional estudiantil de la comunidad académica de la Facultad de Ciencias Administrativas y Sociales de la UABC, específicamente a estudiantes de la Licenciatura en Informática.

Muestra

La población considerada fue la de los estudiantes de la Licenciatura en Informática de la Facultad de Ciencias, perteneciente a la UABC, esto es un total de 81 alumnos. La muestra fue calculada con aplicando la fórmula de muestras con poblaciones finitas:

$$n = \frac{N \, Z\alpha^2 pq}{d^2(N-1) + Z\alpha^2 pq} \tag{1}$$

Dónde:

N = 81, total de la población
Zα= 1.96 al cuadrado (si la seguridad es del 95%)
p = proporción esperada (en este caso 5% = 0.05)
q = 1 – p (en este caso: 1 - 0.05 = 0.95)
d = error máximo de estimación (en este caso: 3%).

Sustituyendo los datos en la fórmula:

$$n = \frac{81 * 1.96^2 * 0.05 * 0.95}{0.03^2(81-1) + 1.96^2 * 0.05 * 0.95} = 58.08 \tag{2}$$

Por lo que la muestra (n) a considerar en este trabajo, es de 58 estudiantes.

Encuesta

La encuesta aplicada fue de tipo exploratoria ya que el propósito de consultar a los alumnos a través de una encuesta, es conocer sus percepciones y autoevaluación de su adopción de dispositivos móviles orientado a sus procesos educativos y para conocer los aspectos técnicos para puedan interactuar ellos con una Televisión Inteligente en el aula como apoyo a la enseñanza. La encuesta está formada por: preguntas cerradas dicotómicas y de opción múltiple; preguntas abiertas; y preguntas de profundización. Tratan los temas de: tipos de dispositivos móviles, la utilización de esos dispositivos móviles en su proceso educativo y comentarios sobre la televisión inteligente.

RESULTADOS

Como perfil de la muestra poblacional encuestada, se tiene que son estudiantes de género masculino, entre 20 y 22 años de edad, cursando el tercero o cuarto semestre de la Licenciatura en Informática. Los

dispositivos móviles más utilizados son: el celular (98%) y la laptop (71%), que utilizan los sistemas operativos Android (78%) y Windows (68%) respectivamente. Los estudiantes utilizan principalmente: el navegador Chrome (92%) y el Firefox (49%); el correo electrónico institucional (93%), Gmail y Hotmail (ambos con 75%).

Tabla 1: Resultados de la Encuesta en Cuanto al Software y Hardware Móvil

Tipo de Dispositivo Móvil:	Celular (93%) Laptop (71%)	Sistema Operativo:	Android (78%) Windows (68%)
Correo electrónico:	Institucional (93%) Gmail (75%) Hotmail (75%)	Navegador:	Chrome (92%) Firefox (49%)
Contenidos académicos:	Manuales (51%) Apuntes (49%)	Redes sociales:	Facebook (98%) WhastApp (85%)
Cursos en línea:	BlackBoard (95%)	Multimedios:	Youtube (98%)
Mensajería instantánea:	Facebook (95%) WhatsApp (88%)	Almacenamiento en línea:	Google Drive (81%) DropBox (56%)
Presentaciones:	Power Point (100%) Prezi (53%)	Blogs:	Blogger (27%) WordPress (25%)
BD académicas:	Google académico (37%) Ebsco (34%)	Videoconferencia:	Skype (64%) Facebook (56%)

Software y hardware móvil que utilizan los estudiantes de la Licenciatura en Informática de la FCAyS.

En cuanto a la utilización de esos dispositivos móviles en su proceso educativo, los resultados obtenidos fueron los siguientes:

Figura 2: Uso Dado a los Dispositivos Móviles

Resultados al uso académico que le dan los estudiantes de la Licenciatura en Informática de la FCAyS, a sus dispositivo móviles. Sobresale la comunicación que existe entre ellos (83%) y el envío o recepción de tareas (59%)

La información que los alumnos consultan sobre los procesos escolares institucionales, es la que se muestra en la Figura 3.

Figura 3: Información Institucional Más Consultada

Resultados sobre la información que consultan los estudiantes de la Licenciatura en Informática de la FCAyS con sus dispositivos móviles, de los procesos escolares institucionales. Destaca la consulta a la información de los sorteos, titulación y bolsa de trabajo.

El total de los estudiantes encuestados prefiere contar con una televisión inteligente que un proyector en su aula, ya que perciben ventajas como por ejemplo que es mucho mejor la calidad de la imagen, más práctica y fácil de utilizar para los alumnos y maestros, no necesita cables, se puede interactuar, tiene varios puertos de conexión, es más moderno usar una televisión, entre otros comentarios.

CONCLUSIONES

Con los datos obtenidos de una muestra poblacional representativa del universo, según se estableció en la Fórmula 1. Con ello se logró la participación de casi el 75% de los estudiantes que cursan la Licenciatura en Informática, de la Facultad de Ciencias Administrativas y Sociales, perteneciente a la UABC. El promedio de los encuestados es de entre 22 y 23 años de edad, lo que los sitúa en la "Generación Y", de acuerdo a la clasificación de (Martín, 2013). Sin embargo, podemos situar a nuestra población encuestada en la generación de los "Boomlets", si consideramos las características de que cuentan con teléfonos inteligentes y computadora, ya que el 93% afirmó poseer un celular y el 71% una laptop. Organista et al (2013) reportó que un 97% de los estudiantes posee un celular, y un 53% un celular con atributos de inteligente. La diferencia entre el 53% reportado en el 2013 y el obtenido en este trabajo, del 97%, se supone porque el estudio anterior se hizo hace dos años.

Para la Universidad es importante saber que sus estudiantes estén utilizando el correo electrónico Institucional, ya que es una vía por donde se le hace llegar información importante y es necesario para que los estudiantes realicen varios de los procesos escolares, como la reinscripción. Esta investigación el 93% accede al correo electrónico institucional a través de un dispositivo móvil, superando el 25% reportado por Organista et al (2013). Es comprensible esta diferencia debido a la diferencia de alumnos que poseen un celular inteligente y que ahora varios de los procesos escolares se realizan utilizando el correo institucional. Los otros correos electrónicos más utilizados son Gmail y Hotmail, con un 75% cada uno. De las cinco categorías de la clasificación de usos del celular, propuesta por Trinder (2007), se consideraron en este trabajo las de acceso a la información y comunicación. Dentro de acceso a la información se agruparon los

temas de: consulta de contenidos académicos; multimedios para el aprendizaje; bases de datos académicas; y cursos en línea.

En cuanto al acceso de información, los alumnos del estudio de Organista et al (2013), utilizaba su celular para descargar y consultar información. Esto está de acuerdo con las cifras obtenidas: el 51% de los estudiantes utilizan sus dispositivos móviles para consultar Manuales y el 49% para consultar apuntes del curso. La descarga va implícita debido a que si el documento está en formato pdf, automáticamente está la opción de descarga, de otra forma al imprimir está la opción de formato pdf. El 98% utiliza Youtube para consultar temas académicos, esto debe ser un tema de reflexión para la elaboración de contenidos académicos en video. Para el acceso a contenidos científicos, los estudiantes consultan Google Académico (37%) y Ebsco (34%).

Sobre la categoría de comunicación, los estudiantes generalmente utilizan el Facebook y WhatsApp. Facebook como red social (98%), para video llamadas (56%) y para mensajería (95%). WhatsApp se utiliza el 85% como red social y 88% para mensajería. Como se muestra en la Figura 2, el principal uso que los alumnos le dan a sus dispositivos móviles, es la comunicación entre sus compañeros (83%), para enviar o recibir tareas del curso (59%) y para investigar sobre trabajos extra clase (51%). La información institucional que más consultan los alumnos a través de sus dispositivos móviles es sobre: los sorteos que realiza la Universidad (59%) y el proceso de titulación (59%). Todos los estudiantes encuestados expresaron su preferencia de contar con una televisión inteligente en el aula, que un proyector. Entre las ventajas que identifican están: la mejor calidad o resolución de la imagen (Libron, 2014); la conectividad a internet (Kim et al, 2015); la facilidad de uso tanto para alumnos como profesores; permite interactuar con los dispositivos móviles; permite crear una red local con dispositivos móviles (Conti et al, 2013); e inclusive lo ven como una tecnología moderna y acorde a la época.

Debido a la valiosa información obtenida sobre el tipo de dispositivo, sistema operativo, correo electrónico, y software que utilizan, como se muestra en la Tabla 1, se establece que técnicamente es factible utilizar la televisión inteligente como un puente de enlace entre los estudiantes y el proceso de enseñanza aprendizaje. Esto a través de enlazar los dispositivos móviles a las aplicaciones con WiFi Direct (Conti et al, 2013) y demás recursos que se encuentran en línea como: cursos, correo electrónico, apuntes de profesores, manuales, videos, tutoriales, bases de datos científicas, entre otros. A partir de los datos recabados se podrán dirigir esfuerzos institucionales para brindar otras alternativas de comunicación e interacción a los estudiantes universitarios (Barroso, 2013). Dadas las condiciones tecnológicas (televisión inteligente, WiFi Direct, dispositivos móviles y contenidos en línea) así como las características de los usuarios (entre la "Generación Y" y la "Boomlets", que cuentan con computadora y teléfonos inteligentes) (Martín, 2013), se pueden crear verdaderos escenarios pedagógicos modernos como apoyo a los estudiantes en su proceso de aprendizaje universitario personalizado.

Limitaciones

El estudio se realizó basado en la consulta a estudiantes de una licenciatura, de una Facultad de la UABC. Los siguientes pasos deben ser: extender el estudio a una muestra representativa de toda la población universitaria, al menos a nivel municipal; incorporar una mayor cantidad de software para apoyar los cursos en línea, compartir documentos y demás actividades que el día a día enfrentan tanto los estudiantes como profesores.

REFERENCIAS BIBLIOGRÁFICAS

Martín, I. (2013). *Entendiendo las nuevas generaciones (Generación Y)*. Centro de Liderazgo Estratégico. Disponible en: https://www.youtube.com/watch?v=otBCqOe5CII

UABC (2015a). Plan de Desarrollo Institucional. Universidad Autónoma de Baja California. Disponible en: http://www.uabc.mx/planeacion/pdi/2015-2019/PDI-Apartado-IV.pdf

UABC (2015b). Plan de Desarrollo Institucional, Apartado VI. Políticas generales para el cumplimiento de la misión y el logro de la visión 2025. Universidad Autónoma de Baja California. Disponible en: http://www.uabc.mx/planeacion/pdi/2015-2019/PDI-Apartado-VI.pdf

UABC (2015c). Plan de Desarrollo Institucional, Apartado IV. Misión, valores y ejes rectores del quehacer institucional. Universidad Autónoma de Baja California. Disponible en: http://www.uabc.mx/planeacion/pdi/2015-2019/PDI-Apartado-IV.pdf

Barroso, J. y Cabero J., (2013). Nuevos escenarios digitales. Madrid. Editorial Pirámide

Libron, (2014). File:8K UHD, 4K SHD, FHD and SD. Disponible en: https://commons.wikimedia.org/wiki/File:8K_UHD,_4K_SHD,_FHD_and_SD.svg

Kim, J., Jung, E., Lee, Y., y Ryu, W. (2015). Home Appliance Control Framework Based on Smart TV Set-top Box. IEEE Transactions on Consumer Electronics, 61(3), 279-285. Agosto 2015.

Conti, M., Delmastro, F., Minutiello, G., y Roberta Paris, R. (2013). Experimenting opportunistic networks with WiFi Direct. IEE-Wireless Days (WD), 2013. Disponible en: http://ieeexplore.ieee.org/xpl/articleDetails.jsp?arnumber=6686501

Organista, J., McAnally, L. y Lavigne, G. (2013). El teléfono inteligente (smartphone) como herramienta pedagógica. Revista Apertura, 5(1). Disponible en: http://www.udgvirtual.udg.mx/apertura/index.php/apertura3/article/view/372/311

Padilla, J., Valencia, J. y Padilla, J. A. (2015). La televisión interactiva como medio de apoyo en la enseñanza-aprendizaje en el área de Posgrado: caso de la facultad de una universidad pública. Congreso Pedagogía 2015, Encuentro por la Unidad de los Educadores, la Habana, Cuba.

Yunlong (2012). The history of television. Disponible en: https://imagcwp.wordpress.com/2012/03/27/the-history-of-television-yunlong/.

RECONOCIMIENTO

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APLICACIÓN DEL ANÁLISIS DE COMPONENTES PRINCIPALES AL COMPORTAMIENTO BURSÁTIL DE 26 EMPRESAS QUE CONFORMAN LA MUESTRA DEL ÍNDICE DE PRECIOS Y COTIZACIONES DE ENERO 2014 A OCTUBRE 2015

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RESUMEN

En este estudio se consideraron 26 de las 35 empresas emisoras que conforman la muestra del índice de precios y cotizaciones (IPC) de la Bolsa Mexicana de Valores (BMV), las cuales mantienen volúmenes altos de negociación diarios, por lo cual se espera que tengan comportamiento similar y estrecha correlación. El objetivo es analizar el comportamiento bursátil de la muestra, utilizando el Análisis de componentes principales (PCA por sus siglas en inglés), para obtener un nuevo espacio reducido y facilitar el análisis. Con este estudio se pretende auxiliar a los analistas del mercado mexicano en cuanto a la toma de decisiones de inversión. Los datos de entrada se obtuvieron de la plataforma financiera Infosel por la disponibilidad de datos, posteriormente se normalizaron y se aplicó el PCA en la plataforma Matlab, para obtener los componentes principales, finalmente se graficaron los dos primeros componentes y se formaron tres grupos con un comportamiento bursátil similar De los resultados obtenidos se destaca el comportamiento bursátil característico de tres empresas emisoras (Elektra, Walmart y Asurb), las cuales se mantienen alejadas del grupo contenedor de las otras 23 empresas, lo que sugiere que no necesariamente seguirán una tendencia con respecto a la mayoría.

PALABRAS CLAVE: Finanzas, Métodos Cuantitativos, Negocios y Administración

APPLICATION OF PRINCIPAL COMPONENT ANALYSIS TO MARKET BEHAVIOR OF 26 COMPANIES BELONG TO SAMPLE IPC FROM JANUARY 2014 TO OCTOBER 2015

ABSTRACT

This investigation analyzes the stock market performance of 26 companies listed on the Mexican Stock Exchange and belongs to sample IPC. The objective is to analyze the market behavior of the sample, using the principal components analysis PCA to get an orthogonal basis and facilitate analysis. This study tries to help the financial analyst to making investment decisions. Input data were obtained from the financial platform Infosel. After that the data was normalized and the PCA was applied in the Matlab platform. Then the first two components were plotted obtaining three groups with a similar market behavior. About the results highlights the characteristic market performance of three companies (Elektra, Walmart y Asurb) which are kept away from the larger container group. It is suggesting that the three companies will not necessarily follow a trend with respect to most.

JEL; G00, C6, C4, M1, M2

KEYWORDS; Finance, Quantitative methods, Business Administration

INTRODUCCIÓN

Referente a los mercados de valores, Quiroga y Villalobos en 2015, con base en Rueda, 2008, mencionan que son aquellas organizaciones creadas para transar valores o títulos y sus principales participantes son ofertantes y demandantes de capital. Madura en 2009 menciona que los mercados se dividen en mercado primario, donde se negocian valores nuevos y mercado secundario, donde se negocian valores ya existentes. La principal organización del mercado de valores en México es la Bolsa Mexicana de Valores (BMV), concesionaria de la secretaria de hacienda y crédito público, cuyo objetivo es facilitar la operación y ventas entre ofertantes y demandantes. Al igual que toda entidad financiera, la BMV cuenta con un indicador bursátil llamado índice de precios y cotizaciones (IPC), el cual refleja la evolución diaria de las acciones que se cotizan en la bolsa, es decir este indicador reporta si las acciones "fueron a la baja o a la alza". Analizar y pronosticar la evolución de un indicador bursátil es por demás difícil, por lo tanto intentar analizar el comportamiento de varios indicadores pertenecientes a diferentes emisoras interactuando sería muy complejo y desgastante.

Rueda en 2008 menciona que existen dos enfoques para analizar los mercados financieros; enfoque técnico y enfoque fundamental (Quiroga y Villalobos, 2015). Derivado de la complejidad mencionada se busca aplicar un método de análisis para analizar el comportamiento bursátil de las 26 empresas emisoras que conforman la muestra IPC de Bolsa Mexicana de Valores. La herramienta propuesta para realizar este estudio es el análisis de componentes principales. Este método pertenece al análisis multivariado, el cual permite analizar conjuntos de datos históricos y proyectar su comportamiento a través del tiempo (Tatham, Anderson, y Black, 2006). Con la aplicación de este método se facilita el análisis del comportamiento de las 26 emisoras interactuando en conjunto a través de un periodo de tiempo determinado. Quiroga y Villalobos, 2015 mencionan que la principal limitante al aplicar métodos de análisis multivariado al mercado de valores radica en que los resultados pueden ser malinterpretados si se desconoce el comportamiento de otras variables macroeconómicas, es decir se sugiere complementar esta técnica con el análisis fundamental.

REVISIÓN LITERARIA

Los Mercados Financieros

Los mercados financieros son aquellas organizaciones en donde se puede comprar o vender valores o títulos, por ejemplo: los bonos o acciones que emiten las empresas con la finalidad de obtener financiamiento (Madura, 2009). Los mercados financieros existen para satisfacer las necesidades específicas de quienes en él participan, por eso existen productos para invertir a corto o largo plazo y con diferente nivel de riesgo, dadas estas necesidades el mercado financiero principalmente se divide en mercado de capital, en el cual se facilitan los fondos a largo plazo y por el contrario en el mercado de dinero, donde se facilita el flujo de fondos a corto plazo. En el mercado financiero se destacan el mercado primario que es aquel donde se negocian valores nuevos y el mercados secundario en donde se negocian valores ya existentes (Rueda, 2008).

El Mercado de Valores

La base que sostiene la economía del mundo es el mercado de valores debido a que en él se hacen negociaciones que mantienen funcionando la economía de los países (Rueda, 2005). En el mercado de valores destacan por su importancia el mercado de capitales y el mercado de dinero. El mercado de capitales según Elton, Gruber, Brown y Goetzman, 2009 es donde se negocian acciones que son parte de un capital social, las cuales se emiten con la intención de obtener financiamiento.El mercado de dinero es aquel donde se concentran los ahorros de una economía y derivado de esto se transan negociaciones entre demandantes

de capital y ofertantes de capital (Smith, 1997).

Según Bouchaud y Potters, 2003 invertir en el mercado financiero trae implícito un riesgo que depende de las variaciones en la economía, estas variaciones pueden ser cíclicas o intempestivas.

La Bolsa Mexicana de Valores

La Bolsa Mexicana de Valores (BMV) es una institución donde se llevan a cabo las negociaciones del mercado de valores Mexicano. Esta organización forma parte del sistema bursátil y está constituida como sociedad anónima de capital variable, sus actividades se ajustan a la ley del mercado de valores y es concesionaria de la secretaría de hacienda y crédito público.
Sus principales funciones son:

Proporcionar la infraestructura necesaria para realizar emisiones, colocaciones e intercambio de valores, títulos y demás instrumentos financieros.

Publicar la información bursátil.

Supervisar que las actividades de las casa de bolsa y emisoras se apeguen a las disposiciones que marca la ley.

Fomentar la expansión y la competitividad del mercado de valores de México (Hernández, 2007).

Para medir el desempeño y la evolución de las emisoras que cotizan en la BMV existe el índice de precios y cotizaciones (IPC) este indicador es un promedio ponderado de las 35 acciones con mayor grado de bursatilidad en un periodo de seis meses (Rueda, 2008).

Análisis del Mercado de Valores

Quiroga y Villalobos, 2015 con base en Rueda, 2008 mencionan que para analizar el mercado de valores existen dos enfoques principales:

El enfoque fundamental que se basa en estudiar a la empresa desde la administración y la parte financiera atendiendo la interacción que esta mantiene con el entorno económico.

El enfoque técnico el cual está basado en analizar un indicador en particular y mediante técnicas estadísticas y matemáticas intentar predecir su comportamiento en el tiempo.

García, 2007 menciona que el enfoque técnico ayuda a decidir cuándo es la mejor manera de comprar o vender acciones obteniendo el mejor beneficio económico.

El Análisis Multivariado

Tatham, et al., 2006 Mencionan que dentro del análisis multivariado se encuentran las técnicas descriptivas (análisis de métodos categóricos, análisis de correlación canónica, análisis de clúster y el análisis de componentes principales), dichas técnicas son usadas en contextos no experimentales para resumir la información de un conjunto de datos. Las técnicas explicativas (regresión lineal múltiple, análisis discriminante lineal, análisis multivariado de varianza y covarianza, ecuaciones estructurales y regresión logística) también pertenecen al análisis multivariado y se usan en la investigación experimental para analizar simultáneamente diferentes variables.

Análisis de Componentes Principales

A finales del siglo XIX Karl Pearson propuso el análisis de componentes principales (PCA), como un método del análisis de factores el cual retraso su avance hasta la aparición de las computadoras debido a la complejidad de sus cálculos (Quiroga y Villalobos, 2015). Restrepo, Posada y Nogueira, 2012 mencionan que el objetivo del PCA es agrupar variables que mantienen estrecha relación entre sí, separándolas de las variables que no mantienen relación. Cuadras, 2014 menciona que el PCA no interpreta cada uno de los factores sino que interpreta el agrupamiento de todas las variables. Con la aplicación del PCA se obtiene un nuevo espacio reducido el cual es una combinación lineal de las variables originales en donde será más fácil analizar e interpretar los datos. Con la aplicación del PCA se construye un nuevo sistema coordenado basado en componentes principales, donde el primer componente principal será el que tenga mayor varianza, el segundo componente principal será aquel que mantenga la mayor varianza solo por debajo del primer componente y así sucesivamente (Pla. 1986).

El primer componente principal es el que arroja mayor información por encima de los componentes subsecuentes (Tatham, et al., 2006). Con base en la revisión bibliográfica la técnica de análisis de componentes principales ha demostrado éxito en la aplicación en diversas áreas tales como ciencias químicas y biológicas (Martinez-Espinoza, et al, 2008); Investigación de operaciones (Afanador & Espinoza, 2013); y economía tal es el caso de los trabajos de: (Días, Vermunt & Ramos, 2015), (Mellado & Escobari, 2014) y (Unceta, Gutierrez-Goiria y Goitisolo, 2014*)*. En específico el PCA se ha aplicado al estudio de la correlación de diferentes bolsas financieras en el mundo destacando el comportamiento característico de Argentina y Singapur, los cuales se observaron distantes de los grupos contenedores de los demás países (Quiroga & Villalobos, 2015).

METODOLOGÍA

Con base en la información estadística de la plataforma financiera Infosel se recopilaron los datos correspondientes al volumen de acciones negociadas de 26 empresas emisoras que cotizan en la bolsa mexicana de valores y forman parte de la muestra del índice de precios y cotizaciones, durante el periodo de enero de 2014 a octubre de 2015, las observaciones obtenidas se vaciaran en el software Excel para eliminar el ruido natural de los datos. El conjunto de observaciones formará una matriz de datos de 440 x 26, donde cada columna representa el volumen de acciones negociadas de una empresa emisora y cada renglón representa el volumen negociado en un día en particular. Habiendo formado la matriz de datos se procede a calcular la matriz de correlación la cual será de 26 filas por 26 columnas, después se calcularan los 26 valores propios y sus vectores propios respectivos, obteniendo así los componentes principales los cuales se grafican para su posterior análisis. El Análisis de Componentes Principales consiste en transformar una matriz con varias variables a un espacio reducido donde es más fácil analizar e interpretar la información, dicho espacio es llamado conjunto de componentes principales (Mantegna y Stanley, 2000). Para obtener los componentes principales es necesario calcular los siguientes conceptos:

Coeficiente de correlación, el cual es una medida del grado de asociación lineal entre las variables ¨x¨ e ¨y¨, su fórmula se representa de la siguiente manera

$$r = \frac{s_{xy}}{s_x s_y} \tag{1}$$

Donde, s_x y s_y son las desviaciones típicas de las variables "x" e "y" respectivamente y s_{xy} es la covarianza muestral de "x" e "y", misma que se define como la media de los productos de las desviaciones de "x" e

"y", y de sus medias muéstrales (Quiroga y Villalobos, 2015).

$$s_{xy} = \frac{1}{n-1} * \sum_{i=1}^{n}(x_i - \bar{x}) * (y_i - \bar{y})$$

Matriz de correlación, la cual se obtiene y da por resultado una matriz simétrica, en la cual la diagonal principal es igual a 1. La matriz de correlación se puede obtener hallando la matriz de varianza covarianza para datos que se encuentran normalizados (como es este caso).

$$s_{xy} = \frac{1}{n-1} * \sum_{i=1}^{n}(x_i - \bar{x}) * (y_i - \bar{y}) \tag{2}$$

$$s_{xx} = s_x^2 \frac{1}{n-1} * \sum_{i=1}^{n}(x_i - \bar{x})^2 \tag{3}$$

El siguiente paso es calcular los valores propios y vectores propios, correspondientes a la matriz de correlación mediante el uso de la ecuación:

$$MV = \lambda V \tag{4}$$

Donde, V=$(v_1, v_2, v_3 \ldots v_n)$, son los vectores propios,

y $(\lambda_1, \lambda_1 \ldots, \lambda_n)$ son los valores propios.

Los valores propios son las raíces de la ecuación:

$$\det(M - \lambda I) = 0, \tag{5}$$

Donde I es la identidad de M. Las coordenadas de los vectores propios hallados son los coeficientes de la transformación, que hay que realizar para pasar al nuevo espacio de componentes principales (Hernández**,** 1998).

RESULTADOS

Figura 1: Empresas Emisoras Que Forman Parte del IPC

Número	Emisora	Número	Emisora
1	WALMART DE MÉXICO	14	GMÉXICO
2	SANMEX B	15	GFREGIO
3	TELEVISA	16	GENTERAGFNORTE
4	INFRA	17	GFINBUR
5	PE&OLES	18	CARSO
6	MEXCHEM	19	GAP
7	LALA B	20	ELEKTRA
8	GENOMMA LAB	21	BOLSA A
9	KIMBERA	22	BIMBO
10	IENOVA	23	ASURB
11	ICHB	24	ALPEKA
12	ICA	25	ALSEA
13	GRUMA	26	ALFA

Fuente: Elaboración propia con base en datos de plataforma financiera infosel (2015) En la figura 1, se muestran 26 de las 35 empresas emisoras que conforman la muestra del índice de precios y cotizaciones en la Bolsa Mexicana de Valores que fueron consideradas para este estudio de investigación y se encuentran numeradas del 1 al 26. En esta figura el orden es arbitrario ya que aún no se ha definido algún criterio de

priorización con base en alguna característica en específico, es importante mencionar que estas empresas son las que mantienen mayor grado de bursatilidad en el mercado mexicano de valores y se consideraron estas 26 debido a su disponibilidad en el software financiero infosel.

Figura 2: Gráfica de los Datos Normalizados

Fuente: Elaboración propia con base en datos de plataforma financiera infosel (2015) En esta figura se muestran las observaciones normalizadas interactuando en conjunto, las cuales corresponden al volumen diario de acciones negociadas durante un periodo de 450 días, es decir cada punto corresponde al número de veces que se negoció una acción en un día en particular, correspondientes a cada una de las 26 empresas que cotizan en la Bolsa mexicana de Valores y forman parte de la muestra del índice de precios y cotizaciones. Es evidente que al graficar todas las observaciones solo se muestra un cúmulo de puntos el cual difícilmente puede dar la información precisa para hacer un análisis por lo cual se hará un tratamiento para reducir la dimensionalidad al conjunto.

Fuente: Elaboración propia con base en datos de plataforma financiera infosel (2015) En la figura anterior ya se han normalizado los datos y aplicado un algoritmo para reducir la dimensionalidad y es así como se observa la relación que existe entre cada una de las veintiséis componentes principales con respecto de sus valores propios, con este proceso se obtiene un espacio reducido llamado base ortogonal, partiendo de la teoría se dice que las primeras tres componentes son las que mayor varianza explican. Es así que se evidencia que el primer y segundo componente son los que mayor información contienen, por lo tanto en la figura 4 se graficará el primer componente principal con respecto del segundo con la finalidad de obtener la formación de grupos.

Figura 4: Identificación de Grupos de Empresas Emisoras Con Base en el Algoritmo PCA

Fuente: Elaboración propia con base en datos de plataforma financiera infosel (2015) En esta figura y con base en el método de Análisis de Componentes Principales (PCA) se muestra la formación de tres grupos contenedores; el primero es el grupo contenedor de la mayor parte de emisoras, las cuales comparten un comportamiento bursátil similar, se destaca el comportamiento característico de las empresas que conforman el grupo identificado con una elipse (donde el número 23 y 1 representan a la empresas emisoras que conforman ese grupo Walmart y Grupo Aeroportuario del Sur) así como el tercer grupo identificado con un circulo (el número 20 representa a la empresa emisora Elektra) que se mantiene alejada del grupo con mayor número de elementos así como del grupo número dos.

Figura 5: Tabla de Grupos Contenedores de las 26 Emisoras Con Base en su Comportamiento Bursátil

Número	Grupo 1	Número	Grupo 2	Número	Grupo 3
2	Sanmex b	1	WALMAR	20	ELEKTRA
3	Televisa	23	ASURB		
4	Infra				
5	Pe&oles				
6	Mexchem				
7	Lala b				
8	Genomma lab				
9	Kimbera				
10	Ienova				
11	Ichb				
12	Ica				
13	Gruma				
14	Gméxico				
15	Gfregio				
16	Genteragfnorte				
17	Gfinbur				
18	Carso				
19	Gap				
21	Bolsa a				
22	Bimbo				
24	Alpeka				
25	Alsea				
26	Alfa				

Fuente: Elaboración propia con base en datos de plataforma financiera infosel (2015) En esta figura se muestra la clasificación con base en el algoritmo de análisis de componentes principales donde las empresas emisoras conforman cada uno de los tres grupos. El primer grupo está conformado por las empresas emisoras Sanmex, Infra, Pe&oles, Mexchem, LalaB, Genomma Lab, Kimbera, Ienova, Ichb, Ica, Gruma, GMéxico, Gfregio, Gentera gfnorte, Gfinbur, Carso, Gap, Bolsa A, Bimbo, Alpeka, Alsea y Alfa; en el segundo grupo identificado se encuentran las empresas emisoras: Walmart de México y Asurb, las cuales muestran similitudes en su comportamiento bursátil y en el tercer grupo se encuentra la empresa emisora Elektra la cual se muestra independiente de los otros dos grupos contenedores.

CONCLUSIONES

En esta investigación se estudió el comportamiento bursátil de 26 empresas que cotizan en la Bolsa Mexicana de Valores y conforman la muestra del índice de precios y cotizaciones. Mediante la aplicación del análisis de componentes principales se encontraron grupos conformados por empresas que muestran correlación entre sí con base en el indicador de volumen de acciones negociadas a lo largo de 450 días. Derivado de la aplicación de PCA se obtuvieron tres grupos contenedores de empresas, en el primer grupo se encuentran 23 emisoras la cuales mantienen estrecha correlación entre sí. Se destaca la evidente lejanía de la empresa emisora Elektra perteneciente al grupo 3, su distanciamiento se debe a que mantiene muy poca correlación con respecto a las demás empresas, también hay que destacar que Walmart y Grupo aeroportuario del sur que mantienen estrecha correlación entre sí, pero muy poca con los elementos del grupo 1 y grupo 3. Los resultados de este estudio servirán de apoyo a los inversionistas para tomar mejores decisiones en cuestión de conformación de portafolios de inversión, es decir, si el analista decide tomar empresas del grupo uno, se tiene alta probabilidad de que si existen alteraciones en otras acciones del mismo grupo también repercutirán en la seleccionada y por el contrario emisoras del grupo 2 y grupo 3 no necesariamente tendrán el mismo impacto.

BIBLIOGRAFÍA

Afanador, C.A. & Espinoza, C.D. (2013), PCA: Una nueva Técnica de investigación de operaciones (Tesis de licenciatura no publicada). Universidad de Guadalajara, Lagos de Moreno, Jalisco, México.

Bouchaud, J.P., Potters, M. (2003). *Theory of financial risk and derivate pricing: from statiscal physics to risk management,* Cambridge, Inglaterra, Cambridge University Press.

Cuadras, M., (2014). *Nuevos Métodos de Análisis Multivariante*. Barcelona, España, CMC Editions. Dias, J. G., Vermunt, J. K. y Ramos, S. (2015). Clustering financial time series: new insights from an extended hidden Markov model. *European Journal of Operational Research. 104(3), 382- 399.*

Elton, E., Gruber, M., Brown, S. Y Goetzmann, W. (2009). *Modern portfolio theory and investment analysis,* United States of America, Hamilton printing Company.

García, A.(2007), *Sistema financiero Mexicano mercado de derivados, Boca del Río, México.* Hernandez, J., (2007), *Sistema financiero Mexicano y el mercado de derivados,* Veracruz, México, Universidad Cristobal Colón.

Hernández, O. (1998). *Temas de análisis estadístico multivariado,* Costa Rica, Comisión editorial de la universidad de Costa Rica.

Madura, J. (2009), *Mercados e instituciones financieras (8ª ed.),* Florida, Estados Unidos de Norteamérica, Cengage Learning. Mantegna, R.N., Stanley, H.E. (2000). *An introduction to econophysics Correlations and Complexity in Finance, Cambridge, Inglaterra, Cambridge University Press.*

Martinez-Espinoza, J.C., Gozalez-Solis, J.L., Frausto-Reyes, C., Miranda-Beltrán, M.L., Soria-Fregoso, C., Medina-Valtierra, J., y Sanchez-Gomez, R. (2008). Raman Spectroscopy: A new Proposal for the Detection of Leukimia Using Blood Samples. AIP Proceedings, 1032, (252).

Mellado, C., Escobari, D. (2014). Virtual Integration of Financial Markets. A Dynamic Correlation of the Latin American Integrated Market. *MPRA, 5(55).*

Pla, L., (1986). *Análisis multivariado: método de componentes principales*. Washington, DC, Secretaría General de la Organización de los Estados Americanos.

Quiroga, C. y Villalobos, A. (2015). Análisis del comportamiento bursátil de las principales Bolsas Financieras en el mundo usando el análisis multivariado (análisis de componentes principales PCA) para el período 2011 a 2014. Revista CEA, 1(2), 25-36.

Restrepo, m., L., Posada, S., Noguera, R., (2012). Aplication of the principal-component analysis in the evaluation of three grass varieties. Revista Colombiana de Ciencias Pecuarias, (25), pp. 258-266

Rueda, A., (2005), *Para entender la bolsa: financiamiento e inversión en el mercado de valores,* México DF, México, Thomson.

Rueda, A., (2008), *Para entender la bolsa: financiamiento e inversión en el mercado de valores (2ª ed.),* México DF, México, Thomson.
Smith, L.F., (1997), *Un principiante en Wall street: Manual para el inversionista no experimentado,* México DF, México, SICCO.

Tatham, R., Anderson, R., y Black, B. (2006). *Multivariate Data Analysis,* United States of America, Pearson Education.

Unceta, K., Gutierrez-Goiria, J., Goitisolo, L., (2014). Evidencias e interrogantes sobre desarrollo, Financiación externa y AOD: Un análisis de componentes principales. Revista de Economía Mundial, (36), pp. 153-178.

BIOGRAFÍA

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DIAGNÓSTICO ORGANIZACIONAL DEL AREA DE SERVICIOS DE UNA INSTITUCION DE EDUCACION SUPERIOR MEXICANA

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RESUMEN

Hoy en día, un diagnóstico, en cualquier organización, proporciona un amplio conocimiento sobre la naturaleza de los grupos y su gestión administrativa; con esta premisa se plantea la presente investigación cuyo objetivo fue evaluar la gestión administrativa del área de servicios de una institución de educación superior ubicada en el noroeste de México, para lograrlo se realiza un diagnóstico del proceso administrativo en sus dimensiones planeación, organización, dirección y control; a razón de esto, para la recolección de los datos se emplean las técnicas de observación directa y cuestionarios aplicadas a toda la población de empleados de esa área. Los resultados del análisis revelaron que, el área de servicios se identifica favorablemente con una buena gestión administrativa en todas las dimensiones.

PALABRAS CLAVE: Instituciones de Educación Superior, Gestión Administrativa, Diagnóstico Organizacional

DIAGNOSIS ON SERVICES AREA IN PUBLIC HIGHER EDUCATION OF MEXICO

ABSTRACT

Nowadays, organizational diagnosis offers a deeply knowledge on the nature of groups and their management. Based on this premise, the purpose of this research was to evaluate administrative management of service area in a higher institution to northwest of Mexico, to achieve the methodological strategy proposes the use of organizational diagnosis as a tool to improve management. Through the observation and application of the questionnaire to population, data analysis the results showed that from employees perceptions, the administrative management was identified as favorable in all dimensions.

KEYWORDS: Higher education, Services, Organizational Diagnosis

COMPORTAMIENTO DEL CONSUMIDOR DE CERVEZA ARTESANAL

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RESUMEN

Este estudio tiene por objetivo determinar los atributos más importantes al momento de consumir cerveza artesanal. Para esto se realiza una investigación descriptiva con una fase exploratoria buscando definir atributos importantes en la elección y en una posterior fase concluyente se determina el peso de cada variable mediante el análisis de cuestionarios aplicado a consumidores de cerveza. El método utilizado para establecer la importancia de los atributos es la Best Worst Scaling. Los resultados indican que existen dos segmentos, el primero de ellos llamado los Stout son personas más maduras y con una mejor percepción de productos artesanales, el segundo de ellos llamados los Lagers son en su mayoría estudiantes y muestran una menor frecuencia de consumo de cerveza. Al momento de consumir una cerveza artesanal los atributos más importantes para los Stout son la calidad del producto, seguido del tipo de cerveza, y la recomendación de algún cercano o referente. Los atributos mas importantes para los Lagers son la calidad y el tipo de envase, seguido de el hecho de que alguien la haya recomendado y el precio. En base a estos resultados se generan recomendaciones enfocadas en estrategias comunicacionales para emprendedores dedicados a la producción de cerveza artesanal.

PALABRAS CLAVE: Consumidor; Cerveza Artesanal; Preferencias; BWS

CRAFT BEER CONSUMER BEHAVIOR

ABSTRACT

This study aims to determine the most important attributes when buying craft beer. A descriptive research is done with an exploratory phase seeking to define important attributes and at a later conclusive stage is realized to determine the weight of each attribute by analyzing a survey applied to beer consumers. The method used to establish the importance of the attributes is the Best Worst Scaling. The results indicate that there are two segments, the first one called the Stout that are more mature and with a better perception of handicrafts goods, the second one called Lagers are mostly students and show a lower frequency of beer consumption. When consuming craft beer the most important attributes for Stout are product quality, followed by the kind of beer, and the recommendation of a close or referent. The most important attributes for lagers are quality and type of packaging, followed by the fact that someone has recommended and the price. Based on these results recommendations focused on communication strategies for entrepreneurs engaged in the production of craft beer are generated.

JEL: M31; L68

KEYWORD: Consumer; Craft Beer; Preferences; Bws

INTRODUCCIÓN

La cerveza ha acompañado al ser humano desde el comienzo de la civilización, en efecto fueron los sumerios y mesopotámicos en el 10.000 a.c. quienes la nombran por primera vez en sus escritos, y desde ese entonces tanto egipcios, griegos, romanos, celtas, belgas, galos como germanos han perfeccionado la fabricación y diversificado recetas en torno a la cerveza (Ibáñez, 2013). Actualmente la industria de la cerveza registra datos vertiginosos, en 2012 el consumo mundial de cerveza ascendió a 187,37 millones de kilolitros siendo el líder mundial en consumo per cápita la República Checa con 148,6 litros al año (Isozaki, 2012). Chile es un país bebedor de vino, en efecto, la participación de vino en el mercado de bebidas alcohólicas representa el 40,7%. La cerveza es la segunda bebida preferida con una cuota de mercado del 29,9%, casi la misma participación en el mercado de los Espíritus (29,4%) (OMS, 2014). Sin embargo, durante los últimos seis años el consumo de cerveza en Chile pasó de 28 a 45 litros por habitante al año, crecimiento explicado en cierta medida por la irrupción de las cervezas artesanales (Lama, 2015), en efecto, de acuerdo a Toro-Gonzalez (2015) hay una interesante evolución en el segmento de las cervezaz artesanales, donde las preferencias del consumidor están en constante evolución hacia nuevos productos. Surgen entonces algunas interrogantes ¿Cuántos días a la semana consumen cerveza? ¿Qué tan seguido la compran? ¿La consumen en su hogar o en un bar? ¿Son sensibles al precio? ¿Siguen tendencias y modas? y más importante aún: ¿Qué buscan los consumidores al momento de comprar cerveza artesanal? Buscando responder a estas interrogantes, el objetivo central de esta investigación es analizar y describir al consumidor de cerveza artesanal en Chile, permitiendo obtener perfiles según preferencias de consumo con el fin de generar recomendaciones a los emprendedores de este rubro.

REVISIÓN DE LITERATURA

Es cierto que la cerveza era y es una infusión de grano germinado, hecho para fermentar después de ser enfriado, y luego por algunos medios clarificados antes de su consumo (Unger, 2004), sin embargo hoy existe una variedad de recetas y combinaciones de ingredientes para distintos paladares, que se pueden reunir en una base de cereal malteado, preferentemente cebada, levaduras, lúpulo y agua (Ibáñez, 2013). El término "artesanal" se utiliza para referirse a la actividad de consumo en la que el producto es esencialmente hecho y diseñado por la misma persona y por el cual el consumidor se siente motivado e identificado (Campbell, 2005). De este modo, es esperable la aparición de segmentos asociados al grado de conocimiento del mercado, esto pues, cuando los consumidores se vuelven más informados, las empresas que ofrecen productos altamente diferenciados deberían experimentar tasas de crecimiento más altas que las empresas con productos menos diferenciadas (Clemons et al., 2006). Así entonces, si bien el el crecimiento en el sector de elaboración de cerveza artesanal seguirá siendo más alto en áreas con altos niveles de producción, habrá también un crecimiento significativo en las regiones que actualmente tienen pocos establecimientos de elaboración de cerveza artesanal (McLaughlin et al., 2014).

Orth et al. (1984) identifica factores funcionales, sociales, emocionales y el atributo precio como determinantes del consumo de cerveza artesanal. De acuerdo a Murray & O'Neill (2012) el éxtio de la cerveza artesanal ha sido impulsado por el movimiento cerveza casera y continúa ganando cuota de mercado a expensas de la amplia línea de producción de cerveza industrial, motivado principalmente por la probabilidad de recomendación. Casini et al. (2009) establecen que si las personas ya han bebido un vino o si un vino coincide mejor con los alimentos que se van a comer, ya sea en casa con sus amigos o en el restaurante, hay una mayor probabilidad de que se elegirá este vino. Chrysochou et al. (2014) destacan la impotartancia del bajo aporte calórico, el sabor, la experiencia previa y la conciencia de marca como determiantes del consumo de cerveza light. De acuerdo a Aquilani et al. (2015) la cerveza artesanal se elige de acuerdo a las diferentes preferencias de sabor en comparación con la cerveza comercial, se bebe principalmente por los bebedores de cerveza frecuentes tanto en los bares como en familia y se percibe como de mayor calidad que la cerveza industrial debido a las materias primas utilizadas para la elaboración de la cerveza y su calidad percibida.

En base a lo anterior, para esta investigación se proponen los siguientes atributos a evaluar para el consumo de cerveza artesanal: precio, maridaje, la experiencia previa, conocimiento de marca, calidad, sabor, y recomendación. Este listado de atributos son complementados con entrevistas a expertos en el área.

METODOLOGÍA

Dada la naturaleza descriptiva del estudio se realiza una investigación usando fuentes de datos primarias. En primer lugar se lleva a cabo una fase exploratoria de tipo cualitativa, que consiste en entrevistas a expertos del rubro, tanto productores y consumidores como distribuidores de cerveza artesanal. Esta fase sumada a la revisión bibliográfica permite generar una serie de motivaciones y atributos percibidos por los consumidores al momento de expresar sus preferencias por la compra de una cerveza artesanal y no artesanal. Los atributos medidos se presentan en la Tabla 1.

Tabla 1: Atributos de Importancia en la Compra de Cerveza Artesanal

Atributo
Calidad
Marca
Haberla probado antes
Precio
Sabor
Coincide con la ocasión
Tipo de Cerveza (Ale, Lager, Porter)
Refrescante
Tipo de envase (Lata, Botella)
Aroma
Color
Alguien la recomendó
Existencia de espuma
Información del Envoltorio
Consistencia de la espuma

En esta tabla se muestra los atributos importantes al momento de comprar Cerveza Artesanal. Este listado es producto de la fase exploratoria donde se rescataron atributos de estudios anteriores relacionados al tema, y de entrevistas a consumidores y expertos en la fabricación y distribución de cerveza artesanal. También se utiliza este mismo listado de atributos para la compra de Cerveza No Artesanal. Para evaluar la importancia de cada atributo se utiliza el método BWS.

Con esta información se confecciona un instrumento de medición a utilizar en una segunda fase concluyente de tipo cuantitativa, esto consiste en la aplicación de un cuestionario a través de sitios web y fanpages de variadas agrupaciones de consumidores y productores de cerveza artesanal. El instrumento de medición consiste en cinco secciones. La primera parte incluye preguntas de consumo de alcohol y cerveza, junto con frecuencias de compra y el canal de distribución usado. La segunda sección mide la importancia que los encuestados le otorgan a distintos atributos al momento de comprar cerveza no artesanal. El método Best-Worst Scaling (BWS) fue utilizado para este propósito. Durante la tarea de BWS, los encuestados fueron consultados sobre el atributo que más influye (Best) y el que menos influye (Worst) en el consumo de cerveza no artesanal. La tercera sección incluye preguntas sobre compras anteriores de cerveza artesanal y se introduce una segunda BWS para este tipo de cervezas. La cuarta sección mide la percepción de los encuestados sobre los productos artesanales, basado en 11 reactivos obtenidas de la fase exploratoria. La quinta y última sección, fue dirigida a fin de obtener el perfil sociodemográfico del encuestado incluyendo variables como edad, sexo, nivel de educación, peso, altura y estado civil. Una vez recopilados los datos, se procede a utilizar el software SPSS Statistics para realizar análisis de los datos obtenidos.

RESULTADOS

En primer lugar se analizan las características de los encuestados, al repecto se obtuvo un 75% de hombres, principalmente entre 23 y 25 años, y en su mayoría solteros (56%). Así mismo, un 43% manifiesta tener estudios universitarios incompletos frente a un 42% con estudios universitarios completos. Posteriormente se realiza un análisis cluster, el cual arroja la existencia de dos conglomerados dentro de los datos obtenidos. El primer segmento se denomina Stout, son individuos de entre 24 y 35 años, con sobrepeso según el índice de masa corporal y poseen estudios universitarios completos. Su consumo semanal de bebidas alcohólica viene dado por una mediana de tres veces a la semana, con dos días consumiendo cerveza. Así mismo valoran los productos artesanales puesto que permiten experimentar cosas nuevas, son beneficiosos para la salud y para compartir con amigos. El segundo conglomerado se denomina Lagers, presentan una composición mayoritaria de individuos de entre 23 y 29 años, con estudios universitarios incompletos, solteros/as y con peso normal según el índice de masa corporal. Presentan una mediana de consumo de alcohol de 2 veces a la semana, y de estos días, solo 1 consumen cerveza. Finalmente se realiza un análisis comparativo a través de los atributos que más influye y menos influyen en el consumo de cerveza artesanal y no artesanal para ambos clusters. Las figuras 1 y 2 resumen los resultados de los atributos más influyentes.

Figura 1: Factores Más Importantes en la Compra de Cerveza Artesanal

En esta figura se muestra la valoración de cada atributo de la Cerveza Artesanal según importancia para cada uno de los segmentos encontrados. Al respecto se destaca que el cluster 1 otorga una mayor importancia a los atributos Calidad, Tipo de Cerveza y Alguien la recomendó. Por su parte el Cluster 2 otorga mayor importancia a los atributos Calidad, Tipo de envase, Alguien la recomendó y Precio.

Para el consumo de cerveza artesanal, los consumidores llamados Stout (cluster 1) lo más importante es la calidad del producto, seguido del tipo de cerveza (Ale, Lager, Porter, Stout, entre otras), y la recomendación de algún cercano o referente. Al contrario, los atributos que menos influyen son el precio y el tipo de envase (lata, botella). Los Lagers (cluster 2) por otra parte, buscan la calidad y se interesan en el tipo de envase, el hecho de que alguien la haya recomendado y el precio. Mientras que los atributos que menos les influyen

en el momento de compra son la consistencia de espuma, la información del envoltorio, la existencia de espuma, y que coincida con la ocasión.

Figura 2: Factores Más Importantes en la Compra de Cerveza no Artesanal

En esta figura se muestra la valoración de cada atributo de la Cerveza No Artesanal según importancia para cada uno de los segmentos encontrados. Al respecto se destaca que el cluster 1 otorga una mayor importancia a los atributos Calidad, Coincide con la ocasión y Haberla probado antes. Por su parte el Cluster 2 otorga mayor importancia a los atributos Tipo de envase y Precio.

Para el momento de compra de cerveza no artesanal, los consumidores llamados Stout (cluster 1) buscan calidad, que coincida con la ocasión, y haberla probado anteriormente. Por otra parte, los atributos menos influyentes son la información del envoltorio, la recomendación de alguien, la consistencia de la espuma y el tipo de envase (lata, botella). Por otra parte, los Lagers (cluster 2) buscan una marca conocida, les importa el tipo de envase (lata, botella) y un precio adecuado. Por otra parte, los atributos que menos les influyen son la consistencia de espuma, la información del envoltorio y la existencia de espuma.

CONCLUSIONES

Se puede decir que los Stout son experimentados consumidores de cerveza artesanal y de productos artesanales a nivel genérico. Mientras que los Lagers más bien son consumidores sin mucha experiencia, pero que han ido adquiriendo una cierta tendencia y preferencia hacia las cervezas artesanales y productos artesanales. En efecto, las preferencias manifestadas por cada cluster deja en evidencia el sibaritismo propio del cluster 1 que busca cervezas de calidad, compara diferentes tipos de cerveza y se deja influenciar por la recomendación de terceros al momento de elegir una cerveza artesanal. Al contrario, el cluster 2 incluye en su análisis el tipo de envase y el precio. En base al análisis realizado se establecen algunas recomendaciones para productores artesanales. Las estrategias para el grupo Stout deben ir enfocadas a destacar atributos propios del tipo de cerveza ofrecida, destacando también la calidad y beneficios del producto artesanal. Así mismo, es recomendable seguir una táctica comunicacional que permita informar a los consumidores acerca de las cualidades del producto ofrecido y establecer recomendaciones en función de la ocasión en la cual pueden beber un determinado tipo de cerveza (maridaje), ya que admiten que este aspecto también es

importantes al tomar la decisión de compra. A raíz de esto, las fiestas y ferias de cerveza artesanal son una instancia de la cual los productores no debiesen ausentarse, así mismo, la cata de un sommelier en la etiqueta de la cerveza podría ser un atributo a considerar. Por otra parte, no deberían tener en cuenta la posibilidad de competir por precios, ya que este atributo parece ser poco importante para el segmento estudiado.

Por último, si bien no consideran importante el tipo de envase en el que sea presentada la cerveza, esto no se traduce en descuidar este aspecto debido a ciertos procesos como la segunda fermentación en botella y carbonatación de la cerveza artesanal. Por otra parte, las estrategias para el grupo Lagers deben ir enfocadas en destacar atributos como el tipo de envase, por la importancia que le otorgan a la presentación de la cerveza, ya sea en lata o botella, cabe destacar que este grupo no está dispuesto a pagar más por un producto artesanal, por lo que competir por precios es una opción válida si se desea buscar una mayor participación en este grupo, que considerando la importancia otorgada al hecho de haberla probado antes, parece ser más fiel y menos experimentador que el cluster 1. Por último, y al igual que los Stout, se debe tener en cuenta una estrategia comunicacional que permita dar a conocer y recomendar los productos ofrecidos. Finalmente, más allá de la frecuencia y preferencias analizadas en esta investigación, es importante estudiar la cuantía y disposición a pagar por parte de los consumidores de ambos segmentos con el fin de estimar su valor como clientes y determinar cual es el segmento objetivo adecuado según las características propias del emprendedor cervecero.

REFERENCIAS

Aquilani, B., Laureti, T., Poponi, S., & Secondi, L. (2015). Beer choice and consumption determinants when craft beers are tasted: An exploratory study of consumer preferences. *Food Quality and Preference*, *41*, 214-224.

Casini, L., Corsi, A., & Goodman, S. (2009). Consumer preferences of wine in Italy applying best–worst scaling. *International Journal of Wine Business Research , 21* (1), 64-78.

Chrysochou, P., Krystallis, A., Mocanu, A., & Lewis, R. L. (2012). Generation Y preferences for wine: An exploratory study of the US market applying the best–worst scaling. *British Food Journal , 114* (4), 516-528.

Clemons, E. K., Gao, G. G., & Hitt, L. M. (2006). When online reviews meet hyperdifferentiation: A study of the craft beer industry. *Journal of Management Information Systems*, *23*(2), 149-171.

Ibáñez, P. (2013). Guía de la Cerveza en Chile 2013. *Santiago de Chile, Escuela de los Sentidos. 232p*.

Isozaki, Y. (n.d.). Kirin Beer University ReportGlobal Beer Consumption by Country in 2012. Retrieved October 31, 2015, from http://www.kirinholdings.co.jp/english/news/2014/0108_01.html

Lama, C. (2015, February 11). Cervecerías artesanales proyectan crecimiento de hasta 30% en 2015. *El Mercurio*, p. B4. Retrieved October 31, 2015, from http://www.economiaynegocios.cl/noticias/noticias.asp?id=135536

McLaughlin, R. B., Reid, N., & Moore, M. S. (2014). The ubiquity of good taste: A spatial analysis of the craft brewing industry in the United States. In *The Geography of Beer* (pp. 131-154). Springer Netherlands.

Morris, C. (1979). Maize beer in the economics, politics, and religion of the Inca Empire.

Murray, D. W., & O'Neill, M. A. (2012). Craft beer: penetrating a niche market. *British Food Journal*, *114*(7), 899-909.

OMS. (2014). *Global status report on alcohol and health 2014*. Organización Mundial de la Salud.

Orth, U. R., McDaniel, M., Shellhammer, T., & Lopetcharat, K. (2004). Promoting brand benefits: the role of consumer psychographics and lifestyle. *Journal of Consumer Marketing*, *21*(2), 97-108.

Toro-Gonzalez, D. (2015). The Beer Industry in Latin America (Working Paper No 177). Retreived from American Association of Wine Economists website: http://www.wine-economics.org/dt_catalog/aawe-working-paper-no-177-business/

Unger, R. W. (2004). *Beer in the Middle Ages and the Renaissance*. University of Pennsylvania Press.

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RELACIÓN DEL EMPOWERMENT CON EL COMPROMISO ORGANIZACIONAL INFLUENCIADO POR EL CAPITAL HUMANO Y PRÁCTICAS DE ALTO INVOLUCRAMIENTO DE EMPLEADOS EN MAQUILADORAS AUTOMOTRICES

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RESUMEN

El presente documento es un protocolo o propuesta de trabajo de investigación sobre la gestión de capital humano en las empresas maquiladoras del sector automotriz en Ciudad Juárez Chihuahua. Se basa en la teoría del desarrollo organizacional, la teoría de recursos y capacidades y la de teoría del cambio. Se establece que el compromiso organizacional es una variable importante para el desempeño operativo y financiero de la empresa impactando en los fenómenos de rotación y ausentismo, originados éstos, en los estados psicológicos del deseo, la necesidad y el deber que experimentan los individuos para permanecer y aportar en la organización, factores que finalmente influyen directamente en la productividad y capacidad de innovación de la organización. Su relación con el empowerment ha sido estudiada y comprobada en diferentes campos y contextos, por lo que en este trabajo se busca confirmar y determinar esa relación, así como identificar como es ésta bajo el ambiente de la manufactura del sector maquilador, agregando al modelo, la influencia que tienen el nivel de capital humano existente y las prácticas de involucramiento del personal de los niveles operativos que desarrollan e implementan las empresas del sector.

PALABRAS CLAVE: Empowerment, Compromiso Organizacional, Prácticas de Alto Involucramiento, Capital Humano, Maquiladoras

THE RELATION OF EMPOWERMENT WITH ORGANIZATIONAL COMMITMENT INFLUENCED BY HUMAN CAPITAL AND HIGH INVOLVEMENT PRACTICES OF EMPLOYEES IN AUTOMOTIVE ASSEMBLY PLANTS

ABSTRACT

This paper is a research protocol related to the management of human capital in the automotive sector maquiladora in Juarez Chihuahua. It is based on the theory of organizational development, resource-based theory and the theory of change. It states that organizational commitment is an important variable for the operating and financial performance of the company impacting the phenomena of turnover and absenteeism, which arising from the psychological states of desire, the need and the moral sense to stay in the company experienced by individuals and contribute to the organization, factors that ultimately directly influence productivity and innovative capacity of the organization. His relationship with the empowerment has been studied and tested in different fields and contexts, so in this paper seeks to confirm and determine this relationship and identify as it is under the manufacturing environment of the maquiladora sector, adding to the model, the influence of the level of existing human capital as well as employee involvement practices developed and implement by those companies.

JEL: J24, J33**,** J53, J54, L6, L62

KEYWORDS: Empowerment, Organizational Commitment, High Involvement Practices, Human Capital, Maquiladora

INTRODUCCIÓN

Actualmente la gestión del capital humano ha tomado relevancia dentro de los ámbitos empresariales y académicos como una pieza importante en el diseño e implementación de la estrategia competitiva. Aunque es reconocida y aceptada la importancia que tiene contar con el conocimiento, talentos, habilidades y experiencias que posee y le son inherentes a cada empleado en la organización, existe aún una brecha considerable en términos generales entre la teoría y la aplicación práctica de la gestión de este recurso en las organizaciones. Las empresas que forman parte de corporativos transnacionales y operan como maquiladoras en México, por la naturaleza global de su mercado están sujetas a una continua presión por reducir sus costos, mejorar la calidad de sus productos y el servicio al cliente para mantenerse competitivas. El empleo de mano de obra poco calificada por su bajo costo en términos generales, ha sido una de las estrategias implementadas por muchos años, por ello se han desarrollado procesos en su mayoría manuales y semiautomáticos de baja tecnología, que dependen en gran medida de la habilidad manual y talentos especiales de los trabajadores para ser desarrollados de manera competitiva.

 Esta aparente ventaja competitiva en base a bajos costos de labor, puede representar problemas operativos de calidad y productividad sin una estrategia que promueva el aprendizaje, crecimiento, desarrollo, compromiso y participación de los trabajadores de los niveles operativos mediante su involucramiento en la solución de problemas, diseño y mejora de sus métodos de trabajo. En concordancia con ello las organizaciones implementan en mayor o menor grado estrategias enfocadas en este propósito, algunas de ellas mediante prácticas de gestión de recursos humanos sustentadas en la teoría del empowerment, compromiso organizacional y prácticas de gestión enfocadas a involucrar a estos niveles de la organización La relación entre empowerment y el compromiso organizacional ha sido estudiada poco en México (Ríos, Téllez y Ferrer, 2010), aunque si ampliamente en diferentes países, contextos y enfoques encontrando relación entre sus componentes, por lo que el objetivo principal de este trabajo es identificar la relación del empowerment y el compromiso organizacional afectados por el nivel de capital humano y la influencia de las prácticas de involucramiento de empleados en los niveles de supervisión, técnico y operativos dentro del contexto de las empresas maquiladoras del sector automotriz en Ciudad Juárez.

Planteamiento del Problema

El Capital humano entendido como las capacidades, producto de la acumulación de conocimientos, habilidades, talentos, experiencias, actitudes y motivaciones que poseen las personas dentro de una organización (Becker, 1962), mismas que potencialmente pueden ser empleadas en la solución de problemas, generación de ideas, desarrollo de tecnología, productos, servicios y sistemas de trabajo, es el factor determinante para lograr y mantener una ventaja competitiva sostenible (Barney,1991, Peteraf, 1993, Castillo, 2012) en el entorno actual de globalización. Su consideración como un elemento fundamental en el diseño y desarrollo de las estrategias de competitividad es importante para la dirección de la empresa por lo que ahora se pueden encontrar una gran cantidad de investigaciones y estudios enfocados a la implementación de modelos y estrategias para gestionarlo, entre los cuales están aquellos que buscan captar, desarrollar y mantener el talento dentro de la organización. La dirección de las empresas que conforman el sector maquilador de Ciudad Juárez no ha quedado al margen de esta corriente, sin embargo y a pesar de algunas iniciativas que modifican estructuras organizacionales en este sentido, programas de recursos humanos alineados a fomentar el aumento de capital humano con programas de educación abierta en las plantas, becas universitarias, entrenamiento y capacitación, de generar oportunidades de crecimiento y desarrollo profesional, así como acciones enfocadas a la retención de talentos, la pérdida del mismo

continúa afectando a éstas organizaciones, impactando de manera negativa en sus costos operativos y nivel de competitividad en el sector (Moreno, 2009).

A pesar de los slogans que se mencionan frecuentemente que el recurso humano es lo más valioso con que se cuenta en la empresa, es común encontrarse trabajadores realizando su tarea mal equipados, en condiciones ergonómicas deficientes para el correcto desarrollo de su trabajo (Liker, 2008) . Su participación con ideas en la solución de problemas y mejora de sus condiciones de trabajo se presenta de manera inconsistente, como parte de eventos esporádicos de mejora continua que emprende la administración, no como algo establecido de manera formal y sistemática en términos generales.

Es frecuente observar dentro de las plantas maquiladoras que las instrucciones o métodos de trabajo no son seguidas tal cual están definidas. El operador con iniciativa cambia secuencias de métodos y adapta herramientas en función de la necesidad de hacer su tarea más fácil y confortable. En otros casos hacen requerimientos y sugerencias para modificar distribución y arreglo de los procesos con el mismo fin. El razonamiento es simple, el operador de línea vive y toca el proceso más tiempo que nadie, por lo tanto conoce detalles que nadie más en la planta.Considerando lo expuesto anteriormente y partiendo de la definición de capital humano, específicamente los elementos como: conocimiento, experiencia, habilidad para ejecutar el trabajo que agrega valor al producto manufacturado, siendo éstos los que posee y aporta principalmente el operador de línea, entonces se puede decir que el capital humano con que cuenta la empresa no está siendo empleado de manera óptima para el logro de los objetivos.

Por otra parte, de acuerdo con los estudios empíricos sobre empowerment se ha encontrado que los individuos que experimentan mayor nivel del mismo son más productivos y están mayormente comprometidos de manera afectiva con la organización (Ríos, Téllez y Ferrer, 2010), impactando positivamente en los resultados de la empresa (Spreitzer, 1995). Así mismo el compromiso organizacional que se experimenta por el individuo como se ha mencionado anteriormente está también relacionado con resultados operativos y financieros positivos al mantener las motivaciones de los individuos alineadas con las metas de la organización. Luego entonces surgen interrogantes que requieren respuestas sobre la relación entre del empowerment con el compromiso organizacional, afectados por el nivel de capital humano que inciden en las variables y factores que sirven de motor e incentivan a los individuos en sus actitudes hacia la participación y activismo en su trabajo, todas ellas influenciadas por las prácticas de alto involucramiento de empleados desplegadas por la empresa, mismas que se fundamentan en el principio de que la gente es el elemento que mueve al sistema. Estas interrogantes son las que guían este trabajo de investigación y se plantean de la siguiente manera:

P1: ¿Cómo afecta al compromiso de supervisores, técnicos y operadores hacia la empresa maquiladora el nivel de involucramiento en toma de decisiones para la solución de problemas operativos?

P2: ¿Cuál es la relación del compromiso de los supervisores, técnicos y operadores hacia la empresa maquiladora con el nivel de involucramiento y toma de decisiones en el diseño o rediseño de su trabajo?

P3: ¿Cómo es la relación del empowerment con el compromiso hacia la empresa maquiladora de los supervisores, técnicos y operadores?

P4: ¿Cuál es la relación entre el nivel de capital humano de supervisores, técnicos y operadores y el compromiso hacia la empresa maquiladora?

P5: ¿Existe relación significativa del empowerment con el nivel de capital humano de los supervisores, técnicos y operadores en la maquiladora?

P6: ¿Cuál es la relación y cómo influyen las prácticas de alto involucramiento de empleados con el empowerment de supervisores, técnicos y operadores?

P7: ¿Cuál es la relación y cómo influyen las prácticas de alto involucramiento con el nivel de compromiso de supervisores, técnicos y operadores?

<u>Objetivo General</u>

El objetivo general es determinar la relación del empowerment psicológico con el compromiso organizacional de los niveles de supervisión, técnico y operativos, moderado por la variable del nivel de capital humano y bajo la influencia de las prácticas de alto involucramiento de empleados que desarrollan las empresas maquiladoras del sector automotriz de Ciudad Juárez.

<u>Objetivos Específicos</u>

Determinar la relación del empowerment psicológico y compromiso organizacional de los trabajadores de los niveles de supervisión, técnico y operativo.

Determinar la relación del empowerment psicológico y el capital humano de los trabajadores de los niveles de supervisión, técnico y operativo.

Determinar la relación del compromiso organizacional y el nivel de capital humano de los niveles de supervisión, técnico y operativo.

Definir la relación e influencia de las prácticas de involucramiento de empleados con el empowerment psicológico en los niveles de supervisión, técnico y operativo.

Definir la relación e influencia de las prácticas de involucramiento de empleados con el compromiso organizacional en los niveles de supervisión, técnico y operativo.

<u>Hipótesis</u>

La hipótesis general en función de los estudios empíricos realizados en otros contextos es que existe una relación positiva entre el nivel de empowerment psicológico y el compromiso organizacional y que estos a su vez están afectados de manera directa por el nivel de capital humano, esto es, que a mayor nivel de capital humano el individuo asumirá el empowerment de manera positiva, mientras que el compromiso disminuye como resultado de la percepción del individuo, que puede encontrar otro empleo con mejor retribución, económica y emocional, todos ellos al mismo tiempo son también afectados de manera positiva por buenas prácticas de involucramiento de empleados que consideren a la gente como el recurso más valioso y permitan la participación activa en la solución de problemas , diseño y mejora de sus métodos de trabajo. Por lo tanto las hipótesis planteadas quedarían como sigue:

$H1_1$: La gestión de capital humano con prácticas de alto involucramiento de empleados afecta el nivel de empowerment psicológico y es moderado por el nivel de capital humano.

$H1_0$: La gestión de capital humano con prácticas de alto involucramiento de empleados no afecta el nivel de empowerment psicológico y es independiente del nivel de capital humano

$H2_1$: La valoración de los recursos humanos como fuente de ventaja competitiva por parte de la gerencia guiará a la implementación de prácticas de gestión de capital humano con prácticas de alto involucramiento de empleados.

H2₀: La valoración de los recursos humanos como fuente de ventaja competitiva por parte de la gerencia no es relevante para guiar a la implementación de prácticas de gestión de capital humano con prácticas de alto involucramiento de empleados.

H3₁: El nivel de empowerment psicológico tiene relación directa y positiva con las prácticas de alto involucramiento de empleados desarrolladas por la empresa.

H3₀: El nivel de empowerment psicológico no tiene relación directa positiva con las prácticas de alto involucramiento de empleados desarrolladas por la empresa.

H4₁: El compromiso organizacional del trabajador hacia la empresa en los niveles técnico y operativo tiene relación con el empowerment psicológico percibido y con el nivel de capital humano.

H4₀: El compromiso del trabajador hacia la empresa en los niveles técnico y operativo no tiene relación con el empowerment psicológico percibido y con los niveles de capital humano.

Justificación de la Investigación

La gestión del Capital Humano presente en los niveles de supervisión, técnicos y operativos de la organización en el contexto de las empresas maquiladoras de Ciudad Juárez, basado en estudios previos sobre el tema, presenta áreas de enfoque que son susceptibles de estudiarse, específicamente donde se incluya y analice la relación de sus elementos (conocimientos específicos, experiencia y habilidades) desarrolladas por los trabajadores de estos niveles con el empowerment psicológico y compromiso organizacional. Los resultados de la investigación ayudarán a ampliar el conocimiento sobre la relación entre los constructos de empowerment y el compromiso organizacional, dentro del contexto de empresas multinacionales dedicadas a la manufactura de partes automotrices, afectados por el nivel de capital humano y la influencia de sistemas de gestión basados en el alto involucramiento de empleados. Potencialmente proporcionará puntos de referencia para la elaboración de estudios posteriores, así como pautas para el diseño y desarrollo de estrategias para la gestión del capital humano en los niveles de supervisión, técnica y operativa de la organización.

Alcances y Limitaciones

El alcance de la investigación para el análisis de la problemática planteada en la definición del problema, con el objetivo de delimitación se pretende desarrollar solo en las empresas maquiladoras del sector automotriz de Ciudad Juárez. Este criterio está fundamentado en que éste sector representa casi el 30% del total de la industria maquiladora operando en la ciudad de acuerdo con datos de la AMAC, así mismo, presenta características que son muy particulares al estar la mayoría de ellas ligadas a una cadena de producción con exigencias de alta calidad y tiempos de respuesta rápida ante los cambios, esto las hace generar ambientes laborales distintos a las de otros giros. Se enfocará en la determinación y análisis de las relaciones entre las variables de empowerment y compromiso organizacional afectado por el nivel de capital humano, bajo la gestión basada en prácticas de alto involucramiento de empleados, mismas que están relacionadas con la motivación del comportamiento humano en los niveles técnicos y operativos de la empresa maquiladora. Las limitantes identificadas para ello están representadas por el acceso a la información o la falta de ella en las empresas seleccionadas para la muestra. El sesgo potencial en la selección de la muestra al no abarcar todos los sectores de la producción de la industria activa en la localidad.

REVISIÓN LITERARIA

Capital Humano

De la revisión bibliográfica sobre la teoría de Capital Humano se desprende una evolución del concepto y definición de la misma a través del tiempo, naciendo desde la teoría económica. Becker (1962, 1964) lo define como la capacidad que adquieren los individuos por acumulación de conocimientos y habilidades, como producto de la inversión en educación y la experiencia en el trabajo. Aunque los elementos principales de la definición siguen presentes durante el lapso analizado, algunos términos y enfoques de su estudio se han agregado como resultado de su abordaje desde la teoría de recursos y capacidades, (Barney, 1991; Peteraf, 1993; Castillo, 2012) agregan elementos que son la forma en que estos son adquiridos, además de la educación, las experiencias sus relaciones y la inteligencia propias del individuo. Cardona (2007) le agrega a los elementos de educación, acumulación de conocimientos, habilidades y experiencias, el objetivo o razón de ser de los mismos que es hacerlo productivo para la organización. En Alama (2008) mencionado por García, García y Rodríguez (2012) se agrega a la definición un elemento más que es el resultado como consecuencia de su posesión, la agregación de valor para el individuo y la empresa. Finalmente (Castillo, 2012) menciona la importancia y necesidad que tienen las organizaciones de gestionarlo adecuadamente al agregar a la definición como es esencial para el éxito y supervivencia de la empresa.

De esta forma la teoría del capital humano establece que el individuo acumula conocimientos y adquiere habilidades por medio de la educación formal, la práctica de tareas generales y específicas de sus actividades en el trabajo que lo llevan a adquirir y mejorar sus capacidades como persona y trabajador (Becker, 1962; Barney, 1991; Becker, 1964; Alama, 2008; Cardona, 2009; Castillo, 2012). Es por medio de las experiencias en el trabajo que adquiere competencias generales y específicas (Becker, 1964; Barney, 1991; Castillo, 2012). Así como por medio de la capacitación y el entrenamiento que recibe bajo programas específicos de desarrollo (Becker, 1964; Cardona, 2007; Madrigal, 2009) que incrementan sus capacidades y destrezas para la ejecución de las tareas y la solución de problemas, haciéndolo más productivo (Cardona, 2007; Castillo, 2012), generando de esta manera mayor valor para la empresa y convirtiéndose en una ventaja competitiva (Barney, 1991; Peteraf, 1993; Castillo, 2012).

La Teoría de los Recursos y Capacidades

La teoría de los recursos y capacidades como parte fundamental del capital intelectual es la más influyente en la bibliografía y estudios empíricos encontrados en los últimos años sobre gestión del capital humano. De acuerdo con esta teoría los recursos y capacidades internas ayudarán a lograr y mantener la ventaja competitiva de la empresa al ser la fuente generadora de las características valiosas, distintivas, inimitables e insustituibles en que se fundamenta esta teoría (Barney, 1991; Peteraf, 1993). Según (Álvarez, 2003) se parte de asumir que los recursos estratégicos están distribuidos de manera heterogénea en el conjunto de empresas y que son los que definen la diferencia en el desempeño, así mismo establece que estas diferencias son estables en el tiempo. De esta manera se dice que una empresa tendrá una ventaja competitiva al poseer la capacidad de desarrollar estrategias de creación de valor que no puedan ser implementadas por la competencia de manera simultánea ni sus beneficios duplicados por estrategias paralelas.

Empowerment

La teoría del empowerment se ha abordado desde diferentes áreas de la ciencias como la sociología, psicología y la administración, ésta última tiene sus inicios en el trabajo etnográfico de Kanter en 1977 *Men and Woman of the Corporation* donde se establecen las bases sobre las cuales se ha desarrollado el enfoque estructural del empowerment. De acuerdo con estas ideas los individuos de los niveles bajos de la organización se sentirán empoderados si tienen acceso a las herramientas de poder que se identifican como

oportunidades, información, soporte y recursos.(Spreitzer, 2008). Esto es, que en la medida que las estructuras organizacionales con sus políticas y procedimientos de operación proporcionen acceso a oportunidades de crecimiento y desarrollo al trabajador, la información e instrucción adecuada para el desarrollo de sus tareas, el soporte organizacional y técnico para la solución de problemas y aquellos recursos necesarios para su correcta ejecución, entonces se tienen las condiciones estructurales para que el trabajador sienta el empowerment. Liden & Arad (1996) establecen las bases del empowerment estructural en la idea de que el poder para la toma de decisiones se comparte en los niveles de supervisión con los subordinados en la organización, alineados por sus metas y objetivos. Esto implica un cambio en los roles tradicionales de la administración, tanto para los supervisores como subordinados. A los primeros les reclama delegación de autoridad en sus subordinados y a los segundos asumir autoridad y responsabilidades por las metas y objetivos de la organización.

Por su parte Conger & Kanungo (1988) mencionan que no es suficiente el establecimiento de las condiciones estructurales de la organización para lograr que el individuo o los grupos de trabajo sientan el empowerment ya que este tiene orígenes en la psicología de los individuos. Este se asocia al estado psicológico necesario para que el individuo sienta la sensación de control en relación a su trabajo (Spreitzer, 1995). Es esencial que los individuos logren sentir el poder de la auto-determinación (Conger & Kanungo, 1988). Para ello mencionan que aquellas barreras y obstáculos que inhiben esa sensación deben ser removidos y eliminados. Para Thomas & Velthouse (1990) el empowerment es una cuestión de motivación intrínseca que se manifiesta en cuatro estados conscientes afectados por el ambiente que determinan la orientación hacia el trabajo de cada persona: Sensación de impacto, competencia, significancia y alternativa.

Compromiso Organizacional

El compromiso organizacional ha tomado interés en su estudio y análisis las últimas décadas (Buchanan, 1974; Becker, 1960; Mowday, Steer y Porter, 1979) de tal forma que su definición se ha ido enriqueciendo desde diferentes puntos de vista estableciéndola como una variable importante para entender la naturaleza del comportamiento de los individuos en el trabajo (Mowday, Steer y Porter, 1979). Estos autores identifican el compromiso relacionado con el comportamiento del individuo en sus acciones y en la toma de decisiones, así como en las actitudes que asume respecto de la organización, estableciendo tres características como factores para su definición: 1) Una creencia personal y fuerte concordancia con las metas y valores de la organización, 2) Una disposición completa a desarrollar su mejor esfuerzo para la organización y 3) Un deseo fuerte de permanecer y mantenerse colaborando para la empresa. Como resultado de estudios con este enfoque se ha relacionado con la retención de empleados (Porter, Mowday, Steer y Boulian, 1974), así como predictor del esfuerzo y efectividad del empleado (Porter, Dubin y Mowday, 1974). Se han desarrollado una gran cantidad de estudios desde diferentes enfoques teóricos (Angle y Perry, 1981) sin embargo la mayoría están enfocados en las perspectivas del comportamiento y las actitudes (Meyer y Allen, 1991).Por lo que plantean un modelo de compromiso organizacional considerándolo como un estado psicológico del individuo (sentimientos y creencias del individuo respecto de su relación con la organización) que no se limita a solo la concordancia con los valores y metas de la organización, sino que debe estar reflejada en el deseo, la necesidad y la obligación de permanecer y participar en la organización (Meyer y Allen, 1991).

De este enfoque plantean el modelo de medición del compromiso organizacional en tres dimensiones: *Compromiso afectivo* que se refiere al que desarrolla el individuo estableciendo un estado emocional que lo hacen desear continuar en la organización porque disfruta formar parte de ella, siente orgullo ser parte de ella. *El compromiso continuo* se refiere a que el individuo valora el tiempo invertido en la organización y percibe un costo dejarla y siente la necesidad de continuar en ella. *El compromiso* normativo por su parte se refiere a sentimiento del deber moral que la persona desarrolla para continuar en la organización. De

acuerdo con Allen y Meyer (1991) son estos estados psicológicos los que influyen en las actitudes y comportamiento de los individuos en el trabajo e impactarán en su operación y resultados.

METODOLOGÍA

Diseño y Tipo de Investigación

La investigación es del tipo transversal llevándose a cabo con un enfoque cualitativo y cuantitativo en función de que las variables a estudiar para probar las hipótesis serán numéricas y categóricas utilizando métodos estadísticos para establecer relación y correlación de las variables estudiadas. La investigación utilizará información sobre las características y perfil de las empresas maquiladoras del sector automotriz y su población, analizando las variables nivel de capital humano, empowerment psicológico, compromiso organizacional de los niveles de supervisión, técnicos y operativos, así como la influencia de las prácticas de alto involucramiento de empleados que despliega la empresa. La investigación es no experimental ya que los valores de las variables a utilizar serán obtenidos en base a encuestas y recopilación de información de campo proporcionada por las empresas de la muestra seleccionada. De igual manera la investigación será correlacional - causal ya que intentará describir relaciones entre las variables empowerment y compromiso organizacional influenciadas por el nivel de capital humano y las prácticas de alto involucramiento de empleados en los niveles de supervisión, técnico y operativo.

Población y Muestra

Para el desarrollo de esta investigación, la población de estudio estará compuesta por trabajadores de los niveles de supervisión, técnicos y operadores dentro de las plantas maquiladoras que se encuentran operando dentro del sector automotriz en Ciudad Juárez Chihuahua, de acuerdo con la información obtenida del reporte *Panorama general 2014* proporcionado por la Asociación de Maquiladoras de Ciudad Juárez (INDEX). De éstas, solo las que cuenten con más de 300 empleados serán consideradas para el estudio. Adicionalmente a este criterio, deberán tener implementados sistemas de gestión de capital humano con prácticas de alto involucramiento de empleados declaradas. La selección de la muestra a utilizar será probabilística, obtenida de la población objetivo determinada de acuerdo con los criterios de delimitación planteados anteriormente. Esta delimitación del estudio hacia este grupo de empresas se debe a que este sector de la manufactura posee características especiales al estar ligadas a una cadena de producción demandante de entregas a tiempo y cambios de ingeniería constantes lo que genera condiciones de operación diferentes al resto de los sectores. La investigación utilizará un tamaño de muestra calculado por medio de la ecuación estandarizada para poblaciones finitas:

$$ n = \frac{N * Z_a^2 p * q}{d^2 * (N-1) + Z_a^2 * p * q} $$

Donde:

N = Total de la población
$Z_a^2 = 1.96^2$ (Considerando que el nivel de confianza es del 95%)
p = proporción esperada (5% =0.05 basado en estudios previos)
q = 1 – p (en este caso 1-0.05 = 0.95)
d = precisión (en este caso deseamos un 5%).

De esta manera se asegura que la muestra es representativa de la población considerando los parámetros de confiabilidad establecidos en base a estudios previos sobre el tema obteniendo mayor certeza en los resultados obtenidos.

Diseño de Instrumento y Medición

Se emplearán instrumentos de medición validados ampliamente adaptándolos a las necesidades y objetivos de la presente investigación. Para evaluar el nivel de *empowerment* experimentado por trabajadores de los niveles de supervisión, técnico y operativo en la organización se utilizará la escala de Spreitzer (1995) que ha sido validada en diferentes campos y contextos, la cual mide la significancia, la competencia, la autodeterminación y el impacto percibido por el trabajador que lo hacen sentir y asumir el poder de control de su ambiente de trabajo. El instrumento originalmente en inglés, será traducido en ambos sentidos, inglés –español, español- inglés y validado. Para el compromiso organizacional se empleará la escala propuesta por Meyer, Allen y Smith (1993) también validada ampliamente y que con sus dimensiones explica de manera adecuada las motivaciones que desarrolla el trabajador con respecto de las organizaciones basadas en el deseo, el deber y la obligación de pertenecer, mantenerse y colaborar dentro de la organización. Este instrumento originalmente en inglés será traducido en ambos sentidos y validado.

Para la evaluación del capital humano se utilizará una escala adaptada para responderse por los trabajadores, basada en el modelo de medición de capital intelectual intellectus de Bueno (2011) con sus tres dimensiones que mide valores y actitudes (ser + estar), estos son los conocimientos que poseen los individuos por su naturaleza como son el carácter, su forma de ser que influyen su comportamiento y la forma de enfrentar los problemas y de hacer las cosas, Aptitudes (Saber) Mide el conocimiento adquirido que poseen las personas, basado en un proceso de formación mediante el estudio, la práctica, el aprendizaje y por medio de las relaciones que desarrolla el individuo con otras personas o elementos que lo rodean Bueno (2011) y Capacidades (Saber hacer) que considera las habilidades y destrezas que poseen las personas para desarrollar las tareas asignadas. En esta dimensión están involucrado el talento de la persona.

Para la medición de las prácticas de alto involucramiento de empleados se adaptará una escala para ser contestada por los trabajadores, basada en el modelo de Lawler (1991) consistente en cuatro dimensiones: Participación, que se mide las prácticas, políticas y procedimientos de operación que despliega la organización para permitir a los empleados poder y autonomía en la toma de decisiones respecto de sus tareas y formas de llevarlas a cabo. Formación que mide la serie de prácticas y estrategias que implementa la organización para entrenar y capacitar a sus empleados, mejorando sus habilidades y competencias para el desarrollo de su trabajo. Recompensa medido por políticas y procedimientos que establece la organización para recompensar el trabajo de los empleados mediante sistemas de incentivos económicos y emocionales que motiven al trabajo individual y de equipo (Lawler III, 1996), manteniendo el interés de los individuos por superarse con sistemas de prestaciones que satisfagan las necesidades de los individuos alineando sus intereses con los objetivos y metas de la organización. Comunicación que mide las prácticas y sistemas de comunicación que implementa la organización para compartir y distribuir la información referente a los resultados de la operación donde los individuos colaboran, perspectivas futuras del negocio que pueden afectar su estabilidad en el trabajo. En todos estos instrumentos se utilizará la escala tipo Likert de seis niveles que va de totalmente en desacuerdo (1) a totalmente de acuerdo (6).

Prueba Piloto y Validación de Instrumento

Los instrumentos de medición que están en ingles serán traducidos al español y viceversa como medida de validez de traducción. De la misma forma se aplicará una prueba piloto, incluyendo un análisis de contenido por medio de juicio de expertos a una muestra de académicos y directivos de empresas maquiladoras seleccionadas en la muestra y a un grupo de supervisores, técnicos y operadores con la finalidad de validar las adecuaciones necesarias en la redacción con el lenguaje comúnmente utilizado en las empresas. Para determinar la fiabilidad de los instrumentos se evaluará mediante el alfa de Combrach para cada una de las sub-escalas incluidas en los cuestionarios. El valor alfa de Cronbach es mejor a medida que se acerca a 1 e

inaceptable cuando tiende a cero. Como criterio general, George y Mallery (2003) sugieren las recomendaciones siguientes para evaluar los coeficientes de alfa de Cronbach: -Coeficiente alfa >0.9 es excelente - Coeficiente alfa >0.8 es bueno -Coeficiente alfa >0.7 es aceptable - Coeficiente alfa >0.6 es cuestionable - Coeficiente alfa >0.5 es pobre - Coeficiente alfa<0.5 es inaceptable.

Análisis de Datos

El análisis de los datos se desarrollará mediante las herramientas estadísticas de análisis de correlación bivariado de Pearson para evaluar la correlación entre las dimensiones de las variables dependientes e independientes del modelo, así mismo se utilizará el análisis de regresión con el fin de predecir el comportamiento de la variable dependiente en función de las variables independientes por cada uno de sus componentes. Un análisis utilizando la Anova para evaluar el impacto de las variables moderadoras relacionadas con los datos demográficos de la muestra.

Materiales y Métodos

Materiales: Libros, journals, software validado, SPSS
Métodos: Confiabilidad del Alpha de Crombach, regresiones y correlaciones

RESULTADOS

Los resultados esperados son que se demuestren las hipótesis que plantean la relación directa del empowerment con el nivel de capital humano, mostrando que a mayor nivel de empowerment percibido por el individuo el nivel de capital humano aumentará como resultado del desarrollo de habilidades, conocimientos y experiencias nuevos propiciados por la iniciativa y proactividad que genera el empowerment, estos a su vez estarán relacionados con el compromiso organizacional incidiendo en una mayor adherencia, integración y participación activa de los individuos en función del empowerment percibido siendo esta relación positiva. Se espera que estas variables sean afectadas negativamente por las prácticas de involucramiento de empleados que desarrolla e implementa la organización.

CONCLUSIONES

Como resultado final del proyecto y una vez concluido el análisis y discusión se podrán establecer conclusiones sobre las hipótesis formuladas, así como de los resultados obtenidos para establecer una reflexión del trabajo y una serie de recomendaciones para los lectores e investigadores sobre el tema.

REFERENCIAS

Álvarez, L. (2003). Competencias centrales y ventaja competitiva: el concepto, su evolución y su aplicabilidad. Revista de Contaduría y Administración. Núm. 209. Abril-Junio 2003.

Angle, H., Perry, J. (1981). An Empirical Assessment of Organizational Commitment and Organizational Effectiveness. Administrative Science Quarterly. Vol. 26, No. 1, pp. 1-14.

Barney, J. B. (1991): "Firm resources and sustained competitive advantage". Journal of Management, nº 17(1), pp. 99-120.

Becker, G.S. (1962). *"Investment in Human Capital: A Theoretical Analysis"*. The Journal of Political Economy, vol. 70 (5), pp. 9-49.

Becker, G. (1964). *Human Capital*. (1st Ed.). Columbia University Press for the National Bureau of Economic Research. New York.

Buchanan, B. (1974) *Building Organizational Commitment: The Socialization of Managers in Work Organizations*. Administrative Science Quarterly, Vol. 19, No. 4, pp. 533-546.

Bueno, E. (2011). Modelo intellectus de medición, gestión e información del capital intelectual: versión actualizada. Universidad Autónoma de Madrid, España.

Cardona, M.; Montes, C.; Vásquez, J.; Villegas, M.; Brito, T. (2007). *Capital Humano: una mirada desde la educación y la experiencia laboral.* Universidad EAFIT. Medellín. ISSN 1692 0694.

Castillo, R. (2012). *Desarrollo del capital humano en las organizaciones*. Primera edición. Red Tercer Milenio. México.

Conger, J., Kanungo, R. (1988). *The empowerment Process: Integrating Theory and Practice*. The Academy of Management Review, Vol. 13, No. 3, pp. 471-482.

García, L.; García, J.; Rodríguez, A. (2012*). Impacto de la inversión en Capital Humano sobre el valor empresarial.* Academia. Revista Latinoamericana de Administración. No. 51, pp. 15-26.

George, D., & Mallery, P. (2003). *SPSS for Windows step by step: A simple guide and reference*. 11.0 update (4th Ed.). Boston: Allyn & Bacon

Lawler III, E.E. (1991). *High involvement Management*. San Francisco: Jossey-Bass.

Lawler III, E.E. (1996). *La ventaja definitiva*. Barcelona: Granica

Liden, R., Arad, S. (1996). *A power perspective of empowerment and work groups: Implication for HRM research*. Research in Personnel and HRM. JAI Press. Vol. 14, pp. 205–252.

Liker, J. (2008*). El Talento Toyota: Desarrolle a su gente al estilo Toyota.* Mc-Graw Hill Interamericana. 1ª. Edición. México

Madrigal, B. (2009). *Capital Humano e Intelectual: su evaluación*. Observatorio Laboral Revista Venezolana. Vol. 2, Núm. 3. pp. 65-81.

Meyer, J., Allen, N. (1991). *A three-component conceptualization of organizational commitment*. Human Resource Management Review. Volume 1, Number 1, pp. 61-89.

Moreno, L.; Carbajal, S.; Cortés, I.; Varela, N.; Chávez, E. (2009). *Gestión de talentos: Un reto planteado por la globalización y la competitividad*. Culcyt. Año 6, No. 30, pp. 17-30.

Mowday, R., Steer, R., Porter, L. (1979) *The Measurement of Organizational Commitment*. Journal of Vocational Behavior. Núm. 14, pp. 224-247.

Peteraf, M. A. (1993). *The cornerstones of competitive advantage: A resource-based view.* Strategic Management Journal, 14, 179–192.

Porter, L., Steers, R., Mowday, R., Boulian, P. (1974). *Organizational commitment, job satisfaction, and turnover among psychiatric technicians*. Journal of Applied Psychology, Núm. 59 pp. 603-609.

Porter, L., Dubin, R., Mowday, R. (1974). *Unit performance, situational factors and employee attitudes in spatially separated work units.* Technical Report ·18. Nr.Number 151-315

Ríos, M, Téllez, M., Ferrer, J. (2010) El *empowerment* como predictor del compromiso organizacional en las Pymes. Contaduría y Administración. No. 231, pp. 103-125.

Spreitzer, G. (1995). *Psychological Empowerment in the Workplace: Dimensions, Measurement, and Validation.* The Academy of Management Journal, Vol. 38, No. 5, pp. 1442-1465.

Spreitzer, G. (2008). *Taking stock: A review of more than twenty years of research on empowerment at work1.* Organizational behavior (handbook). Núm. 5124, pp. 54-72.

Thomas, K., Velthouse, B. (1990). *Cognitive Elements of Empowerment: An "interpretative" Model of intrinsic task motivation, Academy of management.* Vol. 15, No. 4, pp. 666-681.

BIOGRAFIA

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EL ROL ESTRATÉGICO DE LAS EMPRESAS VITIVINÍCOLAS DE LA RUTA DEL VINO EN EL DESARROLLO ECONÓMICO DE BAJA CALIFORNIA: RETOS Y PERSPECTIVAS

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RESUMEN

Las empresas vitivinícolas de la ruta del vino han jugado un papel estratégico para el desarrollo económico de Baja California. Han contribuido a elevar la competitividad de la industria nacional; han sido una fuente generadora de empleo, de impulso regional y de atracción turística. En la actualidad, las empresas vitivinícolas se han enfrentado a los nuevos retos que plantean la globalización y la competitividad, en donde ser competitivo es fundamental para subsistir en el mercado global, y esto no solo en el ámbito microeconómico, sino en todos los niveles económicos. En la presente ponencia, se analizara de manera contextual el sector vitivinícola a nivel mundial, nacional y de manera específica el sector a nivel regional. Todo esto con la finalidad de entender el dinamismo con el que hoy en día se desenvuelven las empresas de este sector que les ha permitido operar de manera competitiva, acorde a las tendencias y necesidades del mercado. Estableciendo su importancia e influencia para el desarrollo económico de Baja California, en específico para el desarrollo de la región de la ruta del vino en el Valle de Guadalupe. Conoceremos sus antecedentes desde que se implantaron en Baja California, cómo se han desarrollado, cómo han cambiado y cuál es el momento en que se encuentran.

PALABRAS CLAVES: Empresas Vitivinícolas, Rol Estratégico, Desarrollo Económico, Baja California

STRATEGIC ROLE OF THE WINE ROUTE WINE COMPANIES IN THE ECONOMIC DEVELOPMENT OF BAJA CALIFORNIA: CHALLENGES AND PROSPECTS

ABSTRACT

Wine companies of the wine route have played a strategic role in the economic development of Baja California. They have helped to raise the competitiveness of domestic industry; They have been a source of employment, and boost regional tourist attraction. Currently, wine companies have faced new challenges of globalization and competitiveness, where it is essential to be competitive to survive in the global market, and this not only at the microeconomic level, but in all economic levels . In this paper, it is contextually analyze the wine sector globally, nationally and specifically the sector at regional level. All this in order to understand the dynamism with which today the companies in this sector that has allowed them to operate competitively, according to the trends and needs of the market they operate. Establishing its importance and influence for the economic development of Baja California, specifically for the development of the region of the wine route in the Valley of Guadalupe. We know its history since it was introduced in California, how they were developed, how they have changed and what is the time to be found.

JEL: L00, L6, L60, M12

KEYWORDS: Wine Companies, Strategic Role, Economic Development, Baja California

INTRODUCCION

Debido a que las empresas vitivinícolas de la ruta del vino han sido una fuente generadora de empleo, de impulso regional y de atracción turística han contribuido a elevar la competitividad de la industria nacional; y en Baja California han jugado un papel estratégico para el desarrollo económico. En la actualidad, las empresas vitivinícolas se han enfrentado a los nuevos retos que plantean la globalización y la competitividad, en donde ser competitivo es fundamental para subsistir en el mercado global, y esto no solo en el ámbito microeconómico, sino en todos los niveles económicos. En la presente ponencia, se analizara de manera contextual el sector vitivinícola a nivel mundial, nacional y de manera específica el sector a nivel regional. Todo esto con la finalidad de entender el dinamismo con el que hoy en día se desenvuelven las empresas de este sector que les ha permitido operar de manera competitiva, acorde a las tendencias y necesidades del mercado. Estableciendo su importancia e influencia para el desarrollo económico de Baja California, en específico para el desarrollo de la región de la ruta del vino en el Valle de Guadalupe. Conoceremos sus antecedentes desde que se implantaron en Baja California, cómo se han desarrollado, cómo han cambiado y cuál es el momento en que se encuentran. Para el desarrollo de este trabajo se partirá de los antecedentes de vino. Se darán a conocer de manera general su origen y evolución hasta su arribo al continente Americano. Entender la historia del vino implica adentrarnos no sólo en la vida cotidiana de millones de personas a lo largo de milenios; también es observar el proceso de diálogo con la naturaleza y de creación de cultura, de apropiación de técnicas agrícolas, de elaboración, de envasado, entre muchas otras prácticas y procesos. Tarea que compromete la necesaria transmisión de experiencias y conocimientos de una generación a otra (FMV 2009). Después de este recorrido, nos centraremos en los retos y las perspectivas que tienen las empresas vitivinícolas y su rol estratégico en el desarrollo económico de Baja California.

REVISIÓN DE LA LITERATURA

Antecedentes: el Origen y Evolución del Vino

Analizar los antecedentes del vino, es como analizar la historia de la civilización, ya que durante los últimos 11 000 años ha ido acompañando al hombre en su devenir histórico. Cacho 2004. Es por eso que en ocasiones es confuso como lo comentan Peynaud y Blouin, (2000) pues está ligado al modo de vivir y pensar del pueblo que lo cosecha y de la región que lo produce.Sin embargo, la historia de la vid y el vino tienen una larga trayectoria vinculada con los primeros descubrimientos hechos por el hombre sobre las reacciones químicas de fermentación y oxidación (Larousse de los vinos, 2008). Se puede considerar que es en la era Terciaria en la que surge el género *vitis,* la cual comprendería a todas las variedades domésticas y que se difundió progresivamente por Asia Menor y Europa. Pasado el tiempo, al concluir las glaciaciones aparecieron en Europa las vides que se asemejaban a la *vitis vinífera*, que fue un tipo ideal para la producción de vino. Que más adelante se convertirían en la *vitis vinífera sativa*, que hoy en día se considera la *vitis* madre del 90% de los viñedos plantados en el mundo (Sánchez, 2007). Aún con la existencia de ciertos datos, las grandes civilizaciones de la Grecia y Roma antiguas situaban el nacimiento del vino en la prehistoria (Larousse de los vinos, 2008). Desde hace aproximadamente 7.000 años a. de C. se dio comienzo en las llanuras de Sumeria, el país más viejo de la Antigua Mesopotamia, el cultivo de la vid y la elaboración del vino. En el antiguo Egipto existe evidencia de la producción de vinos, con los descubrimientos arqueológicos encontrados en tumbas y pirámides en el año 3.000 a. de C., donde inscripciones del cultivo de la vid y fermentación de mosto dan testimonio de ello (Sánchez, 2007). Grandes bodegas situadas junto a los templos de los faraones de la primera dinastía del Reino Antiguo (2700 a.C.), demuestran que los reyes y sacerdotes egipcios consumían vino. Además, este producto estaba entre las ofrendas que debían acompañar al cuerpo de los faraones en la tumba. El apogeo de la vitivinicultura antigua comenzó con los

griegos. Se los considera los primeros "expertos en vinos" por los avances logrados en el cultivo y la vinificación. Fueron ellos los responsables de la difusión del consumo de vinos en toda la costa del Mediterráneo, hasta Portugal, el Norte de África y Asia Menor; también llevaron la vid a la actual Francia, habitada entonces por los galos. En Roma, la propagación de la cultura del vino logró tener un impacto favorable en cuanto a su consumo en las distintas capas sociales a través de los festejos religiosos entorno a su dios Baco, sucesor de Dionisio, originado por el declive de Grecia. Extendiéndose la plantación de viñedos y el mercado del vino por toda Europa hasta Germania, Britania, Iberia, Lusitania y la península italiana, dejando definiciones importantes de los mejores vinos italianos como el de Falerno, seguido por los vinos de Alba y Pompeya (Guzmán, s. f.; Larousse de los vinos, 2008; Sánchez, 2007). En la cultura judía, el vino también ocupa un lugar relevante. En uno de los pasajes bíblicos, se narra cómo Noé después de que su arca quedara anclada "comenzó a plantar una viña" (Génesis, IX, 20). Son varias las simbologías que se desprenden del Antiguo Testamento. Para la tradición judía, la vid y la viña simbolizan el pueblo de Dios. En el NuevoTestamento, el vino consagrado tendrá un significado sagrado.

Durante el alta Edad Media (siglo V al X), el vino fue un motivo para trazar grandes rutas navieras comerciales, ya que los jefes bárbaros utilizaban este producto para festejo de sus fiestas. Centenares de barcos zarpaban de Burdeos a Gran Bretaña, Irlanda, Londres o los puertos de Hansa, transportando grandes cantidades de vino. Además, en esos tiempos el consumo del vino era considerado como una necesidad y no como un lujo, debido a que el agua que proveían las ciudades estaba contaminada y era peligrosa para su consumo, por lo que éste se mezclaba con el agua para hacerla bebible (Larousse de los vinos, 2008). Por lo que respecta al vino en el continente americano, se puede considerar que en estas tierras ya existían variedades de "Vitis silvestres" (no viníferas). A las cuales, se unieron las traídas por los europeos, con la conquista. Españoles y portugueses introdujeron durante el siglo XVI el trigo, el olivo, la viña y todo tipo de hortalizas, además de semillas y algunos animales. Durante los tres primeros siglos de colonización europea en América, la producción agrícola y ganadera se destinó fundamentalmente a la subsistencia de las poblaciones y al comercio local, y en menor medida, al comercio intercontinental. Más tarde, materias primas como cuero, sebo y lana generaron nuevas exportaciones hacia Europa. Colón, en su segundo viaje, trajo sarmientos de vides, pero su cultivo no prosperó en las Antillas. Alrededor de 1530 los conquistadores llevaron pasas de uva, semillas, vástagos de viñas y olivos a México, sin demasiado éxito. En cambio, en Perú sí prosperaron estos cultivos. A mediados del siglo XVI se cosecharon las primeras vides y desde allí, la especie fue llevada por los conquistadores al Reino de Chile donde encontró un ecosistema óptimo.

Para el siglo XIX, Luis Pasteur explicó científicamente el proceso de fermentación y vinificación, y, Eduard Buchner descubrió el efecto de las enzimas durante el proceso de fermentación de mosto. Todo lo anterior permitió realizar notables innovaciones para los enólogos franceses, posibilitando la calidad en sus productos. Liderando Francia como uno de los mayores productores y comercializadores de vino (Sánchez, 2007). Pero el mayor volumen de producción fue alcanzado hasta la llegada de la revolución industrial. Lamentablemente, se cree que el éxito de la industria vitivinícola en Francia fue frenada a causa de la filoxera, la más devastadora de las plagas de la vid, viéndose afectada toda Europa (Larousse de los vinos, 2008). Lo que derivo una demanda interna de Francia por vinos provenientes de España, obteniendo un impulso las regiones vitivinícolas de Cataluña, Comunidad Valenciana y Castilla-La Mancha, y La Rioja (Sánchez, 2007). Al concluir la Primera Guerra Mundial, el consumo de vino en Europa fue al máximo nivel, pero el producto vinícola que se producía en las regiones del Midi francés, de La Manchao del norte de África, así como el proveniente de Burdeos, de Borgoña, del Rin y del Mosela, carecían de calidad y precio justo, aunado de los negativos efectos devastadores de las guerras y las crisis económicas. En este sentido, los viñedos de Estados Unidos, Australia, Sudáfrica y Nueva Zelanda, considerados del Nuevo Mundo, resultaron mucho más favorecidos. Para 1980, las vendimias tuvieron un gran auge, propiciando una rivalidad entre los vinos del Nuevo Mundo contra los clásicos europeos. Y, a fines del siglo XX, marcó la edad de oro del vino, teniendo entonces una cantidad considerable de vinos a precios razonables, viéndose perjudicados los productores de vinos baratos (Larousse de los vinos, 2008).

La Gradual Importancia del Vino en México

La vitivinicultura mexicana es considerada la más antigua de América y a su vez la más reciente, ya que fue este territorio por donde por primera ocasión ingresaron las vides al Nuevo Mundo, expandiéndose al norte y sur de sus fronteras, lo que ha generado una fuerte competencia con los productores de los países vecinos, Estados Unidos al norte, y Argentina y Chile al sur. Aunado a ello, la escases sobre la protección arancelaria que reciben los productores mexicanos del gobierno, las dificultades climáticas que se presentan año con año, y la demanda de otros productos como el aguardiente, la cerveza o las bebidas carbonatadas, lo que ha propiciado fases de crecimiento y decrecimiento a lo largo de la historia (Larousse de los vinos, 2008; Meraz, 2009; SEDECO, 2004).

De acuerdo con datos de la Secretaria de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (2005) se tiene un registro de 15 estados que se dedican a la producción de uva en la República Mexicana, siendo estos Aguascalientes, Baja California, Baja California Sur, Chihuahua, Coahuila, Durango, Guanajuato, Hidalgo, Jalisco,

Estado de México, Puebla, Querétaro, San Luis Potosí, Sonora y Zacatecas, pero de estos sólo seis concentran el 95% de la superficie cosechada (SAGARPA, s. f.). Los 6 principales Estados son: Baja California: zona conocida como la franja del vino; Coahuila; Aguascalientes; Zacatecas; Querétaro; y Sonora que es el estado donde se destina más superficie al cultivo de la uva. No obstante, la mayor producción de vino se concentra en los Estados de Baja California (Ensenada) y Coahuila (Parras). El rendimiento del sector vitivinícola ha ido mejorando en estas zonas gracias a los avances tecnológicos. (Basañez, 2015) El mercado de vinos en México se duplicó en los últimos 10 años; según las previsiones de especialistas, el sector continuará en una tendencia de crecimiento en los siguientes años, lo que ampliará las posibilidades de negocio para las micro, pequeñas y medianas empresas (mipymes), así como emprendedores en la producción de vino o negocios relacionados. En la actualidad, existen alrededor de 500 bodegas productoras de vino, de las cuales aproximadamente 100 firmas son mexicanas, y de ellas 80% es mipyme, explicó Ramón Vélez, director del Consejo Mexicano Vitivinícola (CMV).

El especialista aseguró que la producción del mercado del vino en el país es de 60 millones de litros, de los cuales sólo 26% está representado por producto mexicano, mientras que 74% restante lo ocupan las empresas extranjeras; sin embargo, esta situación cambiará en los próximos años, lo que representa oportunidades para las firmas mexicanas. "La previsión que tenemos es que para el 2020 el volumen de la industria se triplicará, lo que representaría alrededor de 200 millones de litros, y lo más importante es que la participación de las empresas mexicanas sería de 40% en un cálculo conservador, pero podría llegar hasta 50%", destacó. Vélez comentó que este crecimiento es posible tomando en cuenta que la industria ha venido creciendo a ritmo de doble dígito en los últimos años, y espera una situación similar para los próximos, esto porque el consumo de vino se está incrementando en la población, pues actualmente el consumo per cápita del mexicano es de .53 litros, pero se prevé llegar a 2 litros en los siguientes años. "Un ejemplo muy claro de esta tendencia positiva es que la industria en México, del 2000 al 2010, creció alrededor de 95% en volumen y 157% en valor", detalló. El directivo del CMV puso en relieve que la gente está asociando cada vez más el vino como producto saludable y por esa cuestión se vende en mayor medida; además, los centros comerciales cada vez dan mayor apertura a estos productos y dedican más espacio a los diferentes tipos de vinos existentes. La *oferta de vino* en México, se distribuye entre los vinos de producción nacional y los importados. La oferta ha crecido en los últimos años y cabría destacar que se consume más vino importado que nacional. La producción nacional ha ido creciendo en los últimos años, aunque su volumen es aún reducido. Del mismo modo que la producción nacional, las importaciones de vino también han aumentado progresivamente. Según Euromonitor International quien es el proveedor líder mundial independiente de investigación estratégica de mercado; los consumidores mexicanos prefieren el vino tinto a otras variedades. De hecho, las ventas de vino en México se reparten en un 65% de vino tinto, 18% vino blanco

y 14% espumoso, siendo casi inexistente la producción de rosado. Dentro de la oferta de vino en México podemos diferenciar entre dos tipos de productos presentes en el mercado:

Producción nacional: dentro del sub-apartado de vino nacional se encuentran todos los productos cosechados y embotellados dentro del territorio mexicano. El vino producido en México está experimentando un aumento continuo desde el 2007, a pesar de que el consumo per cápita de vino en México sigue siendo muy bajo (400 ml/año). Según la Organización para la Agricultura y la Alimentación de las Naciones Unidas. FAO por sus siglas en ingles en el año 2010 la producción se situó en casi 38.000 toneladas. Importaciones: las importaciones de vino representan la mayor parte de la oferta en México. Los mayores proveedores de vino son países de la Unión Europea, aunque en términos de valor. En volumen, Chile es el líder de importaciones. (FAO 2010)

EVOLUCION DEL MERCADO DE VINOS IMPORTADOS EN MEXICO
2000 al 2010

Figura 6.0 Importación de Vinos Fuente Secretaría de Economía Los vinos importados crecieron durante el período 2000-2010 un 95% en volumen y 157% en valor. Durante los años 2002 a 2010, en torno al 66% del vino importado en México corresponde a la clasificación de vinos tintos, rosados y blancos. A partir del 2007 ha bajado su participación en el total de importaciones de vino, llegando situándose en el 65% en 2010. Los vinos finos han ido tomando importancia, llegando a ser casi el 10% del total de las importaciones de vino, y los vinos espumosos han mostrado también un gran crecimiento, pasando del 5% al 15% de las importaciones en un período de 10 años. España es el principal exportador en valor de vinos de este tipo a México, con una cuota de mercado que se sitúa en el 39% del total de los vinos importados en 2010. A pesar de que el mercado se contrajo en 21 millones de dólares en 2009, se recuperó en 2010, aunque no se han alcanzado los niveles previos a la crisis. En 2010, España siguió manteniendo su liderazgo con un total de 40,33 millones de dólares, con un ligero aumento en cuota de mercado. Por otro lado, cabe resaltar el incremento de las importaciones de Chile año tras año.

Como en años anteriores, Chile y Francia son los otros dos principales exportadores de vino a la república mexicana que, junto con España, suponen el 77,36% de la importación total de vino tinto, rosado, clarete y blanco en términos de valor. Chile ha incrementado ligeramente su cuota, mientras que la de Francia se ha reducido ligeramente en 2010. De acuerdo al Consejo Mexicano Vitivinícola A. C. (CMV) La Producción Nacional está limitada por las hectáreas plantadas de viñedo. La Participación de los vinos mexicanos ha venido perdiendo puntos a pesar del crecimiento experimentado. La categoría de vinos en el mercado mexicano durante el 2010 se integró por 2033 marcas, lo que en un mercado total de vinos y licores compuesto por 3871. Actualmente, la industria mexicana está integrada por más de cien bodegas y productores de uva para vino, ubicados en las diferentes zonas vitivinícolas: Casi el 90% de ellas en Baja California, y el resto en Coahuila, Querétaro, Zacatecas, Guanajuato y Aguascalientes. En su conjunto, ofrecen más de 350 etiquetas de vino. (CMV 2010) Se espera que el consumo de vino continúe creciendo en popularidad entre los consumidores mexicanos, especialmente en el segmento de ingresos medios de la población. Los consumidores de ingresos medios son la parte más grande de la parte económicamente activa de los ciudadanos mexicanos y han sido motores del crecimiento en el vino, donde el vino, además de México ha tomado una buena parte, sobre todo en 2013 y 2014.

El segmento de ingresos medios está creciendo de acuerdo el INEGI (Instituto Nacional de Estadística y Geografía) y el Banco Mundial; sin embargo, su tasa de crecimiento está comenzando a disminuir, según el Banco Mundial. No se espera que la clase media de ingresos dejara de crecer en México, pero impulsado a mantenerse a sí mismos por el crédito, esta clase también se enfrentará a un nivel significativo de incumplimiento. En las empresas, mientras tanto va a invertir esfuerzos en adultos jóvenes que están en este segmento para vincularlos más fuertemente con la tendencia del consumo de vinos y confirmar su fuerte costumbre de beber vino. Se espera que el consumo de vino tenga un incremento entre los adultos jóvenes debido al interés en probar nuevos productos que tienden a apoyar a los productos vitivinícolas mexicanos que son bien percibidos en términos de sabor y calidad.

RESULTADOS

El Rol Estratégico de las Empresas Vitivinícolas en Desarrollo Económico en Baja California

El desarrollo económico no solamente se sustenta en la dotación y en el uso eficiente de los recursos y en el potencial que esos representan. Además, toma en cuenta la organización de la producción, la difusión de conocimientos, entre otros atributos que sirven para definir el nivel alcanzado (Vázquez, 2005, p. 38). En particular, el desarrollo endógeno incorpora un enfoque territorial en el que las actividades productivas se realizan con los recursos disponibles. También se busca satisfacer las necesidades y demandas locales por medio de la participación de la comunidad local. En ese sentido, se le considera una estrategia más integral, no es simplemente el mejoramiento de los sistemas productivos locales en el ámbito laboral nacional o internacional, sino también pretende lograr un aumento en el bienestar económico, social y cultural de toda la población (Vázquez, 2002, p. 22).

La competitividad tiene como finalidad la sostenibilidad de las actividades productivas. Dicho concepto es importante en el desarrollo y mejoras de las fortalezas o capacidades de las cadenas productivas en una determinada región. La competencia no solamente se da entre empresas o fábricas individuales, sino entre sistemas enteros de producción, cadenas productivas o cadenas de valor. Esto hace que se formen alianzas entre agentes de producción independientes (proveedores, productores) para formar un sistema de relaciones empresariales teniendo confianza y conocimiento mutuo entre ellos y que se anticipen a los cambios del entorno en el cual se desenvuelven (Vivanco, Martínez y Taddei, 2010, p. 170).

En el caso de Baja California, las estrategias de desarrollo y competitividad han quedado establecidas en el plan Estatal de desarrollo de Baja California (2014-2019), que contempla en el eje tres, "el Desarrollo sustentable", que tiene como objetivo posesionar a Baja California como la entidad más prospera y

económicamente sustentable, con una competitividad dominante en lo que se refiere al mercado nacional a través de una estrategia que tiene que ver con mismo desarrollo regional sustentable que consolide la economía y mejore la calidad de vida. Esto incluye a todos sus municipios. Pero, si nos fijamos en el uno de ellos en Ensenada, que es donde se ubica la Ruta del Vino, encontramos que, según, el Eje 7 del Plan municipal de desarrollo (PDM) (2014-2016), denominado, Desarrollo económico, en Ensenada, se propone, "Que las actuales vocaciones económicas y las futuras áreas de oportunidad que se presenten, maximicen el aprovechamiento de las ventajas comparativas y competitivas del municipio de ensenada, expresándose en un desarrollo económico sustentable que consolide su planta productiva y atraiga nuevas inversiones en empresas con tecnología de punta ofrecedoras de empleos bien remunerados." (PMD, p, 38). Esto nos da la idea que el gobierno de la entidad desea impulsar el desarrollo económico y la generación de empleo en Baja California. La región del vino en Baja California está constituida por seis valles ubicados en el municipio de Ensenada: el Valle de Guadalupe, el más importante porque es el que concentra la mayor superficie cultivada de vid para elaboración de vino, en segundo lugar está el Valle de San Vicente, le siguen (un tanto) muy por debajo Santo Tomás, el Ejido Uruapan, San Antonio de las Minas y Ojos Negros.

Hay que tomar en cuenta que Ensenada es un Municipio cuya extensión es de 52.51 mil km². Por su extensión, que le permite contar con zonas costeras, mediterráneas, desérticas y montañosas, el Municipio de Ensenada tiene variados climas y una amplia biodiversidad de flora y fauna silvestre, terrestre y marina. La mancha urbana del Centro de Población de Ensenada, comprende 8,966 hectáreas ocupando el 0.17% de la superficie total del municipio incluyendo las Delegaciones Municipales de El Sauzal y Maneadero; a finales de 2013 concentró el 72% de la población: 368,000, de un total de 512,000 habitantes, según estimaciones elaboradas por el COPLADEM con información del Censo de Población y Vivienda de 2010 (INEGI). El resto del territorio municipal está dividido en cinco grandes regiones, siendo estas: la Región del Vino, la Región Ojos Negros – Valle de la Trinidad, la Región Colonet, la Región San Quintín y la Región Sur. (PDM) Destacando el rol estratégico de las empresas vitivinícolas, además de producir y comercializar el vino, pueden desarrollar de manera complementaria actividades como el *Turismo enológico,* según, José Gabriel Ruiz, coordinador de la Facultad de Turismo de la Universidad Autónoma de Baja California (UABC). Citado por Meraz, (2014) "En la actualidad, la industria vitivinícola genera 30,000 empleos, pero podrían incrementarse desarrollando estas actividades turísticas, ya que representa "un campo que es muy poco explotado por las empresas, pero que es necesario que lo haga si es que desea seguir posicionándose a nivel mundial, como lo han hecho otros países", asimismo, detallo que "Las bodegas productoras de vino deben tomar el ejemplo de países como Chile y España, que han desarrollado turismo alrededor del vino, esto les permitirá realizar visitas a viñedos, bodegas, organizar servicio de degustación, entre otras actividades, como lo han hecho otras industrias, entre ellas la tequilera", lo que permitiría la generación de empleos en comunidades cercanas a las zonas productoras, desarrollando negocios que ofrezcan servicios de alimentos, transporte, hospedaje, enseñanza de los procesos y sistemas para la elaboración de vino.

El enoturismo, uno de los segmentos turísticos que en los últimos años ha registrado mayor crecimiento, se ha visto favorecido por la conformación de la Ruta del Vino en el estado, la cual inició su desarrollo a partir del año 2000. El apoyo que desde entonces se ha mantenido por parte del gobierno y los empresarios involucrados, ha logrado que ésta se posicione como uno de los principales productos turísticos de Baja California. Para dimensionar la importancia de la producción de vino se destaca que en el 2008 en esta región se generó en promedio el 90% de la producción nacional de esta bebida. Se venden 12.7 millones de botellas en el mercado nacional y 780 mil en el internacional, lo que genera una derrama económica de 42 millones de dólares y se aportan 11 millones de dólares en impuestos directos (IEPS e IVA). Cabe destacar que las casas productoras de vino de la región han recibido más de 300 premios internacionales.

A través de la Secretaria de Desarrollo Económico (Sedeco), la Secretaria de Fomento Agropecuario (Sefoa) y la Secretaria del Turismo el Estado (Secture) se consolidó el "*Clúster* del Vino" para impulsar la región buscando generar ventajas competitivas para tratar de involucrar a los principales actores del

desarrollo económico del estado. A través de este *clúster* se impulsaron organismos dedicados a la promoción e inversión vitivinícola de la región, tales como el Sistema Producto Vid, Provino, Asociación de Vitivinicultores y Amigos del Valle. Específicamente, la Secretaria de Turismo del estado ha implementado diferentes estrategias de promoción de la ruta e implementado la impartición de cursos a personal de contacto y guías para fomentar la capacitación y profesionalización de los servicios otorgados.

En la región se encuentran desde pequeños restaurantes campestres familiares hasta refinada cocina regional e internacional, sin olvidar sitios para acampar, ranchos, centros artesanales, museos, hoteles *boutique*, cultura indígena y sitios naturales. Se estima que alrededor de 160 mil personas visitan la Ruta del Vino cada año, 30 mil durante las Fiestas de la Vendimia y las restan- tes en recorridos por las casas vinícolas de los diferentes Valles. A lo largo de la Ruta del Vino se cuenta con una oferta de hospedaje que no supera las 100 habitaciones, la mayoría en pequeños establecimientos, algunos de estos, de la categoría denominada *boutique*. Si bien es cierto que el desarrollo de la región en los últimos años ha sido importante al grado de que por ejemplo se está construyendo el Museo del Vino en el Valle de Guadalupe o que este año la Ruta del Vino fue galardonada como La Mejor Ruta Turística Mexicana por W Radio, también es cierto que todavía existen algunos aspectos que requieren resolverse para garantizar que la ruta sea exitosa. Sobre todo, poner en valor el patrimonio local como un recurso turístico se convierte en un reto que debe ser planificado, regulado y gestionado de forma articulada por los sectores públicos y privado, y sin dejar de lado a las comunidades locales.

CONCLUSIONES

El mercado mexicano del vino está en proceso de crecimiento por lo que la oferta disponible para el consumidor final se ha incrementado. Sigue predominando en el mercado los vinos importados, aunque el mercado de vinos mexicanos ha aumentado todavía su producción es moderada. Aproximadamente el 70% del vino que se consume en México proviene del extranjero. En 2014, se alcanzó un record histórico en las importaciones de vino con la cantidad de 54, 3 millones de litros, con un valor superior a los 228 millones de dólares, cifra también histórica. Desde el año 2000, la demanda del vino se ha incrementado en México, sin embargo su consumo per cápita 0,75 litros contrasta con los 19,9 litros per cápita de los países eminentemente productores como España, Italia o Francia. Por otra parte el perfil del consumidor, también, ha experimentado cambios profundos. Ya no es exclusivo de los hombres de mediana edad con un status socio económico medio alto y alto, sino que también se encuentran segmentos más jóvenes y sobre todo ha aumentado el consumo dentro del público femenino. Cabe destacar que en México, actualmente, hay un número elevado importante de marcas, más de 4, 000 etiquetas de las que más de 2000 son de origen español. Se estima que en México,, hay tan solo dos millones y medio de personas las que consumen vino. Esto provoca cierta saturación en el mercado si se quiere introducir nuevas marcas. El vino que más se consume es el tinto. "En resumen, el vino y el turismo que visita esta región desempeñan una vía para el desarrollo económico sostenible, a través de la adquisición de productos basados en el origen, o bien, en los atributos y recursos disponibles del territorio, como los son: el folklore, la naturaleza, la historia y la artesanía, capitalizándose de manera global en una estrategia conjunta, coherente y verdadera" (Meraz, 2013).

BIBLIOGRAFIA

Meraz L. 2014, *Estrategias de Competitividad de las Micro, pequeñas y Medianas Empresas Vinícolas de la Ruta del Vino del valle de Guadalupe en B. C., México.* Tesis Doctoral, Universidad Autónoma de baja California.

Meraz, L. 2013, "La trascendencia histórica de la zona vitivinícola de Baja California", Multidisciplina, Núm. 16, sep-dic. 2013, pp. 68-87.

www.RUTA%20DEL%20VINO%20La%20trascendencia%20historia.pdf

Reyes, A. 2005. *Administración de Personal. Relaciones Humanas Primera Parte*. (pp. 163 - 173) México D. F. Editorial Limusa

Hernández R., Fernández C. y Baptista P. *Metodología de la Investigación* 2014 México D. F. Mc Graw Hill

Chiavenato, A. *Administración de Recursos Humanos. El capital Humano de las Organizaciones*. Novena Edición 2011

Porter, M. *Estrategias Competitivas: Técnicas para el análisis de los Sectores Industriales y de la Competitividad.* Ed.. México, 2008.

Álvarez, M.. *Cuadro de Mando Retail: Los indicadores clave de los comercios altamente efectivos*. Pp 51 Profit Editorial, 2013.

Castillo, J. *Administración de personal: un enfoque hacia la calidad.* (pp. 68) ECOE Ediciones, 2006

El Mercado del vino disponible en http://www.uvayvino.org/index.php/eonomia
El vino en México por Jorge Villalobos disponible en http://www.soyentrepreneur.com/27201-reporte-vino-en-mexico.html

Estudios de los recursos hídricos CICESE, UABC disponible en: vidyvino.org
Peynaud, E. y Blouin, J. (2000). El vino, reflejo de nuestra civilización. En Mijares y García-Pelayo, M. I. (Eds.), *La calidad y las cualidades de los vinos* (pp. 229-245). Madrid: Ediciones Mundi-Prensa.

Larousse de los vinos (2008). *Larousse de los vinos. Los secretos del vino. Países y regiones*. España: Larousse Editorial.

Sánchez, L. (2007). *Localización territorial y organización productiva de la industria vinícola del Valle de Guadalupe. Aproximación a la incidencia de la industria vinícola en el desarrollo económico del Valle de Guadalupe (México) y La Manchuela (España).* Disertación doctoral publicada, Universidad de Castilla - La Mancha, España.

Cacho, J. F. (2004): *De la contemplación a la intervención. El ejemplo de la enología*. Revista ACE de Enología [30.08.04]. Sitio: www.acenologia.com

Flores, J. D., García, U., Jiménez, R., Ruesga, N., y Valencia, R. (2006*). Importación de vino y su efecto en el mercado nacional.* Tesis de Licenciatura publicada, Instituto Politécnico Nacional, México, D. F.

Rodríguez, L. (1998). El *vino y la alimentación. Ciencia y Tecnología Alimentaria*, Vol. 2 (2), pp. 100-107

La cultura de la vid y el vino: La vitivinicultura hace escuela / José Luis Lanzarini y Juan Mangione. – 1ª ed. - Mendoza: Fondo Vitivinícola Mendoza, 2009.

Sepulveda, J. I. (2009). *Aspectos geográficos y estadísticos de la viticultura del Estado de Baja California.* México: Sistema Producto Vid y Fundación Produce de Baja California.
Disponible en htto://wwwafintegral.com/docs/Geografía_y_estadist_vid_2008.pdf

Chiavarria, L (2011) *Rotación de personal y su impacto en la empresa*. Revista Altonivel   Disponible en: http://www.altonivel.com.mx/17280-rotacion-de-personal-y-su-impacto-en-la-empresa.html

Dessler, G. y Varela, R. 2004 Administración de recursos humanos, Enfoque latinoamericano, 5ª ed., Pearson ... Edición, Editorial Mc Graw Hill, Mexico 2000.

José de Jesús Quiñonez Ramírez, Nora l. Brigas Rabago, Cesar Barrios Prieto (2011), La ruta del vino de baja california, en: http://eleconomista.com.mx/industrias/2012/01/17/las-pymes-vitivinicolas-se-abren-mercado

Salvador González Andrade, Cadena de valor económico del vino de Baja California, México, recuperado en: http://www.scielo.org.mx/scielo.php?pid=S0187-69612015000200006&script=sci_arttext

FACILITACIÓN COMERCIAL Y CONTROL ADUANERO EN LAS PRINCIPALES ADUANAS DE BAJA CALIFORNIA

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RESUMEN

La Administración General de Aduanas en México juega un papel fundamental en su comercio exterior, dado el auge del fenómeno de globalización en el que las economías cada vez están más interconectadas, un balance entre facilitación comercial y control aduanero son indispensables para tener un buen desempeño externo. A partir de 2007 es puesto en marcha el "Plan de modernización de aduanas 2007-2012", en el que se definen tres estrategias: eficientar la operación aduanera, incrementar el cumplimiento de las obligaciones de comercio y la seguridad nacional; el objetivo de este trabajo es revisar si las estrategias implementadas en las principales aduanas de Baja California acorde al "Plan de modernización de aduanas 2007-2012" son las adecuadas para lograr el balance entre la facilitación del comercio y control aduanero. El estudio es de tipo cualitativo, se analiza el balance entre facilitación comercial y control regulatorio a través de la estrategia de administración del riesgo, se realizaron nueve entrevistas, tres a expertos en materia aduanera, tres subadministradores de operación aduanera y a las asociaciones de agentes aduanales en Ensenada, Tijuana y Mexicali. Se concluye que el Plan de modernización de aduanas 2007-2012, plantea estrategias orientadas a lograr el balance entre facilitación y control aduanero, sin embargo, el Plan aún no se ha desarrollado al cien por ciento, además que requiere de cambios continuos, desarrollo constante, adaptándose a la dinámica, dado que los infractores continuamente están actualizándose de forma que puedan introducir o extraer contrabando al país. Se observa que hasta al momento lo que se ha implementado, realmente ha mejorado y ha llevado a la búsqueda del balance entre facilitación y control, sobre todo con el apoyo de la Administración del riesgo, la cual permite agilizar la operación, pero sin arriesgar la seguridad tanto del personal, como del país.

PALABRAS CLAVE: Plan de Modernización de Aduanas, Administración de Riesgo, Facilitación Comercial, Control Aduanero

TRADE FACILITATION AND CUSTOMS CONTROL IN MAIN CUSTOMS OF BAJA CALIFORNIA

ABSTRACT

General Management Customs in Mexico plays as a pivotal role in international trade, given the rise of globalization in which the economies are increasingly interconnected, a balance between trade facilitation and customs control are essential for a good external performance. Since 2007 Customs Modernization Plan 2007-2012, started, in which defined three strategies: more efficient customs operations, increase compliance with the obligations of trade and national security; the aim of this paper is to review if the strategies implemented in the main customs of Baja California, according to "Customs Modernization Plan 2007-2012" are appropriate to achieve the balance between the trade facilitation and the customs control.

The study is qualitative, the balance between trade facilitation and regulatory control through a risk management strategy, nine interviews were made, three experts in customs matters, three operating submanagers and the three brokers associations in Ensenada, Tijuana and Mexicali. We conclude that the "Customs Modernization Plan 2007-2012", raises aimed at achieving a balance between facilitation and customs control strategies, however, the Plan has not yet developed one hundred percent, plus continuous changes requiring constant development, adapting to the dynamics, since offenders are continually updated so they can insert o removed smuggled into the country. It is noted that even when what has been implemented, has really improved and has led to the search for balance between facilitation and control, especially with the support of risk management, which speeds up the operation, but without risking both security staff and the country.

JEL: H11, H77, O24, O38

KEYWORDS: Customs Modernization Plan, risk management, trade facilitation, customs control.

INTRODUCCIÓN

Debido a la continua y cada vez mayor interconexión entre países, facilitar el comercio recobra importancia sobre esta interacción en la que se busca integrarse con otros países a través de acuerdos, tratados de libre comercio, entre otros. Con el objeto de que los países tengan la facilidad de intercambiar bienes y servicios, es decir operaciones de comercio exterior, buscando beneficiarse mutuamente al posicionar mejor sus productos, e ingresar a mercados extranjeros. En esta interacción intervienen una serie de actores involucrados en este proceso de intercambio comercial, entre los que destacan las instituciones reguladoras del intercambio como lo son las Administraciones aduaneras, quienes dan el acceso y salida de las mercancías en los distintos países, que en un inicio fueron creadas con la intensión de cobrar y limitar la entrada de dichas mercancías, pero debido a la dinámica económica y las reestructuraciones políticas que se han implementado a nivel mundial, la función de la aduana se transformó a la de facilitar el comercio, sin poner en riesgo la seguridad nacional, lo que resulta complejo lograr, ya que para asegurar la nación se requiere la revisión de todo lo que se introduzca en el país, y para facilitar el comercio, el rápido acceso al país, entonces ¿cómo se puede lograr que la entrada de mercancía tenga un fácil acceso sin arriesgar la seguridad del país?

Instituciones internacionales como Banco Mundial (BM), la Organización Mundial de Aduanas (OMA), entre otras han planteado y desarrollado modelos, métodos que propone la estandarización en los procesos, la implementación de tecnología, entre otros aspectos importantes para lograr un balance entre facilitación comercial y control aduanero. Entonces la adopción de estos modelos y métodos en la Administración aduanera debido al papel preponderante que juega en cada uno de sus recintos, localizados en puntos estratégicos dentro de un país, por lo general costas, fronteras, aeropuertos internacionales y terminales ferroviarias, es imprescindible. En el caso de México se cuenta con 49 aduanas, 19 en la frontera norte, 2 en frontera sur, 17 marítimas, y 11 más interiores.

 En Baja California se localizan 4 aduanas, tres aduanas fronterizas y una marítima, entre las que destacan la aduana de Tijuana, que es uno de los cruces más importantes entre México y Estados Unidos con cerca de 4 mil operaciones diarias, Ensenada por ser la única aduana fronteriza en el Noroeste de México, localizada en un punto estratégico de cruce entre el mercado asiático y norteamericano, así como también tanto para la exportación como la importación de mercancías en México. Y Mexicali genera una recaudación de más de dos millones de pesos, así lo argumenta el administrador de la aduana de Mexicali, Enrique Orantes González (2015) y alrededor de 50mil cruces vehiculares diarios. De las cuales Tijuana es considera una aduana modelo dentro del "Plan de modernización de aduanas 2007-2012" en el que se definen una serie de estrategias para ser implementadas durante dicho periodo para estandarizar, actualizar y adoptar aquellos procesos, tecnología, legislación propuesta por los organismos internacionales.

Este "Plan de modernización de aduanas 2007-2012" muestra las modificaciones que se realizaron en las aduanas mexicanas a partir de 2000, ante la enorme apertura comercial que sufrió México, plantea una serie de estrategias con la intención de ser implementadas acorde al contexto internacional, y ámbito de la regulación aduanera, dado que esta influye determinantemente en la competitividad del país. El presente estudio tiene como objetivo evaluar si las estrategias implementadas en la aduanas en Baja California acorde al "Plan de modernización de aduanas 2007-2012" son las adecuadas para lograr el balance entre la facilitación del comercio y control aduanero. Con tres objetivos específicos 1. Comprobar que el plan ha eficientado la operación aduanera enfocado en la facilitación de comercio. 2. Analizar que se ha aumentado el cumplimiento de las obligaciones del comercio exterior. 3. Comprobar que el plan ha contribuido al fortalecimiento de la seguridad nacional, enfocado en la facilitación de comercio.

REVISIÓN DE LITERATURA

Facilitación del comercio es un concepto utilizado para referirse a las acciones que tiendan al movimiento eficiente de bienes a través de los recintos fiscales y la documentación vinculada con el comercio internacional, en los que se incluyen cuestiones como transparencia de las aduanas, regulaciones ambientales y armonización de estándares regulatorios. La Organización Mundial de Comercio (OMC) y la Conferencia sobre las Naciones Unidas sobre Comercio y Desarrollo (UNCTAD por sus siglas en inglés) definen facilitación del comercio como la simplificación y armonización de los procedimientos comerciales, incluyendo actividades, prácticas y formalidades envueltas en la recolección, presentación comunicación y procesamiento de datos requeridos para el movimiento de bienes en el comercio internacional de bienes. La Organización para la Cooperación y Desarrollo Económico definen facilitación comercial como la simplificación y estandarización de los procedimientos y flujos de información asociados que son requeridos para el movimiento internacional de bienes desde los vendedores a los compradores y para el pago que se realiza en la otra dirección. La Comisión Económica de las Naciones Unidas para Europa (UNECE por sus siglas en inglés) como el abordaje comprensivo e integrados para la reducción de la complejidad y el costo del proceso de transacciones comerciales y para asegurar que estas actividades se realicen de forma eficiente, trasparente y previsible, basado en normas, estándares y mejores prácticas internacionalmente aceptadas.

El Foro de Cooperación Económica Asia-Pacifico (APEC, por sus siglas en inglés) argumenta que la facilitación comercial generalmente remite a la simplificación, armonización, uso de nuevas tecnologías y otras medidas dirigidas a remover procedimientos e impedimentos administrativos del comercio que ayuden a los miembros en la construcción de experiencia, reducción de costos y conduzca a un mejor movimiento de bienes y servicios (1996). Por tanto facilitación comercial se puede concebir como la simplificación, armonización y estandarización de los procedimientos necesarios para el intercambio de bienes y servicios, reflejados en adopción de tecnología, innovación e implementación de mejores prácticas en los procedimientos, adaptación de la regulación acorde a estándares internacionales, transparencia, con la finalidad de reducción de costos y tiempos. Respecto al control aduanero, se refiere a ese resguardo de seguridad nacional, a través de la supervisión y revisión de todo lo que entra y sale del país. Acorde a la OMA son las medidas aplicadas a efectos de asegurar el cumplimiento de las leyes y reglamentos de cuya aplicación es responsable el recinto fiscal.

Según el artículo 9 del Código Aduanero Uniforme Centroamericano (CAUCA) IV, define controlo aduanero, como el ejercicio de las facultades del Servicio Aduanero para el análisis, supervisión, fiscalización, verificación, investigación y evaluación del cumplimiento y aplicación de las disposiciones de este Código, su reglamento y las demás normas reguladoras del ingreso o salida de mercancías y medios de transporte del territorio aduanero, así como la actividad de las personas físicas o jurídicas que intervienen en las operaciones de comercio exterior. Dentro del marco normativo mexicano la Administración General de Aduanas (AGA), es una entidad del Gobierno Federal dependiente del Servicio de Administración

Tributaria (SAT) cuya función principal es la de fiscalizar, vigilar, y controlar la entrada y salida de mercancías, así como los medios en que son transportadas, asegurando el cumplimiento de las disposiciones que en materia de comercio exterior haya expedido la Secretaría de Hacienda y Crédito Público (SHCP), así como otras Secretarías del Ejecutivo Federal con competencia para ello, ayudar a garantizar la seguridad nacional; proteger la economía del país, la salud pública y el medio ambiente, impidiendo el flujo de mercancías peligrosas o ilegales hacia nuestro territorio, además de fomentar el cumplimiento voluntario de esas disposiciones por parte de los usuarios. La aduana en este caso se observa como una organización burocrática, la cual tiene reglas claras y racionales, decisiones impersonales y excelencia técnica de sus empleados y gestores (Weber, 1924) que crea coaliciones entre diferentes grupos de interés de la organización y gestiona de manera positiva el conflicto (Selznick, Pfeffer, Croazier, 1981, en Rivas 2009). Estas fungen como oficinas públicas administrativas establecidas en las fronteras, litorales y ciudades importantes del país, con facultades para fiscalizar, vigilar y controlar la entrada y salida de mercancías, así como los medios en que éstas son transportadas; asegurar el cumplimiento de las disposiciones que en materia de comercio exterior se emitan; hacer cumplir las leyes aplicables y las que se relacionan con su actividad, como las de seguridad nacional, economía, salubridad, comunicaciones, migratorias, fitosanitarias, entre otras; recaudar impuestos, aprovechamientos y demás derechos en materia de comercio exterior.

Administración del Riesgo

Es claro entonces que lograr un balance entre facilitación comercial y control resulta complejo, el control se enfoca en la revisión para el resguardo de la seguridad nacional de la mercancía y facilitación en simplificar los procesos de manera que se reduzca costo y tiempo. El manual de modernización aduanera propone un método para lograr el balance entre la facilitación y control aduanero la figura 1.2 se muestra una matriz, en la que cada cuadrante se observa el resultado del enfoque que se le dé a cada variable. En el cuadrante superior de la matriz; alto control, poca facilitación; representa un régimen de alto control en el que los requerimientos de la aduana son estrictos, y van en detrimento de la facilitación (Este puede ser descrito como una aproximación de papeleo, la cual es comúnmente representativa de un estilo administrativo de aversión al riesgo). Esto puede implicar grandes críticas y quejas del público, debido a las crecientes expectativas de la comunidad comercial de que se minimice la intervención de la aduana.

Widdowson (2005) propone una pirámide de manejo de la conformidad basado en el riesgo, la cual abarca los diferentes elementos del estilo de administración del riesgo, para proporcionar una aproximación estructurada al manejo de la conformidad, esta proporciona un marco lógico para demostrar cómo varios tipos de estrategias basadas en el riesgo, incluyendo estrategias como la autoevaluación, pueden ser usadas para manejar efectivamente la conformidad. Para esta aproximación es fundamental proporcionar al sector comercial la habilidad para cumplir con los requerimientos de la aduana. Esto implica establecer una base legislativa efectiva, y una gama de estrategias de servicio al cliente, incluyendo planes de consulta efectivos y pautas administrativas claras. Dichas estrategias son necesarias para proporcionar al sector comercial con los medios para lograr certeza y claridad cuando evalúen las responsabilidades y derechos. Para valorar el nivel de cumplimiento, la aduana va a encontrar dos situaciones: cumplimiento y no cumplimiento. El espectro del cumplimiento puede variar entre errores inocentes y fraudes fatales. Si el error está más cerca del lado del fraude, debe aplicarse alguna forma de sanción, incluyendo penas administrativas, o en casos más severos, acusación y revocación de la licencia. Antes de determinar la necesidad o la naturaleza de la sanción es, sin embargo, importante identificar la verdadera naturaleza del

Figura 1.2 Matriz de Facilitación y Control

Fuente: Widdowson D., (2005). Manual de modernización aduanera: Administración del riesgo en el contexto de la aduana, Banco Internacional de Reconstrucción y Fomento/Banco Mundial. Washington

riesgo establecido, el porqué del error. El tipo de estrategia de mitigación que la aduana debe emplear para asegurar el cumplimiento futuro dependerá de la naturaleza del riesgo identificado. A menos que se encuentre que el error fue intencional, puede ser apropiado tratar los problemas sistémicos dentro de la compañía, o proporcionar a la compañía consejo en asuntos de cumplimiento, o proporcionar clarificación formal de la ley a través de reglas vinculantes u otros medios. Cuando se aplican los principios de administración de riesgo a actividades cotidianas de la aduana, una de las áreas más críticas es la valoración del cumplimiento, determinar si una entidad o una transacción está cumpliendo con los requerimientos de regulación. Esto representa el tercer escalón de la pirámide de manejo de cumplimiento en el Figura 1.3 cuando se desarrollan estrategias para evaluar el cumplimiento, es importante considerar el principio clave de la Convención Revisada de Kyoto, que el control de la aduana debe estar limitado a lo necesario para asegurar el cumplimiento con las leyes de la aduana (OMA, 1999). Los regímenes administrativos deben ser tan simples como operativos, y proporcionar a la comunidad comercial formas eficientes en términos de costos para demostrar el cumplimiento de la ley.

El uso de controles documentales para monitorear y valorar el cumplimiento, menos intrusiva, por tanto facilitadora que el uso de controles físicos. Todos estos cambios mayores en el ambiente operativo del comercio internacional requieren que la aduana revise su estructura y operaciones para responder a los desafíos de seguridad y facilitación comercial. Muchas administraciones han empezado a ajustar sus operaciones técnicas, pero es posible que exista una necesidad de considerar reformas de una naturaleza mucho más amplia. De acuerdo a la Guía para la administración del riesgo (2011), el riesgo se presenta cuando existe incertidumbre para lograr los objetivos de la institución, en entidades públicas tiene mayor relevancia dado su dinamismo al enfrentarse a un mundo globalizado, todos eso cambios tanto internos como externos

Fuente: Widdowson D., (2005). Manual de modernización aduanera: Administración del riesgo en el contexto de la aduana, Banco Internacional de Reconstrucción y Fomento/Banco Mundial. Washington

METODOLOGÍA

La presente investigación exploratoria y descriptiva, se realizaron entrevistas semiestructuradas a expertos en materia aduanera, autoridades aduaneras de las aduanas de Mexicali, Tijuana y Ensenada y a las asociaciones de agentes aduanales de Mexicali, Tijuana y Ensenada. La Guía para la administración del riesgo (2011), propone una metodología para administrar el riesgo en las instituciones. Afirma que las instituciones deben darle cumplimiento a su misión constitucional y legal, a través de sus objetivos institucionales, desarrollados a través de planes, programas y proyectos, pero que estos pueden verse afectados por factores tanto internos como externos creando riesgo frente a todas las actividades, por esta razón es necesario contar con acciones tendientes a administrarlos.

En el presente estudio se analiza el Plan de modernización de aduanas 2007-2012, cuya misión es "contribuir al crecimiento, prosperidad y competitividad del país mediante una operación aduanera eficiente, transparentes y predecible, que facilite el movimiento de pasajeros y mercancías, que inhiba los comportamientos ilícitos de empresas, personas y funcionarios, y fortalezca la seguridad nacional"(Aduanas, 2007 pag. 29). La Hipótesis que plantea el presente estudio es que las estrategias implementadas en plan de modernización 2007-2012 han sido suficientes para lograr el balance entre la facilitación del comercio y control aduanero. Por tanto en el diseño del plan debe considerar los elementos siguientes, contexto estratégico, identificación de riesgos, análisis de riesgos, valoración de riesgos, políticas de administración de riesgos. El contexto estratégico, se refiere a las condiciones internas y del entorno, que pueden generar eventos que originan oportunidades o afectan negativamente el cumplimiento de la misión y objetivos de la aduana. Así como el entorno externo que puede ser de carácter social, cultural, económico, tecnológico, político y legal, sea internacional, nacional o regional.

RESULTADOS

El "Plan de modernización de aduanas 2007-2012" surge a partir del auge del libre comercio debido al fenómeno de globalización detonado en las últimas décadas, que acorde a las teorías y modelos de comercio internacional (Smith, Ricardo, Ohlin, Leontief, Vemon, Linder, Krugman), el ser competitivos resulta ser la clave para ser productivos (Porter, 1990, incrementar los ingresos de la nación (OCDE, 1996), ser

prósperos (IMD, 2003). Lerma platea un modelo de competitividad sistémica a nivel macroeconómico, donde muestra como a través indicadores de desempeño, tecnología, innovación, se puede lograr competitivo, *concordando* con el modelo de competitividad sistémica, propuesto por el instituto alemán, en el que se hace énfasis en la innovación en todas las áreas de una organización, la redes de colaboración son la base del éxito de este modelo, manteniendo un contacto estrecho entre todas las instituciones involucradas en las operaciones aduaneras.

El concepto de competitividad y liberalización comercial, enfocado en la función de la aduana, se ve aplicado en transformaciones, desde el marco legal, hasta en cada operación, los organismos e instituciones internacionales, proponen estandarizaciones, las cuales fueron adquiridas por México dentro de este "Plan de modernización de aduanas 2007-2012", que acorde a la piramide de administración del riesgo basada de el cumplimiento, que es la base que sostiene esta herramienta, esta base legislativa estandarizada, permite reconocer las responsabilidades de cada uno de los actores involucrados en este proceso. Asi mismo se provee de una infraestructura; competitividad sistemica; y mecanismo electronicos de comunicación, como lo es Ventanilla Única de Comercio Exterior (VUCEM), medios no instrusivos como rayos x, rayos gamma, phazir, mini Rad-D, monitoreo de video central VIVA.

En el siguiente nivel se plantea el servicio al cliente se menciona que el primer paso es reconocer que se opera en un ambiente globalizado, acorde a la entrevista realizada a la Lic. Méndez quien es ex funcionaria de la AGA, concuerda que el primer paso que se tomó para modernizar la aduana, fue la visión tanto del Presidente de la República como del Secretario de Hacienda y el Administrador General de Aduanas, quienes plantearon un proyecto muy ambicioso, sin embargo alcanzable "Plan de modernización de aduanas 2007-2012", concordando con el manual que el apoyo para esta modernización debe provenir desde el nivel más alto, Lic. Méndez comenta que las reuniones sobre los avances del "Plan de modernización de aduanas 2007-2012", se realizaban en los pinos, es decir se rendían cuentas directamente al Presidente de la República. Menciona como el "Plan de modernización de aduanas 2007-2012", fue diseñado a partir de una exhaustivo análisis sobre la situaciones de las distintas aduanas, observando y determinando los que se requería para cada una de ellas a partir de sus estudios y análisis.

Que debe existir una cooperación y consulta con socios estratégicos, en este caso se comenta como el Administrador General de Aduana, vende la idea a EU de colaborar en este proyecto con donaciones, dado que ambos países se beneficiarían, sobre todo en las aduanas fronterizas, además de lograr la colaboración y aceptación de otras instituciones tanto internacionales como nacionales, para el desarrollo de este proyecto, como los son las SE, SCT, SAGARPA, COFEPRIS, entre otras. Incluyendo también al personal de la aduana, para lo cual no solo se capacitó para el uso de nueva tecnología, nuevos procesos operacionales, etc, todo el funcionamiento nuevo de la aduana, y del personal externo como la SEDENA, SEMAR, como apoyo para seguridad nacional, además del implemento de los Oficiales de Comercio Exterior, con el que se pretendió reclutar gente joven, con conocimientos básico de la aduana; concordando todo esto con el servicio a cliente.

El manual también menciona que deben realizarse mejoras en la movilización de los ingresos, con el cual también cuenta México, gracias a la implementación del Sistema de Automatización Aduanera Integral (SAAI), en donde se registra todas las operaciones realizadas en cada aduana, con la finalidad de generar las estadísticas del movimiento diario, la recaudación y el cumplimiento de las obligaciones, según estudios preliminares el recaudo tuvo un crecimiento real de 13.9% y de 9.4% de 2010 a 2011. El tercer escalon hace referencia a la evaluación del cumplimiento, encontrandose que a partir del plan de modernización de aduanas 2007-2012 la operación aduanera se ha eficientando, permitiendo la facilitación del comercio, acorde a los indicadores de la Organización Mundial del Comercio, en su acuerdo de facilitación comercial, el Foro Económico Mundial, avanzando 4 lugares del reporte de 2012 al 2014, con la implementación de ventanilla única, la cual conlleva una serie de automatizaciones para el cumplimiento de las formalidades, además se aumentado el cumplimiento de las obligaciones, con la estandarización de la normativa, y los

equipos de revisión no intrusiva, estos medios no intrusivos tienen un diseño especifico para seguridad nacional, el cual insta al cumplimiento de la obligaciones por parte de lo usuarios, y el respaldo del Departamento Central de Administración del Riesgo, quienes analizan y crean perfiles con apoyo de instituciones internacionales y bases de datos, de los usuarios sospechosos, y/o rutas peligrosas. Se tuvo un crecimiento real del 1.9% en promedio desde 2007 a 2014, el indicador Global de la actividad Económica (IGAE) creció 2.3% real para 2014, de acuerdo con cifras del Instituto Nacional de Geografía y Estadística (INEGI), en noviembre de 2014, los Establecimientos con Programa de la Industria Manufacturera, Maquiladora y de Servicios de Exportación (IMMEX) generaron más de 2.5 millones de empleos implico un incremento en el empleo de 6.5% . Respecto a contribuciones se tuvo un crecimiento real de 13.9% y de 9.4% en recaudación de contribuciones, y un decremento de 1.2% en pedimentos tramitados, periodo 2010-2011. En el periodo enero a marzo 2012 registró un crecimiento real de 13.7% respecto al periodo 2011. La recaudación tributaria neta por comercio exterior representó el 23% en 2011, y de enero a marzo de 2012 se registró un incremento real de 15.7% respecto a 2011, representando un 49% del IVA total recaudado de las operaciones registradas, de estas la recaudación voluntaria por autodeclaraciones registró un incremento real del 4%. Así mismo se iniciaron 1,972 Procedimientos Administrativos en Materia Aduanera (PAMAs), por omisión de contribuciones por 196.9 mdp, con un valor de las mercancías embargadas de 284.7 mdp.

CONCLUSIONES

El "Plan de modernización de aduanas 2007-2012" ha eficientado la operación aduanera, de forma que se ha facilitado el comercio, acorde a los indicadores de la Organización Mundial del Comercio, en su acuerdo de facilitación comercial, el Foro Económico Mundial, avanzando 4 lugares del reporte de 2012 al 2014. Con la implementación de ventanilla única, la cual conlleva una serie de automatizaciones para el cumplimiento de las formalidades. Se aumentó el cumplimiento de las obligaciones, con la estandarización de la normativa, y los equipos de revisión no intrusiva, y programa de apoyo, como Nuevo Esquema de Empresas Certificadas (NEEC), todo esto implementado con el "Plan de modernización de aduanas 2007-2012". El "Plan de modernización de aduanas 2007-2012", tiene un diseño específico para seguridad nacional, el cual insta a la capacitación del personal para el manejo de armamento, de forma que se resguarde y proteja el recinto fiscal, la coordinación entre instituciones como la SEDENA, y SEMAR, y el respaldo del Departamento Central de Administración del Riesgo, quienes analizan y crean perfiles con apoyo de instituciones internacionales y bases de datos, de los usuarios, rutas peligrosos o sospechosas. Por lo que se concluye que el "Plan de modernización de aduanas 2007-2012", plantea estrategias orientadas a lograr el balance entre facilitación y control aduanero, sin embargo, el Plan aún no se ha desarrollado al cien por ciento, además que requiere de cambios continuos, desarrollo constante, adaptándose a la dinámica, dado que los infractores continuamente están actualizándose de forma que buscan como introducir contrabando al país o viceversa. Se observa que hasta al momento lo que se ha implementado, realmente ha mejorado y ha llevado a la búsqueda del balance entre facilitación y control, sobre todo con el apoyo de la Administración del riesgo, el cual permite agilizar la operación, pero sin arriesgar la seguridad del personal, y del país.

REFERENCIAS

Aduana México, Servicio de Administración Tributaria, Secretaría de Hacienda y Crédito Público (2007). Plan de modernización de Aduanas.

Aduanas México. (2015). Avances del plan de modernización 2007-2012. Recuperado el 8 de octubre de 2015 en: http://www.aduanas.gob.mx/aduana_mexico/2008/servicios/144_12137.html

APEC Economic Committee. (2002). Measuring the Impact of APEC Trade Facilitation on APEC Economies: A CGE Analysis. Singapur.

Banco Mundial. (2003). Global Economic Prospects 2004: Realizing the development promise of the Doha agenda. Washington, D.C.

Banco Mundial. (2003). Risk Management Guide. Brussels. Zarnowiecki, Michel. Banco Mundial.

Barahona, J. & Romero, E. (1999). Proyecto de modernización aduanera. El proceso sus logros, y acciones pendientes. Centro Latinoamericano de Competitividad y Desarrollo Sostenible.

Bueno, L. (2014). "Tijuana 3er lugar en importación y exportación". *El Sol de Tijuana*. 25 de Junio 2014. Obtenido de: http://www.oem.com.mx/elsoldetijuana/notas/n3440470.htm

Delgado, G. (2009). *Mexico; Estructuras política, económica y social.* Mexico: Pearson Education.

Enrique Orantes González (2015) consultado el 28 de agosto de 2015: http://www.oem.com.mx/lavozdelafrontera/notas/n3908425.htm

Foro Económico Mundial, Informe de Competitividad Mundial, (1996), Oxford University Press. pág. 19 http://www.dineroenimagen.com/2015-07-11/58353

Gracia, M. (2008) Los determinantes de la competitividad nacional. Análisis reflexiones. Temas de Ciencia y Tecnología Universidad del Mar. México. *12* No. 36 (12-24).

Graham, S. (1998). The end of geography or the explosion of place? Conceptualizing space, place and information technology. Progress in Human Geography. Vol. 22, núm 2. Pp. 165-185

IMD World Competitiveness yearbook (2011). Consultado el 6 de mayo de 2011 en: http://www.imd.org/wcc/

Lerma, A. (2000). *Comercio Internacional. Metodología para la formulación de estudios de competitividad empresarial*. México: ECAFSA.

Morales, M. & Pech, J. (2000). Competitividad y estrategia: el enfoque de las competencias esenciales y el enfoque basado en los recursos. Revista Contaduría y Administración. No. 197
Ocegueda, J. (2006). La restricción de las reformas estructurales. Universidad Autónoma de Baja California. Mexicali, 205pp.

Organización para la Cooperación y el Desarrollo (1996). Globalization and competitiveness. Relevant indicators. STI Working papers, p 21.

Organización para la Cooperación y el Desarrollo Económico. (2003). Trade facilitation reforms in the service of development. Trade directorate, Trade Comittee. Documento Td/TC/WP 11 Final. OCDE. París.

Organización para la Cooperación y el Desarrollo Económico. (2007). Estudios Económicos de México. Consultado el 21 de abril de 2013 en:
http://www.oecd.org/document/9/0,3343,es_36288966_36288553_39455561_1_1_1_1,00.html

Organización Mundial del Comercio. (2008). Estadisticas del Comercio Mundial. Recuperado el 19 de mayo de 2013, de OMC web site: http://www.wto.org/spanish/res_s/statis_s/its2008_s/its2008_s.pdf

Organización Mundial del Comercio. (2008). Estadisticas del Comercio Mundial. Recuperado el 19 de mayo de 2013, de OMC web site: http://www.wto.org/spanish/res_s/statis_s/its2008_s/its2008_s.pdf

Organización Mundial de Aduanas. (2010) Informe del comité del fortalecimiento de capacidades.

Porter, M. (1990). The competitive advantage of nations. New York: free press. Consultado el 10 de febrero de 2013 en: http://hbr.org/1990/03/the-competitive-advantage-of-nations/ar/

Trejo P. (2010) Modernización de las aduanas y ¿un nuevo código aduanero?. Seminario de Comercio Exterior, UNAM.

Ramos R. (2001). Modelo de Evaluación de la Competitividad Internacional: *Una Aplicación Empírica al Caso de las Islas Canarias. Universidad de Las Palmas de Gran Canaria.* Consultado el 29 de enero 2012: http://www.eumed.net/tesis/rrr/index.htm

Rivas, L. (2009). Evaluación de la teoría de la organización. Revistas UR Universidad del Rosario. Bogota. No. 17

Rojas, J. (2006). Factores que inciden en la competitividad de las empresas de la industria chocolatera en el Distrito Federal. Instituto Politécnico Nacional. Consultado el 14 de octubre de 2010: http://biblioteca.universia.net/html_bura/ficha/params/title/factores-inciden-competitividad-empresas-industria-chocolatera-distrito-federal/id/48358031.html

The World Bank (2005). Custom Modernization Handbook. Wulf &Sokol editors. Washington.

Widdowson, D. (2005). Managing risk in the customs context. The World Bank. Washington, DC.

World Forum. (2012). Enabling Trade Index. World Forum Report 2012
Wulf & McLinden (2005). The role of information technology in customs modernization. En World Bank (2005). Custom Modernization Handbook. Wulf &Sokol editors. Washington

POLÍTICA PÚBLICA COMO HERRAMIENTA DE DESARROLLO PARA LA FLORICULTURA DEL MUNICIPIO DE TEPETLIXPA ESTADO DE MÉXICO

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RESUMEN

A nivel internacional la floricultura es una práctica con una participación significativa en países como: Holanda, Estados Unidos y Japón entre los más importantes. Holanda durante los años ochenta incremento sus inversiones en la producción de flores como pilar de desarrollo mediante las regulaciones de su Política Pública (PP); así mismo, existen otros países como: Colombia, Ecuador, Costa Rica y México donde las regulaciones por parte de la PP son en menor cantidad de apoyo para los procesos de producción, debido a los costos de producción tales como la mano de obra que son bajos en comparación con el país de origen tomado como referencia, también la diversidad de factores tales como los cambios climáticos de cada país y los nutrientes del suelo son diferentes. En México, de acuerdo a las estadísticas reportadas por el INEGI (2012) y el Sistema de Información Agropecuario (SIAP, 2013) de la Secretaría de Agricultura, Ganadería, Desarrollo Rural, Pesca y Alimentación (SAGARPA), muestran que dicha actividad es poco reconocida y que recibe apoyos precarios por parte de los diferentes niveles de los gobiernos federales, estatales y municipales. Considerando que la PP debe apoyar al progreso y mejoramiento de los sistemas productivos de la región con el propósito de mejorar la calidad de vida de la población; se consideran ciertas causas tales como: que la producción florícola es una actividad complementaria o secundaria para los productores, la falta de articulación de los mismos, el desconocimiento de los apoyos destinados a la actividad, el poco espacio dedicado al cultivo de ciertos tipos de flores. El Estado de México se encuentra como uno de los grandes productores florícolas a nivel nacional. Por lo que, la investigación tiene como propósito proponer estrategias de PP como herramienta de desarrollo de la floricultura del Municipio de Tepetlixpa Estado de México, que permitan detonar el territorio y mejorar la calidad de vida de su población, mediante la generación de empleos entre otros. Sin embargo, existen algunos elementos que impiden esta articulación de actores que se encuentran inmersos en el proceso de producción y que no están permitiendo la detonación al cien por ciento de dicha actividad, como elemento de desarrollo.

Palabras claves: Política Pública, Desarrollo, Floricultura

"PUBLIC POLICY AS A TOOL FLORICULTURE DEVELOPMENT THE MUNICIPALITY OF TEPETLIXPA MEXICO STATE"

ABSTRACT

Internationally floriculture is a practice with a significant share in countries like Holland, the US and Japan among the most important. Holland during the eighties increase their investments in the production of flowers as a pillar of development through its public policy regulations (PP); Colombia, Ecuador, Costa Rica and Mexico where regulations by the PP are lesser amount of support for production processes, due to production costs such as labor are: likewise, other countries such as exist low compared to the country

taken as reference, also the variety of factors such as climate change in each country and soil nutrients are different. In Mexico, according to statistics reported by INEGI (2012) and the Agricultural Information System (SIAP, 2013) of the Secretariat of Agriculture, Livestock, Rural Development, Fisheries and Food (SAGARPA), show that such activity is little precarious recognized and received support from various levels of federal, state and municipal governments. Whereas the PP should support the development and improvement of production systems in the region with the aim of improving the quality of life of the population; considered certain causes such as the flower production is a complementary or secondary activity for the producers, the lack of coordination of the same, the lack of support for the activity, the little space dedicated to the cultivation of certain types of flowers. The State of Mexico is one of the largest floriculture producers nationwide. So, the research aims to propose strategies for PP as a tool for development of floriculture Tepetlixpa Township State of Mexico, allowing detonate the territory and improving the quality of life of its population through employment generation etc. . However, there are some elements that prevent this articulation of actors who are involved in the production process and are not allowing the blast to one hundred percent of this activity, as an element of development.

JEL: D21, D29, G38, H43, H54, H83, J18, M29, O13, O18, O29, Q13, Q18

KEYWORDS: Public Policy Development, Horticulture

INTRODUCCIÓN

La importancia que ha tenido la actividad de la floricultura en México, a pesar de contar con poco apoyo gubernamental basado en las PP, que están establecidas en los Planes Nacionales, Estatales y Municipales de Desarrollo de cada periodo de gobierno en sus diferentes niveles, los cuales tienen el propósito de lograr el desarrollo de las regiones. Para tal efecto se menciona en el planteamiento del Plan Nacional de Desarrollo (2012 – 2018) que: *"Un **México Próspero** que promueva el crecimiento sostenido de la productividad en un clima de estabilidad económica y mediante la generación de igualdad de oportunidades. Lo anterior considerando que una infraestructura adecuada y el acceso a insumos estratégicos fomentan la competencia y permiten mayores flujos de capital y conocimiento hacia individuos y empresas con el mayor potencial para aprovecharlo. Asimismo, esta meta busca proveer condiciones favorables para el desarrollo económico, a través de una regulación que permita una sana competencia entre las empresas y el diseño de una política moderna de fomento económico enfocada a generar innovación y crecimiento en sectores estratégicos".* (PND, 2013-2018).

Para llevar a cabo las funciones de desarrollo en el país, y tal como los establece el PND 2012-2018, el órgano responsable de detonar el progreso de las comunidades con los apoyos gubernamentales, es la SAGARPA. Los procesos de producción de la floricultura en México, que a pesar de las precarias condiciones del cultivo y la poca tecnología adecuada para realizar dichas actividades, el país se encuentra como un productor promedio a nivel internacional y que en algunos de los estados de la republica esta actividad se maneja como primaria y generadora de empleos y desarrollo tanto local como estatal, dejando claro que es una actividad detonante para el desarrollo de los estados y Municipios. En esta investigación se plantea el problema que presentan los productores de flores en el Municipio de Tepetlixpa Estado de México, que cuenta con las características favorables en cuanto a clima, suelo, entre otras propiedades, para poder realizar dicha actividad y obtener resultados satisfactorios, que permitan detonar el territorio y mejorar la calidad de vida de su población, mediante la generación de empleos entre otros.

Sin embargo existen algunos elementos que impiden esta articulación de actores que se encuentran inmersos en el proceso de producción de la floricultura que no están permitiendo la detonación al cien por ciento de dicha actividad, los que más adelante se desarrollaran y analizaran para dar una solución a este problema con ayuda de mecanismos a través de la PP y poder brindar una mejor perspectiva en cuanto a su desarrollo local, municipal y Estatal. Por lo tanto, tomando en consideración a la Zona Sur Oriente del Estado de

México, y específicamente el Municipio de Tepetlixpa como tema central de la investigación, este ocupa el tercer lugar con el 3.58% del total de la producción dentro del Estado de México, con una producción de temporadas como son Noviembre el "Día de muertos" con la producción de flor de Cempasúchil, aunque este tipo de flor sea la que tiene mayor demanda, y también se cultivan otros tipos tales como: la nube, el alhelí, y terciopelo, entre otras de menor relevancia el ave del paraíso. Para lograr el crecimiento y detonación de la producción en el Municipio de Tepetlixpa Estado de México, es necesario utilizar los programas diseñados para tal fin, que son generados dentro de la PP en los diferentes niveles de gobierno, que apoyan a los Sistemas Productos Ornaméntales. Que de acuerdo a Salazar (s/f), menciona que la política *"es un concepto amplio, que tiene que ver con el poder general, que las PP forman parte de todo un sistema de soluciones específicas, concretas y determinadas, destinadas al manejo de ciertos asuntos políticos que se catalogan como situaciones socialmente problemáticas".*

REVISIÓN LITERARIA

De acuerdo a Morales (2011), la floricultura es un término que se refiere a la explotación comercial a través del cultivo de flores de corte, plantas ornamentales, follaje de corte y bulbos de flor destinados a la decoración. Esta práctica ha tenido un crecimiento a partir de los años setentas por aspectos que impactan a nivel mundial como lo es la globalización dando pie a una mejora en los procesos de producción y la variedad de flores que se cultiven. A nivel internacional la floricultura es una práctica con una participación significativa en países como: Holanda, Estados Unidos y Japón de los más importantes. Holanda durante los años ochenta incremento sus inversiones en países como: Colombia, Ecuador, Costa Rica y México donde las regulaciones son en menor cantidad además los costos de producción tales como la mano de obra son bajos en comparación con el país de origen, tomando como referencia también la diversidad de climas de cada país y los nutrientes del suelo. De acuerdo a datos proporcionados por la PROCOMER (Promotora del Comercio Exterior de Costa Rica), menciona que la producción florícola de Estados Unidos represento en el año 2002 el 42.2% de exportaciones de plantas ornamentales, seguido por Holanda con el 33.5%; sin embargo el principal mercado secundario para Estados Unidos es Canadá, aunque Canadá ha reducido su participación durante los últimos cinco años dando paso a otros competidores (71.1% en 1998-68%, en el 2002), tales como México que abastece con el 13% de su producción ornamental.

Además de desarrollar la producción ornamental EEUU, es el encargado de facilitar el comercio en este sector, tanto para importaciones como para exportaciones haciendo uso de "Animal and Plant Health Inspection Service" (APHIS) por medio del cual proveer a los exportadores americanos los permisos y certificados fitosanitarios cuando lo requieran para enviar su producto hacia algún país en especial. Así mismo, se menciona que del bloque económico de países productores de flores, Holanda es el país que encabeza la producción y venta, debido a que cuenta con sistemas capaces de adaptarse al cambio de clima gracias a los métodos de producción y utilización de invernaderos porque cuentan con protección, es decir, el cultivo de las flores se desarrolla en invernaderos y controles de clima según las características de cada planta. Por otra parte, Japón ha tenido grandes avances en la producción ornamental destacando cultivos de crisantemo, claveles, azucenas, fresias, lilium, lisianthus y gerberas. Con el tiempo la floricultura resulto ser una actividad lucrativa y fue ganando espacio, razón por la cual los cultivos agrícolas se dejaron de lado y se tomó a la floricultura como una actividad primaria, así mismo, hay que tomar en consideración que las condiciones climáticas favorecieron este cambio de actividad. En la actualidad, los floricultores a nivel internacional reciben asesoramiento de ingenieros agrónomos quienes les informan de nuevas técnicas que se están aplicando en la producción de flores. De acuerdo a lo anterior, las condiciones que se presentan son similares de manera recurrente con los productores florícolas del Municipio de Tepetlixpa estado de México, en donde las condiciones son similares, donde se invierte de manera aislada con un sin fin de procesos tales como el de planificación, existencia y participación de intermediarios en la comercialización de la producción, pero no se ha habido la voluntad por algunos sectores que permitan el desarrollo de proyectos productivos, que logren beneficiar al sector.

METODOLOGÍA

Para la investigación se utilizara el enfoque cualitativo "Métodos de investigación que utilizan descripciones interpretativas (palabras) más que estadísticas (números) para analizar los significados subyacentes y patrones de relaciones sociales". A través de técnicas de recolección de datos, como la observación no estructurada, entrevistas abiertas, revisión de documentos, discusión en grupo, evaluación de experiencias personales, e interacción e introspección con grupos o comunidades. Fue de tipo Descriptiva, donde se recolectara, analizara y vinculara los datos para responder al planteamiento del problema a través del uso de la información en forma de descripción general. De novel NO experimental transversal, se desarrollara a través de la observación y aplicación de algunas entrevistas. También se tomó en consideración el tipo metodología de Investigación-Acción. De acuerdo a Elliot (1993) "Es el estudio de una situación social con el fin de mejorar la calidad de la acción dentro de la misma" y Kemmis (1984) la maneja como "Una forma de indagación autoreflesiva realizada por quienes participan en las situaciones sociales que mejora: prácticas sociales o educativas ;comprensión sobre si misma; y las instituciones en que estas prácticas se realizan". El cual apoya a darle solución a un problema que afecta a los productores de flor del municipio de Tepetlixpa estado de México, y que a su vez tiene repercusiones sociales y deficiencia en los programas de apoyo gubernamental de la PP.

RESULTADOS

Los resultados obtenidos en la investigación se determina que el Municipio de Tepetlixpa del Estado de México, que con las condiciones en cuanto a espacio y clima para una producción exquisita de flores, hasta la fecha se ha venido cultivando especies tales como: cempasúchil, terciopelo, inmortal, casa blanca, monte casino, gerbera y margarita. Sin embargo esta actividad no ha podido ser explotada al cien por ciento por los productores, debido a la deficiente vinculación que existe en la articulación entre los actores y la PP para la aplicación de estrategias que ayuden a los floricultores a manejar dicha actividad, esto trae como consecuencia que se vuelva una actividad secundaria y complementaria en sus ingresos básicos. Los productores solo siembran por temporadas específicas debido a las condiciones que se presentan en el momento como ejemplo: en el mes de noviembre de cada año (flor de cempasúchil, flor de terciopelo, crisantemo etc.), al cuestionar del porque la actividad solo pasaba a ser secundaria y no primaria los productores respondieron de manera puntual que era demasiado caro producir todo el año y que en su defecto los que se dedicaban a la actividad producían por temporada, en ocasiones solían tener pérdidas de casi la mitad de la cosecha por diferentes factores entre ellos los altos costos, los cambios climáticos entre otros, por lo que no querían arriesgarse a producir de más, así mismo hicieron énfasis que los cambios climáticos si afectaban de modo sustancial a las cosechas, pues en otros años los climas no cambiaban tan radicalmente ni en pequeños lapsos de tiempo.

Por otro lado al cuestionarles sobre si conocían, estaban inscritos o sabían de algún programa u apoyo de PP gubernamental en todos sus niveles para su producción por parte del Municipio de Tepetlixpa la respuesta fue que "NO", de manera tajante, es sorprendente saber que los productores no tenían idea de si existen estos programas de apoyo hacia el cultivo de flor de ornamento, porqué entonces ¿Qué es lo que sucede?, ¿Qué procesos no se están llevando a cabo, para que los apoyos no lleguen al Municipio de Tepetlixpa?, ¿Qué elementos se están dejando a un lado para que esta articulación entre actores y la PP que no se ejecute de manera estratégica, para que los floricultores obtengan estos apoyos?.

CONCLUSIONES

En cuanto al tema de la floricultura México es reconocido, como uno de los países productores y abastecedores de distintas tipos de flor de corte, recordando un poco al estado de Baja california la ciudad de Mexicali y Villa guerrero se tiene que son lugares donde la floricultura se ha convertido en una actividad primaria y base de crecimiento del estado, el desarrollo que aunque no ha sido nada fácil por los factores

como tecnología obsoleta y prácticas de producción rezagadas llegan a abastecer el mercado de flores y a generar un desarrollo óptimo que permite la práctica aún de esta actividad. Ahora refiriéndose a la problemática que presenta el Municipio de Tepetlixpa Estado de México se encuentra que abastece solo el 3.6% de la producción del Estado de México, y que aunque cuenta con las condiciones óptimas de clima y espacio para la producción de flores como lo son: cempasúchil, terciopelo, inmortal, casa blanca, monte casino, gerbera y margarita, flores que son flores consideradas como de temporada y algunas otras con demanda de todo el año, podría está tener una producción mayor y poderse llevar a cabo estrategias que le permitan posicionarse en el mercado. Con la implementación de los programas que se establecen en las PP mediante la SAGARPA, se lograría tener un mejor desarrollo, control y administración de la floricultura en el Municipio, aprovechando los distintos apoyos que existen en los diferentes niveles de gobierno que se encargan de proveer apoyo a los productores, lo que daría como resultado la generación de empleos, mejores oportunidades de desarrollo, que permita mejorar la calidad de vida de la población a nivel local, y podría ser un alternativa de crecimiento a nivel estatal y nacional, colocando a la floricultura como una actividad primaria para el desarrollo del Municipio, puesto que como he venido mencionando en la investigación; la floricultura puede ser una actividad que pueda dar para mucho y es muy probable que actividad crezca con el paso de los años.

REFERENCIAS BIBLIOGRÁFICAS

Morales Sánchez, M. (2011). Construcción de indicadores agregados para la toma de decisiones financieras en el sector de floricultura, en el estado de México. (Tesis inédita de maestría. Universidad nacional autónoma de México, México D.F. (p; 1,8,52, párr.;1,5,204)

Osorio (2003).Las alianzas Municipales y el Desarrollo Local. Recuperado de http://www.redalyc.org/pdf/675/67550503.pdf (p.62, párr.162).

Pérez, J. (2012). El Estado de México, Principal productor de Flor. Archivado en Altavoz a la Hora. Recuperado de http://www.noticieroaltavoz.com/?p=25645

Quiróz, M. (n.p). La Floricultura en Colombia en el marco de la globalización: Aproximaciones hacia un análisis micro y macroeconómico. Recuperado de http://publicaciones.eafit.edu.co/index.php/revista-universidad-eafit/article/view/992

Romero, S., Hernán, D. (2012), El perfil competitivo local como factor Determinante para el desarrollo de la Floricultura en Madrid Cundinamarca, http://www.bdigital.unal.edu.co/8180/1/940837.2012.pdf

SAGARPA (2005) El sistema de producción de las flores de ornato. Recuperado de http://www.sagarpa.gob.mx/agronegocios/Documents/Estudios_promercado/ORNAMENTAL.pdf (p.81)

Vallejo, C (2007). Desarrollo (Económico) Local y globalización. Recuperado de http://www.redalyc.org/articulo.oa?id=357834254002 (p.50, párr.144).

Vázquez, (1999).Desarrollo Económico. Recuperado de http://abacoenred.com/IMG/pdf/boisier.pdf (p.51, párr.146)

APORTES DE LA ESTRUCTURA DE ALTO NIVEL EN LA GESTIÓN INTEGRADA

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RESUMEN

En este artículo presenta los resultados de un estudio documental cuyo objetivo fue analizar los aportes de la estructura de alto nivel propuesta por la Organización Internacional de Estandarización ISO frente a los requisitos en la gestión de la calidad y en la gestión de la seguridad y salud en el trabajo en organizaciones del sector privado en Colombia. Para ello, se consultó la literatura científica publicada en science direct, scopus y redalyc en los últimos 10 años. Esta búsqueda se realizó con los términos clave "integrated management", "integration of management systems" y "High-level structure. Adicionalmente, se efectuó una búsqueda iterativa de las publicaciones de los dos autores principales, los cuales corresponden a los autores con más publicaciones en las fuentes consultadas. Además se analizó la normatividad legal vigente en Colombia en materia de gestión aplicable a las empresas objeto de análisis. Los textos que cumplieron con los criterios enunciados fueron recuperados y analizados siguiendo la metodología de lectura crítica propuesta por Alvarado en el 2012 y posteriormente fueron contrastados con el Anexo SL de las directivas de ISO/IEC. Se concluyó que la estructura de alto nivel facilita la gestión integrada de la calidad y la seguridad y salud en el trabajo y optimiza los recursos para el logro de los objetivos organizacionales.

PALABRAS CLAVE: Calidad, Iso, Estructura de Alto Nivel, Gestión, Seguridad y Salud en el Trabajo

CONTRIBUTION OF THE HIGH-LEVEL STRUCTURE FOR INTEGRATION MANAGEMENT

ABSTRACT

This article presents the results of a desk study aimed at analyzing the contributions of the high-level structure proposed by the International Organization for Standardization ISO meet the requirements on quality management and management of health and safety working in private sector organizations in Colombia. The scientific literature published published in the last 10 years consulted in Science Direct, Scopus and Redalyc. This search was performed using the key terms "integrated management", "integration of management systems" and "High-level structure. Additionally, an iterative search of the publications of the two main authors took place, which correspond to the authors more publications in the sources. In addition, the current legal regulations in Colombia is analyzed on applicable management companies analyzed. The texts that met the criteria were retrieved and analyzed following the methodology of critical reading on the proposal for Alvarado 2012 and were subsequently contrasted with Annex SL directives of ISO / IEC. It was concluded that the high-level structure facilitates the integrated quality management and safety and health at work and optimizes resources to achieve the objectives organizational.

JEL: J28, K32, L15, L19, M54

KEY WORDS: Quality, ISO, High-Level Structure, Management, Safety and Health at Work

INTRODUCCIÓN

A nivel organizacional se ha visto el auge por los sistemas de gestión, como métodos o herramientas aplicadas para el mejoramiento continuo en el logro de sus objetivos, con propósitos detallados a nivel de productividad, imagen, crecimiento, competitividad, calidad, desarrollo humano y cultura organizacional. A pesar de contar con diversos modelos, la integración de la calidad con la seguridad y salud en el trabajo, permiten que la gestión se incorpore no solo en los procesos de una organización, sino que además, permee a las personas, desde la perspectiva del trabajo y desde el compromiso de cada colaborador para lograr la conformidad con los requisitos del producto o servicio que promete la organización a sus clientes.

Como sistemas de gestión, las referencias mundialmente conocidas e implantadas, han sido las normas ISO, para calidad la norma ISO 9001 (International Organization for Standardization (2015a) y para la seguridad y salud en el trabajo se ha considerado el referencial OHSAS 18001; actualmente la ISO se encuentra en la construcción y definición del referencial ISO 45001 International Organization for Standardization (2015b) para la seguridad y salud en el trabajo. En tiempos de la post-globalización, la ISO ha realizado una actualización en la estructura de las normas, la cual ha sido acogida durante los últimos 4 años, denominada estructura de alto nivel, la cual permite que las intenciones y propósitos de la organización por integrar la gestión, sean más efectivos y relevantes a nivel organizacional.

REVISIÓN LITERARIA

La integración significa llevar a cabo una combinación, es decir, poner todas las prácticas de gestión internas dentro de un sistema de tal manera que los componentes de dicho sistema no estén separados, sino vinculados para formar una parte integral del sistema de gestión de la empresa. Así, Beckmerhagen et al. (2003) consideran la integración como ―un proceso de unión de diferentes sistemas de gestión específicos en un único y más eficaz sistema integrado de gestión. Para Karapetrovic y Willborn (1998) y Karapetrovic (2003) un sistema integrado de gestión es un conjunto de procesos interconectados que comparten los mismos recursos (humanos, materiales, infraestructura, información, y recursos financieros) para lograr los objetivos relacionados con la satisfacción de una amplia variedad de grupos de interés (stakeholders). Un sistema integrado de gestión queda, por tanto, caracterizado por la pérdida de identidad de los subsistemas. Para Pojasek (2006) un sistema integrado de gestión es uno que combina sistemas de gestión usando un enfoque orientado al empleado, una visión basada en los procesos y un enfoque de sistemas, que hacen posible poner todas las prácticas de gestión normalizadas que correspondan en un solo sistema. Por último, Bernardo et al., 2009 resumen la integración como un proceso de vinculación de diferentes sistemas de gestión normalizados dentro de un único sistema de gestión con recursos comunes en apoyo de la mejora de la satisfacción de los grupos de interés (Carmona & Rivas, 2010).

Al indagar sobre los referenciales ISO 9001 (International Organization for Standardization (2015a), OHSAS 18001 (British Standards Institution, 2007) y en la proyección de la ISO 45001, en la literatura se encuentran diversos contenidos y puntos de vista frente a su integración. Por esto, es importante saber que la estructura de alto nivel es el nombre como se conoce el resultado del trabajo del grupo de coordinación técnica en normas de sistemas de gestión de la organización internacional de estándares (ISO), el cual dota de la misma estructura, definiciones y texto fundamentales idénticos a las normas de sistemas de gestión (Forbes, 2014). La estructura de alto nivel es un elemento normativo para el desarrollo de normas, que permite estructurar y alinear los sistemas de gestión ISO por medio de la unificación de su estructura, textos y vocabulario fundamentales. Tanto desde un punto de vista teórico como empírico, muchos autores han hecho énfasis en la necesidad de integrar estos sistemas de gestión, ante los beneficios esperados en cuanto a la mejora de la eficacia y la disminución de esfuerzos, costes y burocracia (Bernardo et al., 2009; Salomone, 2008; Zeng et al., 2006; Fresner y EngelHardt, 2004).

METODOLOGÍA

Este artículo corresponde a un estudio documental de literatura científica publicada en los últimos 10 años, en tres bases de datos: science direct, scopus y redalyc. Los criterios de búsqueda fueron: artículos publicados en inglés y español, en revistas indexadas cuyo tema central es la integración de sistemas de gestión normalizados. La revisión fue efectuada con los términos clave *"integrated management", "integration of management systems"* y *"High-level structure"*. Una vez recuperada la información se efectuó una búsqueda iterativa de las publicaciones de los dos autores principales, los cuales corresponden a los autores con más publicaciones en las fuentes consultadas. Además se analizó la normatividad legal vigente en Colombia en materia de gestión aplicable a las empresas objeto de análisis y documentos técnicos para la integración de sistemas de gestión normalizados. Los documentos que cumplieron con los criterios enunciados (24 documentos) fueron recuperados en texto completo y analizados siguiendo la metodología de lectura crítica propuesta por Alvarado (2012) y posteriormente fueron contrastados con el Anexo SL de las directivas de ISO/IEC.

RESULTADOS

La estructura de alto nivel organiza y estandariza la distribución interna de los requisitos de las normas ISO, es descrita en el Anexo SL de Directiva, Parte 1 de ISO/IEC. Esta estructura parte de la identificación del objeto y campo de aplicación del sistema de gestión de acuerdo a la disciplina [entiéndase disciplina como el área de actuación del sistema de gestión a saber: ambiental, calidad, seguridad y salud en el trabajo, entre otros] seleccionada, así como de sus referencias normativas específicas a cada disciplina y de los términos y definiciones aplicables al sistema de gestión.

En cuarto lugar se encuentra el contexto de la organización el cual incluye tanto las cuestiones internas como externas de las organización así como las necesidades y expectativas de las partes interesadas. Dentro de los factores internos a analizar se encuentran: 1.Estructura organizativa, 2.Políticas, objetivos y las estrategias para lograrlos, 3.Recursos de la organización, 4.Los procesos de toma de decisiones y 5. Las normas internas, directrices, modelo de negocio. Los factores externos a considerar son: 1.Factores culturales, sociales y políticos, 2.Requisitos legales, 3.Efectos económicos, 4.Tecnología y las 5.Tendencias del mercado.

A partir del análisis efectuado este es uno de lo puntos que permite relacionar, alinear e integrar las funciones específicas de los sistemas de gestión a implementar o ya implementados, dado que es la entrada para la identificación de las necesidades de la organización así como de sus partes interesadas relevantes. Esta etapa de análisis de contexto provee información detallada basada en datos para la toma de decisiones en materia de la gestión de la organización y es aquí el primer momento en el cual se pone en acción el *PENSAMIENTO ESTRATÉGICO* del gestor tanto de calidad como de seguridad y salud en el trabajo.Como aspecto relevante, principio de la gestión y centro de la estructura de alto nivel, el LIDERAZGO se identifica como una habilidad que deben tener todas las personas, en todos los niveles de la organización, determinado por el grado de motivación que tiene el individuo para permear a otros hacia el logro de un objetivo común, que para el caso de esta estructura, se refiere a la política integral de gestión, con una identificación clara de los roles, responsabilidades y autoridad frente a las decisiones a tomar y los caminos a elegir, para el logro de la satisfacción de las partes interesadas relevantes. Desde la gestión de la calidad y de la seguridad y salud en el trabajo, determina la orientación operativa y estratégica para el logro de los propósitos establecidos en la organización.

Enseguida, al contar con una gestión integrada, alineada con un propósito claro y establecido a partir de la calidad y seguridad en el trabajo, la PLANIFICACIÓN innova en las normas de gestión al requerir acciones para gestionar el riesgo y las oportunidades cuando se planifican sistemas de gestión. Teniendo como

fundamento la política integral de gestión, surge la necesidad de contar con objetivos del sistema y la planificación detallada de los mismos, teniendo presente y de manera continua el pensamiento basado en riesgos, con una orientación en el desempeño de la gestión integrada y no solo como requisito prescriptivo, que establecen una condición y nada más.

Bajo esta estructura y para dar cumplimiento a las directrices planteadas en el contexto y la planificación, con un liderazgo destacado, la gestión integral, requiere del componente de APOYO que permite dinamizar las intenciones de la organización hacia los resultados concretos del direccionamiento y control requeridos para la calidad y la seguridad y salud en el trabajo. En este aparte, la estructura propone la intervención de los recursos requeridos para establecer, implementar, mantener y mejorar la gestión integrada, como son: las personas, la infraestructura (incluye recursos tecnológicos y planta física), factores físicos y humanos, recursos de seguimiento y medición (incluye el aseguramiento metrológico y la gestión del conocimiento), la competencia de las personas, la toma de conciencia de las mismas, la comunicación interna y externa y el control de la información documentada, que permita generar confianza en la conformidad con los requisitos en el margen de la eficacia en la gestión integrada.

Luego de identificar los recursos que requiere la gestión integrada, dentro de la estructura de alto nivel se cuenta con la OPERACIÓN, siendo la etapa más general de la misma y se orienta a planificar, implementar y controlar los procesos requeridos por el sistema integrado, incluso los cambios que sean requeridos. Este apartado es donde cada norma de gestión introduce los capítulos específicos de su materia, sea calidad o seguridad y salud en el trabajo, para el caso particular. Se destaca, por cuando en la operación se requieren procesos para todas las gestiones, incluyendo algunas como ISO 14001 que no utilizaban el término de forma explícita. Para el caso de la seguridad y salud en el trabajo, se destacan temáticas como: jerarquía de los controles, preparación y respuesta ante emergencias y la gestión del cambio, mientras que para la gestión de la calidad, prevalecen temáticas como: requisitos de productos y servicios, diseño y desarrollo de productos y servicios, el control de los procesos, productos y servicios suministrados externamente, y el control de las salidas no conformes.

Dentro del concepto de gestión se establecen 2 elementos relevantes para su ejecución, los cuales son: dirección y control. Dentro de la estructura de alto nivel, la dirección está detalladamente descrita en los apartados descritos hasta el momento, a excepción de la etapa de operación, donde no solo se direcciona, sino que además, se ejecuta. El control se determina a través de la EVALUACIÓN DEL DESEMPEÑO, en la cual se incluye la necesidad de dar seguimiento, medir, analizar y evaluar el comportamiento, efectos y aportes del sistema y sus componentes. Establece también los requisitos de la auditoría interna y revisión por parte de la dirección, como actividades de suma importancia en la verificación del cumplimiento de los requisitos que intervienen en la gestión integrada de la calidad y la seguridad y salud en el trabajo. Por último, la estructura de alto nivel con el enfoque de integración, aquí propuesto, cierra el ciclo con la MEJORA, la cual establece los parámetros para la toma de correcciones, acciones correctivas, mejora continua, cambios abruptos, innovaciones y reorganización. A este apartado le siguen anexos que cada norma de gestión define para asegurar la mejor comprensión de los requisitos de la alta estructura y propios del tema que normaliza, lo que facilita la comprensión de las normas para su lectura, interpretación, aplicación, verificación, mantenimiento y mejora.

CONCLUSIONES

La metodología de integración de la gestión, es particular para las organizaciones y dependerá de la cultura organizacional adquirida, de la planificación estratégica que tenga y del alcance de la visión que promuevan sus líderes, dado que existe una diversidad técnica que no se aparta de la fundamentación al basarse en dos principios de gestión universalmente aceptados: el enfoque de gestión basado en procesos y la mejora continua, que se establece en el ciclo PHVA: Planificar, Hacer, Verificar y Actuar.

Sin embargo, la estructura de alto nivel, originada por la organización ISO, indica que la integración de sistemas normalizados, cuenta con una herramienta sencilla, alineada, concreta y efectiva denominada estructura de alto nivel, que a partir de las 10 etapas o capítulos que la integran, es posible articular cualquier sistema de gestión y pensar en la optimización de recursos para el logro de los objetivos organizacionales.

La empresa que quiera mantenerse en el mercado, tendrá que adaptarse a la nueva estructura y contenido de las normas, para implantar sistemas de gestión que permitan que sus productos o servicios tengan elementos cualitativos que sean bien vistos, den confianza y favorezcan la decisión de compra por los clientes (Fraguela et al, 2011) La innovación es un eje central para la consolidación de la integración en la gestión. Permite alinear la estrategia, los nuevos productos y servicios, las mejores prácticas y los mecanismos de control, seguimiento y mejora, entre otros. De la capacidad que tengan las organizaciones para innovar dependerá el éxito y la competitividad que logren en un sistema económico cada vez más exigente y retador. Como se observa, la adopción de una misma estructura, texto fundamental y definiciones clave idénticos a las normas de sistemas de gestión, que particularmente son de interés desde la calidad y la seguridad y salud en el trabajo, busca facilitar la adopción de estos instrumentos por el mercado y prepara el camino para la integración de diferentes variables de gestión, herramientas de mejoramiento y métodos de productividad.

BIBLIOGRAFÍA

Asociación Española de Normalización y Certificación (2005). UNE 66177: 2005. Sistemas de gestión. Guía para la integración de los sistemas de gestión. España: AENOR.

Alvarado, M. (2012). Lectura crítica de medios: una propuesta metodológica. *Comunicar*, XX(39) 101-108. Recuperado de http://redalyc.org/articulo.oa?id=15823945011

Bernardo, M., Simon, A., Tarí, J. J., & Molina-Azorín, J. F. (2015). Benefits of management systems integration: A literature review. *Journal of Cleaner Production*, 94, 260-267. doi:10.1016/j.jclepro.2015.01.075

British Standards Institution. (2007). OHSAS 18001. Occupational Health and safety systems. Requirements. Inglaterra: BSI.

British Standards Institution. (2012). Pas 99: 2012. Sistemas de gestión integrados. Inglaterra: BIS.
Carmona, M. & Rivas, M. (2010). Desarrollo de un modelo de sistema integrado de gestión mediante un enfoque basado en procesos. 4th International Conference on Industrial Engineering and Industrial Management XIV Congreso de Ingeniería de Organización.

Forbes, R. (2014). Estructura de alto nivel de la ISO y su impacto en las normas de sistemas de gestión. *CEGESTI éxito empresarial, 277,* 1-3.
Fraguela, J., Carral, L., Iglesias, G., Castro, A. & Rodríguez, M. (2011). La integración de los sistemas de gestión. Necesidad de una nueva cultura empresarial. Dyna, 78(167) 44-49. Recuperado de http://www.redalyc.org/articulo.oa?id=49622358005.

International Organization for Standardization. (2014). Anexo SL de las directivas de ISO/IEC, parte 1. ISO/IEC Directives, Part 1. Consolidated ISO Supplement — Procedures specific to ISO (Fifth edition). Suiza: ISO.

International Organization for Standardization (2015a). ISO 9001:2015. Sistema de gestión de la calidad. Requisitos. Suiza: ISO.

International Organization for Standardization (2015b). ISO/CD 45001.2. Occupational health and safety management systems – Requirements with guidance for use. Suiza: ISO.

Maier, D., Vadastreanu, A. M., Keppler, T., Eidenmuller, T., & Maier, A. (2015). Innovation as a part of an existing integrated management system. *Procedia Economics and Finance*, 26, 1060-1067. doi:10.1016/S2212-5671(15)00930-2

Targen, S. & Warris, A. (2012). Management makeover -New format for future ISO management system standards. Recuperado de http://www.iso.org/iso/news.htm?refid=Ref1621

BIOGRAFÍA

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ESTUDIO SOBRE CALIDAD DE VIDA LABORAL DE PERSONAS CON DISCAPACIDAD QUE LABORAN EN EL SECTOR FORMAL DE ENSENADA, BAJA CALIFORNIA, MÉXICO

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RESUMEN

La calidad de vida laboral de las personas con discapacidad ha constituido una preocupación por organismos nacionales e internacionales que impulsan políticas públicas para fomentar el empleo de dichas personas. Sin embargo, a pesar del potencial que este sector tiene para incorporarse en el mercado, se enfrenten obstáculos sociales, familiares y de inclusión que influyen en su calidad de vida laboral. En este trabajo, se presenta los resultados de un estudio sobre la calidad de vida laboral de personas con discapacidad física, auditiva, visual o intelectual que se encuentran empleados en el sector formal del municipio de Ensenada, Baja California, México. Para caracterizar la calidad de vida laboral de dichas personas, se diseñó un instrumento de 45 ítems para medir el medio ambiento físico, medio ambiente contractual, medio ambiente productivo, satisfacción por el trabajo y desarrollo personal, el cual se aplicó a 25 personas. Con respecto a los hallazgos, 56 por ciento de las personas encuestadas reportó una mala calidad de vida laboral, mientras que 44 por ciento de la población considera tener una buena calidad de vida laboral.

PALABRAS CLAVE: Personas con Discapacidad, Calidad de Vida Laboral

A STUDY OF THE QUALITY OF WORK LIFE OF PERSONS WITH DISABILITIES EMPLOYED IN FORMAL SECTOR JOBS IN ENSENADA, BAJA CALIFORNIA, MEXICO

ABSTRACT

The quality of work life of persons with disabilities has received increasingly more attention from national and international organizations that formulate public policies to promote their inclusion in the workforce. However, persons with disabilities still confront social and familial obstacles that limit their employment and affect negatively their quality of work life. In this paper, we present the results of a study on the quality of work life of persons with disabilities, employed in the formal sector in Ensenada, Baja California, Mexico. In order to characterize their quality of work life, we designed an instrument with 45 items to measure their physical, contractual and productive work environments, as well as their personal satisfaction and development. Among our findings, we found that 56 percent of the surveyed population considered their quality of work life to be bad, while 44 percent characterized it as good.

JEL: I31, J24, J28

KEYWORDS: Persons with Disabilities, Quality of Work Life

INTRODUCCIÓN

De acuerdo con Urra (2011), el entorno social de una persona lo integran sus condiciones de vida y de trabajo, su nivel de ingresos, los estudios que ha realizado y la comunidad a la que pertenece, sin embargo, para la persona con discapacidad hay que sumarle la discriminación, la exclusión y el rechazo, entre otros, que contribuyen a un entorno social hostil. Asimismo, muchas de las personas con discapacidades que pueden y quieren trabajar se encuentran desempleadas, debido a la falta de acceso a la educación o formación profesional, prejuicios que evidencian empleadores y la sociedad en general, además de barreras arquitectónicas y de transporte que influyen en su incorporación al mercado laboral y, desde luego, las condiciones laborales en que se desempeñan una vez empleado en los sectores formales e informales de la economía (De la Madrid, 2012, Villa, 2003, Amate, 2006). En el caso de México, donde 5.1 por ciento de la población cuenta con algún tipo de discapacidad, las personas con discapacidad se encuentran ante un mercado laboral precario, de acuerdo con el Instituto Nacional de Estadística y Geografía (2010) y el Consejo Nacional para las Personas con Discapacidad (CONAPRED, 2009, De la Madrid, 2012).

Una de las formas de medir la influencia que ejercen las condiciones laborales en el desarrollo integral de las personas con discapacidades es a través de estudios sobre la calidad de vida laboral que se considera, en este trabajo, como las condiciones y ambiente de trabajo favorable que conlleva a la satisfacción del trabajador y que se encuentran relacionados con la recompensa, seguridad laboral y oportunidades de desarrollo personal (Lau, 2000, citado por Segurado & Agulló, 2002). Es la manera cómo las personas viven diariamente en su ambiente laboral y que involucra aspectos objetivos y subjetivos que abarcan condiciones físicas y contractuales hasta las relaciones sociales entre trabajadores y la parte empresarial (Espinosa, 2002). En este trabajo, se analiza la calidad de vida laboral de personas con discapacidades que laboran en el sector formal en Ensenada, Baja California, mediante cinco variables: medio ambiente físico, medio ambiente contractual y medio ambiente productivo que corresponden a la calidad de vida laboral objetivo de la persona, y satisfacción y desarrollo personal que corresponden a su calidad de vida subjetivo.

REVISIÓN LITERARIA

En la actualidad, el sector empresarial en México busca cada vez más ser competitivo, eficiente y comprometido con su medio ambiente, además de distinguirse por la calidad de sus productos y procesos. Sin embargo, para lograr lo anterior es necesario tomar en cuenta la calidad de vida laboral de los trabajadores que constituye un componente integral de su calidad de vida, definida por la Organización Mundial de la Salud como "la percepción individual de la propia posición en la vida dentro del contexto del sistema cultural y de valores en que se vive y en relación con sus objetivos, esperanzas, normas y preocupaciones" y que refleja la situación económica, estilo de vida, salud, vivienda, entorno social, entre otras, de las personas (citado por Cardona & Agudelo, 2005, p. 85). Como la definición lo indica es la percepción que varía de una persona a otra de acuerdo con un sistema de valores, estándares o perspectivas. Así que "la calidad de vida consiste en la sensación de bienestar que puede ser experimentada por las personas y que representa la suma de sensaciones objetivas y subjetivas personales" (Cardona & Agudelo, 2005, p. 85).El interés por la calidad de vida de los trabajadores en los centros de empleo tiene sus orígenes en una serie de conferencias patrocinadas por el Departamento de Trabajo de Estados Unidos y la Fundación Ford y que se llevaron a cabo a finales de los años sesenta y comienzos de los setenta. Estas conferencias se dieron por el fenómeno de la alineación del trabajador, sin embargo los asistentes consideraron que el término iba más allá de la satisfacción por el puesto de trabajo y que incluía otros aspectos, tales como la participación del trabajador en las tomas de decisión, su autonomía en el trabajo cotidiano, y el rediseño de puestos, sistemas y estructuras de la organización, con el objetivo de estimular el aprendizaje, promoción y mayor interés y participación por parte del trabajador. En otras palabras, se buscaba humanizar el entorno del trabajo, de acuerdo con sus proponentes, y mejorar la calidad de vida laboral de la fuerza de trabajo (Granados, 2011, Segurado & Agulló, 2002).

Hoy en día, el estudio de la calidad de vida laboral se aborda desde dos grandes perspectivas: teórica-metodológica y psicológica. Desde la primera se busca mejorar la calidad de vida mediante el logro de los intereses u objetivos de la organización, mientras que la segunda perspectiva muestra un mayor interés por el trabajador y considera aspectos subjetivos, es decir la percepción de los trabajadores sobre su calidad de vida laboral (Granados, 2011). En este sentido, la calidad de vida laboral se define como la condición y ambientes de trabajo favorables que protegen y promueven la satisfacción de los empleados mediante recompensas, seguridad laboral y oportunidades de desarrollo personal. Por ende, ambas perspectivas presentan diferencias en cuanto a los objetivos que persiguen en su propósito por mejorar la calidad de vida en el trabajo, en los aspectos del entorno del trabajo, en el foco de análisis en el que centran su interés y en el nivel de generalidad de su análisis (Segurado & Agulló, 2002).

La calidad de vida laboral también se puede estudiar desde la parte individual (privada) o colectiva (pública); en la parte individual es importante considerar aspectos subjetivos que no son fáciles de cuantificar y desde la parte colectiva es importante considerar el contexto cultural en el que vive, crece y se desarrolla un individuo (Cardona & Agudelo, 2005). A su vez, Huerta, Pedraja, Contreras & Almodovar (2011) mencionan que los elementos que son relevantes para la calidad de vida individual son: la compensación adecuada y justa, condiciones de trabajo seguras y saludables, oportunidades inmediatas para continuar creciendo, seguridad, integración social en las organizaciones de trabajo, constitucionalismo en la organización de trabajo, trabajo y espacio de vida total y la relevancia social de la vida laboral.

Para Chiavenato (2011) la calidad de vida implica crear, mantener y mejorar el ambiente laboral, trátese de sus condiciones físicas (higiene y seguridad) o de sus condiciones psicológicas y sociales. Todo ello redunda en un ambiente laboral agradable y amigable, mejora sustancialmente la calidad de vida de las personas dentro de la organización y, por extensión fuera de ella. Para él, la calidad de vida en el trabajo no sólo implica los aspectos intrínsecos al puesto, sino también todos los aspectos extrínsecos y contextuales. Por lo anterior, Sánchez (2013) señala la necesidad de reconciliar los aspectos del trabajo que tienen que ver con las experiencias humanas y con los objetivos organizacionales. El concepto, entonces, lo considera multidimensional, por un lado se agrupan los aspectos que tienen que ver con el entorno en que se realiza el trabajo y por el otro con la experiencia psicológica de los trabajadores. Por lo mismo, Lares (1998) ha propuesto un modelo integral de calidad de vida laboral que encaja una multitud de indicadores y su combinación en bloques relacionados que contribuye a esclarecer las interrelaciones entre los diversos componentes de la calidad de vida en el trabajo. Este modelo incluye dimensiones objetivas relacionadas con el grado de participación y control, equidad económica, ambiente laboral; y dimensiones subjetivas relacionadas con la satisfacción laboral, identidad y autoestima y, por último, alineación. En conjunto, las dimensiones representan sentimientos que demuestran los trabajadores como resultado de su vida laboral.

METODOLOGÍA

Para caracterizar la calidad de la vida laboral objetiva y subjetiva de las personas con discapacidad que laboran en el sector formal de Ensenada, se diseñó un instrumento compuesto por 45 *ítems* y con una escala de Likert, para medir el medio ambiente físico (Granados, 2011), medio ambiente contractual (Castaño, Montoya & Restrepo, 2009), medio ambiente productivo (Granados, 2011), satisfacción por el trabajo (Gómez, 2010) y desarrollo personal (Gómez, 2010). Se aplicó el instrumento, que contó con un coeficiente alfa de Cronbach de .924, a 25 personas, se realizó el análisis de los resultados con el apoyo de la paquetería del SPSS, y se diseñó un baremo para el concepto global de la calidad de vida laboral y cada una de las variables de estudio. Para lograr lo anterior, se obtuvo un promedio con los resultados del conjunto de respuestas de cada una de las dimensiones de las variables. Una vez obtenido el resultado se recodificó la variable, asignando un valor de 1 al rango inferior de 3, de 2 al inferior de 4 y 3 al superior de 4. Cabe señalar que el valor de 1 corresponde a una mala calidad de vida laboral; el valor de 2, una buena calidad

de vida laboral; y el valor de 4, una muy buena calidad de vida laboral, esto indica que bajo el criterio de a mayor porcentaje, mayor la percepción de la calidad de vida laboral.

RESULTADOS

De acuerdo con el instrumento diseñado, los resultados revelan un panorama de empleo poco alentador para las personas con discapacidad que laboran en el sector formal de Ensenada. En cuanto al medio ambiente físico, 60 por ciento de la población encuestada lo considera malo y sólo 36 por ciento lo considera bueno. Encontramos también con que factores relacionados al desplazamiento de la casa del trabajador a la empresa, el transporte que utiliza, el tiempo de traslado, los accesos para desplazamiento, ruido, temperatura, luz, limpieza y orden del área de trabajo, y el uso y estado de las herramientas de trabajo influyen en la mala calidad de vida laboral. Con respecto a la variable de medio ambiente contractual, en donde consideramos el contrato laboral, prestaciones, condiciones laborales, sueldo, seguridad laboral y jubilación, 52 por ciento de la población lo caracteriza como malo, por lo que no se siente con una estabilidad contractual buena. Lo que caracteriza principalmente este variable es la insatisfacción por el sueldo recibido, coincidiendo lo anterior con lo planteado por Pallisera & Rius (2007), quienes han observado que el sueldo que reciben personas con discapacidad es insuficiente para afrontar sus gastos de manutención. Flores, Jenaro, González-Gil & García-Calvo (2010) encontrarón también que el desequilibrio entre las demandas laborales y los recursos de que disponen colocan a los trabajadores con discapacidad en una posición de riesgo y reduce la calidad de vida laboral.

Con la variable de medio ambiente productivo analizamos elementos que abarcaron la jornada de trabajo, turnos, carga de trabajo, descansos, tiempos muertos y eficiencia, y los resultados indican que la población encuestada sí goza de una buena calidad de vida laboral en cuanto el medio ambiente productivo; 52 por ciento de la población reporta un buen medio ambiente productivo, mientras que 12 por ciento lo considera muy bueno. Las últimas dos variables –satisfacción por el trabajo y desarrollo personal- se relacionan con los elementos subjetivos de la calidad de vida laboral. Mediante el primero consideramos elementos que reflejaran satisfacción por el trabajo, tales como organización, agrado y satisfacción por las actividades, comunicación ascendente y descendente, supervisión y el puesto relacionado con la preparación académica; los resultados mostraron que 60 por ciento de la población está satisfecho con el trabajo que realiza. Resultado que concuerda con un estudio elaborado por Flores et al. (2010), quien concluyó que, en el caso de la discapacidad intelectual, las personas experimentan satisfacción laboral por el mero hecho de obtener empleo y no como resultado de su bienestar respecto a otras dimensiones del trabajo como son las propias condiciones laborales. En cuanto a la última variable, donde evaluamos elementos desde si el trabajo es bien valorado por los jefes directos, por los compañeros de trabajo, oportunidades de ascenso, de capacitación, satisfacción por la capacitación, desarrollo de capacidades, creatividad e iniciativa, 60 por ciento de la población lo considera malo.

El análisis de los objetivos específicos nos permite concluir que las personas con discapacidad que laboran en el sector formal de Ensenada no cuentan con una buena calidad de vida laboral. Al considerar el entorno global del análisis de la calidad de vida laboral, los resultados arrojaron que 56 por ciento la consideran mala, mientras que sólo 44 por ciento considera tener una buena calidad de vida laboral. La única variable positiva del estudio, la satisfacción por el trabajo, viene a reforzar lo planteado por Flores et al. (2010) que las personas perciben satisfacción por el mero hecho de estar desempleadas y encontrar un empleo, pero sin embargo esta no debe de ser la única variable positiva puesto que en el concentrado del análisis de la calidad de vida laboral el resultado es negativo, dando a mostrar las carencias que existen en el mercado formal.

CONCLUSIÓN

La discapacidad constituye un fenómeno global, ya que no sólo afecta a la persona que la padece sino a su familia, su entorno cálido y a la sociedad en general. Por ello es necesario que las soluciones sean integrales más allá del ámbito familiar, en los principales elementos que interactúa, tales como la salud, la educación y el trabajo. Con respecto al entorno laboral, las empresas que incluyen a personas con discapacidad lo hacen por muchas razones, incluyendo la viabilidad comercial, de acuerdo con la Organización Internacional del Trabajo (2013). En otras palabras, una empresa socialmente responsable busca tener una fuerza de trabajo diversa e incluyente. Buscar incluir a personas con discapacidad que puede aportar beneficios en cuanto empleados confiables y productivos, con una reducción en las tasas de accidentes y mayores tasas de permanencia. Además, las personas con discapacidad representan una fuente de habilidades y talentos sin explotar. Los que adquieren la discapacidad en el lugar de trabajo también cuentan con experiencia y habilidades que son valiosas para la empresa.

Es por ello que las políticas públicas deberían fomentar la inclusión al mercado laboral de grupos vulnerables, tales como personas con discapacidad. En cuanto al sector empresarial, además de incluir a personas con discapacidad en su fuerza laboral, deberá aprovechar los beneficios que el sector puede aportar a sus empresas para mejorar su imagen, reducir índices de rotación por el sentido de pertenencia que los trabajadores con discapacidad suelen tener y mejorar su productividad. Un elemento importante que puede mejorar es el medio ambiente contractual; al mejorar el conjunto de prestaciones y remuneraciones económicas de los empleados, de acuerdo con sus necesidades, elevará el compromiso por parte de los trabajadores con discapacidad, también falta por mejorar las políticas internas de capacitación, promoción y desarrollo para que sean más equitativas y con base en habilidades y capacidades y no la discapacidad en sí. Por último, se recomienda ampliamente que el sector público no sólo promueva políticas de inclusión, sino que acate y de seguimiento para que existan registros de empresas inclusivas y el comportamiento respecto a su calidad de vida laboral del sector, ya que no existen tales registros y las dependencias correspondientes han dejado rezagado este sector no sólo en promoción, sino en seguimiento y control con respecto a la aplicación de las políticas existentes.

REFERENCIAS

Amate, E. A. (2006) "Evolución del concepto de discapacidad", en E. A. Amate & A. Vásquez (ed.), *Discapacidad lo que todos debemos saber* (pp. 3-7). Washington, D.C.: Organización Panamericana de la Salud.

Cardona, D. & Agudelo, H. (2005) "Construcción cultural del concepto calidad de vida", *Revista Facultad Nacional de Salud Pública*, vol. 23(1), pp. 79-90.

Castaño, J., Montoya, L. & Restrepo, L. (2009) "Compensación salarial y calidad de vida", *Scientia et Technica,* vol. 15(43), pp. 89-94.

Chiavenato, I. (2011*). Administracion de recursos humanos* (9ª ed.). México: McGraw–Hill.

Consejo Nacional para las Personas con Discapacidad (2009). *Programa Nacional para el Desarrollo de las Personas con Discapacidad 2009-2012. Por un México incluyente: construyendo alianzas para el ejercicio pleno de los derechos de las personas con discapacidad.* México: Secretaría de Salud y Consejo Nacional para las Personas con Discapacidad.

Espinosa, M. (2002). *Calidad de vida en el trabajo: percepciones de los trabajadores*. Cuadernos de Investigación, Cuaderno 16, Departamento de Estudios, Dirección de Trabajo, Gobierno de Chile, 138 pp. Consultado el 24 de abril de 2015 en: http://dt.gob.cl/1601/articles-64333_recurso_1.pdf

Flores, N., Jenaro, C., González-Gil, F. & García-Calvo, P. (2010) "Análisis de la calidad de vida laboral en trabajadores con discapacidad", *EKAINA*, (47). junio, pp. 95-107. Consultado el 26 de marzo de 2015 en: http://www.zerbitzuan.net/documentos/zerbitzuan/Analisis%20calidad%20de%20vida%20laboral.pdf

Gómez, M. (2010) "Calidad de vida laboral en empleados temporales del Valle de Aburra- Colombia", *Revista Ciencias Estratégicas*, vol. 18(24), pp. 225-236.

Granados, I. (2011) "Calidad de vida laboral: historia, dimensiones y beneficios", *Revista Investigación en Psicología*, vol. 14(2), pp. 271-276.

Huerta, P., Pedraja, L., Contreras, S. & Almodóvar, P. (2011) "Calidad de vida laboral y su influencia sobre los resultados empresariales", *Revista de Ciencias Sociales*, vol. 17(4), pp. 658-676.

Instituto Nacional de Estadística y Geografía (2010). Censo de Población y Vivienda. Consultado el 10 de junio de 2014 en: http://cuentame.inegi.org.mx/poblacion/discapacidad.aspx?tema=P

Lares, A. (1998). *Calidad de vida en el trabajo, un modelo integral.* Caracas: B. L. Consultores Asociados.

Organización Internacional del Trabajo (2013). *Estudio: factores para la inclusión laboral de las personas con discapacidad*. Santiago: Organización Internacional del Trabajo.

Pallisera, M. & Rius, M. (2007) "¿Y después del trabajo, que? Más allá de la integración laboral de las personas con discapacidad", *Revista de Educación*, (332) pp. 329-348.

Sánchez, D. (2013) "Influencia de la calidad de vida laboral en los individuos y las organizaciones", Manuscrito no publicado. Consultado el 20 de febrero de 2015 en: http://intellectum.unisabana.edu.co/bitstream/handle/10818/9788/Dayana%20Lorena%20S%C3%A1nchez%20Ortiz%20%28TESIS%29.pdf?sequence=1&isAllowed=y

Segurado, A. & Agulló, E. (2002) "Calidad de vida laboral: hacia un enfoque integrador desde la psicología social", *Psicothema,* vol. 14(4), pp. 828-836.

Urra, F. (2011). *Análisis de la inclusión laboral, de personas con discapacidad visual de la región metropolitana*, Tesis que para obtener el grado de Licenciado en Ciencias Políticas y Administrativas, Universidad Academia de Humanismo Cristiano, Santiago, Chile.

Villa, N. (2003) "Situación laboral de las personas con discapacidad en España", *Revista Complutense de Educación*, vol. 14(2), pp. 393-442.

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TRANSFERENCIA DE TECNOLOGÍA Y CREACIÓN DE PATENTES EN MÉXICO

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RESUMEN

En el presente artículo se hace un análisis de la creación de patentes por sector industrial en México desde 1993 a 2013. El objetivo es comparar las condiciones y perspectivas de las patentes en la competitividad de las empresas en México. Si bien las patentes por sí solas no tienen gran aportación a la competitividad, se trata de relacionar la competitividad con la creación de las mismas. Para poder realizar el análisis se usan herramientas estadísticas para reportar los comportamientos de las patentes en México, es decir, por sector industrial, por entidad emisora, por importación de tecnología al país, y por país de origen. Los resultados se vinculan con el índice de competitividad, con la finalidad de encontrar relaciones y causalidades del mismo.

PALABRAS CLAVE: Patentes, Competitividad, Innovación, Sectores Industriales, Importación de Tecnología.

TECNOLOGY TRANSFER AND PATENT CREATION IN MEXICO

ABSTRACT

In the present article we will do an analysis of patent creation per industrial sector in Mexico from 1993 to 2013. The main objective is to compare the conditions and perspectives of patents in the competitiveness of Mexican industries. While patents alone do not have great contribution to competitiveness, the point of this work is to relate competitiveness with the creation of themselves. To perform this analysis statistical tools will be used to report behaviors of patents in Mexico, it means, by industrial sector, by issuer, by technology imported into the country and country of origin. The results are linked to the competitiveness index, in order to find relationships and causalities of itself.

JEL: O31, O32, D24

KEYWORDS: Patents, Competitiveness, Innovation, Industrial Sectors, Technology Import.

INTRODUCCIÓN

La transferencia de tecnología es una forma de obtención de conocimientos, ideas, métodos, diseños y técnicas para mejorar los procesos del país y con ello el desarrollo de las formas o procesos de producción favoreciendo la competitividad del país que recibe las entregas (Hassan, 2015). Muchas de las transferencias se hacen cuando después de que las ideas y técnicas han sido registradas como propiedad intelectual e industrial, que han sido registradas en México ante el Instituto Mexicano de Propiedad Industrial (IMPI), como invenciones y diseños o que han sido importadas de otros países con la finalidad de ser utilizadas para mejorar la producción. En México es la Ley de la Propiedad Industrial (LPI) la encargada de otorgar el registro de patentes, "…sin perjuicio de lo establecido en los Tratados Internacionales de los que México sea parte (LPI, 2012)". En donde la administración tiene por objeto "Propiciar la participación del sector industrial en el desarrollo y aplicación de tecnologías.. y

Tramitar y, en su caso, otorgar patentes de invención, y registros de modelos de utilidad, diseños industriales, marcas, y avisos comerciales, emitir declaratorias de notoriedad o fama de marcas, emitir declaratorias de protección a denominaciones de origen, autorizar el uso de las mismas (Gobierno de México, 2012)". Por lo cual se utilizan estadísticas del IMPI en el análisis, así como estadísticas del Consejo Nacional de Ciencia y Tecnología (CONACyT), organismo cuya visión es impulsar y fortalecer el desarrollo científico y la modernización tecnológica de México (CONACyT, 2015).

REVISIÓN LITERARIA

El concepto de competitividad internacional es de uso frecuente en el análisis de los resultados macroeconómicos de los países (OCDE, 2000). La competitividad compara para un país y sus socios comerciales, una serie de características económicas más destacadas que pueden ayudar a explicar las tendencias del comercio internacional (OCDE, 2000). Este concepto abarca, primero de todos, los factores cualitativos o factores que no se prestan fácilmente a la cuantificación. Por lo tanto, la capacidad de innovación tecnológica, el grado de especialización de productos, la calidad de los productos involucrados, o el valor de los servicios de postventa, son factores que pueden influir en los resultados del comercio de un país favorable (OCDE, 2000). Del mismo modo, las altas tasas de crecimiento de la productividad a menudo se buscan como una manera de fortalecer la competitividad.

Por algunos aspectos significativos para la productividad es que los factores son difíciles de medir en términos cuantitativos, que la consideración que aquí se limita a una noción más restringida de las posiciones competitivas relativas (OCDE, 2000), por lo que la productividad en los últimos tiempos pueden derivarse de las vinculaciones entre los conocimientos generados, aplicados en la producción de bienes y servicios, por recursos humanos capacitados que puedan generar valor en cada caso. La Secretaría de Economía de México, dedica una atención especial a la competitividad, de este modo "La Subsecretaría de Competitividad y Normatividad implementa políticas con el propósito de fortalecer la competitividad del país, generando una regulación eficiente y una estructura de normas simplificada que reduce los costos en su cumplimiento (Secretaria de Economía, 2015)". Por lo cual el país trata de fomentar la competitividad, tratando de vincular a las empresas con los entes generadores de patentes tanto de procesos como de diseños patentados. Debido a que el objetivo de dicha subsecretaría "… es promover el crecimiento de la actividad económica, mediante el desarrollo y aplicación de una normatividad clara, eficaz y simplificada (Secretaría de Economía, 2015)", en México se ha tratado de buscar una vinculación que no es tan fuerte como en Asia (Hernández, 2013). Aun tratándose de patentes generadas en cualquier lugar del mundo "… fortalecer la competitividad económica nacional y desarrollar las acciones necesarias para generar confianza y lograr el ingreso de la inversión extranjera que el país requiere en los términos del marco jurídico vigente (Secretaría de Economía, 2015)". Sin embargo la transferencia de tecnología es más campo del Consejo

Nacional de Ciencia y Tecnología, que tiene entre otros los Centros Públicos de Investigación CONACYT, cuyos objetivos son "generar conocimiento científico y promover su aplicación a la solución de problemas nacionales. Formar recursos humanos de alta especialización, sobre todo a nivel de posgrado. Fomentar la vinculación entre la academia y los sectores público, privado y social. Promover la innovación científica, tecnológica y social para que el país avance en su integración a la economía del conocimiento. Promover la difusión y la divulgación de la ciencia y la tecnología en las áreas de competencia de cada uno de los Centros que integran el Sistema. Fomentar y promover la cultura científica, humanística y tecnológica de la sociedad mexicana (CONACyT, 2015)". Entre los centros de enseñanza de educación superior públicos se encuentra la Benemérita Universidad Autónoma de Puebla (BUAP), institución de educación superior líder del clúster de educación superior en Puebla, México, cuya aportación es significativa "… durante el último año ha solicitado el registro de 33 patentes ante el Instituto Mexicano de la Propiedad Industrial (IMPI) y 6 ante la Organización Mundial de la Propiedad Intelectual (OMPI) World Intellectual Property Organization, vía Ginebra Suiza, con el propósito de obtener su patente a nivel

global, la denominada PCT (The International Patent System) (Radilla, 2015)". Sin embargo las patentes inscritas, no garantizan la vinculación con la producción.

Las instituciones de educación superior mexicanas crean patentes (a veces aisladas) de los requerimientos que las empresas tienen, sin embargo han logrado hacer innovaciones al introducirse en los procesos productivos, como el caso de la Benemérita Universidad Autónoma de Puebla "Gracias al talento y creatividad de los investigadores de la BUAP, tres productos han alcanzado el estatus de innovación: 1. Nanoderma, que es un talco cicatrizante para pie diabético, alivia a pacientes con cicatrices causadas por la diabetes y que tienen riesgo de perder algún miembro, el producto tiene componentes de nanopartículas para la cicatrización y secado de la herida. 2. Estimulador de crecimiento vegetal, es una formulación hecha a base de bacterias, la cual estimula el crecimiento de plantas de jitomate, frijol, papa y maíz, su uso permite un incremento en la productividad, gracias al aumento de la disponibilidad de nutrientes hacia las plantas. 3. Plataforma robótica, consiste en un brazo robótico que permite realizar múltiples funciones, como automatizar procesos de producción en la industria, al que es posible añadir aditamentos que le permiten pintar, trasladar objetos, soldar e incluso ayudar en acciones físicas a personas con discapacidad (Radilla, 2015)", a través del esfuerzo se ha vinculado para el logro de la transferencia de conocimientos vía patentes. La innovación sigue un esfuerzo más institucional que empresarial "A través del Fondo Sectorial de Innovación (FINNOVA), la BUAP apoyó estos tres proyectos para impulsar su comercialización, ya que representan soluciones efectivas a diversos problemas de salud, producción agrícola y de tecnología. (Radilla, 2015)", con su consecuente costo y a veces falta de recuperación de inversión.

METODOLOGÍA

Para poder realizar el análisis entre la creación de patentes y la competitividad se usan herramientas estadísticas para reportar los comportamientos de las patentes en México, es decir, por sector industrial, por entidad emisora, por importación de tecnología al país, y por país de origen. Los resultados se vinculan con el índice de competitividad, con la finalidad de encontrar relaciones y causalidades del mismo.

RESULTADOS

Al relacionar el total de patentes otorgadas según el área tecnológica y el puntaje de competitividad otorgado al país por el Foro Económico Mundial (*The World Economic Forum*), consultado en el sitio del Instituto Mexicano para la Competitividad, en ésta edición México logró avanzar una posición del lugar 37 al 36 entre 2011 y 2013, y aunque el país se encuentra entre los diez últimos lugares y persisten importantes rezagos (IMCO, 2015). Los países mejor posicionados se encuentran en los puntajes menores, por ejemplo Suiza tiene 1 punto en el Reporte Global de la Competitividad 2012, emitido por el WEF, la relación que se obtuvo fue de 0.873, sin embargo no es relevante debido a que la relación debiera ser inversamente proporcional, es decir, México debería tener un puntaje menor cuando registrara más patentes, por lo cual no hay evidencia suficiente para determinar la relación cuantitativa entre dichas variables.

Tabla 1: Gasto Federal en Ciencia y Tecnología (Millones de Pesos) Vs Reporte Global de Competitividad del World Economic Forum

Año	Gasto Federal en Ciencia y Tecnología (GFCYT) (Millones de Pesos)	Global Competitiveness Index (the World Economic Forum)
2001	23993	32
2002	24364	32
2003	29309	32
2004	27952	32
2005	31339	32
2006	33276	32
2007	35832	36
2008	43829	35
2009	45974	36
2010	54436	36
2011	58810	37
2012	62671	36

Fuente: Elaboración propia con datos del CONACYT. Informe General del Estado de la Ciencia, la Tecnología y la Innovación, en INEGI, 2015 y de WEF en IMCO.

La relación entre el Gasto Federal en Ciencia y Tecnología (GFCyT) en millones de pesos y el nivel de competitividad otorgado a México en el Reporte Global de la Competitividad 2012, emitido por el WEF, sin embargo no es relevante debido a que el puntaje es menor para los países más competitivos, por lo que debiera ser una relación negativa entre el nivel del gasto y el lugar obtenido en dicho reporte. Por lo anterior, no es significativo relacionar las variables, no se obtienen evidencias suficientes para poder concluir resultados acerca del fenómeno.

CONCLUSIONES

En primer lugar la falta de vinculación entre el sector productivo, la educación superior y el gobierno se hace evidente. Se trata de un problema bien sabido en el país con su consecuente costo en la productividad de muchos sectores económicos del país. Por otro lado, la relación que debiera ser negativa entre el nivel de inversión y el lugar ocupado por la OCDE en competitividad ha sido irrelevante, por lo tanto no refleja la mejora debida al registro de patentes y el nivel de competitividad por el número de posición competitiva otorgada por la OCDE, sin que eso signifique que el país no ha hecho esfuerzos para poder incrementar la capacidad productiva apoyada en el talento, sino más bien parece que el desfase entre éste y la planta productiva tienen su consecuencia natural. Finalmente, los tres principales sectores (educativo, gobierno y empresa), han hecho esfuerzos constantes para poder incrementar la productividad debida a la capacidad registrada en patentes.

REFERENCIAS

Consejo Nacional de Ciencia y Tecnología (2015), Sitio Web. Consultado en: http://www.conacyt.mx
OCDE (2000), Indicators of International Competitiveness: Conceptual Aspects And Evaluation. Cosultado el 20 de octubre del 2015 en: http://search.oecd.org/eco/outlook/33841783.pdf

Gobierno de México (2012), "Ley de la Propiedad Industrial". Consultada el 2 de noviembre del 2015 en: http://www.diputados.gob.mx/LeyesBiblio/pdf/50.pdf

Hassan, A., Jamaluddin, M., & Menshawi, K. (2015), "International Technology Transfer Models: a Comparison Study". Journal Of Theoretical & Applied Information Technology, 78(1), 95-108.

Hernández-Conteras, R. (2013), Los clústeres chinos un modelo de fabricación vinculado a la educación superior en China. IAEU, Barcelona, España.

Instituto Mexicano de la Propiedad Industrial (2015), Sitio Web. Consultado en: http://www.impi.gob.mx

Instituto Mexicano para la Competitividad, A.C. (2015), "Índice de Competitividad Internacional 2015. Resultados México". Consultada el 2 de noviembre del 2015 en: http://imco.org.mx/indices/#!/competitividad_internacional_2015/resultados/introduccion

Instituto Nacional de Estadística y Geografía INEGI (2015), "21. Ciencia y Tecnología". Consultado en: http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/nueva_estruc/HyM2014/21.Ciencia%20y%20tecnologia.pdf

Jun, S., Park, S., & Jang, D. (2015). A Technology Valuation Model Using Quantitative Patent Analysis: A Case Study of Technology Transfer in Big Data Marketing. Emerging Markets Finance & Trade, 51(5), 963-974. doi:10.1080/1540496X.2015.1061387

Radilla, Y. & Guillen, B. (2015), Gaceta Universidad BUAP. Año XXXIV, No.196.

Secretaria de Economía (2015), "Competitividad y Normatividad". Consultado en: http://www.economia.gob.mx/comunidad-negocios/competitividad-normatividad

ESTILOS Y MODELOS DE LIDERAZGO EN EMPRESAS HOTELERAS

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RESUMEN

El liderazgo ha sido muy estudiado en el tiempo, en busca de encontrar el mejor estilo de dirección para sobresalir en el mundo de los negocios, si la organización es un hotel, se complica debido a que una de sus características, es la heterogeneidad, por la gran variedad de servicios que ofrece en un tiempo corto y determinado, con excelencia. La presente investigación teórica, tiene como objetivo, analizar los modelos de liderazgo en la hotelería, que algunos autores han identificado como idóneos para aplicarse en este sector, determinar si entre ellos existe un consenso, además se examinan las competencias y habilidades que en sus estudios han concluido, y son necesarios para que la gerencia se desempeñe exitosamente. La hotelería, se desarrolla en un ambiente global y competitivo por lo que los lideres hoteleros, deben estar conscientes de su estilo de liderazgo, competencias, habilidades y necesidades de capacitación. La revisión de literatura incluye el estudio de liderazgo en el contexto mexicano, esta investigación es un avance del proyecto: Liderazgo aplicado por los gerentes en empresas hoteleras de 4 y 5 estrellas de la ciudad de Mexicali, B.C.

JEL: M1

PALABRAS CLAVE: Liderazgo, Hotelería, Competencias, Habilidades Gerenciales

STYLES AND LEADERSHIP MODELS FOR HOTELS

ABSTRACT

The leadership has been studied over the time, looking to find the best style of management to excel in the business world, if the organization is a hotel, this is complex because one of its characteristics, is the heterogeneity, the great variety of services offered in a short, fixed term with excellence. This theoretical research aims to analyze models of leadership in the hotel industry, some authors have identified as appropriate for this sector, whether a consensus exists among them, also the competencies and abilities that their studies have examined necessary for management to success. The hotel, operates in a global and competitive environment so that hotelier's leaders, must be aware of their leadership style, competencies, skills and training needs. The literature review includes the study of leadership in the Mexican context, this is a research project in progress: Leadership applied by managers in hotel companies 4 and 5 star hotels in the city of Mexicali, B.C.

KEYWORDS: Leadership, Hotels, Competencies, Management Skills

INTRODUCCIÓN

Hoy en día las empresas hoteleras emergen en un contexto internacional, y los gerentes de éstas deben de estar al tanto de los cambios que surgen en el entorno como son los factores políticos, económicos, tecnológicos, sociales y culturales, para poder adaptarse y ejercer un estilo de liderazgo que vaya apoyado con una serie de competencias que le permitan lograr la mejor influencia en sus seguidores, alcanzando los objetivos, con eficiencia, orientados a los clientes, al desarrollo de su personal, y finalmente al éxito de la organización. Los hoteles forman parte importante de la industria del turismo y este a su vez del sector servicios, el cual apoyado por los anteriores, es uno de los sectores económicos más importantes a nivel internacional, y representa un porcentaje considerable del Producto Interno Bruto de los países y de México, por consiguiente el ambiente en que se desarrolla la hotelería es altamente competitivo, para poder sobresalir con éxito, este negocio ha tenido que recurrir a diversas técnicas, entre ellas el aplicar el liderazgo entre sus colaboradores, es por ello, que en la presente investigación se analizan diferentes estilos de liderazgo y competencias, principalmente en hoteles de 4 y 5 estrellas a nivel internacional, en países como Jordania, Malasia, Tailandia, España, y en México, así mismo las competencias de los líderes hoteleros que predominan más, y las dimensiones culturales de Hofstede que influyen en los gerentes de las empresas hoteleras, para posteriormente en una futura investigación proponer estrategias a los hoteles locales. Se realiza la revisión de la literatura de diferentes autores, posteriormente la discusión de los resultados, la conclusión y finalmente las referencias bibliográficas.

REVISIÓN DE LA LITERATURA

Estilos de Liderazgo a Nivel Internacional en Empresas Hoteleras

En esta sección se revisa literatura de algunos autores que han investigado el liderazgo aplicado en la hotelería de diversos países, desde Jordania, Malasia Tailandia y España, en hoteles de categoría 4 y 5 estrellas principalmente, en los cuales se busca identificar los estilos de liderazgo que aplican los gerentes, entre ellos se mencionan los estilos autocrático, democrático, *laissez faire*, transformacional y transaccional. Se inicia con la investigación sobre los estilos de Liderazgo en hoteles de 5 estrellas en Jordania, su relación con la satisfacción de los empleados, Al-Ababneh (2013), compara en una muestra de 350 cuestionarios aplicados donde 220 cuestionarios contestados completamente para medir los estilos de liderazgo "autocrático, democrático y *laissez faire*". En su muestra este autor encuentra que el estilo de liderazgo "democrático", es más fuerte comparado con el estilo *"laissez Faire"* en la búsqueda de la satisfacción   de los empleados. En esta investigación el estilo de liderazgo dominante fue el estilo democrático. Estilo que se considera más apto para administrar hoteles.

Los investigadores Araujo y García (2013) realizaron un estudio a directores hoteleros de Islas Canarias, España, en base al modelo de Quinn que identifica 8 estilos de liderazgo como: innovador, bróker, productor, director, coordinador, monitor, facilitador y mentor. De los ocho roles identificados, el rol más ejercido por los directivos encuestados es el rol mentor. Este rol implica una serie de actividades que tiene que ver con la actitud y conducta, es decir una disposición del directivo considerada, sensible, abierta y equitativa hacia sus subordinados.   En su estudio, Ngah, Musa, Rosli, Bakri, Zani, Ariffin, y Nair (2013), descuben que los gerentes foráneos en hoteles de 5 estrellas en Malasia, pueden tener un enfoque diferente de los gerentes locales. Los resultados mostraron que los componentes del estilo de liderazgo transformacional como como la influencia idealizada, (comportamiento), la estimulación intelectual y la motivación inspirador y tienen un efecto positivo significativo en la satisfacción de los empleados.

En Tailandia, Vissanu, y Sarinthree (2014), encontraron qu la relación entre las características demográficas de los encuestados, los estilos de liderazgo, la innovación organizacional y desempeño de la organización son de apoyo a los negocios. La investigación muestreó a 419 gerentes de hoteles para que contestaran un cuestionario; en el análisis de datos, la técnica estadística de regresión múltiple jerárquica

fue aplicada. De acuerdo con el marco teórico de esta investigación, el número de los empleados y un conjunto de Demografía de los encuestados (edad, sexo, educación, y experiencia) fueron inicialmente integrados, seguido por estilos de liderazgo (Transformacional, Transaccional y Laissez-faire), y la Innovación Organizacional En su investigación denominada "*Assesing the effects of Leadership Style on Employees Outcomes. Outcomes in International Luxury Hotels*, , Aguiar, Sangwon y Araujo (2014) examinan los efectos de los estilos de liderazgo transformacional, transaccional y no transaccional, encontrando como resultados que el desempeño de los empleados, así como su satisfacción con el desempeño de sus administradores de 11 hoteles de 4 estrellas en España. Esta investigación argumenta, citando a Petrick et al. (1999), que los administradores que operan un negocio internacional en ambientes inseguros, deben desarrollar habilidades de liderazgo global para motivar a los empleados y ayudarles a reducir su ansiedad debido a la inseguridad en el empleo.

Estilos de Liderazgo en México en Empresas Hoteleras.

En el siguiente apartado se analizan diferentes investigaciones sobre liderazgo aplicado en empresas hoteleras de diversas ciudades de México, además se presentan los estilos de liderazgo que midieron los autores, así como los grandes hallazgos, y resultados de dichos estudios. En una investigación realizada en 6 hoteles de puebla y ciudad de México (Fiesta Inn, Fiesta Americana y Camino Real), se aplicó una encuesta de 33 ítems a 94 colaboradores para conocer el estilo de liderazgo de las gerentes de recursos humanos, midiendo la toma de decisiones, percepción de roles y estilos de liderazgo. El estilo de liderazgo de las ejecutivas se inclinó hacia el transformacional, el cual predominó mas en los hoteles grupo Gil (2003). Bonilla (2007), aplica el cuestionario de Reddin (1974) para determinar el estilo de liderazgo que predominan en los gerentes de alimentos y bebidas en 20 hoteles de cinco estrellas ubicados en las zonas de Reforma y Polanco de la Ciudad de México y en la Ciudad de Puebla, aplicándose a 10 hoteles en cada lugar. Los resultados de la investigación, arrojan solo tres estilos de liderazgo aplicado por los gerentes de alimentos y bebidas de cinco estrellas ubicados en la zona de Polanco y Reforma de la Ciudad de México y de la Ciudad de Puebla de los que propone Reddin, siendo en orden de importancia: 55% Autocrático Benévolo, 25% Ejecutivo y 20% Burócrata.

Competencias de Liderazgo en Empresas Hoteleras

Un modelo de competencias es una herramienta descriptiva que identifica los conocimientos, habilidades, aptitudes y comportamientos necesarios para desempeñarse de una manera efectiva en una organización Lucía y Lepsinger (1999), es diseñado para ayudarla a cumplir sus objetivos estratégicos a través de la construcción de la capacidad de los recursos humanos. Chung-Herrera, Enz, y Lankau (2003), elaboraron una encuesta, las autoras procedieron a revisar una serie de estudios sobre competencias elaborados por diferentes autores que dieron como resultado la confección de un modelo de competencias piloto que capturó las dimensiones más importantes sobre el comportamiento de los líderes en diversas industrias. Posteriormente se refinó el modelo a través de encuestar a individuos de todo el mundo que hubiesen participado en el programa educativo sobre ejecutivos de alto nivel de la Universidad de Cornell en la cual podían agregar comentarios adicionales.

Basadas en la prueba piloto y después de haber modificado el modelo de competencias para reflejar el comportamiento específico de la industria hotelera, las autoras Chung-Herrera, Enz, y Lankau (2003) llegan finalmente a un modelo de competencias, el cual consiste en 8 factores dominantes o primordiales, 28 dimensiones y 99 competencias conductuales específicas. La encuesta aplicada constó de una lista de 99 competencias o habilidades relacionadas a la hospitalidad, la cual se envió vía fax a 735 ejecutivos de alto nivel de diversas empresas hoteleras de todo el mundo, en ella se les pedía que calificaran la importancia de cada una, para un gerente de alto nivel con una visión de diez años, para ello se utilizó la escala de cinco puntos de Likert que oscila del 1 (nada importante) a 5 (muy importante). Un total de 137

líderes de la industria, entre directores o presidentes de cadenas hoteleras internacionales respondieron, dando una tasa de respuesta del 18.6 %.

Donde los factores y las dimensiones se obtuvieron de la literatura sobre modelos de competencias y a través de la retroalimentación de gerentes de la industria hotelera. Los ocho factores dominantes y sus dimensiones se presentan a continuación. El factor de autogestión incluye las dimensiones de ética e integridad, gestión del tiempo, flexibilidad y adaptabilidad y autodesarrollo. El factor de posición estratégica incluye las dimensiones de conciencia de las necesidades del cliente, compromiso con calidad, administración de las inversiones, e interés por la comunidad. El factor de implementación incluye las dimensiones de planeación, dirección, y reingeniería. El factor de pensamiento crítico incluye las dimensiones de orientación estratégica, toma de decisiones, análisis, toma de riesgos e innovación. El factor de comunicación incluye las dimensiones impactar al comunicarse, facilitar la comunicación abierta, escuchar activamente y comunicación escrita. El factor interpersonal incluye las dimensiones construcción de redes, manejo de conflicto y aceptar la diversidad. El factor liderazgo incluye las dimensiones orientación al trabajo en equipo, fomentar la motivación, fortaleza, desarrollo de los demás, aceptar el cambio, y versatilidad en el liderazgo. El factor conocimiento de la industria incluye la dimensión pericia en los negocios y en la industria.

La American Hotel and Lodging Association (AHLA) indica que hay un modelo de competencias de turismo denominado "*Hospitality, tourism, and events competency model*", el cual identifica los conocimientos, destrezas y habilidades que proporcionan una base para los trabajadores de la industria, así como las competencias específicas de los sectores clave. El modelo es una compilación de las competencias que se pueden incluir como base para la preparación en hotelería, turismo y eventos, pero no es la intención que cada trabajador posee todas las competencias enumeradas. El modelo se representa en una gráfica donde muestra una pirámide que incluye 5 tipos de competencias en los siguientes niveles: 1) competencias de eficacia personal, 2) competencias académicas, 3) competencias laborales, 4) competencias amplias de la industria, 5) competencias del sector industrial AHLA (2015).

Northouse (2015) cita a Katz (1955) quien identifica 3 tipos de habilidades que deben de tener los líderes y son: habilidades técnicas, habilidades humanas y habilidades conceptuales. Así mismo compara de acuerdo a los niveles jerárquicos de los líderes con respecto al grado de importancia de las habilidades e indica que los gerentes deben de tener bajas habilidades técnicas, y altas habilidades humanas y conceptuales, los gerentes de área deben de tener altas habilidades humanas, y medias habilidades técnicas y conceptuales, y los supervisores, deben tener altas habilidades técnicas y humanas y bajas habilidades conceptuales. Según Weerakit (2007) el objetivo de su estudio fue determinar las competencias de liderazgo esenciales para los gerentes generales de hoteles en Tailandia, es decir, identificar las competencias más importantes para desarrollar una carrera de acuerdo a la percepción de los gerentes generales del hoteles y para determinar si su percepciones varía entre resorts y hoteles de ciudad. A los encuestados se le pidió que indicaran el grado en que percibían diversas competencias sobre liderazgo, las que fueron adaptadas de Chung-Herrera, Enz y Lankau (2003).

Los factores utilizados son los siguientes, ordenados de mayor a menor por la puntuación que obtuvieron: Coaching y trabajo en equipo; empoderamiento; resolución de problemas; habilidades interpersonales; planificación estratégica y ética e interés por la comunidad. En cuanto a los resultados, se encontró que los gerentes de Resorts perciben la resolución de problemas, habilidades interpersonales, y planificación estratégica más importantes que los gerentes generales hoteles de ciudad. El análisis de los factores reveló que las habilidades "suaves" de liderazgo como: Coaching, formación de equipos, preocupaciones éticas y por la comunidad, planificación estratégica, y empoderamiento continúan siendo más importante para el éxito futuro de posiciones gerenciales de alto nivel que las habilidades "duras" o técnicas El autor de esta investigación, La percepción de la gerencia general de un hotel sobre las competencias de liderazgo para obtener éxito en el futuro, quien resalta que los resultados de este estudio apoyan investigaciones anteriores

en el sentido de que, los enfoques de liderazgo transformador, contingente o democrático pueden ser más eficaces y preferidos que los enfoques transaccional o autocrático Weerakit (2007).

En su trabajo, Weerakit (2007) cita a Mumford (2000), donde propone un modelo de liderazgo basado en 5 habilidades: atributos individuales, competencias, resultados de liderazgo, experiencias de carrera e influencias ambientales. Tambien cita a Chung-Herrera (2003) quien hizo un estudio piloto a 137 líderes de la industria hotelera sobre la valoración de 99 competencias o habilidades de liderazgo (agrupados en ocho factores generales que comprende 28 dimensiones), la competencia denominada "autogestión", fue la dimensión superior (de las 28) -compuesta por ética y la integridad, la gestión del tiempo, la flexibilidad y capacidad de adaptación, y el desarrollo personal.

La investigación de Patrón, Pérez y González (2007) tuvo como objetivo identificar las competencias directivas más valoradas por el sector turístico de la ciudad de San Francisco de Campeche, en el estado de Campeche, México, a la hora elegir a un gerente de hotel, con miras a contribuir al desarrollo económico de la localidad. Para llevar a cabo este estudio, los autores utilizan la clasificación de competencias directivas de Cardona y Chinchilla (1999).Indican que la investigación es de tipo exploratoria, descriptiva y de corte cuantitativo, en el participan un total de 20 gerentes de los hoteles más representativos de la Cd. de Campeche y se utiliza la clasificación de competencias directivas de los autores Cardona y Chinchilla (1999) las cuales se dividen en: a) estratégicas, b) intratégicas, y c) de eficacia personal. Este instrumento está compuesto por valores de respuestas ofrecidas a un conjunto de declaraciones. Consta de 18 ítems que pueden ser contestados de: 1 (mínimo) a 5 (máximo).

Cardona y Chinchilla (1999), citado por Patrón, Pérez y González (2007), expresan que las competencias son comportamientos habituales y observables que permiten que una persona tenga éxito en su función como director. Distinguen entre las competencias técnicas o referidas a un puesto concreto y las competencias directivas o genéricas que se dividen en: a) estratégicas, b) intratégicas, y c) de eficacia personal, las cuales se describen a continuación: las competencias estratégicas se refieren a la capacidad del directivo y a su relación con el entorno externo de las pymes tales como visión del negocio, orientación interfuncional, gestión de recursos, orientación al cliente, red de relaciones efectivas y negociación. Las competencias intratégicas se refieren a la capacidad ejecutiva y de liderazgo de un directivo al interior de las pymes tales como comunicación, dirección de personas, delegación, coaching, trabajo en equipo y liderazgo. Las competencias de eficacia personal se refieren a los hábitos básicos de una persona con ella misma y con su entorno tales como resolución de problemas, proactividad, autogobierno, gestión personal, integridad, y desarrollo de personal.

Patrón, Pérez y González (2007), concluyen en su trabajo que: Los gerentes de hoteles, valoran más las competencias estratégicas enfocadas a atender con eficacia las necesidades de los clientes y la gestión de recursos; en las intratégicas destaca la comunicación y el trabajo en equipo y finalmente en las competencias de eficacia personal el desarrollo personal es muy importante, todas ellas obtuvieron la más alta puntuación entre los gerentes, es por ello que para lograr el éxito empresarial del ramo hotelero se requiere contar con el equilibrio de los tres tipos de competencias: estratégicas, intratégicas, y de eficacia personal. Con el objetivo de conocer el perfil de competencias gerenciales de 70 gerentes de hoteles de 5 estrellas y Gran Turismo, en la ciudad de México, se realizó un estudio y se aplicó el instrumento Self Assesment of Managerial Skills (SAMS) de DiPadova (1990) que parte del modelo Competing Values Framework (CVF) de Quinn, Faerman, Thompson y Mc Grath, el cual está integrado por 24 competencias agrupadas en 8 roles. Los resultados indican que los gerentes desarrollan mas el modelo de relaciones humanas (el 18% de los gerentes encuestados pertenecen al área de recursos humanos) pues presentan altos valores en los roles de mentor (6.1), facilitador (6.0), que son los roles que lo conforman. Bonilla y Navarrete (2004) citan a Quinn et al. (2003) quien menciona que las personas que los desarrollan, se caracterizan por ser muy comprometidas con su trabajo, muy participativas, abiertas, con un buen estado de ánimo, tienen la habilidad de resolver conflictos y de llegar a acuerdos grupales.

Dimensiones Culturales de Hofstede en México y su Influencia en el Liderazgo

Robbins (2009), cita en su libro el concepto de cultura nacional la cual dice: "es el conjunto de valores y actitudes que comparten los individuos de un país específico, el cual define su comportamiento y creencias sobre lo que es importante." Farías (2007), indica que Hofstede (1980) identificó y cuantificó cuatro dimensiones de la cultura nacional: distancia de poder (Power distance index, PDI), aversión a la incertidumbre (Uncertainty Avoidance Index, UAI), Individualismo (Individualism Index, IDV) y Masculinidad (Masculinity Inex, MAS), y después, agregó una quinta dimensión propuesta por Bond et al (1987), denominada Orientación de largo plazo o pragmatismo (long-term orientation, LTO, ó PRA), y una sexta dimensión llamada indulgencia (indulgence, IND).

Las dimensiones culturales de Geert Hofstede, aplicadas en México se ven enfocadas de la siguiente manera: la distancia del poder en México indica que en una puntuación de 81, significa que la gente acepta un orden jerárquico en el que todo mundo tiene un lugar y no necesita más justificación. En la dimensión de individualismo con una puntuación de 30, se considera una sociedad colectivista. En la dimensión de masculinidad indica que la sociedad se verá impulsada por la competencia, el logro y el éxito, una puntuación de 69 significa que es México es una sociedad masculina, y se espera que los gerentes sean decisivos y firmes. Con respecto a la dimensión de evasión de la incertidumbre la cual tiene que ver con la forma en que una sociedad se siente amenazada por situaciones desconocidas y tratan de evitarlas, en el caso de México tiene una puntuación de 82 que significa que tiene una alta evasión a la incertidumbre, hay una necesidad de normas. Otra dimensión que es la orientación a largo plazo, México tiene una puntuación de 24, relativamente baja, está orientado al corto plazo, tiene poca propensión a ahorrar para el futuro y un enfoque de resultados rápidos.

La dimensión de indulgencia, con una puntuación alta de 97 la cultura mexicana tiene la tendencia a ser indulgente, es decir que hacen realidad sus impulsos y deseos con respecto a disfrutar la vida y divertirse, tendencia hacia el optimismo, un mayor grado de importancia al ocio, y gastan el dinero como desean (The Hofstede Centre, México, 2015). De acuerdo con el estudio realizado por Domínguez (1999) y tomando como base las dimensiones culturales de Hofstede, se encontró que los gerentes generales expatriados que radican en México, tienen un mayor índice de Distancia con el Poder y de Rechazo a la incertidumbre respecto a sus Directivos de Área Nacionales. Se observó que los Gerentes Generales expatriados tuvieron un mayor índice de rechazo a la incertidumbre y un menor índice de individualismo lo cual puede indicar que su misma necesidad de socialización los lleva a desarrollar lazos afectivos con su entorno inmediato, es decir que la incertidumbre busca eliminarse a través de la pertenencia a un grupo. Los directivos nacionales manifestaron un menor rechazo a la incertidumbre y un mayor individualismo. Esto puede explicar que, si bien no son muy dados a trabajar en equipo, si tienden a respetar y defender las creencias del grupo en que se desarrollan ya que esto les da seguridad.

DISCUSIÓN

De acuerdo al análisis de la revisión de literatura de la presente investigación en relación a estilos de liderazgo y competencias que predominan con mayor frecuencia en los gerentes de hoteles en países como Jordania, Malasia, Tailandia, España y México, en los cuales se encontraron investigaciones similares al tema estilos y modelos de liderazgo en empresas hoteleras, los estilos predominantes son: Autocrático, Democrático, Autocrático-Benevolente, Transaccional, Transformacional, y *Laissez-Faire*. Entre las competencias más recurrentes en orden de importancia son las competencias personales, después las competencias laborales, y por último las competencias gerenciales. Dentro de las competencias personales están la comunicación, desarrollo personal, habilidades interpersonales, ética e integridad; las competencias laborales incluyen el trabajo en equipo, gestión del tiempo, y orientación al cliente, y las competencias gerenciales comprenden el liderazgo, la visión del negocio, el empoderamiento, negociación,

coaching, resolución de conflictos, gestión de los recursos y la capacidad de adaptación**.** En México los estilos de liderazgo que predominaron en los gerentes de hoteles de 5 estrellas en la Ciudad de Puebla y la Ciudad de México son el estilo transformacional y el autocrático-benevolente. Un punto importante a resaltar en estos casos, es que los estilos de liderazgo estudiados fueron acuñados principalmente en Estados Unidos y en todos los países donde son realizadas estas investigaciones, tienen diferente perfil sociodemográfico y su población es muy diversa.

Las dimensiones culturales de Hofstede en México que están vinculadas a los estilos de liderazgo como el autocrático-benevolente, y el transformacional, son alta distancia del poder que significa que la gente acepta tener un jefe y un orden jerárquico, una sociedad colectivista, masculinidad que indica que la sociedad se verá impulsada por la competencia, el logro y el éxito, una alta evasión a la incertidumbre, necesidad de normas, orientado al corto plazo, la cultura mexicana tiene la tendencia a ser indulgente, es decir que hacen realidad sus impulsos y deseos con respecto a disfrutar la vida y divertirse. Así mismo cabe mencionar que el estilo autocrático-benevolente es aquel que escucha cuidadosamente a sus colaboradores, da la impresión de ser democrático y siempre toma sus propias decisiones personales, y el estilo de liderazgo transformacional se enfoca en la manera en que los lideres transforman los objetivos y las acciones del grupo, sobre todo a través del ejercicio carisma. Con respecto al análisis realizado, se consideraran para futuras investigaciones las competencias y estilos de liderazgo mencionados anteriormente, además se tomará en cuenta la diversidad cultural de los líderes, y las características particulares de los hoteles de la ciudad de Mexicali, Baja California, México. Se pretende elaborar un instrumento de medición de estilos de liderazgo y competencias, aplicado en las empresas hoteleras de 4 y 5 estrellas de dicha ciudad, tanto a gerentes y supervisores, como a subordinados, con la finalidad de identificar dichos estilos, y grados de satisfacción del personal, y conocer las competencias que requieren los líderes para alcanzar los objetivos organizacionales.

CONCLUSIONES

En los últimos años, la competencia entre los hoteles se ha vuelto más intensa, los países han detectado que promover sus países para atraer visitantes deja una gran derrama económica y por consiguiente los beneficios para el país, en ese sentido los hoteles compiten a nivel local, nacional e internacional, ante esto las estrategias deben mejorar para proporcionar un excelente servicio al cliente y de esa manera ser preferidos, es por ello que implementar programas de mejora se ha vuelto prioritario, entre ellos es promover la aplicación de estilos de liderazgo y desarrollar competencias entre sus gerentes desde nivel medio hasta el nivel alto, es así que en el presente estudio se analizaron diversas investigaciones para detectar estilos de liderazgo y competencias que se presentan con mayor frecuencia, siendo estos, el liderazgo autocrático, democrático, transformacional, transaccional, y *laissez faire.* La razón de esta revisión literaria es continuar con un proyecto en el contexto mexicano, para determinar los estilos de liderazgo que aplican los gerentes en empresas hoteleras de 4 y 5 estrellas de la ciudad de Mexicali, B.C.

REFERENCIAS

Al-Ababneh, M. (2013). Leadership Style of Managers in Five-Star Hotels and its Relationship with Employee's Job Satisfaction. International Journal of Management & Business Studies. IJMBS Vol. 3. Recuperado el 02 de febrero del 2015 de http://www.ijmbs.com/32/2/mukhles.pdf

Aguiar, T., Park, Sangwon, P. y Araujo, Y. (2014). Assesing of leadership styles on Employees Outcomes in International Luxury Hotels. J. Bus ethics. Springer.

AHLA (2015). American Hotel and Lodging Association. Recuperado el 10 de agosto del 2015 de http://www.ahla.com/

Araujo, Y. y García, M. (2001). Liderazgo Directivo y Estrategia: Una aplicación empírica a las empresas hoteleras canarias. Universidad de las Palmas de Gran Canaria, selección de investigaciones empresariales, 153-188.

Bonilla, E. y Navarrete, C. (2004). Estudio para conocer el perfil de competencias gerenciales de los gerentes de hoteles de 5 estrellas y gran turismo y su percepcion sobre las competencias gerenciales de los recien egresados de carreras relacionadas con la hotelería. Universidad de las Américas Puebla. Recuperado el 5 de septiembre del 2015 de http://catarina.udlap.mx/u_dl_a/tales/documentos/lhr/bonilla_b_e/portada.html

Bonilla, R. (2007). Estilo de Liderazgo Predominante de Gerentes de Alimentos y Bebidas en Hoteles de Cinco Estrellas de Reforma y Polanco de la Ciudad de México y la Ciudad de Puebla. Tesis de licenciatura en administración de hoteles y restaurantes. Universidad de las Américas Puebla. Recuperado el 2 de octubre del 2015 de http://catarina.udlap.mx/u_dl_a/tales/documentos/lhr/bonilla_c_r/portada.html

Chung-Herrera, B. , Enz, C., y Lankau, M. (2003). Grooming future hospitality leaders: A competencies model [Electronic version]. *Cornell Hotel and Restaurant Administration Quarterly, 44*(3), 17-25.

Domínguez, P. (1999). Diversidad cultural en la industria hotelera: comparación de valores entre gerentes expatriados y directivos nacionales en México. Research gate.

Farías, P. (2007). Cambios en las distancias culturales entre países: un análisis a las dimensiones culturales de Hofstede. *Opción,* abril, 85-103.

Gil, M. (2003). Impacto de la mujer a nivel directivo en la industria Hotelera: Análisis comparativo Ciudad de México y Puebla. Tesis de licenciatura en administración de hoteles y restaurantes. Universidad de las Américas Puebla. Recuperado el 20 de agosto del 2015 de http://catarina.udlap.mx/u_dl_a/tales/documentos/lhr/gil_m_mc/portada.html

Lucía, A. y Lepsinger, R. (1999). The Art and Science of Competency Models: Pinpointing Critical Success Factors in Organizations. Kindle Edition.

Ngah, H., Musa, M. Rosli, Z., Bakri, M., Zani, A., Ariffin, A. y Nair, G. (2013). "*Leadership Styles of General Managers and Job Satisfaction. Antecedent of Middle Managers in 5 Star Hotels in Kuala Lumpur, Malaysia*". Asian Social Science; Vol. 9, No. 15. Recuperado el 5 de septiembre del 2015 del 2015.

Northouse, P. (2015). Leadership: Theory and Practice, seventh edition. United States: SAGE Publications.

Patrón, R. Pérez, C. González, E. (2007). "*Competencias directivas más valoradas por el sector turístico al elegir a sus gerentes de hoteles en el sureste de México*". Revista Iberoamericana de Producción Académica y Gestión Educativa ISSN 2007 – 8412. Recuperado el 20 de agosto del 2015 de file:///C:/Users/HP/Downloads/226-952-1-PB%20(4).pdf

Robbins (2009). Fundamentos de administración: conceptos esenciales y aplicaciones. México: Pearson Educación.

The Hofstede Centre, México (2015). Recuperado el 14 de octubre de 2015, de http://geert-hofstede.com/mexico.html.

Vissanu, Z. y Sarinthree, U. (2014). The Influence of Leadership Styles on Organisational Performance Mediated by Organisational Innovation: A Case Study of the Hospitality Industry in Thailand. Recuperado el 06 de agosto de http://www.europment.org/library/2014/interlaken/bypaper/ECON/ECON-05.pdf

Weerakit, N. (2007). Leadership competencies required for future hotel general managers´ success in Thailand. United States: UMI.

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EFECTOS DEL CONTEXTO ECONÓMICO EN LA COMPETITIVIDAD DE LAS CONSTRUCTORAS DE VIVIENDA EN MEXICALI, MÉXICO

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RESUMEN

El presente artículo es relativo a la revisión bibliográfica de la investigación sobre la influencia del contexto económico en la competitividad de las empresas dedicadas a la construcción de vivienda en Mexicali, México, en el que por tratarse de un aspecto externo a la empresa no tienen capacidad de influir, por lo cual se encuentran en una situación de vulnerabilidad ; la importancia del trabajo de investigación se justifica en virtud de que el sector de la construcción en México genera 5.8 millones de puestos de trabajo en forma directa y aporta más del 15% del empleo total que crea el país; al respecto algunos especialistas han señalado como limitantes del desarrollo de la competitividad aspectos políticos, sociales y económicos, es así que este trabajo aborda una amplia revisión documental en la que se identifican los factores externos económicos que inciden en la competitividad de las empresas y se señalan aquellos aspectos comunes que se identificaron en la revisión documental.

PALABRAS CLAVES: Contexto Económico, Competitividad, Factores Externos, Empresas Constructoras

EFECTS OF THE ECONOMIC CONTEXT IN COMPETITIVENESS HOMEBUILDERS IN MEXICALI, MEXICO

ABSTRACT

This article is on the literature review of research on the influence of the economic environment on the competitiveness of companies engaged in housing construction in Mexicali, Mexico, which because it is an external aspect to the company no capacity influence, so they are in a vulnerable situation; the importance of the research is justified under the construction industry in Mexico it generated 5.8 million jobs directly and contributes over 15% of total employment created by the country; about some experts have pointed to limit the development of competitiveness political, social and economic aspects, so that this work addresses a broad literature review in which external economic factors affecting the competitiveness of enterprises are identified and listed those common issues identified in the document review.

JEL: M10

KEYWORDS: Economic Context, Competitiveness, External Factors, Construction Companies

INTRODUCCIÓN

Por los efectos que produce en la economía nacional, el sector de la construcción en México desempeña un papel fundamental, no sólo por su creciente participación en la creación de empleos

directos y en la reactivación de la economía sino porque su influencia trasciende y permite ofrecer infraestructura básica de servicios públicos; incluso para el Instituto Nacional de Estadística y Geografía (INEGI, 2012), órgano descentralizado de la administración pública federal en la nación mexicana, el sector de la construcción se identifica por la estrecha vinculación con otros sectores productivos y consolida a las diversas ramas industriales, pues impacta en 37 de las 73 ramas económicas nacionales.Desde antaño algunos autores (Porter, 2001) señalaban que los factores de competitividad se pueden clasificar en tres categorías, a saber, factores macroeconómicos, factores sectoriales o industriales y factores internos y respecto a los primeros *la teoría de las ventajas competitivas de las naciones* explica cómo algunos países crean un ambiente nacional propicio para competir ante empresas de otras naciones, refiriéndose con éstas a los factores externos.

Las empresas dedicadas a la construcción están sujetas a factores internos y externos que inciden en su competitividad, en donde aquellos están bajo el control de sus directivos y estos últimos son ajenos a sus decisiones, de tal manera que la influencia de los factores exógenos en esas empresas se refleja en oportunidades de empleo y bienestar de familias del país (Yemail, 2013) y por esa gran capacidad de influencia sobre la competitividad en las empresas el propósito de esta revisión documental es identificar cuáles son los factores de naturaleza económica, ajenos a la empresa constructora, que afectan su comportamiento competitivo y cuáles de ellos afectan de manera relevante dicha competitividad.

Este estudio se encuentra estructurado por una sección de revisión de literatura en la cual se dan a conocer los trabajos de investigación, estudios y artículos que identifican los diversos factores que influyen en la competitividad de las empresas dedicadas a la construcción de viviendas. Más adelante se presenta la metodología utilizada para la búsqueda en fuentes secundarias y el análisis respectivo, finalmente se presentan los resultados de la investigación documental, las conclusiones, limitaciones y el seguimiento que se dará a corto plazo en la misma investigación pero en la aplicación de un trabajo de campo en constructoras de vivienda locales y el análisis de ese futuro trabajo.

REVISIÓN DE LITERATURA

Con el propósito de señalar, así sea de manera concisa, que se puede entender por competitividad, se presenta el concepto de Lombana (2006) quien afirma que es un concepto comparativo entre las empresas en el ámbito regional que buscan la creación y agregación de valor, utilizando las estrategias gerenciales apropiadas para generar prosperidad enmarcado en un ambiente competitivo sostenido en los niveles, macro, meso y micro; en un concepto también sencillo de competitividad, de acuerdo con la Comisión Económica para América Latina y el Caribe, CEPAL, a nivel micro la competitividad se refiere a la capacidad de una empresa para mantener una posición en el mercado.

Para efectos de este estudio factores externos de una empresa son aquellos elementos ajenos a la organización que influyen de manera directa o indirecta en el cumplimiento de sus objetivos y que no se pueden controlar (Barrios, 2011); en este sentido Deloitte (2010) afirma que como impulsores de la competitividad de las empresas manufactureras existen diez propulsores, de los cuales 4 de ellos son de naturaleza exógena, es decir, ajenos a la organización: costo y políticas de energía, sistemas económicos, financieros y fiscales, inversión gubernamental en innovación y el sistema jurídico y normativo. Yemail (*idem)* señala que también en Colombia la industria constructora, además de dinamizar la economía y el desarrollo de los países, brinda oportunidades de empleo y bienestar a muchas familias, gracias a la adquisición de viviendas y a la construcción de nuevos establecimientos comerciales e industriales; Moreno (2006) de igual manera reconoce que la construcción es uno de los sectores más relevantes de la economía española, tanto por su formación de capital como por el volumen de empleados que maneja.

Estas empresas constructoras, generadoras de fuentes de empleo y bienestar social, son también organizaciones de sistemas abiertos que no pueden sustraerse a la turbulencia y a las tendencias del entorno

y deben responder adecuadamente a sus presiones dado que la mayor parte de los factores de competitividad se originan en el ámbito externo, según Daft y Steers, citados en Febles y Oreja (2008).Una situación que comprueba lo anterior es lo sucedido en México en donde lo que detonó a las constructoras de viviendas fue la modificación a la Ley del Instituto Nacional del Fondo para la Vivienda de Trabajadores en 1997 para limitarla únicamente al financiamiento de vivienda popular, impidiendo que este Instituto pudiera construir como antes sucedía, lo cual sería fundamental para el crecimiento de las desarrolladoras de vivienda de interés social y a futuro su eventual competitividad.

La competitividad del sector de la construcción para Morales y Blanco (2007) depende de cuatro factores y uno de ellos es el financiamiento, que hasta los años 80 las empresas tomaban el que el gobierno ofrecía para incentivar la economía, pero a partir de los 90 la globalización de la economía y la reorientación del gasto e inversión pública lo limitaron al grado casi de desaparecer, supliéndolo la banca comercial con un financiamiento escaso y caro, pero abriendo una oportunidad mercado a las constructoras independientes. En el mismo estudio estos autores concluyen que la competitividad en este sector es consecuencia de factores en gran parte ajenos a los constructores, tales como las directrices políticas y las medidas económicas que toman las autoridades de gobierno. Cervantes (2005) en cambio afirma que la competitividad de las empresas depende de factores en tres niveles, la competitividad del país, la infraestructura regional y los factores internos de la empresa, pero constituyéndose los dos primeros en factores exógenos.

Pérez *et al* (2014) en su obra señalan que según datos proporcionados por el INEGI (2011) la población total de empresas constructoras en México era en 2009 de 4363, mientras que según este mismo Instituto en el 2013, la población total de empresas constructoras en México en 2011 descendió a 3594, lo que refleja una disminución de 769 empresas. Es decir, hubo una disminución de 18% con respecto al año 2009. Según datos de la Cámara Mexicana de la Industria de la Construcción (CMIC, 2013), el índice de la actividad de la construcción registró una disminución de 5.4 en el periodo enero-marzo del 2012 a -2.3 en el mismo periodo del 2013 según la propia cámara fue producto de una caída en la demanda de materiales. Es evidente que además de los factores internos propios de las empresas, existen otros elementos exógenos y entre esas fuerzas económicas que influyen en la competitividad de las empresas se encuentran la disponibilidad de crédito, las tasas de interés y de inflación, las tendencias de desempleo, las políticas fiscales y la inversión del gobierno en infraestructura, entre otras; estos factores de naturaleza macroeconómica aunque están fuera del ámbito de influencia de las empresas pero afectan su competitividad (Miranda, 2007); dichos factores representan en un análisis de fortalezas, oportunidades, debilidades y amenazas, FODA, las amenazas externas a que están sujetas todas las organizaciones de producción de bienes y servicios.

En el estudio de Ordoñez (2012) se establece que el crecimiento de la actividad constructora de vivienda que se dio en el periodo 200-2010 en el país ecuatoriano se sustenta en el volumen del financiamiento destinado a la compra o construcción de viviendas, al impulso gubernamental para satisfacer las necesidades poblacionales y al equipamiento y construcción de unidades habitacionales populares, principalmente. Para el Foro Económico Mundial (2013) los principales obstáculos de naturaleza económica que afectan la competitividad de las organizaciones se encuentran el acceso a financiamiento y la regulación fiscal de los países. Zevallos, citado por Saavedra (2012), realizó un estudio en 8 países de América Latina sobre los factores que limitan la competitividad empresarial y encontró que en orden de importancia los factores externos que más influyen en ella son: la política de estado, los problemas sociales y los aspectos financieros.

También en un amplio estudio sobre el contexto económico, social y tecnológico de producción de vivienda en América Latina, Torres y Torres (2009) plantean que el desarrollo de le edificación de vivienda es un proceso que en gran medida depende de variables exógenas al ámbito empresarial; en este estudio se muestran las tasas anuales del crecimiento del PIB per cápita en los países de América Latina de periodo

de 1997 a 2008. En relación al país de México, en la misma investigación, h se puede apreciar una relación directamente proporcional entre ambas tasas, ya que en los años en que existe una alta tasa anual de crecimiento, como en 1997 con un 4.9%, también hay una alta tasa anual de crecimiento del sector de la construcción con un 9.3% y en los años en que la tasa de crecimiento del PIB es baja, como en el 2001 con un -1.1% también se da una tasa baja de crecimiento del sector con un porcentaje de -5.7. Para Poo (2003) el sector en México ha sido altamente vulnerable al comportamiento de la economía en general, sobre la cual las variaciones macroeconómicas han tenido un fuerte impacto en la industria de la construcción; las afectaciones cambiarias, como los bruscos cambios en la paridad del peso en el 83, 87 y 95 prácticamente paralizaron la actividad sectorial y esta industria también ha sufrido los embates de los precios de los principales insumos de las obras tales como el cemento, el acero, el cobre y otros, tienen precios internacionales. Por su parte, Pérez y Bermúdez (2013) señalan que no ayuda a mejorar la competitividad de las empresas el hecho que México se encuentre ubicado en el lugar 58 de 134 países en los índices de competitividad internacional, por debajo de Chile y Brasil, de conformidad con el Foro Económico Mundial en su informe 2011-2012, pues son aquellos factores que explican la capacidad de un país para producir bienes y servicios, midiendo la calidad del ambiente macroeconómico, la calidad de las instituciones públicas y la capacidad tecnológica.

Por su gran capacidad de influencia en la competitividad de las empresas y después de la revisión de fuentes secundarias, la pregunta de investigación en este trabajo es cuáles son los factores externos de naturaleza económica del entorno que a nivel macro afectan el comportamiento de una empresa constructora de vivienda? Cuáles de ellos afectan de manera relevante su competitividad empresarial? Después de una minuciosa búsqueda en fuentes secundarias impresas y digitales en diversas bases de datos y revistas electrónicas, como se puede observar en este trabajo, se encontró literatura de distintos países y autores diversos sobre la competitividad, pero no se localizó estudio local alguno que analizara la influencia de los factores externos en la competitividad de las empresas constructoras de vivienda y en un primer momento el interés de iniciar esta investigación nació precisamente porque en la búsqueda previa a la selección del tema no se localizó ningún estudio en el Estado.

METODOLOGÍA

El método utilizado en la presente investigación es descriptivo con un enfoque cualitativo y en su desarrollo se realizó el estado del arte sobre el concepto y los factores externos de las empresas que influyen en su competitividad y estar en condiciones del planteamiento del propósito de investigación, el cual orienta la realización de documento; para ello se hizo necesario efectuar primero una amplia revisión en los aspectos conceptuales, investigaciones previas y métodos sobre el concepto de competitividad, factores económicos, empresa y factor externo en fuentes secundarias. Los datos derivados de la investigación cualitativa se analizaron a través de la teoría fundamentada, con posterioridad a la revisión se precisa el objetivo de la investigación, para finalmente enseguida analizar los resultados y emitir las conclusiones

RESULTADOS

Entre los principales hallazgos en esta investigación se encuentra que el sector de la construcción es de vital importancia para los países por su capacidad de creación de fuentes de empleos, de producción de bienestar para la sociedad en general y su estrecha vinculación e influencia en otros sectores de la economía. También se identificó que existe un común denominador en estudios realizados en diversos países de un reconocimiento de que las empresas dedicadas a la construcción sufren los efectos de factores internos y externos que en un grado mayor o menor inciden en su competitividad.Las principales teorías que señalan los factores que influyen en las empresas del sector se clasifican en tres tipos de factores: macroeconómicos, sectoriales y los internos de las organizaciones, aunque con diversos matices de nación a nación y los primeros constituyen lo que se conoce en un análisis FODA como amenazas externas de las empresas.En sus respectivos trabajos los investigadores coinciden que los factores externos representan una amenaza

externa que los empresarios constructores de vivienda no pueden controlar; asimismo se identifica la coincidencia de que son factores macroeconómicos diversos tales como PIB, inflación, tasa de desempleo, políticas fiscales y regulatorias, los que más comúnmente se presentan e inciden en su desempeño. Para un importante número de autores, los factores económicos que más se mencionan como factor de influencia en la competitividad de las empresas son el Producto Interno Bruto, las políticas fiscales, las políticas cambiarias y la estabilidad macroeconómica de país.

CONCLUSIONES

Diversos estudios han buscado encontrar criterios objetivos y cuantificables para definir los factores que impactan en la competitividad empresarial de la construcción y de la revisión de la literatura realizada tanto nacional como extranjera quedó en evidencia que las condiciones macroeconómicas influyen en la competitividad de las empresas de la construcción de vivienda, afectando o limitando su productividad. Que los factores externos de naturaleza económica que impactan a las empresas al no estar sujetas al control de los empresarios, dejan en estado de vulnerabilidad las organizaciones, por lo cual su impacto en la competitividad es aún más notorio que los mismos factores internos de las empresas. Le corresponde al Gobierno Mexicano ofrecer, como ha dicho Porter, ventajas competitivas a las empresas mexicanas para hacerlas más productivas, tales como estabilidad económica, bajas tasas de desempleo, inversión en infraestructura, fomentar un financiamiento accesible y económico para la población, políticas regulatorias y fiscales justas y proporcionales. De las investigaciones y análisis encontrados queda en evidencia que si bien son variados los factores de impacto en los índices de competitividad de las empresas constructoras de viviendas, los más significativos son la calidad del ambiente macroeconómico y la eficiencia de las instituciones públicas, que regulan las tasas de interés, las políticas gubernamentales, legislación para negocios, monetarias, cambiarias y fiscales.

Que si bien se identifican los factores de mayor impacto, al no localizarse un estudio local sobre la influencia de los factores exógenos en la competitividad de las constructoras de viviendas del estado de Baja California, se encuentra plenamente justificada la realización de un estudio de campo que analicen cercanamente a las organizaciones, cuáles factores impactan más en su competitividad y esa será la finalidad de la segunda etapa del presente trabajo.Las limitaciones de este ejercicio académico se reflejan en que se trata de una primera etapa de una investigación que será más completa con la aplicación a corto plazo de un estudio de campo por lo cual ésta abarca sólo la investigación documental y que de hecho nació en otro trabajo previo de los mismos autores en el que se analizaron los factores internos de las empresas que impactan en la competitividad.

REFERENCIAS

Barrios, Víctor (2001) Ambiente externo de las organizaciones, Gestiopolis, 2001.México. Recuperado el 31 de octubre de 2015 de http://www.gestiopolis.com/ambiente-externo-de-las-organizaciones-empresariales/

Cámara Mexicana de la Industria de la Construcción. CMIC(2013) Encuesta Nacional de la Industria de la Construcción. Gerencia Técnica. México. Recuperado el 31 de octubre de 2015 de http://www.cmic.org/cmic/economiaestadistica/

Cervantes, A. (2005). Competitividad e internacionalización de las pequeñas y medianas empresas mexicanas. (Tesis de grado). Facultad de Ciencias Políticas y Sociales, UNAM Recuperado el 3 de noviembre de 2015 de http://www.scielo.org.co/scielo .php?script=sci_nlinks&ref=000184&pid=S1657-627620 1200020000500005&lng=en

Comisión Económica para América Latina y el Caribe, CEPAL. Definiendo competitividad. Recuperado de http://www.cepal.org/mexico/capacidadescomerciales/ tallerbasesdedatosrep.dom/documentosypresentaciones/2definiendolacompetitividad.pdf

Deloitte (2010). Índice global de competitividad en manufactura. Recuperado el 7 de noviembre de 2015 de: www.deloitte.com/assets/Dcom-Mexico/Local%20Assets/Documents/mx(esmx)índice GLOBALManu facturadeloitte_vf.pdf

Febles, J & Oreja, J, (2008) Factores externos e internos determinantes de la orientación de la cultura estratégica de las empresas. *Investigaciones europeas de dirección y economía de las empresas*. Vol. 14, No.1, 2008, pp.13-32 Recuperado el 3 de noviembre de 2015 de http://www.aedem-virtual.com/articulos/iedee/v14/141013.pdf

Foro Económico Mundial. Reporte de competitividad global, 2012-2013. Recuperado el 10 de noviembre de 2015 de http://www3.weforum.org/docs/WEF_GlobalCompetitivenessReport_2012-13.pdf

Instituto Nacional de Geografía y Estadística. INEGI (2011, 2012 y 2013). Encuesta Anual de Empresas Constructoras. Recuperado el 4 de noviembre de 2015 de http://www.inegi. org.mx/prod_serv/contenidos/espanol/bvinegi/productos/metodologias/EAEC/eaec_2013/EAECSiMe_13. pdf

Lombana, J. & Rozas, S. (2006) Marco analítico de la competitividad. Fundamentos para el estudio de la competitividad regional. *Pensamiento & gestión*, [en línea], 2009, 26. Universidad del Norte,1-38. Recuperado el 7 de noviembre de 2015 de http://www.scielo .org.co/pdf/pege/n26/n26a02.pdf

Miranda, Ronald. (2007) Análisis del entorno y la competitividad de un sector industrial. Recuperado el 31 de octubre de 2015 de http://www.ucipfg.com/Repositorio/MAP/MAP-02/UNIDADES_DE_ aprendizaje/unidad_2/libro_2/documentos/Analisis_del_entorno_y_la_competitividad_de_un_sector_ind ustrial_R.pdf

Morales, M. & Blanco, A. (2007) La competitividad en la industria de la construcción en México. Recuperado el 3 de noviembre de 2015 de http://administracionytecnologia paraeldiseno.azc.uam.mx/ publicaciones/2007/3_2007.pdf

Moreno Mondéjar, M. Estrategias competitivas en el sector de la construcción. 2006. Area de economía española e internacional Univ. De Castilla-La Mancha

Ordóñez, Juan (2012) Actividad constructora en el Ecuador: Enfoque del diamante de competitividad de M. Porter (2000 – 2010). Recuperado el 7 de noviembre de 2015 de http://repositorio.puce. edu.ec/handle/22000/6830

Pérez, S., Macías, C., Rosiles, L., León, J., (2014) Factores que impactan la competitividad de empresas constructoras de Mexicali, Baja California, México. *Revista Global de Negocios*. Vol. 2, Núm. 3, 2014.pp.79-90.

Pérez, C. & Bermúdez, M. (2013) M. Índices de competitividad Internacional. Recuperado el 9 de noviembre de 2015 de: http://www.eumed.net/cursecon/ecolat/mx 2012/ psba.html

Poo Rubio, A. (2003) El sector de la construcción en México. Recuperado el 7 de noviembre de 2015 de http://administracionytecnologiaparaeldiseno.azc.uam.mx /publicaciones/2003/6_2003.pdf

Porter, M.E. (2001) Donde radica la ventaja competitiva de las naciones? Harvard-Deusto Business Review, cuarto trimesrre, núm. 44, pp. 3-26 http://europa.sim.ucm.es/compludoc/AA?articuloId=117254

Saavedra García, M. (2012) Una propuesta para la determinación de la competitividad en la pyme latinoamericana. *Revista Pensamiento y Gestión*, No.33, Universidad del Norte, 93-124.

Torres, J & Torres, A.(2009) El contexto económico, social y tecnológico de la producción de vivienda social en América Latina. Centro de Estudios de la Construcción y el Desarrollo Urbano y Regional. Colombia Recuperado el 4 de noviembre de 2015 en http://elagec3.uniandes.edu.co/memorias_elagec_III.pdf

Yemail Barragán, A., (2013) Estrategias utilizadas por las empresas constructoras en Sincelejo para tener ventajas competititvas. *Revista Desarrollo Gerencial*, Vol. 5-2, No.2, Julio-Diciembre, pp.191-224 Universidad Simón Bolívar, Colombia.
Recuperado de http://portal.unisimonbolivar.edu.co:82/rdigital/desarrollogerencial/index. php/desarrollo gerencial/issue/archive

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VARIABLES IMPULSORAS DE LA INNOVACIÓN EN PEQUEÑAS Y MEDIANAS EMPRESAS

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RESUMEN

En la presente investigación identificamos en qué medida las variables: Estrategia de Innovación, Gestión del Conocimiento, Gestión de Proyectos, Gestión de Portafolio, Estructura y Organización, explican la innovación de las firmas que integran la industria manufacturera de alimentos bebidas y tabaco del sector manufacturero de la ciudad de Morelia Michoacán México, lo anterior tomando como principal referencia de medición, la propuesta desarrollada por Adams et al. (2006), mediante una prueba empírica de corte transversal y apoyándonos en métodos econométricos hemos logrado obtener dos modelos de regresión que explican la innovación en base a las variables enunciadas.

PALABRAS CLAVE: Innovación, Pymes, Industria Manufacturera

VARIABLE DRIVING INNOVATION IN SMALL AND MEDIUM ENTERPRISES

ABSTRACT

In this research we identified how variables: innovation strategy, management of knowledge, project management, portfolio management, structure and organization, explain the innovation of firms that integrate manufacturing food beverage and tobacco manufacturing in the city of Morelia Michoacán Mexico, the previous taking as a main reference for measurement, the proposal developed by Adams et to the. (2006), by means of an empirical test of cross-cutting and relying on econometric methods have achieved two regression models that explain the innovation based on the listed variables.

JEL: O31, M11, M14

KEYWORDS: Innovation, Smes, Manufacturing Industry

INTRODUCCION

En México la existencia Micro pequeñas y medianas empresas (MiPyMES) son un soporte invaluable en su economía ya que más del 99 % de todas las empresas establecidas corresponden a esta categoría, existen aproximadamente 4 millones 15 mil unidades empresariales, contribuyen con 7 de cada 10 empleos formales que se generan en el país, su consumo en conjunto de este tipo de empresas es mayor que el de las consideradas grandes empresas y tienen una participación en el PIB del 52% (Secretaria de Economía, 2015),por eso es fundamental que se incrementen las investigaciones que les permitan a este tipo de empresas fortalecer e incrementar sus ventajas competitivas para con ello garantizar su permanencia en economías como la actual donde lo único cierto es la incertidumbre. En la actualidad cualquier gerente o tomador de decisiones podría afirmar que la innovación conlleva competitividad es de alguna manera un hecho dado (Alfaro et al., 2015). Porter (1990) establece, "las empresas obtienen ventaja contra los mejores competidores del mundo debido a las innovaciones que generan". La OECD (1992) concluye que los factores relacionados con la innovación que influyen en la competitividad al nivel de la empresa incluyen:

La capacidad de combinar actividades internas de I+D e innovación con la cooperación tecnológica con universidades y otras empresas.

La capacidad de combinar actividades internas de I+D e innovación con la cooperación tecnológica con universidades y otras empresas.

La capacidad de incorporar definiciones más exactas de las características de la demanda y de la evolución de los mercados en estrategias de diseño y producción.

Cordero, (1990) menciona la innovación incluye ideas tales como progreso económico, éxito empresarial, solución de problemas, etc. Por lo tanto, identificar las implicaciones que las actividades innovadoras suponen al rendimiento de las empresas es relevante, ya que abre camino para asistir una discusión importante: determinar de forma sistemática si los recursos destinados a acciones de innovación dentro de las empresas se justifican, los objetivos y metas de innovación se están logrando y si existen incentivos adecuados para su promoción y gestión. Derivado de lo anterior el objetivo que nos trazamos en la presente investigación es identificar en qué medida variables Estrategia de Innovación, Gestión del Conocimiento, Gestión de Proyectos, Gestión de Portafolio, Organización y Estructura, identificadas como impulsoras de la innovación se asocian y explican la innovación en la industria de alimentos bebidas y tabaco del sector manufacturero de la ciudad de Morelia Michoacán, México.

La presente investigación está estructurada como sigue: en la sección de la revisión de la literatura se plantean los argumentos que sustentan las variables involucradas que explican la innovación en el sector industrial elegido, enseguida mostramos la metodología utilizada, en la que identificamos el grado de asociación de estas variables así como la medida en estas contribuyen en la innovación, posteriormente se presentan los resultados de la investigación y finalmente Conclusiones.

REVISION LITERARIA

Los procesos de innovación generalmente en las organizaciones proveen fuentes de oportunidad para el establecimiento temporal de monopolios, más aun, las actividades continuas de innovación resultan clave para el desarrollo del éxito empresarial a largo plazo (Schumpeter, 1934). La introducción de productos, servicios, procesos innovadores o modelos de negocio diseñados específicamente para nichos atractivos resultan en oportunidades para despuntar sobre los competidores (Porter, 1980). La introducción sostenible de innovaciones por parte de Pequeñas y Medianas empresas (PyMes) crea altas barreras de entrada, lo cual previene la entrada de competidores, robustece la posición de la industria y repercute en beneficios por encima del promedio del mercado (Porter, 1980).

En la presente investigación se ha tomado como principal referencia de medición, la propuesta desarrollada por Adams et al. (2006), cuyo trabajo se basa en la revisión de seis modelos de medición de la innovación (Cooper & Kleinschmidt, 1995; Chiesa et al. 1996; Goffin & Pfeiffer, 1999; Cormican & Sullivan, 2004; Burgelman et al. 2004; Verhaeghet & Kfir, 2002). En ese sentido, de las siete áreas descritas por los autores, se ha adaptado un marco de medición de innovación tomando factores recurrentes y relevantes al momento de cuantificar las capacidades estructurales de las empresas para hacer y mantener el cambio continuo. La figura 1 muestra las siete áreas de innovación que se han adaptado de Adams et al. (2006) para el caso específico de la ciudad de Morelia, México. Estudios sugieren que las ineficiencias en procesos disminuyen al mantener una estrategia de innovación integrada a la cultura, comportamiento y acciones de la organización (O'Brien's, 2003). Por ello, al momento de tratar el área de estrategia de innovación es relevante analizar factores como el compromiso a largo plazo de la dirección hacia la innovación y la clara locación de recursos a la misma (Cooper et al., 2004). El enlace entre los objetivos clave de la empresa y el liderazgo que los directivos facilitan a partir de una robusta visión compartida y distribuida alrededor de la estructura organizacional (Pinto & Prescott, 1988). Así como la aversión al riesgo, la pro-actividad de la

gerencia y su persistencia y compromiso con la innovación (Saleh & Wang, 1993). La segunda área de medición comprende la gestión del conocimiento explícito e implícito por parte de las organizaciones (Davis, 1998; Nonaka, 1991), así como el proceso de recopilación y uso de dicha información. Resulta favorable por lo tanto conocer el nivel de "capacidad de absorción", entendido como la habilidad de reconocer el valor del conocimiento nuevo a partir de ideas generadas en la empresa (Chiesa et al., 1996; Lee et al., 1996) o externo obtenido a partir de conexiones con otras empresas o recursos de información (Atuahene-Gima, 1995; Tipping & Zeffren, 1995), así mismo asimilarlo y aplicarlo para acciones comerciales (Cohen & Levinthal, 1990).

Figura 1: Áreas de Medición de la Innovación

5. Habilitadores Internos Personas Herramientas Recursos físicos y financieros	1. Estrategia de Innovación Orientación Estratégica Liderazgo Estratégico			7. Habilitadores Externos Investigación de Mercado Testeo de Mercado Marketing y Ventas
	2. Gestión del Conocimiento Repositorio de Conocimiento Generación de Ideas	3. Gestión de Proyectos Eficiencia de Proyecto Comunicación Herramientas	4. Gestión de Portafolio Balance Riesgo - Retorno Óptimo uso de	
	6. Organización y Estructura Cultura Estructura			

En la presente figura se muestra las áreas de medición de la innovación con sus respectivas dimensiones e indicadores que sirve como base en la elaboración de la presente investigación: Adaptado de Adams et al., (2006).

Diversos estudios abordan la importancia de la relación entre innovación y la eficiencia en la gestión de proyectos, muy comúnmente en términos de costes, duración y pronóstico del retorno del proyecto (Chiesa et al., 1996; Adams et al., 2006). Además de lo anterior resulta de interés conocer el grado de comunicación interna con que las áreas generan nuevos productos (Damanpour, 1991), así como la colaboración que se genera con proveedores (Bessant, 2003) y clientes (Von-Hippel, 1986), ya que se han identificado como fuentes que contribuyen al proceso de innovación. Dado el entorno altamente cambiante en el que las Pymes rigen su actividad productiva, la efectividad con la que una organización administre su portafolio de nuevos proyectos es usualmente un determinante clave de ventaja competitiva (Bard et al., 1988). Es importante conocer en qué medida las organizaciones basan su operación en procesos sistemáticos guiados por claros criterios de selección, ello facilita la optimización del uso de recursos limitados y mejora la posición competitiva de la organización (Hall and Nauda, 1990). Aunado a ello Cooper et al. (1999) demuestra que las empresas altamente competitivas utilizan herramientas formales y las aplican consistentemente a todos los proyectos a desarrollar en cierto portafolio de opciones.

Los habilitadores internos entendidos como sistemas y herramientas de entrada para el proceso de innovación proporcionan ventaja competitiva para las empresas que los utilizan de manera formal (Bessant & Francis 1997; Cooper et al., 2004). De tal forma resulta relevante conocer y medir la puntualidad con la que las organizaciones destinan recursos tanto financieros como de personal para el desarrollo de productos y procesos. Es generalmente aceptado y reconocido que las empresas pueden crear ambientes de trabajo que promuevan el proceso innovador (Dougherty and Cohen, 1995; Tidd et al., 1997). En ese sentido es necesario conocer la intensidad con la que las empresas mantienen su estructura organizativa alineada con la gestión de proyectos (Pugh et al., 1969), así como la libertad con la que los trabajadores pueden generar ideas a partir de la experimentación y la aceptación de los errores como fuente de experiencia (Zien & Buckler, 1997; Anderson & West, 1996). El área de habilitadores externos trata de medir la intensidad con la que la empresa lanza sus productos al mercado (Calantone & di Benedetto, 1988; Globe et al., 1973), es decir, investigación de mercados, prueba y promoción, adherido a un programa de comercialización bien

establecido (Griffin & Page, 1993), además de la forma de alcanzar al consumidor y las operaciones formales post-venta (Atuahene-Gima, 1995; Von-Zedtwitz, 2002).

METODOLOGÍA

A fin de verificar si las variables Estrategia de Innovación, Gestión del Conocimiento, Gestión de Proyectos, Gestión de Portafolio, Organización y Estructura, identificadas como impulsoras de la innovación se asocian y explican la innovación en la industria de alimentos bebidas y tabaco del sector manufacturero de la ciudad de Morelia Mich., México. Nos trazamos el método de investigación a seguir, cuyo diseño está encuadrado en una investigación no experimental, de corte transversal, en donde se hace el análisis de las variables mediante los estudios exploratorios, análisis correlacional y el análisis multivariado. Para lo anterior nos dimos a la tarea de identificar las empresas que cumplirán el requisito de ser Pyme definida como aquella que cuenta con un mínimo de 11 empleados y un máximo de 50, así como la mediana empresa, caracterizada por contar con un mínimo de 51 y un máximo de 250 personas ocupadas (INEGI, 2009), del sector seleccionado para que una vez con esta población obtener el tamaño de muestra que nos permita hacer inferencia hacia la población.

Los datos tratados en el presente estudio se obtuvieron a partir de la herramienta de diagnóstico de innovación que comprende 32 preguntas de exploración (Adams 2006; i Ohme, 2002; Chiesa et al., 1996), y 5 preguntas de control (INEGI, 2010). La encuesta fue probada de forma piloto por 9 expertos en temas de innovación: 3 académicos de la Universidad Michoacana de San Nicolás de Hidalgo, 2 académicos de la Universidad de Barcelona y 4 empresarios de la localidad. Se recibieron 7 respuestas a detalle con las cuales se mejoró la encuesta y finalmente se aplicó de forma personal a la población total de 182 Pymes de la ciudad en el periodo de Enero a Mayo del 2015. Dicha exploración se destinó a directivos de Pymes que al menos se encontraban registradas en el Directorio Estadístico Nacional de Unidades Económicas (INEGI, 2015) de la ciudad en cuestión.

Al respecto, del total de 91 empresas que respondieron adecuadamente la encuesta, 78% se catalogan como pequeñas empresas y 12% como medianas. Se registraron 15 sectores industriales diferentes. El grupo más grande de empresas (30%) se centran en la industria alimentaria, seguido por la industria del plástico y el hule con 12%, 11% en impresión e industrias conexas, 10% en fabricación de productos metálicos 9% en la industria química, 7% en la industria de fabricación de muebles, colchones y persianas, 7% en fabricación de prendas de vestir, los demás sectores presentan porcentajes menores al 5%. La encuesta aborda siete áreas específicas de medición de la innovación (Adams et al., 2006), el enfoqueque se trata de ofrecer es en capacidades de innovación organizacional (Ambruster et al., 2008) y el impacto potencial que las Pymes ejercen en el desarrollo económico regional de los territorios (Oke et al., 2007).

El instrumento de medición comienza identificando la estrategia de innovación, específicamente las variables de orientación estratégica del negocio y liderazgo estratégico por parte de la administración, se busca la cuantificación del rol que juega la innovación en los objetivos a mediano y largo plazo de la organización. La herramienta continua con la exploración del área de gestión del conocimiento y las variables repositorio de conocimiento, generación de ideas y flujos de información, en dicha sección se intenta medir el aprovechamiento de la información y experiencia adquirida a través del tiempo de operación por parte de la firma. Como tercer aspecto, se aborda la forma en cómo la entidad gestiona el desarrollo de nuevos proyectos, en ese sentido se consideran las variables eficiencia de proyecto, comunicación, herramientas y colaboración. Como cuarto aspecto, se mide la forma en que la empresa gestiona su portafolio de proyectos, es decir, la selección, planificación, y apoyo del abanico de nuevos conceptos a desarrollar; se miden las variables: balance de riesgo - retorno y óptimo uso de herramientas. La quinta sección de la herramienta de diagnóstico se centra en la medición de las capacidades internas de la empresa para llevar a cabo tareas de innovación, se ponderan las variables personas, herramientas y recursos físicos y financieros. La sexta sección se centra en la organización y estructura de la empresa, se

analizan las variables cultura y estructura, tratando de observar las capacidades organizacionales que exhiben las empresas para generar un clima propicio para realización de actividades de innovación. La séptima área corresponde a los habilitadores externos que cuantifican la forma en que las empresas utilizan fenómenos del entorno para generar oportunidades, se ponderan las variables de investigación de mercado, testeo de mercado marketing y ventas.

RESULTADOS

Una vez realizada la recopilación de datos se procedió a determinar la fiabilidad de los ítems de acuerdo a cada variable considerada en el estudio (tabla 1), y el análisis discriminante a fin de verificar el evitar la confusión y facilitar la interpretación de las relaciones entre las variables (tabla 2).

Tabla 1: Coeficientes de Confiabilidad Para Cada Variable

Área de medición de la innovación	Elements	Cronbach Alpha*
1. Estrategia de Innovación	5	0.843
2. Gestión del conocimiento	4	0.788
3. Gestión de proyectos	5	0.825
4. Gestión de portafolios	4	0.845
5. Habilitadores Internos	5	0.867
6. Organización y estructura	4	0.779
7. Habilitadores externos	5	0.516

En esta tabla observamos el nivel de confiabilidad para cada una de las variables del instrumento de recolección de datos utilizado con 91 casos, que de acuerdo con Rosenthal (1994), que para propósitos de investigación la puntuación mínima debe de ser de 0.50 observamos en nuestros resultados todos se encuentran por encima de este valor., Fuente elaboración propia haciendo uso del software SPSS.

Tabla 2: Análisis Discriminante de las Variables de Estudio

Correlación de Pearson	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Estrategia de Innovación (1)	1						
Gestión del conocimiento (2)	.693**	1					
Gestión de proyectos (3)	.655**	.738**	1				
Gestión de portafolios (4)	.657**	.719**	.786**	1			
Habilitadores Internos (5)	.666**	.721**	.767**	.741**	1		
Organización y estructura (6)	.674**	.649**	.598**	.707**	.698**	1	
Habilitadores externos (7)	.577**	.574**	.539**	.577**	.634**	.563**	1

En esta tabla observamos de que la medida utilizada no se correlaciona demasiado con las medidas de otros constructos con los que supone teóricamente difiere, se evaluó a un intervalo de confianza del 99%. Fuente elaboración propia haciendo uso del software SPSS

De las tablas anteriores podemos observar que el instrumento utilizado es adecuado y nos asegura su confiabilidad de la recolección de datos que explican a las variables en cuestión, con respecto a su validez discriminante comprobada a un nivel de 99%, la correlación entre cada par de constructos no contiene el valor 1, lo que permite deducir que, al no estar perfectamente correlacionados los constructos, cada uno de ellos representa un concepto distinto. Es preciso abordar como se relacionan las variables entre sí, lo cual nos aportará información analítica necesaria para determinar si dos características están relacionadas o, por el contrario son independientes, se dice que dos variables están correlacionadas si los cambios en una variable están asociados con los cambios en la otra variable, representado por el coeficiente de correlación (r), que es fundamental para el análisis de regresión. El objetivo de este tipo de estudios correlaciónales son saber cómo se puede comportar un concepto o una variable conociendo el comportamiento de otras variables relacionadas. Para nuestro caso utilizaremos la regresión lineal múltiple que es la técnica utilizada

para examinar las relaciones entre una única variable dependiente y un conjunto de variables independientes (Hair, et. Al 1999), un propósito fundamental de la regresión múltiple es la predicción de la variable dependiente con un conjunto de variables independientes.

La regresión múltiple es una extensión de la regresión lineal simple, cuando hay más de una variable independiente. Se trata de determinar cómo se comporta una variable Y a partir de una combinación óptima de un grupo de variables predictoras $X_1, X_2, \ldots, X_{n-1}, X_n$ La ecuación general es: $Y_i = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + \ldots\ldots + B_nX_n$ (1) Donde B_0 es el intercepto y los B_i son los valores de los coeficientes parciales de regresión de cada una de las predictoras. Cada coeficiente B_i representa el cambio que se produce en la variable dependiente Y por cada unidad de variación de la variable predictora X_i, manteniendo las demás predictoras constantes. En este tipo de análisis el objetivo es obtener valores de parámetros de regresión, de modo tal que la suma de los cuadrados de los errores (o residuos) sea mínima, a fin de optimizar la predicción. Para nuestro caso de estudio la ecuación a analizar se describe a continuación: $Y_i = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + B_4X_4 + B_5X_5 + B_6X_6 + B_7X_7$ (2)
Donde:

Y = Gestión de la innovación
B_0 = Constante
X_1 = Estrategia de innovación
X_2 = Gestión del conocimiento
X_3 = Gestión de portafolio
X_4 = Gestión de proyectos
X_5 = Habilitadores Externos
X_6 = Habilitadores internos
X_7 = Organización y estructura

Como primer paso nos dimos a la tarea de determinar las correlaciones entre la variable dependiente y las variables independientes obteniendo la tabla 3.

Tabla 3: Correlaciones de las Variables Consideradas a Estudio, Para la Gestión de la Innovación

	Ordinary correlations:							
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8).
Innovacion (1)	1.00							
Est_Innovacion (2)	0.70	1.00						
Gest_Conocimiento (3)	0.80	0.61	1.00					
Gest_Portafolio (4)	0.84	0.54	0.77	1.00				
Gest_Proyectos (5)	0.74	0.48	0.71	0.79	1.00			
Hab_Externos (6)	0.97	0.69	0.85	0.87	0.76	1.00		
Hab_Internos (7)	0.90	0.74	0.77	0.73	0.66	0.88	1.00	
Org_Estructura (8)	0.83	0.59	0.60	0.58	0.44	0.80	0.71	1.00

En la presente tabla podemos observar a un nivel de confianza del 99% que las variables consideradas en el presente estudio están asociadas o relacionadas entre ellas, así como la asociación de la variable dependiente con las independientes en un intervalo de 0.70 a 0.97 tratándose de una asociación positiva considerable a positiva muy fuerte. Fuente elaboración propia a partir de eviews ver. 7.

A fin de identificar los factores a ser considerados como más importantes en la gestión de la innovación utilizamos el Análisis de Componentes Principales (ACP), dado que esta técnica multivariante nos permite identificar un grupo de variables ficticias formadas a partir de la combinación de las anteriores observadas. Con ello lograremos sintetizar los datos y relacionarlos entre sí, sin hacer ninguna hipótesis previa sobre lo que significa cada factor inicial. Los componentes principales que se obtienen tras un proceso de cálculo de raíces y vectores característicos de una matriz simétrica tienen como objetivo contener la mayoría de la varianza observada, con lo que se evita conseguir información redundante. Para que esto suceda las variables han de ser no correlacionadas entre sí y se han de poder expresar como combinación lineal de las variables que realmente han sido observadas (García 2004 et al.) A mayor varianza incorporada en cada

una de estas componentes, implica que la misma contiene una mayor cantidad de información. Se realizó una aproximación a los factores que podrían ser considerados principales en la gestión de la innovación, considerando las respuestas de la valoración de las variables independientes a fin de identificar si éstas se pueden concretar y reducir a un número menor sin perder demasiada información, resumiendo de esta forma los que presentan un peso específico mayor y evitando redundancias que puedan estar contenidas en más de una variable. Utilizando el software Econometrics Views ver. 7 se obtiene la tabla 4.

Tabla 4: Tabla Componentes Principales de las Variables Involucradas en la Gestión de la Innovación

Number	Value	Difference	Proportion	Cumulative Value	Cumulative Proportion
1	6.168750	5.455656	0.7711	6.168750	0.7711
2	0.713094	0.269925	0.0891	6.881844	0.8602
Eigenvectors (loadings):					
Variable	PC 1	PC 2			
Innovacion	0.392497	0.076489			
Est_Innovacion	0.307459	0.452254			
Gest_Conocimiento	0.353667	-0.184465			
Gest_Portafolio	0.355536	-0.371998			
Gest_Proyectos	0.322428	-0.584285			
Hab_Externos	0.395010	-0.004827			
Hab_Internos	0.370126	0.156346			
Org_Estructura	0.320847	0.501347			

Sample: 1 29, Included observations: 29, Computed using: Ordinary correlations, Extracting 8 of 8 possible components Eigenvalues: (Sum = 8, Average = 1) En la presente tabla con fundamento en la evidencia estadística obtenida determinamos que los datos recogidos en nuestra investigación están contenidos en un 86% en los dos primeros componentes obtenidos lo que nos permite identificar las variables independientes que nos explican la innovación. Fuente elaboración propia a partir de eviews ver. 7.

De acuerdo a la tabla 4 con los componentes 1 y 2 más del 86% de la varianza de la información recogida es explicada de acuerdo a ello podemos considerar que el componente 1 las variables Estrategia de innovación, Gestión de portafolios, Gestión de proyectos, y organización estructura nos explican la innovación, y del componente 2 la innovación es explicada por la gestión del conocimiento, los habilitadores externos y habilitadores internos. A fin de contrastar lo anterior y de encontrar los coeficientes utilizaremos la regresión lineal múltiple con mínimos cuadrados ordinarios para cada caso en particular

Como se puede observar de los resultados de la tabla 5 las variables estrategia de innovación , Gestión de proyectos, Gestión de portafolios y Organización y Estructura explican la Innovación de la PyMes dado que a un nivel de confianza del 94% la prob de rechazar esta afirmación se encuentra por debajo del 5%, respecto al coeficiente de determinación múltiple obtenido se infiere que la línea de regresión ajustada explica en un 91% a la variable independiente, además de que la prueba de significancia F para el modelo muestra un valor de 73.98 y una prob(F estadística) de 0 lo que nos indica que todos los coeficiente del modelo son diferentes a 0. Por lo anterior podemos escribir la siguiente ecuación: INNOVACION = -0.3229 + 0.1518X_1 + 0.3205X_3 + 0.2072X_4 + 0.4039X_7 (3)

Tabla 5: Análisis de las Variables Representativas del Componente 1

Dependent Variable: INNOVACION				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.322956	0.227306	-1.420796	0.1682
Est_Innovacion	0.151829	0.074890	2.027354	0.0539
Gest_Portafolio	0.325053	0.098509	3.299723	0.0030
Gest_Proyectos	0.207215	0.098082	2.112672	0.0452
Org_Estructura	0.403984	0.066790	6.048540	0.0000
R-squared	0.924989	Mean dependent var		3.172414
Adjusted R-squared	0.912487	S.D. dependent var		1.104179
S.E. of regression	0.326645	Akaike info criterion		0.755702
F-statistic	73.98793	Durbin-Watson stat		1.386414
Prob(F-statistic)	0.000000			

En la presente tabla observamos que las variables estrategia de innovación, Gestión de proyectos, Gestión de portafolios y Organización y Estructura explican la gestión de innovación a un nivel de confianza del 94% con un coeficiente de determinación del 91%.

Donde

X_1 = Estrategia de innovación
X_3 = Gestión de portafolio
X_4 = Gestión de proyectos
X_7 = Organización y estructura

Tabla 6: Análisis de las Variables Representativas del Componente 2

Dependent Variable: INNOVACION				
Method: Least Squares				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.174892	0.157995	1.106946	0.2789
Gest_Conocimiento	-0.145349	0.086138	-1.687401	0.1040
Hab_Externos	0.894173	0.110323	8.105052	0.0000
Hab_Internos	0.222451	0.077961	2.853376	0.0086
R-squared	0.958704	Mean dependent var		3.172414
Adjusted R-squared	0.953749	S.D. dependent var		1.104179
S.E. of regression	0.237466	Akaike info criterion		0.089855
F-statistic	193.4635	Durbin-Watson stat		1.851247
Prob(F-statistic)	0.000000			

En la presente tabla observamos que las variables Gestión del conocimiento, Habilitadores Externos y Habilitadores Internos la Innovación en la PyMes a un nivel de confianza del 90% con un coeficiente de determinación del 95%.

Como se puede observar de los resultados de la tabla 6 las variables Gestión de conocimiento, Habilitadores Internos y Habilitadores externos explican la Innovación de la PyMes dado que a un nivel de confianza del 90% la prob de rechazar esta afirmación se encuentra por debajo del 5%, respecto al coeficiente de determinación múltiple obtenido se infiere que la línea de regresión ajustada explica en un 95% a la variable independiente, además de que la prueba de significancia F para el modelo muestra un valor de 193.46 y una prob (F estadística) de 0 lo que nos indica que todos los coeficiente del modelo son diferentes a 0. Por lo anterior podemos escribir la siguiente ecuación:

$$INNOVACION = 0.1748 - 0.1453X_1 + 0.8941X_3 + 0.2224X_4 \qquad (4)$$
Donde
X_2 = Gestión del conocimiento.
X_5 = Habilitadores Externos

X_6 = Habilitadores Internos

CONCLUSIONES

En la presente investigación en base a la evidencia estadística se ha logrado obtener dos ecuaciones que nos explican la innovación de las empresas manufactureras de la industria de los alimentos, bebidas y tabaco, obtenidas, a partir del análisis componentes principales y regresión múltiple con mínimos cuadrados ordinarios En el análisis realizado de las variables involucradas se observó un grado de asociación aceptable dado que se observa que la mayoría de estas se encuentran correlacionadas en un intervalo superior a 0.5 con excepción de la variable Gestión de proyectos con la estrategia de innovación de 0.48, permitiéndonos argumentar que estas variables son adecuadas para el estudio de la innovación en este tipo de empresas. La presente investigación aporta conocimiento del tratamiento de la innovación dado que la ecuación (3) explica la innovación en un 91.24 % mientras que la ecuación (4) explica la innovación en un 95.87%, se observa que en ambas ecuaciones el valor de aporte de las variables independientes son muy similares, lo que conduciría a que las empresas inviertan en incrementar la eficiencia de dicha variable dependiendo del costo Se hace necesario mencionar la realizar mayor investigación en las actividades involucradas que explican cada una de las variables independientes para con ello lograr un incremento en la innovación.

BIBLIOGRAFÍA

Adams, R., Bessant, J., & Phelps, R. (2006). Innovation management measurement: A review. *International Journal of Management Reviews*, *8*(1), 21-47.

Alfaro V.G., Gil-Lafuente, A. M., & Alfaro, G. G. (2015). A Fuzzy Logic Approach Towards Innovation Measurement. In *Global Conference on Business & Finance Proceedings* (Vol. 10, No. 1, p. 267). Institute for Business & Finance Research.

Anderson, N. and West, M.A. (1996). The team climate inventory: development of the TCI and its applications in teambuilding for innovativeness. *European Journal of Work and Organizational Psychology*, 5, 53–66.

Atuahene Gima, K. (1995). An exploratory analysis of the impact of market orientation on new product performance. *Journal of product innovation management*, *12*(4), 275-293.

Bessant, J. (2003). *High Involvement Innovation: Building and Sustaining Competitive Advantage Through Continuous Change*. Chichester: John Wiley.

Burgelman, R.A., Christensen, C.M. and Wheelwright, S.C. (2004). *Strategic Management of Technology and Innovation*, 4th edition. New York: McGraw Hill/Irwin.

Calantone, R.J. and di Benedetto, C.A. (1988). An integrative model of the new product development process: an empirical validation. *Journal of Product Innovation Management*, 5, 201–215.

Cordero, R. (1990). The measurement of innovation performance in the firm: an overview. *Research Policy*, 19, 185–192.

Cormican, K., & O'Sullivan, D. (2004). Auditing best practice for effective product innovation management. *Technovation*, *24*(10), 819-829.

Cooper, R.G., Edgett, S.J. and Kleinschmidt, E.J. (1999). New product portfolio management: practices and performance. *Journal of Product Innovation Management*, 16, 333–351.

Cooper, R. G., Edgett, S. J., & Kleinschmidt, E. J. (2004). Benchmarking best NPD practices-1. *Research-Technology Management*, *47*(1), 31-43.

Cohen, W.M. and Levinthal, D.A. (1990). Absorptive capacity: a new perspective on learning and innovation. Administrative Science Quarterly, 35, 128– 152.

Davis, M.C. (1998). Knowledge management. *Information Strategy: The Executive's Journal*, 15, 11– 22. Damanpour, F. (1991). Organizational innovation: a meta-analysis of effects of determinants and moderators. *Academy of Management Journal*, 34, 555– 590.

Globe, S., Levy, G.W. and Schwartz, C.M. (1973). Key factors and events in the innovation process. *Research Management*, 16, 8–15.

Goffin, K. and Pfeiffer, R. (1999). *Innovation Management in UK and German Manufacturing Companies*. London: Anglo-German Foundation for the Study of Industrial Society.

Hall, D.L. and Nauda, A. (1990). An interactive approach for selecting IR&D projects. *IEEE Transactions on Engineering Management,* 37, 126–133.

Nonaka, I. (1991). The knowledge-creating company. *Harvard Business Review*, November–December, 96–104

O'brien, J. P. (2003). The capital structure implications of pursuing a strategy of innovation. *Strategic Management Journal*, *24*(5), 415-431.

Porter, M. E. (1980). Competitive strategy: Techniques for analyzing industries and competition. *New York*, 300.

Porter, M. E. (1990). The Competitive Advantage of Notions. *Harvard business review*.

Pinto, J. K., & Prescott, J. E. (1988). Variations in critical success factors over the stages in the project life cycle. *Journal of management*, *14*(1), 5-18.

Saleh, S. D., & Wang, C. K. (1993). The management of innovation: strategy, structure, and organizational climate. *Engineering Management, IEEE Transactions on*, *40*(1), 14-21.

Schumpeter, J. A. (1934). *The theory of economic development: An inquiry into profits, capital, credit, interest, and the business cycle* (Vol. 55). Transaction Publishers.
Tipping, J. and Zeffren, E. (1995). Assessing the value of your technology. *Research–Technology Management,* 38, 22–40.

Von Hippel, E. (1986). Lead users: a source of novel product concepts. Management Science, 32, 791– 805.

Verhaeghe, A. and Kfir, R. (2002). Managing innovation in a knowledge intensive technology organization (KITO). *R&D Management*, 32, 409–417.

Zien, K.A. and Buckler, S.A. (1997). From experience: dreams to market: crafting a culture of innovation. *Journal of Product Innovation Management*, 14, 274–287.

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GENERACIÓN DE LINEAMIENTOS PARA EL EMPRENDIMIENTO Y CULTURA DE LA PROPIEDAD INTELECTUAL EN LA FACULTAD DE INGENIERÍA, ARQUITECTURA Y DISEÑO DE LA UNIVERSIDAD AUTÓNOMA DE BAJA CALIFORNIA

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RESUMEN

El presente trabajo muestra una la relación entre el espíritu empresarial, la innovación tecnológica aunada al desarrollo de la cultura de propiedad intelectual (PI) a partir de trabajos que se están desarrollando en la facultad de Ingeniería, Arquitectura y Diseño (FIAD) de la Universidad autónoma de Baja California (UABC). Los trabajos buscan incrementar la diversificación de empleo en los jóvenes universitarios contribuyendo no sólo al autoempleo sino a generar nuevos empleos a partir de proyectos de emprendimiento que se desarrollan en las aulas universitarias con un aprendizaje continúo para la innovación y el emprendimiento. El presente trabajo aborda lineamientos y estrategias que se están trabajando para contribuir en el aprendizaje y sensibilización de las actividades que impactan en el emprendimiento que nos llevó a un caso éxito de emprendimiento de base tecnológica a partir de un proyecto académico.

PALABRAS CLAVES: Emprendimiento, Innovación Tecnológica, Espíritu Emprendedor, Universidad Emprendedora

GENERATION GUIDELINES FOR ENTREPRENEURSHIP CULTURE AND INTELLECTUAL PROPERTY IN THE FACULTY OF ENGINEERING, ARCHITECTURE AND DESIGN UABC.

ABSTRACT

This paper shows the relationship between entrepreneurship, technological innovation coupled with the development of the culture of intellectual property (IP) from jobs that are being developed in the Faculty of Engineering, Architecture and Design (FIAD) University independent of Baja California (UABC). The works aim to increase the diversification of employment in young university contributing not only to self-employment but create new jobs from undertaking projects that are developed in university classrooms with a continuous learning for innovation and entrepreneurship. This work deals with guidelines and strategies that are working to contribute to learning and awareness activities that impact on entrepreneurship that led us to a successful entrepreneurial technology-based event from an academic project. entrepreneurship. This work deals with guidelines and strategies that are working to contribute to learning and awareness activities that impact on entrepreneurship that led us to a successful entrepreneurial technology-based event from an academic project.

JEL: D4, I20, I25, L21,

KEYWORDS: Entrepreneurship, Technological Innovation, Entrepreneurship, Entrepreneurial University

INTRODUCCIÓN

La Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES) a través de la Fundación Educación Superior-Empresa (FESE) promueve que las universidades mexicanas adopten un papel activo en la generación del espíritu emprendedor en sus estudiantes, y que su actuación no debe limitarse solamente a la formación profesional de sus jóvenes. Retomando a Olmos (2007), la Universidad debe de tener entre sus objetivos el desarrollo de competencias profesionales necesarias para promover, a lo largo de toda la vida, la creatividad, la innovación, y la habilidad para aprender a emprender.

Emprendimiento

Para Anzola (2010), el emprendedor es toda persona que hace posible la aparición de una empresa. Él es el gestor de una acción creativa inicial, es el director en quien reside la responsabilidad de la empresa tiene una orientación marcadamente tecnológica siendo un inventor en el sentido organizativo y un descubridor de oportunidades aprovechadas directamente por la empresa mediante su propia acción y destreza personal. En el ámbito de la Universidad podemos encontrar personas con un gran potencial para desarrollar proyectos de emprendimiento con base tecnológica, por su preparación obtenida en las aulas universitarias, sus empresas podrían tener mayor probabilidad de supervivencia, especialmente si el objeto de sus actividades requiere conocimientos especializados y de alto nivel. Sin embargo, aunque el espíritu emprendedor puede surgir desde cualquier rincón del aula universitaria, su fomento y realización dependerá de las condiciones de las universidades y apoyos que se reciban (Olmos, 2007). Las Instituciones de Educación Superior (IES) tienen entre sus políticas el impulso a la actividad emprendedora a través de la investigación y el desarrollo del conocimiento, en la Universidad Autónoma de Baja California (UABC) no es la Excepción a través de sus diversas escuelas, facultades e institutos; el presente trabajo hablara particularmente de la Facultad de Ingeniería, Arquitectura y Diseño (FIAD).

METODOLOGÍA

El presente trabajo se desarrolló a través de una investigación científica con un enfoque cualitativo, que se fundamentó en un proceso inductivo. Para esta investigación se utilizaron planteamientos abiertos que se iban enfocando de acuerdo a la evolución del estudio. Este planteamiento se orientó a aprender de las experiencias y puntos de vista de emprendedores universitarios que enfrentaron el reto de iniciar un negocio ante un sistema fiscal y económico nada favorecedor. La investigación se enfocó a emprendedores universitarios de la Facultad de Ingeniería, Arquitectura y Diseño (FIAD) de la UABC en Ensenada, Baja California, México. En el 60% de los casos, se tuvo contacto directo con los entrevistados. Las variables no fueron controladas ni manipuladas, sólo permitieron definir conceptos generales. Los significados fueron extraídos de los emprendedores y los datos no se limitaron a valores numéricos. La revisión de la literatura se llevó a cabo antes de efectuar la primera recolección de datos con un especialista en temas de emprendimiento, posteriormente se fue consultando conforme avanzaba la investigación. Esta revisión permitió un mejor entendimiento de los datos recolectados y analizados, sin perder de vista que los insumos fundamentales surgieron de los datos emergentes provenientes de las entrevistas con los emprendedores. El periodo de análisis de datos y resultados en protección de la propiedad intelectual y emprendimientos de base tecnológica abarca de 2009 a 2015 que comprende dos administraciones rectorales de la UABC y dos administraciones directivas de la Facultad de Ingeniería, Arquitectura y Diseño.

Muestreo Cualitativo

Dado que es una investigación de tipo inductiva, toda vez que el interés de la misma no es generalizar los resultados del estudio a una población más amplia; el trabajo se concentró en los casos que ayudaron a entender el fenómeno de estudio y a responder las preguntas de la investigación. El principal factor que se consideró fue la capacidad operativa de recolección y análisis. Para este estudio se utilizaron muestras no probabilísticas, pues permitieron analizar los casos que interesaban para el trabajo de investigación y una muestra de expertos, misma que permitió tener una opinión para dirigir la hipótesis de trabajo. Los métodos que se utilizaron para la recolección de datos cualitativos fueron: la revisión documental y la entrevista. La técnica de análisis empleada para el presente trabajo fue la investigación cualitativa con enfoque fenomenológico, que consistió en el análisis de casos de emprendedores exitosos que experimentaron el mismo hecho. Se eligieron participantes que experimentaron la misma situación. La elección fue por conveniencia. Las muestras dirigidas se consideraron válidas en cuanto a que este determinado diseño de investigación así lo requirió. Los resultados se aplicaron únicamente a la muestra, por tanto no son generalizables a una población. El tipo de instrumento que se utilizó fue la entrevista estructurada basada en una guía específica. La entrevista con el experto fue abierta y se fue estructurando conforme avanzaba el trabajo de campo. El tipo de preguntas fueron generales porque partieron de planteamientos globales para dirigirse al tema que interesaba y de opinión porque permitieron obtener el punto de vista del entrevistado.

La Uabc y la Politica Institucional de Desarrollo de Emprendedores

Unidad de Vinculación y Transferencia de la Tecnología

La Universidad Autónoma de Baja California (UABC) en consideración a los objetivos planteados tanto en el Plan Nacional de Desarrollo 2007-2012 como del Plan Estatal de Desarrollo de Baja California 2008-2013 sobre el papel conferido a las Instituciones de Educación Superior (IES) en el impulso de la competitividad de los sectores productivos crea en 2009, el *Centro de Desarrollo y Transferencia de Tecnología (CDTT)*, para convertirse en un espacio de apoyo técnico, académico y de investigación universitaria que conduzca a la creación y crecimiento de Empresas Innovadoras de Base Tecnológica (EIBTs), mediante el ofrecimiento de incubación, asistencia técnica y administrativa, de mercadotecnia, capacitación y servicios especializados de calidad, con base a la metodología del Instituto Politécnico Nacional, buscando así contribuir a la construcción del conocimiento y desarrollo de competencias empresariales que les permitan ser agentes productivos responsables y comprometidos con el desarrollo económico regional. (Rivera et al, 2012). Las principales funciones del CDTT de UABC son:

Vinculación entre la Academia, Gobierno e Iniciativa Privada
Innovación, desarrollo y transferencia de tecnología que genera valor a través del talento y el conocimiento.
Apoyo a los laboratorios núcleo de las Unidades Académicas (Escuelas, Facultades e Institutos) de la UABC.
Creación de Empresas.

Apoyo a emprendedores para desarrollar y mejorar su idea.
Apoyo en la elaboración de planes de negocios.
Capacitación Empresarial.
Vinculación con financiamientos
Desarrollo Empresarial.
Capacitación de Capital Humano.
Asesoría técnica a empresas.
Consultoría especializada.

Unidades de Gestión de la Propiedad Intelectual (UGPI)

Rivera et al, (2012) indicó que la Rectoría de la UABC, emprendió el reto de la creación de las Unidades de Gestión de la Propiedad Intelectual (UGPI), en cada uno de sus Campus, para satisfacer las necesidades de protección en materia de Propiedad Intelectual, dicha oficina proporciona sus servicios al personal interno a la Universidad y a las personas externas que lo soliciten. En el año de 2008, se establecieron las Unidades de Gestión de la Propiedad Intelectual en las ciudades de Mexicali, Tijuana y Ensenada, cuyo objetivo es asesorar a la comunidad universitaria y sector externo, para el adecuado trámite de patentes, modelos de utilidad, diseños industriales y otros productos susceptibles de protección. La Unidad de Gestión de la Propiedad Intelectual a partir de 2012 se integra a la Unidad de Vinculación y Transferencia de Tecnología de la UABC: La Unidad de Gestión de Propiedad Intelectual tiene las siguientes funciones:

Sensibilización de la comunidad universitaria y el público en general hacia el conocimiento de la importancia de la Propiedad Intelectual. Tomar conciencia del capital intelectual. Concientización: Evaluar las opciones de protección para realizar una mejor elección. Difundir la cultura de Propiedad Intelectual, en el interior de la Institución Educativa y en la comunidad en general. Otorgar asesorías a los miembros de la comunidad universitaria y a los sectores público y privado respecto a la protección de los derechos de propiedad industrial además de los derechos de autor. Protección de las innovaciones tecnológicas y los derechos de la propiedad intelectual, hacer efectivos los resultados de la investigación y el desarrollo (I+D). Difusión de la información, crear una red para difundir la información acerca de las acciones emprendidas en materia de Propiedad Intelectual y los resultados de dichas acciones.
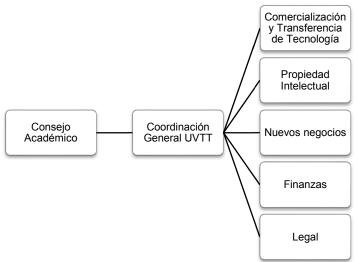
Políticas Institucionales

Como se mencionaba anteriormente, para poder operar un CDTT y una UGPI, hoy UVTT fue necesario desarrollar Lineamientos y Políticas para la apropiación de la tecnología, ya que en algunos casos se generan con participación de investigadores, docentes y estudiantes universitarios con equipo y en tiempo de la Universidad. Adicionalmente, se desarrollaron políticas de licenciamiento, convenios de confidencialidad, presupuestos, según sea el caso y se cuenta con un programa de promoción de la cultura de Propiedad Industrial. Entre las políticas y reglamentos más importantes se encuentran:

Estatuto del personal académico
Reglamento de investigación

Para fomentar en los docentes e investigadores la cultura de la Propiedad Intelectual y la vinculación con el sector empresarial, la UABC dando seguimiento a las necesidades de los órganos antes trabajados como CDTT y UGPI en septiembre del 2012 creó la Unidad de Vinculación y Transferencia de Tecnología (UVTT). Buscando mejorar las tareas antes emprendidas; con esta nueva entidad, se brindará la seguridad jurídica necesaria a los inventores cimarrones para aprovechar su capacidad creativa e inventiva y promoverla cono oferta tecnológica a la inversión privada para generar la creación de empresas, empleos, desarrollo económico y contribuir a elevar la competitividad de la comunidad bajacaliforniana. El organigrama que se manejaba en la UVTT en la UABC se muestra en la Figura 1. "Con esta Unidad fortaleceremos la protección de las ideas que piensan, diseñan y llegan a concretar nuestros profesores e investigadores y en las que participan de manera importante estudiantes de la Universidad, tanto de licenciatura como de posgrado", señaló el Rector de la UABC, doctor Felipe Cuamea Velázquez.

Figura 1: Organigrama de UVTT de la UABC

Cultura de Protección de la Propiedad Intelectual

La UABC se propuso como estrategias vincular la investigación a las áreas prioritarias del desarrollo regional y nacional, reposicionar estratégicamente la investigación en el marco de la competitividad, generar y consolidar conocimiento pertinente y fomentar la innovación para la transferencia tecnológica. Para lo cual se creó la Unidad de Vinculación y Transferencia de Tecnología entidad responsable de la tramitación de las solicitudes de registro de patentes entre otras funciones. En este sentido, la FIAD desde 2012 a la fecha, ha ingresado cinco solicitudes de patente al Instituto Mexicano de la Propiedad Industrial (IMPI) de las cuales tres ya están en examen de Fondo para ver si se otorga el título de patente. De esas cuatro son resultados de investigación realizadas por académicos y una por un estudiante de posgrado. Se han generado empresas a través del impulso de la FIAD, entre las que destaca una empresa formada por estudiantes de posgrado dedicada a la fabricación de instrumentación electrónica en el sector agrícola; hoy en día se desarrolla dentro de un programa interno de la facultad una actividad que impulsa el emprendimiento, los participantes acuden de manera voluntaria donde solo participan los interesados en crear una empresa y son estudiantes de los primeros semestres, donde se tiene una captación de alrededor de 40 estudiantes de las diversas carreras de la FIAD.

Casos de Éxito

De los emprendedores universitarios entrevistados se seleccionaron dos casos que representan puntualmente los resultados esperados en materia de emprendimientos y protección de la propiedad intelectual.

*Revlux***:** es una empresa mexicana constituida en 2010 dedicada a brindar servicio especializado y de alto valor agregado para la industria de iluminación y electrónica utilizando, lo último de la tecnología en esta área, creando soluciones y productos altamente eficientes, de calidad y sobre todo, amigables con el medio ambiente. Sus inicios se remontan al 2008, cuando un grupo de estudiantes de la FIAD desarrolla un prototipo de luminario con tecnología LED para alumbrado público capaz de generar grandes ahorros energéticos y contribuir a la eliminación de la contaminación lumínica.

A través del apoyo de académicos e investigadores, los estudiantes logran el desarrollo de un sistema óptico capaz de generar una iluminación muy uniforme. En 2009, se procedió al trámite de registro de patente en México y Estados Unidos. En 2011, realizan la transferencia tecnológica a una empresa de Hermosillo, Sonora, siendo la primera empresa surgida de las aulas universitarias que logra tan importante avance, volviéndose ejemplo para las siguientes generaciones.
Hoy son una empresa dedicada al desarrollo de Soluciones "Llave en mano" de proyectos tecnológicos de baja y media complejidad desde la etapa de conceptualización hasta prototipos

*Instrumentronix***:** es una empresa dedicada al desarrollo y fabricación de tecnología, que cuenta con servicios preventivos y correctivos, para la medición de variables ambientales. Elaboran sistemas dedicados, eficientes y adaptados a los requerimientos específicos de cada cliente. Brindando soporte y atención en la región de Baja California en México, con personal técnico especializado. Está conformada por siete socios egresados de postgrado de la FIAD con nivel académico de maestría y doctorado. Cuentan con experiencia en diversas áreas de la ingeniería electrónica, diseño y programación de dispositivos embebidos. Entre sus principales clientes se encuentran empresas del sector agrícola, pesquero y acuícola del municipio de Ensenada, Baja California.

RESULTADOS

La FIAD ha generado los lineamientos y las políticas internas para el impulso de proyecto de base tecnológica que culminen en registros de patentes y/o emprendimiento: destacándose por su participación en eventos y concursos de emprendimiento organizados por la propia Universidad.

Grupo de Emprendedores Multidisciplinarios

 Desde finales de 2011, realizo un esfuerzo significativo en el impulso y desarrollo de una cultura emprendedora a través de sus diversos programas educativos, entre los que destacan los programas de Ingeniería: civil, electrónica, computación, Industrial, Arquitectura, Bioingeniería y Nanotecnología; en los registros históricos se encontró que es una de las Unidades académicas con mayor aportación en cuanto a estudiantes y recursos económicos en la UABC Campus Ensenada en apoyo a la iniciativa de creación de una asignatura multidisciplinaria de emprendedores, es decir, estudiantes de diferentes facultades y carreras integrados en un sólo grupo. La Tabla 1, nos muestra la participación anual en emprendedores multidisciplinarios,

Tabla 1: Participación Por Año de la FIAD en Emprendedores Multidisciplinarios

Año	Total de Asistentes	Participación FIAD
2011-2	8	3
2012-2	6	3
2013-1	24	15
2013-2	7	3
2014-1	9	5
2014-2	6	4
Total	**60**	**33**

Expo Emprendedores del Campus Ensenada

En la Tabla 2, se presenta los equipos participantes de la FIAD en las expo emprendedores realizadas por la Universidad en el campus Ensenada, resaltando la activa participación con proyectos tecnológicos en las áreas de tecnologías de la información y comunicaciones, proyectos industriales y tecnológicos, medio ambiente, desarrollo sustentable y energía. En la Tabla 3, se observan los lugares obtenidos por equipos de estudiantes de la FIAD en las diversas expo emprendedores.

Tabla 2: Cantidad de Equipos Participantes Por Expo Emprendedores en el Campus Ensenada

	2013-1	2013-2	2014-1	2014-2	2015-1
	2da Expo	3ra Expo	4ta Expo	5ta Expo	6ta Expo
Tecnologías de la Información y Comunicaciones	2	2	5	6	3
Agroindustria e Industria alimenticia	0	0	0	2	2
Proyectos industriales y tecnológicos	7	8	9	5	7
Medio Ambiente , Desarrollo Sustentable y Energía	8	0	0	5	3
Artísticas – Culturales	0	0	1	0	0
Proyectos de servicios	9	1	1	3	1
Total de Equipos	**26**	**11**	**16**	**21**	**16**

Tabla 3: Posiciones Obtenidas Por la FIAD en las Diversas Ediciones de Expo Emprendedores En Campus Ensenada

	2013-1	2013-2	2014-1	2014-2	2015-1
	2da Expo	3ra Expo	4ta Expo	5ta Expo	6ta Expo
1er Lugar	1	1	2	3	3
2do Lugar	1	0	1	3	1
3er Lugar	2	2	0	2	2

Eventos Regionales

Como parte de la política de impulso al emprendimiento, los estudiantes de Ingeniería en Nanotecnología lograron el *Segundo lugar* en el 3er certamen regional del emprendedor de la FESE, realizado en la Ciudad de Tijuana en 2013. En el 4to certamen regional del emprendedor de la FESE, se contó con la participación de un equipo Multidisciplinario de la FIAD (un electrónico y un alumno de nano), en la final en la ciudad de Mazatlán Sinaloa en 2014.

Concursos de Creatividad E Innovación a Nivel Estatal De La UABC

En el Primer concurso de Creatividad e Innovación de la UABC (Noviembre del 2013) participan con cuatro equipos con los que se obtuvo:

En la categoría de Innovación en Licenciatura, se obtuvo el 2do lugar.
En la categoría de Innovación de posgrado, se obtuvo el 2do lugar.

En el 2do Concurso de Creatividad e Innovación en Diciembre del 2014; de los 20 proyectos participantes de los tres campus universitarios, ocho proyectos eran de la FIAD y obtienen los siguientes resultados:

1er lugar en la categoría de innovación de Licenciatura con estudiantes de nanotecnología.
3r lugar en la categoría de emprendimiento con estudiantes de electrónica.

En el primer Startup weekend de Ensenada organizado por Hub Center, participan con un total de siete alumnos de la FIAD y se obtiene:

El primer lugar con un proyecto de nanotecnología,
El tercer lugar con un alumno de electrónica

En abril del 2015 se participa en el concurso Innova Teens con cuatro de siete equipos finalistas.

Protección de la Propiedad Intelectual

La Facultad no solo hace su esfuerzo por impulsar el emprendimiento e innovación con sus estudiantes de licenciatura y posgrado sino que a la par a impulsado el registro de la propiedad intelectual de los resultados de proyectos de investigación realizados por sus profesores e investigadores. Como resultado, desde verano del 2012 a la fecha han realizado cinco solicitudes de patente ingresadas al IMPI de las cuales 3 ya están en examen de Fondo para ver si se otorga el título de patente.

CONCLUSIÓN

La generación de los lineamientos para el apoyo a iniciativas emprendedoras y de cultura de la protección de la propiedad intelectual implementada por las actuales autoridades de la FIAD han tenido resultados significativos que los hacen destacar en relación al resto de la Universidad. Sin embargo, es necesario un mayor impulso por parte de las autoridades de la administración central de la Universidad para apoyar iniciativas como las analizadas en el presente trabajo y que contribuyan con espacios para la incubación y acompañamiento a los emprendimientos de base tecnológica realizados por los estudiantes de licenciatura y posgrado. Además, de apoyar con recursos para realizar los estudios de mercado, estudios de viabilidad, organización de cursos y talleres en temas administrativos y financieros, evaluación de la tecnología, vigilancia tecnológica entre otros. Que contribuirán al incremento de los casos de éxito a partir del semillero de proyectos de base tecnológica desarrollados por los estudiantes de licenciatura y posgrado. Es necesario, alinear el desarrollo de proyectos de tecnologías sean producto de la investigación, proyectos académicos asociados a asignaturas o tesis de posgrado a los sectores estratégicos en la agenda de innovación para el estado de Baja California siendo estos: la Agroindustria Alimentaria, la Industria Aeroespacial, Manufactura Avanzada, Energías Renovables, Biotecnología y Tecnologías de la Información y la Comunicación.

REFERENCIA BIBLIOGRÁFICA

Amaya, G., Báez, Y., Méndez, S., Aguilar, J., (2012) Unidad de Vinculación y Transferencia de Tecnología para Impulso de la innovación y el Emprendedurismo Universitario.

Anzola, S., (2010), El Espiritu Emprendor, ICESI, pag. 137-141

Arredondo Acosta, Linda, (2012), Unidad De Vinculación Y Transferencia De Tecnología: Caso UABC.

Drucker, P. (1985). Innovation and Entrepreneurship: Practice and Principles. New York: Harper & Row.

Dutrénit, G., (2009), sistemas regionales de innovación: un espacio para el desarrollo de las pymes, El caso de la industria de maquinados industriales, Universidad Autónoma Metropolitana.

Montiel, H., (2008), Incubadoras de empresas: una tipología de modelos de incubación en México, II International Conference on Industrial Engineering and Industrial Management, September 3-5, Burgos, Spain.

Olmos, J., (2007), Tu poencial Emprenddor, Ed. Pearson Educación, 216 pag.

Phan, P.H.; Siegel, D.S.; Wright, M. (2005). "Science parks and incubators: observations, synthesis and future research". Journal of Business Venturing, 20(2):165-182.

Rivera Garibaldi, Irma, De Dios Ocampo Díaz, Juan, Arredondo Acosta, Linda Eugenia, (2010), Planeación, desarrollo e implementación del Centro de Desarrollo y Transferencia de

Tecnología en la Universidad Autónoma de Baja California, SINNCO 2010, ISBN 978-607-95030-7-9

Rivera Garibaldi, Irma, Arcos Vega, José Luis, Alcalá Álvarez, Carmen, Programa de Vinculación de la Universidad Autónoma de Baja California, en el marco de Décimo Congreso Internacional, Instituto Politécnico Nacional CFIE, 2012.

Silva, J., (2008), Emprendedor Crear su propia Empresa, primera edición, Alfaomega.

RESPONSABILIDAD SOCIAL Y DESEMPEÑO ECONÓMICO EN EMPRESAS DEL SECTOR DE BIENES Y SERVICIOS EN MÉXICO

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RESUMEN

En la literatura de responsabilidad social empresarial (RSE) existe evidencia empírica de que la adopción de un programa responsable incrementa de desempeño económico de las empresas, no obstante, en México pocas empresas han adoptado estos programas, por lo que no existe evidencia de su impacto en el desempeño económico de las mismas. El objetivo de esta investigación es analizar la relación entre responsabilidad social y desempeño económico de las empresas mexicanas que participan en un programa voluntario ambiental del sector de bienes y servicios. Para probar las hipótesis de este estudio, se examinaron 41 empresas del sector de bienes y servicios que se encuentran en el programa de auditoria ambiental de la Procuraduría Federal de Protección al Ambiente e incluidas en el ranking de las 500 empresas mas exitosas de México. A través de un análisis de regresión se encontró que la RSE determina el desempeño económico de las empresas e incluyendo el tamaño de la empresa como moderadora, la relación baja ligeramente el coeficiente, pero no de manera significativa. Se concluye los programas responsabilidad ambiental modifican el desempeño económico de las empresas ya que a través de este programa optimizan sus consumos de energía, agua y reducen disminuyen los gastos de operación.

PALABRAS CLAVE: Programa Nacional de Auditoria Ambiental, Responsabilidad Social Empresarial, Certificación Calidad Ambiental

ABSTRACT

In the literature of corporate social responsibility (CSR) there is empirical evidence that the adoption of a responsible program increases the economic performance of companies, however, Mexico few companies have adopted these programs, so that there is no evidence of impact on economic performance thereof. The objective of this research is to analyze the relationship between social responsibility and economic performance of Mexican companies involved in a voluntary program of environmental goods and services sector. To test the hypothesis of this study, 41 companies of goods and services that are in the environmental audit program of the Federal Attorney for Environmental Protection and included in the ranking of the 500 most successful companies in Mexico industry were examined. Through regression analysis, it was found that CSR determines the economic performance of companies and including the size of the company moderated slightly lower coefficient ratio, but not significantly. It is concluded that the environmental responsibility programs modify the economic performance of companies, and that through this program optimize their consumption of energy, water and operating expenses.

JEL M14,M21,Q56,C10

KEYWORD: National Environmental Audit Program, Corporate Social Responsibility, Environmental Quality Certification

INTRODUCCION

El concepto de responsabilidad social empresarial (RSE) ha tomado fuerza en estas ultimas tres décadas, por presiones de grupos sociales, con la finalidad de que las empresas admitan la responsabilidad de sus operaciones y obligaciones con la sociedad (Frederick, 1978, Cochran, 2007). Así, la RSE inició como obligaciones éticas en respuesta a presiones de sus stakeholders (Bowen 1970, Carroll, 1979, Wartick & Cochran, 1985). No obstante, con el tiempo se incluyeron otras obligaciones se incrementaron tales económicas (Friedman, 1970), el poder social y político de las instituciones, (Davis & Blomstrom, 1975), y de la filantropía y valores de los directivos (Freeman 1984, Mahon & McGowan, 1991; Velásquez, 1992; Gladwin & Kennelly 1995).

Bowen (1970), señala que la diversidad de las obligaciones en las empresas han desencadenado un debate en la literatura de la RSE entre la ética y la economía. Por parte de la ética la principal responsabilidad de una empresa es con la sociedad. Sin embargo Friedman, (1970) desde un punto de vista económico refiere que las discusiones sobre RSE destacan por su vaguedad analítica y su falta de rigor porque las personas son las únicas que tienen responsabilidades y no las empresas, ya la única responsabilidad de los directivos es buscar la rentabilidad de su empresa. Argumento que ha sido respaldado por en estudios sobre la relación entre la RSE y desempeño económico de las empresas (Cochran & Wood 1984; Ullmann 1985, Griffin & Mahon, 1997).

La mayoría de los directivos que participan en los programas de RSE ha sido por presiones de stakeholders (Cochran & Wood 1984, Pava & Krause 1996), ya sea por que han sido sorprendidos en acciones de responsabilidad empresarial no éticas y se ven obligados a realizar pagos a través de programas de responsabilidad social, acciones que han resultado en ventaja competitiva para algunas empresas (Porter & Kramer, 2006; Husted & Allen 2007). Los programas de RSE han sido las herramientas de empresas para implementar estrategias de negocio para lograr mejores resultados empresariales. Existen países que han implementado medidas para regular las obligaciones de las empresas a través de los programas de responsabilidad social. Por ejemplo en economías desarrolladas como Europa, el EIRIS (Empowering Responsible Investment) mide los indicadores sociales ambientales de la empresa, en Estados Unidos el TRI (Toxic Realease Inventory) mide las emisiones de contaminantes de las empresas y que forman parte de la legislación norteamericana. En economías en desarrollo, los indicadores de responsabilidad social ETHOS representan una herramienta que permite a las empresas elaborar iniciativas de desarrollo sostenible y compromiso con sus stakeholders. En México PROFEPA (Procuraduría Federal de Protección al Ambiente) mide los indicadores de desempeño ambiental de las empresas.

En México la PROFEPA administra y regula el programa nacional de auditoria ambiental desde 1994 en la que a la fecha cuentan con certificado ambiental 1145 empresas del sector de la economía primario secundarios y terciarios y opera con tres certificados: el certificado de industria limpia, el certificado de calidad ambiental y el certificado de calidad ambiental turística De de las 1145 empresas en el PNAA, el 32.4% cuentan con el certificado de calidad ambiental, sin embargo en este sector de la economía existen aproximadamente 23,313 empresas de las cuales solo el 4.9% participan en el programa de responsabilidad ambiental de la PROFEPA, lo que no representa un alto índice de participación voluntaria de estas empresas.

En este sentido Montiel y Husted (2009) refieren que la adopción de un programa de responsabilidad ambiental como el PNAA ayuda a las empresas a establecer un adecuado manejo ambiental y a vigilar su cumplimiento y esto tiene como resultado la reducción de consumos por tanto un ahorro económico, en este sentido Foster (2010) señala que la certificación industria limpia mejora los niveles de emisión de contaminantes de las empresas y le permite a las empresas estas libre de inspecciones mientras se esté certificada. Sin embargo no hay suficiente evidencia empírica sobre la relación entre la responsabilidad social y el desempeño económico de las empresas en este programa. Por lo que el objetivo de esta investigación es analizar la relación de la RSE y el desempeño económico de las empresas mexicanas, que participan en un programa PNAA con certificado de calidad ambiental de la PROFEPA, para aportar evidencia y entender como los programas de responsabilidad social modifican el desempeño económico de las empresas que han

sido certificadas y reguladas por instituciones publicas a través de los programas voluntarios, y así hacer implicaciones para la política publica y el sector empresarial que perciban los beneficios de un programa de responsabilidad social. El resto de esta investigación esta estructurada de la siguiente manera, primero se describe la literatura revisada sobre la relación entre RSE y desempeño económico, luego se describe utilizado para recolección y análisis de datos, finalmente se presentan y discuten los resultados, y se dan las implicaciones del estudio.

Responsabilidad y Desempeño Economico

La literatura de la RSE ha aportado diversos conceptos resultados y métodos para su análisis (Margolis & Walsh, 2001), desde hace mas de tres décadas se han aportado evidencias empíricas y se han propuesto teorías para explicar la relación (Orlitzky, 2006). Freeman (1984) refiere la existencia de una relación positiva entre RSE y el desempeño económico, porque las empresas pueden satisfacer a sus stakeholders a través de sus estrategias ambientales y reducir sus consumos operacionales Porter y Kramer, (2006) refieren que las estrategias basadas en la filantropía y la ética generan a las empresas ventajas competitivas y crean para la empresa prestigio y valor social. Hart en 1995 señala que las estrategias basadas en recursos naturales generan ventaja para las empresas en costos, marca y prestigio

Los estudios empíricos muestran un impacto de los programas de responsabilidad social de las empresas por ejemplo Russo y Fouts (1997) en un estudio de 243 empresas de todos los sectores encontraron que las estrategias ambientales de reducción de consumos y la innovación se relacionan positivamente con el desempeño económico de la empresa, la relación también fue moderada a través del crecimiento de la empresa. Torugsa, O'Donohue y Hecker, (2012) en un estudio realizado en 171 empresas del sector manufacturero de Australia, encontraron una relación positiva entre RSE y desempeño económico al adoptar estrategias ambientales para la creación de valor de la empresa. De la misma forma Christmann (2000) en un estudio en 88 empresas químicas encontró que las capacidades de innovación y la implementación de practicas ambientales son factores que determinan el desempeño económico de las empresas. En un estudio en 470 empresas en Alemania Gamerschlag, Möller, Verbeeten, (2011) encontraron que estas empresas publican un alto desempeño económico cuando reportan los resultados de la implementación de los programas de responsabilidad social. Con esto se puede responder la siguiente pregunta ¿Las empresas con programas de responsabilidad social tienen un mejor desempeño económico?

MÉTODO

El método de investigación fue cuantitativa, la fuente de información fueron de datos secundarios. La muestra fue integrada por 41 empresas que cuentan con certificado ambiental la PROFEPA reportadas en el año 2014. Las fuentes de información fueron (1) el Sistema de Información Institucional (SIIP) que registra las empresas certificadas con calidad ambiental del PNAA administrado por la PROFEPA, (2) listado de las empresas mas exitosas de México reportado por la revista de la CNN Expansión (Cable News Network México) . Tabla 1

Tabla 1: Tabla de población, muestra y fuente

Variable	Población	Muestra	Fuente
Responsabilidad Social Desempeño económico (Utilidad neta +ventas Patrimonio) Tamaño de empresa (numero de empleados)	23, 313 empresas de bienes y servicios en México.	Empresas que están en el programa nacional de auditoría ambiental que cuenten con certificado de calidad ambiental en el año 2014 Ranking de las 500 empresas más exitosas de México de la revista de la CNN Expansión publicada en el año 2014	SIEM (Sistema empresarial Mexicano) www.siem.gob.mx SIIP (sistema de información institucional PROFEPA) http://www.profepa.gob.mx/ Ranking de las 500 empresas más exitosas de la CNN EXPANSION http://www.cnnexpansion.com/rankings/2015/las-500-empresas-mas-importantes-de-mexico-de-expansion-2015

Esta tabla muestra la fuente de donde se tomaron los datos, las variables del estudio y la característica de la muestra

Muestra

Del SIIP reporta 1145 empresas certificadas en el programa de auditoria ambiental de las cuales 663 empresas están certificadas como industria limpia, 368 empresas tienen certificado de calidad ambiental y 144 empresas están certificadas con calidad ambiental turística, como muestra de este estudio se recolectaron 368 empresas de bienes y servicios con certificado de calidad ambiental De la CNN expansión reportó utilidad neta, ventas totales, patrimonio, activo, pasivo y numero de empleado como indicadores económicos de 500 empresas, de los cuales se filtraron por sector. Para este estudio se recolectaron 254 empresas de bienes y servicios. Para muestra de este estudio se triangulo la información de las dos bases de datos (SIIP CNN Expansión) para filtrar información de las 368 empresas con certificado de calidad ambiental y 254 en el listado de la empresas mas exitosas de México. Así se obtuvo un total de 41 empresas con certificado de calidad ambiental con reporte de desempeño económico del listado de las empresas mas famosas de México.

Medidas

Responsabilidad Social

En la literatura revisada sobre responsabilidad social utilizado diferentes medidas de responsabilidad social de las empresas la mayoría lo ha determinado de los reportes de diferentes programas como TRI, EIRIS, y de reportes e informes financieros como FORBES, la Bolsa de valores. En este estudio las medidas del PNAA se determinan a través de la etiqueta certificación de calidad ambiental de PROFEPA. Los indicadores son: Los aspectos técnicos que cubren las auditorías ambientales se dividen en dos:

Aspectos cubiertos por las normas ambientales Mexicanas NMX-AA-162-SCFI-2012 y NMX-AA-163-SCFI-2012 y el Reglamento de la Ley General del Equilibrio Ecológico y la Protección al Ambiente en materia de Autorregulación y Auditorías Ambientales con índices: administrativos-legales, emisiones a la atmósfera, descargas de aguas residuales, manejo de residuos peligrosos, contaminación de suelo y subsuelo, ruido.

Aspectos no normados ambientalmente con índices : riesgo, seguridad, atención de emergencias, capacitación, normas y criterios internacionales aplicables, buenas prácticas de ingeniería y optimización de consumo de energéticos.

Las empresas que cumplan con estos dos aspectos técnicos de la auditoria ambiental (I y II) son acreedores a certificado ambientales de la PNAA operado por PROFEPA, el tipo de certificado depende del sector de la economía al que pertenezcan las empresas manufactureras y de transformación obtienen el certificado de industria limpia, las empresas de servicio turístico como hoteles, restaurantes , bares y establecimientos de

entretenimiento con fines turísticos se les otorga el certificado de calidad ambiental turística y finalmente las empresas de bienes y servicios como bancos, autoservicios, tiendas departamentales, farmacéuticas. Se les otorga el certificado de calidad ambiental.

Desempeño Económico

Según Orlitzky (2003) El desempeño económico es la obtención del beneficio económico esperado de las actividades de la empresa como resultado de una viabilidad financiera o como logro de las metas económicas. Para obtener el listado de las empresas mas famosas de México, la revista CNN expansión aplicó mas de 2,000 cuestionarios para capturar la información corporativa de las empresas como antecedentes financieros, tamaño de la empresa, ventas totales y ordenaron la información reportando en forma de ranking las 500 empresas mas exitosas de México. Para este estudio el desempeño económico se midió con la información sobre ventas anuales, utilidades y patrimonio de las 41 empresas con certificado del calidad ambiental del programa PNAA de la PROFEPA reportadas en el listado de CNN expansión. Las medidas fueron Ventas anuales. Son ingresos que se presentan netos de impuestos y devoluciones (expresadas en millones de pesos), La información se indica auditada, preliminar o estimada. Utilidades netas. la utilidad neta consolidada de la operación de la empresa, por lo que sí incluye la que corresponde a los minoritarios. (expresadas en millones de pesos) Patrimonio se conforma por los bienes auditables de la empresa Así el desempeño económico = Ventas anuales + utilidades + patrimonio

Tamaño de la Empresa

En la literatura sobre RSE, se ha analizado el tamaño de la empresa como variable de control, moderadora o de carácter interviniente causando algún tipo de efecto en la relación entre RSE y desempeño económico (Orlitzky 2006; Margolis y Walsh, 2007). El tamaño de la empresa se mide con el indicador de empleo, reportado en el listado de la CNN Expansión Empleo es numero de empleados de la empresa resultado de la suma de los empleados contratados directamente por la empresa, más todos aquellos que trabajan bajo contrato de compañías prestadoras de servicio de personal.

RESULTADOS

Para analizar los resultados de esta investigación se hizo un análisis de regresión logística binaria del listado de la CNN expansión se consideraron 254 empresas de bienes y servicios etiquetando 1 = empresas certificadas de calidad ambiental y 0 = empresas no certificadas de calidad ambiental Al realizar el modelo de regresión logística la H0 se rechaza en términos de la probabilidad de ocurrencia, mediante en la prueba de la Chi cuadrada, se rechaza H0 si $\beta 0=\beta n=0$ así, en la tabla 2 se muestran las pruebas ómnibus del coeficiente del modelo planteado ($\beta \neq 0$ $\beta \neq n$) se encuentra que un nivel de $P \leq 0.05$. Las variables están relacionadas entre si, por lo que se puede explicar que la responsabilidad social esta significativamente relacionada con el desempeño económico

Tabla 2: Pruebas Ómnibus de Coeficientes de Modelo

		Chi-Cuadrado	Gl	Sig.
Paso 1	Escalón	24.931	1	.000
	Bloque	24.931	1	.000
	Modelo	24.931	1	.000
Paso 2	Escalón	3.102	1	.078
	Bloque	28.033	2	.000
	Modelo	28.033	2	.000

Esta tabla muestra la prueba de la Chi-cuadrado del modelo

Para evaluar la bondad del ajuste de este modelo de regresión logística, se observaron los indicadores mostrados en la tabla 3 de los coeficientes de la R2 de Cox y Snell y Nagelkerke.

Tabla 3: Resumen del Modelo RSE y Desempeño Económico

Escalón	Logaritmo de la Verosimilitud -2	R Cuadrado de Cox y Snell	R Cuadrado de Nagelkerke
1	189.458[a]	.093	.164
2	186.356[a]	.104	.183

En esta tabla se observa el resumen del modelo entre empresas certificadas y no certificadas a. La estimación ha terminado en el número de iteración 5 porque las estimaciones de parámetro han cambiado en menos de .001.

En la tabla 3 se observa que el coeficiente R2 de Nagelkerke: indica que se logra explicar el 18.3% de la variabilidad de los datos recogidos sobre el número de empresas certificadas y las no certificadas. Sin embrago, según Aldás (2011), el mejor indicador de ajuste de una regresión logística es su capacidad para separar los grupos basada en las probabilidades estimadas. Por ésta razón, se evalúa la matriz de clasificación mediante la prueba de Hosmer y Lemeshow (tabla 4).

Tabla 4: Prueba de Hosmer y Lemeshow

Escalón	Chi-Cuadrado	Gl	Sig.
1	8.645	8	.373

En esta tabla se explica la variabilidad de los datos entre las empresas certificadas y no certificadas para probar el ajuste del modelo

En la tabla 4 se muestra la bondad de ajuste con la prueba de Hosmer y Lemeshow donde la P< .05 lo que indica un modelo de ajuste optimo.

Tabla 5: Matriz de Clasificación

Observado			Pronosticado		
			Certificado		Corrección de porcentaje
			No Certificado	Certificado	
Paso 1	Certificado	No Certificado	212	4	98.1
		Certificado	32	6	15.8
	Porcentaje global				85.8
Paso 2	Certificado	No Certificado	209	7	96.8
		Certificado	31	7	18.4
	Porcentaje global				85.0
a. El valor de corte es .500					

En esta tabla se muestra la matriz de clasificacion de los casos de las empresas analizadas

De la matriz de clasificación que se muestra en la tabla 5, se observa que, según los resultados de la tabla de clasificación, en el proceso de analisis se reporta un 85% de empresas completamente clasificadas. Entonces la probabilidad que se tiene de con esta función logística es del 85% para explicar la probabilidad de que el desempeño esté relacionado con la certificación o no, de las empresas. En el paso 1 de las 254 empresas observadas, según lo pronosticado 212 se clasifican como no certificadas y 4 tienen comportamiento de empresas certificadas, mientras que 32 de 38 empresas certificadas tienen comportamiento de empresas no certificadas y solo 6 se clasifican como certificadas. En el paso 2 de las 254 empresas observadas, según lo pronosticado 209 se clasifican como no certificadas y 7 tienen comportamiento de empresas certificadas, mientras que 31 de 39 empresas certificadas tienen comportamiento de empresas nocertificadas y solo 7 se clasifican como certificadas. Para interpretar el modelo que muestra la tabla 5 tienen que evaluarse los coeficientes, los cuáles sólo sirven para calcular los odds o ratio entre la probabilidad de ocurrencia y no ocurrencia del evento. Para ello se evaluará de nuevo la tabla 6 de variables de la ecuación:

Tabla 6: Variables en la Ecuación

		B	Error Estándar	Wald	Gl	Sig.	Exp(B)	95% C.I. Para EXP(B)	
								Inferior	Superior
Paso 1[a]	Desempeño	.000	.000	17.440	1	.000	1.000	1.000	1.000
	Constante	-2.307	.238	93.799	1	.000	.100		
Paso 2[b]	Desempeño	.000	.000	18.499	1	.000	1.000	1.000	1.000
	Desempeño by Empleo	.000	.000	3.814	1	.051	1.000	1.000	1.000
	Constante	-2.432	.252	92.840	1	.000	.088		

En esta tabla se muestra la ecuacion del modelo, con la interacción de la variable tamaño de la empresa a. Variables especificadas en el paso 1: Desempeño. b. Variables especificadas en el paso 2: Desempeño * Empleo

P (ESTADO=certificado) =1/ 1 + exp (-2.651– 0.000(Desempeño) Asimismo en el modelo se observa que la significancia de la interacción desempeño-empleo se observa que el empleo (tamaño de la empresa) posee influencia significativa en el modelo.

CONCLUSIONES

Los resultados de esta investigacion muestran que existe una relacion entre RSE y el desempeño economico en las empresas de bienes y servicios mexicanas, la responsabilidad social de estas empresas está en función del desempeño económico de las mismas, esto se explica en terminos de la implementacion del programa, ya que las empresas al ingresar al PNAA, en primera instancia tienen que contratar a un auditor externo certificado por la entidad de manejo ambienal (EMA) quién vigila los procedimientos establecidos en la norma para lograr la certificación, en el proceso de certificación las empresas tienen que invertir en adoptar medidas para disminuir sus consumos, estas medidas van desde la instalacion de focos ahorradores hasta la adquisición de nuevas tecnologias. La inversión que realizan las empresas que entran al PNAA, depende del tamaño de la empresa y el sector en que se encuentre; los costos de implementación en el sector de bienes y servicios son menores en comparación con los del sector industrial, ya que para el sector industrial se consideran criterios mas estrictos y la adopción de tecnologias que implica una mayor inversión.

Para que una empresa obtenga la certificacion ambiental de PROFEPA tiene que aprobar los aspectos tecnicos normados y no normados ambientalmente, lo que representa una disminucion de los consumos de energía y agua por tanto al optimizar estos consumos existe un ahorro económico. Las conclusiones de este estudio sientan las bases para hacer recomendaciones a las instituciones que promueven los programas de RSE, para que enfaticen en los beneficios que se obtienen al certificar a su empresa no solamente en la disminucion de consumos sino en el beneficio económico que se refleja de esa disminución, ademas de prevenir futuras eventualidades ambientales.

REFERENCIAS

Bowen, HR 1953, Social responsibilities of the businessman, New York: Harper & Row.

Cochran, P. L., & Wood, R. A. (1984). Corporate social responsibility and financial performance. Academy of management Journal, 27(1), 42-56.

CNN Expansión, las 500 empresas más importantes de México. http://www.cnnexpansion.com/ ExpokNews, 17 mayo 2013, http://www.expoknews.com/solo-47-de-las-organizaciones-considera-la-rse-dentro-de-su-plan-de-negocios/

Christmann, P. (2000). Effects of "best practices" of environmental management on cost advantage: The role of complementary assets. *Academy of Management journal*, *43*(4), 663-680.

Davis, K., & Blomstrom, R. L. (1975). Business and society: Environment and responsibility. New York: McGraw-Hill

Freeman, R. E. (1984). Stakeholder management: framework and philosophy. *Pitman, Mansfield, MA*.

Friedman M (1970), The Social Responsibility of Business Is to Increase Its Profits, Corporate ethics and corporate governance. Springer.

Frederick, WC 1960, „The growing concern over business responsibility", California Management Review, vol. 2, pp. 54-61.

Foster, A. (2010). Direct and indirect effects of voluntary certification: Evidence from the Mexican clean industry program.

Gamerschlag, R., Möller, K., & Verbeeten, F. (2011). Determinants of voluntary CSR disclosure: empirical evidence from Germany. *Review of Managerial Science*, *5*(2-3), 233-262.

Griffin, J. J., & Mahon, J. F. (1997). The corporate social performance and corporate financial performance debate twenty-five years of incomparable research. Business & Society, 36(1), 5-31.

Hart, S. L. (1995). A natural-resource-based view of the firm. Academy of management review, 20(4), 986-1014.

Husted, B. W., & Allen, D. B. (2007). Strategic corporate social responsibility and value creation among large firms: lessons from the Spanish experience. Long Range Planning, 40(6), 594-610.

Mahon, J. F., & McGowan, R. A. (1991). Searching for the common good: A process-oriented approach. Business Horizons, 34(4), 79-86.

Margolis, J. D., Elfenbein, H. A., & Walsh, J. P. (2007). Does it pay to be good? A meta-analysis and redirection of research on the relationship between corporate social and financial performance. Ann Arbor, 1001, 48109-1234.

Montiel, I., & Husted, B. W. (2009). The adoption of voluntary environmental management programs in Mexico: First movers as institutional entrepreneurs. Journal of Business Ethics, 88(2), 349-363.

Orlitzky, M., Schmidt, F. L., & Rynes, S. L. (2003). Corporate social and financial performance: A meta-analysis. Organization studies, 24(3), 403-441.

Pava, M.L. &C Krause, J. (1996) Corporate Social Responsibility and Financial Performance:The Paradox of Social Cost. Westport, GT: Quorum Books.
Porter, M. E., & Kramer, M. R. (2006). The link between competitive advantage and corporate social responsibility. Harvard business review, 84(12), 78-92.

PROFEPA 2013, Listado de empresas certificadas www.profepa.gob.mx

Russo, M. V., & Fouts, P. A. (1997). A resource-based perspective on corporate environmental performance and profitability. Academy of management Journal, 40(3), 534-559.

Torugsa, N. A., O'Donohue, W., & Hecker, R. (2012). Capabilities, proactive CSR and financial performance in SMEs: Empirical evidence from an Australian manufacturing industry sector. *Journal of Business Ethics*, *109*(4), 483-500.

Ullmann, A. A. (1985). Data in search of a theory: A critical examination of the relationships among social performance, social disclosure, and economic performance of US firms. Academy of management review, 10(3), 540-557.

Wartick, S. L., & Cochran, P. L. (1985). The evolution of the corporate social performance model. Academy of management review, 10(4), 758-769.

Wood, D. J. (1991). Corporate social performance revisited. Academy of management review, 16(4), 691-718.

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MÉTODO INCREMENTAL SISTEMÁTICO DE PENSAMIENTO CREATIVO

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RESUMEN

El Método Incremental Sistemático de Pensamiento Creativo, es un procedimiento creado por la Comisión Federal de Electricidad, dentro del Proyecto de Creatividad e Innovación 2013-2015, de la Subgerencia de Distribución, perteneciente a la División Centro Occidente. El mismo, está constituido por una serie de pasos sistematizados, que buscan de forma fehaciente incrementar las diversas dimensiones (Fluidez, Flexibilidad, Originalidad, Elaboración y Sensibilidad) que conforman la creatividad. La población objeto de estudio se encuentra conformada por Directivos de primer y segundo nivel de dicha Subgerencia; los resultados muestran que efectivamente hay un incremento de dichas dimensiones creativas, observando principalmente que los trabajadores con menos creatividad logran un mayor incremento en comparación con aquellos que obtuvieron una puntuación más alta en su primera evaluación.

PALABRAS CLAVE: Innovación, Creatividad, Sector Energético, Pensamiento Divergente, Pensamiento Convergente

INCREMENTAL SYSTEMATIC METHOD CREATIVE THINKING

SUMMARY

The Incremental Systematic Method Creative Thinking, is a process created by the Federal Electricity Commission, within the Project on Creativity and Innovation 2013-2015, belonging to the Distribution Sub management, part of the West Central Division. The same consists of a series of systematic steps, looking for a reliable way to increase the various dimensions (fluency, flexibility, originality, elaboration and Sensibility) that make creativity. The study population is made up of executives of the first and second level of said Sub management; the results show that there is indeed an increase of such creative dimensions, noting mainly that workers with less creativity achieved a greater increase compared to those who got higher scores in his first assessment.

KEYWORDS: Innovation, Creativity, Energy Sector, Convergent Thinking, Divergent Thinking.

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INTRODUCCIÓN

El sector eléctrico en México enfrenta grandes retos. Según un la iniciativa de ley presentado por el presidente de la republica a la cámara de Senadores el 28 de abril del 2014, expone que el precio de la electricidad es elevado y no es competitivo, en comparación con nuestro vecino del norte, las tarifas promedio son 25% más altas, aun con el subsidio, sin el cual resultarían 73% más elevados. Otro problema, es que más del 20% de la producción se basa en diésel y combustóleo desplazando las energías denominadas limpias, ya que, las múltiples restricciones presupuestales del Estado impiden desarrollar con máxima

velocidad las fuentes potenciales que podrían generar electricidad de bajo costo. Otro de los grandes retos que enfrenta el sector es la falta de inversión en la red de transmisión, se requiere incrementar el mallado de la red de transmisión e interconectar las zonas del país con alto potencial de energías limpias. En relación con la red de distribución, hoy en día se registran ineficiencias significativas en la operación, en este segmento, las pérdidas de energía en México son casi el doble del promedio de los países de la Organización para la Cooperación y el Desarrollo Económico. Por lo anterior, la CFE está sufriendo cambios vertiginosos, nunca antes vistos en México, la promulgación de la Reforma Energética por parte del Gobierno Federal, establece una serie de modificaciones estratégicas, buscando modernizar la industria. Una de ellas, es la apertura comercial a de nuevos competidores, por lo cual, la CFE necesitara de nuevas estrategias competitivas que puedan conllevar este nuevo esquema de mercado.

Así, que nace el proyecto Creatividad e Innovación 2013-2015, de la Subgerencia de Distribución, perteneciente a la División Centro Occidente. El cual se planteó como primer objetivo estratégico, crear un instrumento de medición que fuera claro, conciso y único, que pudiera dar a conocer si los trabajadores de Subgerencia de Distribución eran creativos (Perez, Avila y Narvez, 2016). A partir de ese instrumento y una vez conociendo el grado de creatividad de los trabajadores de dicha Subgerencia, se procedió a plantearse un segundo objetivo estratégico, consistía en saber si la creatividad que tenían, podía ser incrementada y, en qué medida cada una de las variables que la componían, Fluidez, Flexibilidad, Originalidad, Elaboración y Sensibilidad podía ser desarrollaban, de ahí se crea el Método Incremental Sistemático de Pensamiento Creativo, mismo que busca mediante un procedimiento sistematizado fomentar la capacidad creadora mediante actividades específicas que incidan en el desarrollo de las variables, los resultados mostraron incrementos considerables en aquellos trabajadores que tenían poca creatividad y menor en lo que mostraron alta creatividad, por lo que, se concluye que la creatividad si puede ser aumentada de pero cada individuo lo hace de manera diferente.

La estructura de la presente investigación se encuentra organizada como sigue: En la sección de revisión de la literatura se aborda los siguientes temas: i) Antecedentes Empresa-Creatividad-Trabajador, ii) Hacia el conceso de la creatividad. iii) El incremento de la capacidad creativa.. En la sección metodológica se describe el proceso científico que permitiría llevar a comprobar los supuestos planteados. Seguidamente tenemos la sección de resultados, se observan ambas aplicaciones de la Batería con su respectiva relación y resultados a las cinco dimensiones propuestas, Fluidez, Flexibilidad, Originalidad, Elaboración y Sensibilidad. Seguidamente está el apartado de Discusión donde se expone el logro del objetivo propuesto por esta investigación. Para Concluir con los resultados obtenidos pudiendo establecer el desarrollar y estimular el potencial creativo de todos los trabajadores de la CFE. Esto se tiene que hacer desde las políticas institucionales en donde todos puedan aportar libremente. Conociendo que cada trabajador es único y que el desarrollo de sus capacidades creativas son conducidas por múltiples factores tanto intrínsecos como extrínsecos, pero, la motivación que pueda darse dentro de la empresa, es un factor determinante.

REVISION DE LA LITERATURA

Antecedentes Empresa-Creatividad-Trabajador

La creatividad es un elemento básico del desarrollo humano, desde sus inicios, ha dado pautas para el desarrollo de competencias y habilidades en los individuos que les ayudan a desenvolverse más eficazmente en entornos sociales, económicos y laborales cada vez más dinámicos en las que se encuentran inmersos las organizaciones actualmente (Amabile, 1996; De bono, 1994; Monreal, 2000; Romo, 1997) . Vigotsky (1981) consideraba que la creatividad existe potencialmente en todos los seres humanos, y es susceptible de desarrollar, o sea, que no es privativa de los genios, sino que está presente en cualquier ser humano que imagine, transforme o cree algo. Las diferentes corrientes de investigación entorno al constructo creativo, consideran que la creatividad está relacionada con la innovación y las soluciones a los nuevos problemas

que surgen de las demandas sociales. Peña herrera y Cobos, (2012) y Rodrigo y López (2012) creen que la creatividad en las empresas se presenta como una oportunidad para que los trabajadores puedan desarrollar su potencial, pero es necesario el apoyo institucional por medio de políticas de desarrollo puede consolidar una red de personas innovadoras que afronten el desafío que está generando la nueva crisis económica que afecta actualmente a las organizaciones. La creatividad aplicada por medio de incentivos genera mejoras en el proceso de trabajo, creando innovaciones que hacen de las organizaciones sean más competitiva (Zapata, 1998).

Hacia el Conceso de la Creatividad

Existen numerosas investigaciones sobre el tema, donde se ha podido llegar a diferentes conclusiones, estimando si la creatividad es una competencia que se posee o no, y si se posee, en medida existe en los individuos y como se debe evaluar de manera objetiva (Pérez y Ávila, 2014). Pero, es necesario una correcta reflexión sobre el complejo concepto de creatividad, y su carácter multidisciplinar, existen muchas dificultades existentes en el estado de la cuestión para conseguir un consenso sobre su definición (Young, 1985). Diversos autores como Amabile, (1983); Collins & Amabile, (1999); Csikszentmihalyi, (1999); Perkins, (1981) y Williams, (1970) exponen sobre la existencia de un consenso sobre la creatividad, la cual determinan, que es un producto, que surge de la combinación de múltiples factores, desde las características personales, los factores sociales y culturales, el entorno donde se desenvuelven, la motivación, la inteligencia entre muchos otros.

El Incremento de la Capacidad Creativa

Actualmente se considera que la creatividad constituye una capacidad inherente a todo ser humano, susceptible de ser estimulada y desarrollada (Andreucci y Mayo, 1993). Al ser la creatividad una característica innata al individuo, está presente en todo momento, y al ser una competencia susceptible de desarrollo en función de las condiciones del entorno organizacional, su estimulación es particularmente útil en cualquier nivel, porque los trabajadores están en constante formación y, si este mismo, no se le ha estimulado, es el momento oportuno para contrarrestar esas influencias negativas. Madrid (2003), afirma que hay que cultivar la capacidad del sujeto para responder al cambio, desarrollando diversas cualidades críticas del pensamiento. Por lo tanto, el hecho de que algunos trabajadores sean naturalmente creativos no significa que no puedan serlo aún más, si se les somete a cierto proceso de estimulación mediante las técnicas correctas. Y como expone Gadner, (1999) tampoco significa que otros trabajadores no puedan llegar a ser creativos, ya que, aprender a pensar creativamente puede ser hecho de la misma forma que se aprende en otras áreas del conocimiento.

METODOLOGIA

Sujetos

La población objeto de estudio, fueron trabajadores de primer y segundo nivel de dicha Subgerencia, se concluyó que estos mismos eran los más idóneos para aplicar el método, toda vez que son los individuos cuyas decisiones se convierten en trascendentales para la operación de la institución y su futura transición al nuevo modelo de negocios. Se realizó con antelación una entrevista en profundidad las cuales tuvieron como objetivos, a) buscar crear el respectivo Rapport entre el entrevistador y el entrevistado produciendo una sintonía psicológica y emocional. b) Encontrar coincidencias entre las características individuales del entrevistado y su grado de creatividad y c) Saber algunos datos básicos que ayuden a la hora de soportar las evaluaciones. Se abordaron temas sobre innovación y creatividad, los cuales buscaron facilitar el desarrollo de una mentalidad y actitud de cambio, fundamentada en el uso del pensamiento creativo como medio para el máximo aprovechamiento del talento humano.

Instrumento de Evaluación

La prueba que se utilizó para la evaluación de la creatividad fue la Batería de evaluación del pensamiento creativo VP/FA. Es un instrumento cuya finalidad es la apreciación de las competencias creativas a través de la evaluación de las diversas capacidades individuales, tanto verbales como figurativas. La batería mide de forma fehaciente, las cinco dimensiones que componen el constructo creativo, como son la Fluidez, Flexibilidad, Elaboración, Originalidad y Sensibilidad, de forma fácil y sencilla. Su aplicación es muy práctica, ya que puede ser utilizada tanto de manera individual como grupal y en múltiples entornos, tanto empresariales como educativos, este instrumento ha sido probado en los trabajadores de la Comisión Federal de Electricidad y ha demostrado tener un alto grado de validez de contenido, de constructo y de criterio (Pérez, Ávila & Narvaes, 2016). Cabe resaltar que las diferentes actividades a desarrollarse de acuerdo con la batería, se encuentran directamente relacionadas con las variables: i) Fluidez, medida por la habilidad creativa de los individuos; ii) Flexibilidad, medida por la capacidad para adaptarse; iii) Originalidad, medida por la capacidad de desarrollo de la novedad; iv) Elaboración, medida por la mejora de una idea o producto; y, v) Sensibilidad, medida por la capacidad de empatía. En el siguiente paso, se procedió a la compilación de los datos proporcionados por todos los individuos que intervinieron en el ejercicio. Posteriormente se codificaron los resultados como lo indica la siguiente Tabla 1.

Tabla 1: Hoja de Evaluación de los Máximos y Mínimos Posibles

V A R I A B L E S	Actividades								
	1	**2**	**3**	**4**	**5**	**6**	**7**	**MAXIMOS**	***3**
Fluidez		2	3	3		2		10	30
Flexibilidad		2		3	3	3	3	14	42
Originalidad		2	4	4	4	3	4	21	63
Elaboración		2	3		3	2	3	13	39
Sensibilidad	10	2						12	36
TOTALES	**10**	**10**	**10**	**10**	**10**	**10**	**10**	**70**	**210**

En esta tabla se muestra por un lado, el bloque que corresponde a las Variables que intervienen en el ejercicio y que son objeto de aplicación en la población. Un segundo grupo que corresponden a la codificación de las siete actividades para cada variable, cabe resaltar que cada actividad tiene un puntaje máximo de 10. Un tercer grupo, que indica los máximos los cuales deben sumar 70 puntos. Finalmente en la última columna corresponde a los 3 evaluadores. Fuente: (Pérez, Ávila & Narvaes, 2016)

El Desarrollo del Método

Para lograr los objetivos planteados en este estudio, se utilizó un diseño Pre-experimental de comparación del mismo grupo, con medición Pretest-Postest. Dicha medición se realizó con la finalidad de explorar los efectos del programa en cuanto las variables independientes Fluidez, Flexibilidad, Elaboración, Originalidad y Sensibilidad y en variables dependientes tal como la creatividad. Al no tratarse de un diseño experimental, se intentó incrementar el control del factor madurativo, el tiempo transcurrido entre el Pretest y el Postest fue de 20 semanas, tal y como aconsejan Anguera, Arnau, Ato, Martínez, Pascual & Vallejo. (1995). Igualmente, se aplicó una técnica de doble ciego, ya que los trabajadores y los facilitadores no conocían el tratamiento, y los evaluadores no conocían la pertenencia de los sujetos a los grupos experimental. El objetivo de la evaluación inicial fue conocer el nivel básico de creatividad de los trabajadores. Para ello se administró de forma individual, en las instalaciones Divisionales la "Batería de evaluación del pensamiento creativo VP/FA". El Método Incremental Sistemático de Pensamiento Creativo se desarrolló en una serie de quince sesiones de cada lunes a primera hora, también se buscó que no existiesen distractores, en cada sesión se propusieron líneas didácticas y metodológicas específicas y desarrolladas sobre Creatividad e Innovación, en el marco del Proyecto Creatividad e Innovación 2013-2015, de la Subgerencia de Distribución, perteneciente a la División Centro Occidente. Los principios, las técnicas y métodos utilizados durante los talleres que sobre esta temática se desarrollaron

RESULTADOS

Para analizar los resultados de la evaluación de la creatividad, en sus cinco dimensiones, se efectuó una comparación de datos y promedios por medio de un análisis de comparativo, con el objetivo de evaluar el cambio producido por el programa de intervención en las variables estudiadas. Para dicho análisis se utilizó el programa estadístico SPSS. Se realizó un estudio de cada variable en el Postest tomando como referencia su equivalente en el segundo Pretest, que indicaría los niveles previos de la variable antes de aplicar el tratamiento al grupo experimental. Se ha utilizado un análisis comparativo como técnica de análisis de los datos obtenidos, ya que es una técnica recomendada cuando se tiene un reducido número de sujetos o cuando se han utilizado grupos naturales (García Jiménez, 1992). Para la primera evaluación, como se observa en la siguiente tabla, se obtuvieron puntajes de 283 para la variable Fluidez; 386.35 Flexibilidad; 527.7 Originalidad; 313.8 para Elaboración y Sensibilidad 264. 5 respectivamente, dando un puntaje total creativo de 1775.5. De esta evaluación, podemos destacar que fue la Originalidad la variable más alta, y la menor fue la Fluidez. Además del grupo, fue el S7 que saco la mayor creatividad con 180.95 y el menor fue S2 con 104.

Tabla 2: Primera Evaluación

Sujetos	Fluides	Flexibilidad	Originalidad	Elaboracion	Sensibilidad	Totales
S1	21	34.3	45.35	26.3	19	145.95
S2	21	21.3	27.6	16.1	18	104
S3	19	29.9	35	23.5	22	129.4
S4	20	34.7	45.65	22.55	21.5	144.4
S5	19	29.5	35.6	17.9	16	118
S6	14.5	26.9	33.6	18.3	20	113.3
S7	27	35.5	49.75	31	21.5	164.75
S8	30	38.95	54.25	34.75	23	180.95
S9	18	28.5	39.45	22.85	20	128.8
S10	26	28.55	42.3	28.8	22.5	148.15
S11	23	23.35	38.3	20.55	21	126.2
S12	26	25.55	39.45	24.65	22	137.65
S13	18.5	29.35	41.4	26.55	18	133.8
TOTALES	283	386.35	527.7	313.8	264.5	1775.5

En esta tabla encontramos los datos operacionalizados correspondientes a la primera evaluación, de las variables independientes (Fluidez, Flexibilidad, Originalidad, Elaboración y Sensibilidad) y la Variable dependiente (Creatividad). Para la primera evaluación, como se observa, se obtuvieron puntajes de 283 para la variable Fluidez; 386.35 Flexibilidad; 527.7 Originalidad; 313.8 para Elaboración y Sensibilidad 264. 5 respectivamente, dando un puntaje total creativo de 1775.5. De esta evaluación, podemos destacar que fue la Originalidad la variable más alta, y la menor fue la Fluidez. Además del grupo, fue el S7 que saco la mayor creatividad con 180.95 y el menor fue S2 con 104. Fuente: Elaboración propia.

Para la segunda evaluación, como se observa en la siguiente tabla 3, se obtuvieron puntajes de 352 para la variable Fluidez; 403.95 Flexibilidad; 576.6 Originalidad; 333.4 para Elaboración y Sensibilidad 283 respectivamente, dando un puntaje total creativo de 1948.95. De esta evaluación, podemos destacar que fue la Originalidad la variable que siguió siendo la más alta, y la menor fue la Sensibilidad. Además del grupo, fue el S7 que saco la mayor creatividad con 180.55 y el menor fue S11 con 134.

Tabla 3: Segunda Evaluación

Sujetos	Fluides	Flexibilidad	Originalidad	Elaboracion	Sensibilidad	Totales
S1	28.5	31.45	44.3	25.4	23	152.65
S2	27.5	25.3	39.65	23.45	24	139.9
S3	29.5	29.15	41.1	25.55	23	148.3
S4	22	35.3	50.35	27.7	22	157.35
S5	28	30.75	43.8	20.4	22	144.95
S6	20	27.05	38.6	19.65	17.5	122.8
S7	28.5	37.05	56.9	29.45	23	174.9
S8	27.5	37.8	58	36.25	21	180.55
S9	29	29.85	43.55	25.8	22	150.2
S10	30	28.55	43.55	33.05	21.5	156.65
S11	29	29	34	20.9	21.5	134.4
S12	29	27.45	39.15	26.05	22	143.65
S13	23.5	35.25	43.65	19.75	20.5	142.65
TOTALES	352	403.95	576.6	333.4	283	1948.95

En esta tabla encontramos los datos operacionalizados correspondientes a la segundaa evaluación, de las variables independientes (Fluidez, Flexibilidad, Originalidad, Elaboración y Sensibilidad) y la Variable dependiente (Creatividad). Para la segunda evaluación, como se observa, se obtuvieron puntajes de 352 para la variable Fluidez; 403.95 Flexibilidad; 576.6 Originalidad; 333.4 para Elaboración y Sensibilidad 283 respectivamente, dando un puntaje total creativo de 1948.95. De esta evaluación, podemos destacar que fue la Originalidad la variable que siguió siendo la más alta, y la menor fue la Sensibilidad. Además del grupo, fue el S7 que saco la mayor creatividad con 180.55 y el menor fue S11 con 134. Fuente: Elaboración propia.

En la siguiente tabla podemos observar, las medidas de tendencia central como son la media, la mediana y la moda, así como, las medidas de dispersión, la varianza y la desviación estándar. Encontrando que cada una de ellas muestra datos incrementales de la primera respecto a la segunda. Para el caso de la media en la primera evaluación solo seis sujetos se encuentran por encima del indicador y para la segunda solo cinco.

Tabla 4: Medidas de Tendencia Central y Medias de Dispersión

Medidas de Tendencia Central y Medidas de Dispercion Primera Evaluacion				
MEDIA	VARIANZA	DESVIACION ESTANDAR	MEDIANA	MODA
136.93	152.62	38.9951	164.75	NO EXISTE
Medidas de Tendencia Central y Medidas de Dispercion Segunda Evaluacion				
MEDIA	VARIANZA	DESVIACION ESTANDAR	MEDIANA	MODA
149.77	225.29	15.0097	174.9	NO EXISTE

En esta tabla encontramos las medidas de tendencia central como son la media, la mediana y la moda, así como, las medidas de dispersión, la varianza y la desviación estándar, se observa claramente un incremento de las segundas respecto a las primeras, dándose por hecho de la existencia de una mejora sustancial en la capacidad creativa de los trabajadores de Comisión Federal de electricidad. Fuente: Elaboración propia.

Observando ambas tablas, podemos encontrar una comparación en la siguiente tabla 5, en donde existe un incremento en de la capacidad creativa de los trabajadores de la Comisión Federal de Electricidad, mismos que van desde un 4.59% en el S1 hasta 34.55% del S2, podemos ver que los sujetos con mayor capacidad creativa en la primera evaluación, sus incrementos fueron relativamente bajos tal es el caso S1, S7, S10, S11. S12 y S13. Para los casos donde se bajó puntaje creativo, se observa un crecimiento de mayor cuantía, tal es el caso de S3, S5 y de S9, siendo inclusive para el caso de S2 un crecimiento muy exponencial, para el caso de S8 encontramos que su crecimiento fue nulo, pero en ambas evaluaciones fue le sujeto más creativo; no así el menos creativo, ya que en la primera evaluación fue S2 y en la segunda fue S6.

Tabla 5: Comparativas Porcentuales de Primera y Segunda Evaluación

Sujetos	Totales 1° Evaluación	Totales 2° Evaluación	Diferencia	Porcentaje
S1	145.95	152.65	6.7	4.59 %
S2	104	139.9	35.9	34.52 %
S3	129.4	148.3	18.9	14.61 %
S4	144.4	157.35	12.95	8.97 %
S5	118	144.95	26.95	22.84 %
S6	113.3	122.8	9.5	8.38 %
S7	164.75	174.9	10.15	6.16 %
S8	180.95	180.55	-0.4	-0.22 %
S9	128.8	150.2	21.4	16.61 %
S10	148.15	156.65	8.5	5.74 %
S11	126.2	134.4	8.2	6.50 %
S12	137.65	143.65	6	4.36 %
S13	133.8	142.65	8.85	6.61 %
TOTALES	1775.5	1948.95	173.45	9.77

En esta tabla encontramos los datos comparativos correspondientes a la primera y segunda evaluación, de toda la población objeto de estudio de la Comisión Federal de Electricidad, mismos, que van desde un 4.59% en el S1 hasta 34.55% del S2, podemos ver que los sujetos con mayor capacidad creativa en la primera evaluación, sus incrementos fueron relativamente bajos tal es el caso S1, S7, S10, S11. S12 y S13. Para los casos donde se bajó puntaje creativo, se observa un crecimiento de mayor cuantía, tal es el caso de S3, S5 y de S9, siendo inclusive para el caso de S2 un crecimiento muy exponencial. Fuente: Elaboración propia.

DISCUSIÓN

Una vez analizados estadísticamente los datos obtenidos en este estudio, hemos comprobado que se ha conseguido el segundo objetivo estratégico del proyecto Creatividad e Innovación 2013-2015, de la Subgerencia de Distribución, perteneciente a la División Centro Occidente. Demostrar la factibilidad de mejorar la capacidad creativa de los trabajadores de la Comisión Federal de Electricidad, mediante la utilización del Modelo Incremental Sistemático de Pensamiento Creativo, un método creado por dentro del mismo proyecto. Estos datos concuerdan con los obtenidos por otros estudios, Torrance & Safter (1986); Rellunzi (2011); Ford y Renzulli (1976); Jarial, (1980); Jiménez (2000) y Rose & Lin (1984) y diversos trabajos doctorales como Navarro (2009); Piqueras (1996); Andreucci, C. & Mayo, B. (1993); Pérez (2000) y López Martínez (2001) quienes también demostraron con la utilización de diversos programas desarrollados en el ámbito educativo, la factibilidad de mejorar la producción creativa de los individuos. Estimamos que la creatividad es un talento innato al ser humano, que puede ser desarrollado, una vez revisada y a la luz de los resultados obtenidos en esta investigación y otras parecidas.

CONCLUSIONES

Por tanto, podemos afirmar que, en este proyecto, hemos comprobado de forma empírica las afirmaciones que se postulan en el marco teórico, al considerar la creatividad como una competencia susceptible de ser medida y desarrollada de acuerdo con las premisas que el método proporciona a los trabajadores. Esta labor de potenciación y estimulación de las capacidades creativas debe ser asumida de forma principal por la Comisión Federal de Electricidad, constituyéndose como uno de los objetivos estratégicos en función de los cuales debe girar la nueva trasformación de la Institución, ya que el principal objetivo entorno al Capital Humano debe ser el de formar y desarrollar integralmente a las personas. Estimamos que la creatividad es

un talento innato al ser humano, que puede ser enseñado, una vez revisada y a la luz de los resultados obtenidos en esta investigación y otras parecidas.

Dicha labor, debe comenzarse desde los aspirantes a ingresar a la CFE, ya que es la primera experiencia que tiene los futuros trabajadores y esta definirá su actitud hacia el sistema institucional, y de esta primera concepción dependerá que se manifieste plenamente, o no, su potencial creador. Todo esto es importante, ya que hoy día se puede constatar que la necesidad de una adecuada adaptación del trabajador frente a su medio se está haciendo cada vez más difícil. Este hecho se debe principalmente a la Reforma Energética y su creciente cantidad de demandas y exigencias a las que se ve sometido la institución y por ende los trabajadores. Por lo tanto, se hace cada vez más necesario contar con individuos capaces de adaptarse al nuevo entorno en el que se desenvuelven. Contar con personas creativas, ya que estas personas presentan un desarrollo más pleno e íntegro de sus capacidades, a la vez que muestran un mayor grado de satisfacción y desarrollo personal. En base a los resultados obtenidos podemos establecer que nos parece de suma importancia desarrollar y estimular el potencial creativo de todos los trabajadores de la CFE. Esto se tiene que hacer desde las políticas institucionales en donde todos puedan aportar libremente.. Creemos que cada trabajador es único y que el desarrollo de sus capacidades creativas son conducidas por múltiples factores tanto intrínsecos como extrínsecos, pero, la motivación que pueda darse dentro de la empresa, es un factor determinante para desarrollar todo ese potencial creativo que llevan los trabajadores de la Comisión Federal de Electricidad,

BIBLIOGRAFIA

Anguera, M.T.; Arnau, J.; Ato, M. ; Martínez, R. ; Pascual, J. & Vallejo, G. (1995). *Métodos de investigación en psicología*. Madrid: Síntesis.

Amabile, T. (1983). *The social psychology of creativity*. New York: Springer-Verlag.

Amabile, T. (1996). Creativity and Innovation in Organizations. *Notes of the Work. For the Second Year elective MBA Course "entrepreneurships, Creativity and organizations"*. 1-15

Andreucci, C. & Mayo, B. (1993). *El cuento como vehículo para desarrollar la creatividad en preescolares*. Tesis Doctoral. Universidad Católica de Chile.

Byron, M. (2002). Innovación y creatividad, guía conceptual. Byron Miranda: El Salvador.

Collins, M.A. & Amabile, T. (1999). Motivation and creativity. En Sternberg R. (ed.) *Handbook of creativity*. New York: Cambridge University Press.

Csikszentmihalyi, M. (1999). Implications of a systems perspective for the study of creativity. In R.J. Sternberg, *Handbook of Creativity*. New York: Cambridge University Press
De Bono, E. (1994): *El pensamiento creativo*. Barcelona: Paidós.

Ford, B. & Renzulli, J. (1976). Developing the creative potential of educable mentally retarded students. *Journal of Creative Behavior, 10,* 210-218.

Garaigordobil, M. (2003). Diseño y evaluación de un programa de intervención socioemocional para promover la conducta prosocial y prevenir la violencia. CIDE: España.

García Jiménez, (1992): *El método experimental en la investigación psicológica*. Barcelona: P.P.U.

Gadner, H. (1999): *Mentes creativas: una anatomía de la creatividad*. Barcelona: Paidós Ibérica.

Madrid, D. (2003): Creatividad, currículum y educación infantil. En A. Gervilla: *Creatividad aplicada. Una apuesta de futuro*. Madrid: Dykinson.

Jarial, G. (1980). An experiment in the training of nonverbal creativity. *Journal of Creative Behavior, 14,* 270-276.

Jiménez, C. (2000). Evaluación de programas para alumnos superdotados. *Revista de investigación educativa, 18*(2), 553-564.

López Martínez, O. (2001). *Evaluación y desarrollo de la creatividad*. Tesis Doctoral: Universidad de Murcia.

Monreal, C. (2000). *Qué es la creatividad*. Madrid: Editorial Biblioteca Nueva.

Navarro, J. (2009). *Mejora de la creatividad en el aula de primaria.* Tesis Doctoral: Universidad de Murcia

PeñaHerrera, M., & Cobos, F. (2012). La creatividad y el emprendimiento en tiempos de Crisis. *Revista iberoamericana sobre calidad, eficacia y cambio en educación 10*(2). 239-247.

Pérez, J. (2000). *Evaluación de los efectos de un programa de educación artística en la creatividad y en otras variables del desarrollo infantil*. Tesis Doctoral: Universidad del País Vasco.

Pérez, V., y Ávila, F. (2014). La unificación de criterios en torno a la medición del constructo creativo. *Revista de Ciencias Empresariales de la FCCA, .23* (2), 15-28

Perez, V., Avila, F., & Narváez. G. (2016). Batería de Evaluación del Pensamiento Creativo (VP-FA-14). *Revista Global de Negocios. 4*(3). 1-17.

Perkins, D. (1981). *The mind's best work.* Cambridge: Harvard University Pres.

Piqueras, M. (1996). *Juego y creatividad. Estudio sobre las posibilidades de fomentar la creatividad artística mediante una enseñanza lúdica*. Tesis Doctoral: Universidad de Sevilla.

Renllunzi, J. (2011). Theories, actions, and change: an academic journey in search of finding and developing high potential in young people. *Gifted child quarterly, 55*(4), 305-308.

Rodríguez, M. (2000). Mil ejercicios de Creatividad Clasificados. McGraw Hill, México.

Rodrigo I., & López M. (2012). Crisis y Creatividad. Economía en equilibrio. El ejemplo de los Clúster. *Creatividad y Sociedad, 18,1*-36.

Romo, M. (1997). *Psicología de la creatividad.* Barcelona: Paidós.

Rose, L. & Lin, H. (1984). A meta-analysis of long-term creativity training programs. *Journal of Creative Behavior, 18,* 11-22.
Torrance, E., & Safter, H. (1986). Are children becoming more creative?. *Journal of Creative Behavior, 17,* 9-16.

Vigotsky, L. (1981). The genesis of higher mental funtions. En Wertsch, J. V. (1981). The concept of activity in Soviet Psychology. New York: Sharpe.

Williams, F (1978). En busca del profesor creativo. En J. Curtis, G. Demo y E. Torrance *Implicaciones educativas de la creatividad.* Anaya: Salamanca.

Young, J. (1985). What is creativity? *Journal of Creative Behavior*, *19*(2), 77-87.

Zapata. V. 1998. La organización que aprende. Cali, Colombia.

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ESTUDIO SOBRE LA COMPETITIVIDAD Y EL MARKETING

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RESUMEN

Para mejorar la competitividad, las pymes agrocítricas de Michoacán tienen la necesidad de adecuar tanto sus prácticas empresariales del marketing como su Administración de la Relación con el Cliente (ARC) al entorno dinámico de la economía actual; sin embargo, muchas empresas persisten en una actitud conservadora, por lo que el objetivo de esta investigación es determinar y analizar de qué manera están relacionados el marketing y la administración de la relación con el cliente con la competitividad de las pymes agrocítricas manufactureras en Michoacán. Para lo cual se utiliza un cuestionario con escala tipo Likert que se aplicó a los empresarios y/o mandos altos gerenciales responsables de las mismas. Esta investigación es de tipo cuantitativo, aplicando la regresión lineal, ANOVAS y correlación bivariada.

PALABRAS CLAVES: Competitividad, Marketing, Administración de la Relación con el Cliente CRM)

STUDY ON COMPETITIVENESS AND MARKETING

ABSTRACT

To improve competitiveness, SMEs agrocitrus of Michoacan have the need to adapt their business practices both marketing and Customer Relationship Management (CRM) to the dynamic environment of today's economy; however, many companies persist in a conservative attitude, so the goal of this research is to determine and analyze how are related marketing and customer relationships Management (CRM) to the competitiveness of manufacturing SMEs agrocitrus of Michoacan. For which a Likert questionnaire was applied to entrepreneurs and / or senior officers responsible management of the same scale is used. This research is quantitative, using linear regression, ANOVA and bivariate correlation.

JEL: L600, L110, M310, M390

KEYWORDS: Competitiveness, Marketing, Customer Relationships Management (CRM),

INTRODUCCIÓN

Si bien el término competitividad nació ligado al ámbito microeconómico de la empresa, muy frecuentemente se utiliza no referido a la realidad empresarial, sino al comportamiento comparado de una economía nacional en su conjunto, o de sus industrias y sectores (Arriaga, Conde y Estrada, 1996). Sin embargo esta investigación gira en torno a la competitividad de la empresa o Competitividad empresarial. Y la Asociación Española de Contabilidad y Administración (AECA, 2010) define competitividad como la capacidad de una organización para obtener y mantener sistemáticamente unas ventajas comparativas que le permiten alcanzar, sostener y mejorar una determinada posición en el entorno socioeconómico en que actúa.

Un ejemplo claro de compañías líderes y competitivas son las empresas agroindustriales, específicamente las empresas procesadores de limón, localizadas en la zona de tierra caliente en el estado de Michoacán;

donde se ubican la totalidad de industrias limoneras para el tratamiento del limón. La importancia de las actividades de las de las pymes agrocítricas manufactureras en la economía mundial, aportan un total de 14% de la producción mundial (OEIDRUS, 2012). Además, las hace ser el sector clave del desarrollo económico y plataforma maestra de la solidez empresarial. En consecuencia, es evidente el interés de analizar su problemática, que les corresponde adoptar a los sectores industriales. Ante la situación actual se han visto considerablemente afectadas por la extensión de la competitividad a escala mundial. En estos escenarios, mantener la cuota de mercado equivale a incrementar permanentemente la eficacia para que de esa manera se pueda dar respuesta a los requerimientos de los clientes y a la fuerte acción competitiva de la manufactura agrocítrica en Michoacán. Históricamente el Limón Mexicano ha estado orientado a la exportación, principalmente a los Estados Unidos, primero como fruta fresca cuando la producción comercial se generaliza en 1911 en el Estado de Michoacán y posteriormente con la expansión de la industria como aceites esenciales, jugos y cáscara deshidratada (Demanda Europea Principalmente). El rezago las prácticas empresariales del marketing y la administración de la relación con el cliente (CRM) de las pymes agrocítricas manufactureras en Michoacán, requiere de una especial atención para alcanzar niveles óptimos de competitividad, por lo que se realizan las siguientes preguntas de investigación:

¿De qué manera impactan las prácticas empresariales del marketing en las pymes agrocítricas manufactureras en Michoacán?

¿De qué manera contribuyen las prácticas empresariales de administración de la relación con el cliente (CRM) a las pymes agrocítricas manufactureras en Michoacán?

Hipótesis General

De acuerdo a lo anterior y en base al planteamiento del problema, a las preguntas de investigación y a los objetivos que se pretenden lograr; se plantea la siguiente hipótesis general de investigación:

Las prácticas empresariales de marketing y de Administración de la Relación con el Cliente contribuyen de manera positiva a la competitividad de las pequeñas y medianas empresas agrocítricas manufactureras en Michoacán.

Justificación

En Michoacán y específicamente en la zona de tierra caliente, las pymes agrocítricas manufactureras procesadoras de limón, son relevantes para la economía debido a que es una de las actividades que tienen una mayor importancia en el contexto económico nacional, en virtud de su potencialidad de mercado externo, así como del mercado interno, paralelamente a la relevancia social partiendo de que se generan por lo menos 20 mil fuentes de empleos diarias y 2 mil millones de pesos anuales , por ser la entidad punta de lanza en el sector. Por lo que para la actividad económica es de importancia estratégica dada su fortaleza.

REVISIÓN LITERARIA

Marketing

La evolución del término marketing ha tenido distintas acepciones a lo largo de su historia los dos tipos de enfoques del marketing, como organización de actividades comerciales y como filosofía, ha ido variando a lo largo de la historia. Esta evolución se ha desarrollado bajo una estrecha relación entre ambos tipos de enfoques. En opinión del profesor Stanton, el marketing como filosofía es una forma de pensar mientras que, como organización de actividades comerciales, es una forma de actuar. Aunque, lógicamente, la forma de pensar determina el curso de la acción. Así, de acuerdo con la filosofía de marketing, una empresa alcanzará de manera más sencilla sus objetivos de desempeño si adopta una orientación hacia el consumidor

y coordina todas sus actividades de marketing (Stanton, 1992, p. 22). En relación a las definiciones de marketing que entran dentro del campo organizativo, es decir, que describen sus actividades y procesos, y obviando la evolución del concepto de marketing desde las primeras definiciones, destacamos las siguientes:

Para la Asociación Americana de Marketing (2009) el marketing es una función de las organizaciones y un conjunto de procesos para crear, comunicar y entregar valor a los clientes, y para gestionar las relaciones con los clientes mediante procedimientos que beneficien a la organización y a todos los interesados McCarthy y Perrault afirman que la filosofía de marketing "implica que una empresa dirige todas sus actividades a satisfacer a sus clientes y al hacerlo obtiene un beneficio" (McCarthy y Perrault, 1984, p. 35). Así, la definición del concepto de marketing contiene tres ideas fundamentales: 1) la satisfacción del cliente, 2) el esfuerzo conjunto de la organización, y 3) el beneficio como objetivo.

La Administración de la Relación con el Cliente (CRM)

La globalización de los mercados, el crecimiento continuo en el número de competidores y un incremento en las exigencias de los clientes mejor informados han originado cambios de gran trascendencia en las empresas y en su medio ambiente. Cada día, las organizaciones están sujetas a grandes y constantes transformaciones, lo cual trae consigo el surgimiento de nuevos competidores. Sin embargo para poder sobresalir de la competencia, no basta con ofrecer el precio más bajo o una gran variedad de productos, el reto yace en satisfacer a los clientes, por lo que esta situación obliga a las empresas a ofrecer altos niveles de servicio a sus clientes y a ser más competitivos. De esta manera, surge un nuevo modelo de hacer negocios, el cual está totalmente centrado en el cliente, dicho modelo es conocido como La Administración de las Relaciones con el Cliente, sus siglas en inglés CRM (Customer Relationship Management). Este nuevo concepto se apoya con la utilización de herramientas tecnológicas para lograr una calidad en el servicio que se ofrece. Es así, que el CRM está evolucionando como un elemento fundamental de la estrategia corporativa. En la literatura se define de diversas formas el CRM, La Asociación Española de Comercio Electrónico y Marketing Relacional (2002), lo define como "el conjunto de estrategias de negocio, marketing, comunicación e infraestructuras tecnológicas, diseñadas con el objetivo de construir una relación duradera con los clientes, identificando, comprendiendo y satisfaciendo sus necesidades. CRM, es un concepto más amplio, es una actitud ante los clientes y ante la propia organización, que se apoya en procesos multicanal (teléfono, Internet, correo, fuerza de ventas,...) para crear y añadir valor a la empresa y a sus clientes.

METODOLOGÍA

Este trabajo contiene un diseño no experimental, ya que lo que se pretende es observar el fenómeno en su contexto natural para después analizarlo, es decir, como se encuentran los detonantes que afectan la competitividad en el sector agrocítrico transformador del limón y emitir el análisis de las variables de estudio. A su vez esta investigación, posee un diseño transeccional o transversales, ya que los datos recogidos solo se recopilaron en un único momento en el tiempo en el año 2014 en las 7 empresas transformadoras. En lo concerniente, al método de recolección de datos, se utilizó un cuestionario con escala tipo Likert que se aplica a los empresarios y/o mandos altos gerenciales responsables de las PyMes agrocítricas manufactureras del estado de Michoacán.
Para determinar el universo se tomó en cuenta el directorio proporcionado por el organismo denominado Instituto Nacional de Estadística, Geografía e Informática, Instituto Mexicano para la Competitividad, Sistema de Información Empresarial Mexicano, en donde son 7 empresas las que se dedican a la transformación del limón, de las cuales todas se encuentran ubicadas en el estado de Michoacán logrando aplicar correctamente la totalidad de los cuestionarios, por lo que se realizó un censo.

RESULTADOS OBTENIDOS

Se determinaron las correlaciones entre variables, utilizando el coeficiente de Pearson "r", a fin de medir la afinidad entre la variable dependiente, para el caso la Competitividad y las independientes como son el Marketing y la administración de la relación con el cliente (CRM) y que tan fuerte es la relación entre ellas.

Tabla No 1: Correlaciones Entre Variables

		Competitividad	Marketing	Administración de la Relación con el Cliente
Competitividad	Correlación de Pearson	1	.816(*)	.636
	Sig. (bilateral)		.025	.124
	N	7	7	7
Marketing	Correlación de Pearson	.816(*)	1	.781(*)
	Sig. (bilateral)	.025		.038
	N	7	7	7
Administración de la Relación con el Cliente	Correlación de Pearson	.636	.781(*)	1
	Sig. (bilateral)	.124	.038	
	N	7	7	7

* *La correlación es significante al nivel 0,05 (bilateral). Elaboración propia.*

Lo cual nos indica que la estimación del p-valor del Marketing y la gestión del conocimiento está por debajo de 0,05 de manera que nos determina una correlación positiva significante y una medida de correlación de acuerdo a su índice R de Pearson positiva muy fuerte.

CONCLUSIONES Y RECOMENDACIONES

Es permisible mencionar que los elementos que inciden en la correlación encontrada entre las variables independientes con respecto a la variable dependiente son de suma importancia y tienen una relación directa con las hipótesis planteadas:

Las prácticas empresariales del marketing contribuyen de manera positiva a las pymes agrocítricas manufactureras en Michoacán.

Las prácticas empresariales de administración de la relación con el cliente (CRM) contribuyen de manera positiva a las pymes agrocítricas manufactureras en Michoacán.

Se concluye que el hacer un mejor uso del Marketing y la administración de la relación con el cliente (CRM), permitirá obtener una mayor competitividad de la empresa. La evidencia encontrada, una vez terminada la investigación reafirma lo propuesto en el constructo, en donde se propone una fuerte relación de los conceptos de Marketing y la administración de la relación con el cliente (CRM), a través de los factores mencionados con respecto a las prácticas empresariales del marketing y la administración de la relación con el cliente (CRM) de las pymes agrocítricas manufactureras en Michoacán.

REFERENCIAS BIBLIOGRÁFICAS

Blanco, Neligia, Alvarado, María E. (2005). Escala de actitud hacia el proceso de investigación científico social. *Revista de Ciencias Sociales,* 1, 5-10.

Berry, W. D., Feldman, S. (1985). Multiple Regression in Practice. *Quantitative Applications in the Social Sciences*, 3, 2-6.

Domenech, J. M. (1985). Métodos estadísticos. *Modelo lineal de regresión*, 25, 3-5.
Capraro, H. M. (1982). La cuestión regional en la agricultura. *Revista de Geografía Agrícola*, 3, 2-8.

García, N. A. (2004). El proceso de exportación de las empresas que exportan limón a los Estados Unidos de América. *Tesis de Maestría*, 1, 20-25.

Hatzichronoglou, T. (1996). Globalization and competitiveness. *Relevant Indicators*, 3, 12-17.
Ortiz, F. J. (1991). Metodología para el Análisis de la competitividad Internacional de la Empresa. *Centro de Estudios al Comercio Exterior*, 1, 31-16.

Osaba, E. (2011). Gestión de la calidad y marketing en los centros residenciales para personas mayores. *Competitividad,* 1, 54-56.

Aguirre, M., Aparicio, M.G. (2002). La gestión de calidad y el marketing interno como factores de competitividad en empresas de servicios: el caso de empresas vascas de servicios con gestión avanzada. *Cuadernos de Gestión*, 2, 27- 49.

Anderson, P.F. (1982). Marketing, strategic planning and the theory of the firm. *Journal of Marketing,* 46, 15-26.

Cohen, J., Cohen, P. (1983). *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.

D.A. Lind, R.D. Mason, W.G. Marchal. (2001). *Estadística para Administración y Economía*. 2ª Edición. México, D.F.: McGraw-Hill.F.

R. Johnson. (1996). *Elementary Statistics*. 1ª Edición. CA.: Duxbury.
Arellano, C. Rolando. (1999). *Marketing Enfoque América Latina*. 2ª Edición. México: Mc Graw Hill.

Jaramillo, E. (2005). Factores que influyen en el éxito de un programa de CRM para mejorar las relaciones con el cliente en empresas de Medellín. *Tesis de Maestría*, 1, 211- 220.

Arguelles, A. (1994). La competitividad de la industria mexicana frente a la concurrencia internacional. *Fondo de Cultura Económica*, 1, 14-22.

Asociación Americana De Marketing. (2009). *Definición de marketing*. Mayo 20,2014, de AMA Sitio web: www.ama.org/AboutAMA/Pages/Definition-of-Marketing.aspx
Asociación Española de Comercio Electrónico y Marketing Relacional. (2002). *Terminología*. Mayo 25, 2014, de AECEM Sitio web: www.aecem.org/default.asp

Silva, C., Bake D., Andrew W. (2001). *La Agroindustria y el desarrollo económico*. Junio 28, 2014, de Organización de las Naciones Unidas para la Alimentación y la Agricultura (FAO) Sitio web: http://www.fao.org/docrep/017/i3125s/i3125s00.pdf

BIOGRAFÍA

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DE ARTESANOS A EMPRESARIOS PRODUCTORES DE GUITARRAS. CASO PARACHO, MICHOACÁN, MÉXICO

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RESUMEN

El Estado de Michoacán tiene en su haber una rica diversidad histórica y natural, lo cual ha permitido el surgimiento de diversas actividades sociales y productivas que enuncian los valores y costumbres que forjan su identidad.; como lo es la guitarra de Paracho, que se ha convertido en uno de los productos y/o artesanías emblemáticas del Estado. En los últimos años ha presentado una baja sostenida en las prácticas artesanales en su elaboración, por lo que esta investigación tiene como objetivo caracterizar las MIPyMES productoras de guitarra de Paracho, Michoacán a través de conocer los datos de las empresas como son: el tamaño, si son empresas familiares, si poseen o rentan un establecimiento, preparación académica de sus dirigentes, etcétera. Así como también; conocer como perciben los artesanos y fabricantes de guitarras de esta zona los diversos problemas que enfrentan de: financiamiento, carga tributaria, materias primas, autoempleo y su capacidad de producción, entre otras. Esto con la finalidad de presentar la problemática real que enfrentan día a día estas empresas familiares, detectar los problemas que requieren mayor atención y como consecuencia hacer las recomendaciones pertinentes. Se elaboró un cuestionario de preguntas abiertas, que se aplicó conjuntamente con una entrevista cara a cara, a los dueños o integrantes de la empresa familiar.

PALABRAS CLAVE: MIPYMES, Problemas de Financiamiento, Carga Tributaria, Materias Primas

FROM ARTISANS'S GITARS TO ENTERPRENEURS THAT PRODUCE GUITARS. CASE PARACHO, MICHOACAN, MEXICO

ABSTRACT

The state of Michoacan is credited with a rich historical and natural diversity, which has allowed the emergence of various social and productive activities that set out the values and customs that shape their identity; as is the guitar of Paracho, which has become one of the products and / or handicrafts emblematic of the state. In recent years he has presented steady decline in artisanal practices in their development, so this research aims to characterize MSMEs producing guitar This research is aimed to characterize the MSMEs producing guitar from Paracho, Michoacán through knowing the business data such as: the size, if they are family businesses, if they own or lease a facility, academic preparation of its leaders, etcetera. And also, know how | artisans and manufacturers of guitars in this area perceive and face the various problems of: financing, tax burden, raw materials, self-employment and production capacity, among others. This, with the purpose of present the real problems were faced every day by these family businesses, identifies problems that require more attention and consequently to make appropriate recommendations. A questionnaire with open questions was applied in conjunction with a face to face interview to the owners or members of the family business.

KEYWORDS: MSME, Problems of Financing, Tax Burden, Raw Materials

JEL: L690, G290, K340, M150

INTRODUCCIÓN

La actividad artesanal se distingue a nivel nacional por la gran diversidad en su producción, así como la cantidad de artesanos que participan en ella; esta es una actividad que representa oportunidades diversas para impulsar la integración social y cultural, la creación de fuentes de trabajo y sobre todo la generación de ingresos que permita una vida digna para la población relacionada con ella y por lo tanto un buen medio, que de ser atendido y apoyado correctamente, pueda apartar a los jóvenes y a sus familias de ser bancos fáciles de reclutamiento de la delincuencia organizada. En México las Micros, Pequeñas y Medianas Empresas (MIPyMES) constituyen un elemento fundamental del crecimiento económico. El desarrollo empresarial, en especial de las MIPyMES ha sido uno de los pilares de la estrategia de desarrollo económico nacional de los últimos años. De acuerdo con los datos del Censo Económico de 2004, en México, estas unidades productivas comprenden el 99.8% de las empresas mexicanas existentes, generan el 52% del Producto Interno Bruto (PIB), contribuyendo con el 72% de los empleos formales.

Se calcula que nueve de cada diez empresas en nuestro país entran en la categoría de pequeñas y medianas empresas (PyMES) y que éstas son responsables del 50% de la economía nacional, alrededor del 80% muere antes de cumplir su primer año de vida. Los motivos son varios; Maza y Páez (1998) destacan que una de las causas principales del fracaso de las empresas es la falta de preparación de sus dirigentes. Así, se sabe que el 43% de las empresas fracasan por errores administrativos, el 24% mueren por tropiezos financieros, el 24% por problemas fiscales, el 16% por obstáculos relacionados con las ventas y cobranzas, el 4% por asuntos relacionados con la producción y el 3% por conflictos con insumos.

De acuerdo con la literatura en México, existe un estimado de 4.5 millones de PyMES que aportan el 64% de la fuerza laboral contribuyendo con el 40% del PIB. De las cuales el 65% son de carácter familiar; más del 80% no cuenta con un tipo de certificación, cerca del 50% no utiliza técnicas en calidad o productividad; sólo el 24% maneja alguna licencia o patente y el 83% no realiza actividades para consolidar su presencia en el exterior, así que la mayoría de las empresas son de un solo dueño, un alto porcentaje de los locales utilizados son rentados, casi la mitad se financia con recursos familiares y un alto porcentaje de sus clientes son consumidores locales.

En este sentido, las unidades económicas que mayor aporte causan a la economía nacional, son aquellas constituidas como micro, pequeñas y medianas empresas, fortaleciéndose como una verdadera palanca de desarrollo y su posición es crucial en la generación de empleos del país, según estimaciones del Instituto Nacional de Estadística, Geografía e Informática (INEGI, 2004). De manera particular nos focalizaremos en las pequeñas y medianas empresas, pues la literatura, las ha segmentado por poseer distintivas similares; empero los inconvenientes que poseen se señalan a continuación: Falta de estudios de preinversión; Escasez de mano de obra calificada, de bienes de capital, de recursos económicos; Debilidad de factores institucionales; Dependencia productiva; Inflación; Administración endeble, entre otros (Rodríguez Valencia, 2010), por ende, resulta imperioso investigarlas y coadyuvar a generar desafíos que les admitan optimizar sus contextos. Efectuando una revisión a las aportaciones al Producto Interno Bruto (PIB) de la entidad de Michoacán, se destacan las actividades secundarias, en particular, la industria manufacturera (Instituto Nacional de Estadística, Geografía e Informática (INEGI), 2010), por lo que nos centraremos en su estudio a través de la injerencia que tiene el capital intelectual sobre su competitividad. De acuerdo con el gobierno estatal de Michoacán, la gran mayoría de las microempresa existentes son de carácter familiar, y enfrentan las siguientes dificultades: aumento en los costos de materiales, bajas ventas, escases de materia prima, así como altos precios de las mismas, falta de maquinaria y falta de turismo en la región.

El Estado de Michoacán tiene en su haber una rica diversidad histórica y natural, lo cual ha permitido el surgimiento de diversas actividades sociales y productivas que enuncian los valores y costumbres que forjan su identidad.; como lo es la guitarra de Paracho, que se ha convertido en uno de los productos y/o artesanías

emblemáticas del Estado. Además de representar una fuente importante de ingresos para la región de Paracho, ya que el 80% de la población se dedica a esta actividad Por otra parte, existen diversos programas de gobierno nacionales y estatales para el apoyo de MIPYMES y artesanos, sin embargo los apoyos no llegan a quien los necesita. Existe desinformación y una mala administración de los mismos que trae como consecuencia que no se puedan aprovechar correctamente. Además no existe información oficial específica de este tipo de actividad económica, que permita conocer la situación real que enfrentan los artesanos y empresarios productores de guitarra en Paracho, por lo que, se hace necesario caracterizar esta actividad artesanal y empresarial a través de conocer los datos de las empresas como son: el tamaño, si son empresas familiares, si poseen o rentan un establecimiento, preparación académica de sus dirigentes, etcétera. Así como también; conocer cómo perciben los artesanos y fabricantes de guitarras de esta zona los diversos problemas que enfrentan, que es otro de los objetivos de esta investigación, como son:

Conocer la percepción de los artesanos y productores de guitarra de Paracho respecto a la labor del gobierno de brindarles financiamiento.

Saber su opinión respecto a la carga tributaria mexicana.

Conocer su percepción respecto a la problemática de las materias primas utilizadas
Conocer si la creación de empleos corresponde a la necesidad de auto emplearse como medio de enfrentar la crisis económica que atraviesa nuestro país.

Saber si cuentan con la capacidad de producción suficiente que permita la exportación de guitarras de Paracho.

Empresa Familiar

Ofrecer una definición de empresa familiar representa el primer reto que enfrenta un especialista en el estudio de de este tema, ya que no se cuenta con una definición unificada, por lo que se definirá la empresa en opinión de varios autores: Para Belausteguigoitia (2010) una empresa familiar es una organización controlada y operada por los miembros de una familia. Desde una perspectiva diferente, digamos espiritual, suelo referirme a empresas con alma, dado que el corazón de las familias está en ellas.
La empresa familiar es definida como cualquier negocio en que la mayoría de la propiedad y del control se encuentran en manos de una familia, y en el que dos o más miembros familiares están implicados en los negocios de la empresa. Gallo (1997) considera, además, que en este tipo de empresas se trasladan a ella los valores que dominan en el seno de la familia. Pero, lo significativo en los análisis sobre la empresa familiar es que estos análisis sólo se interesan por los beneficios económicos que reporta la empresa para la familia, dejando al margen el examen de cómo se organizan las personas en estas familias y cómo se reparten el consumo, el trabajo y el ocio.

De acuerdo con Rodríguez (2002), la cultura familiar es el conjunto de valores, usos y actitudes que definen el que hacer de una familia. En el caso de familias empresarias, dicha cultura está fuertemente marcada por el perfil del fundador, aunque evoluciona a través de las generaciones. La cultura familiar suele tener un reflejo de la empresa, y a su vez, la cultura de la empresa tiene influencia en la familia. Dicha cultura aunque existe, es muchas veces desconocida por los propios miembros de la familia, que la incorporan de forma automática a su carácter a través de la educación formal e informal que reciben de la generación precedente. Identificarla y conocerla es de gran utilidad para fomentar la unión entre, el compromiso con la empresa y el respeto y reconocimiento de su valor más allá del patrimonio. Las empresas familiares mexicanas tienen atributos particulares que las distinguen de los otros países, en gran medida debido a las características que poseen sus familias (Grabinsky, 1994) Por lo general las empresas mexicanas suelen ser numerosas. El INEGI (2010) hace una clasificación de las hogares familiares mexicanos en :

Nuclear, integrada por padres e hijos.
Ampliados, integrada por los mismos elementos de la nuclear y otros parientes
Compuesto, constituido por un hogar nuclear o ampliado, más personas sin parentesco con el jefe del hogar.

METODOLOGÍA

Para realizar la investigación , se toma como base los datos proporcionados por la Casa de las Artesanías de Michoacán (Casart) ubicada en la ciudad de Morelia; fue determinar el número total de 277 "artesanos", que dirigen una empresa dedicada a la elaboración y fabricación de guitarras. De éstos 277 empresas, 8 son grandes, por lo que el total que conforma el universo para nuestra investigación es de 269 entre micro, pequeñas y medianas empresas productoras de guitarras. Para la obtención de la información respecto a la problemática que enfrentan estas empresas familiares, de viva voz de los interesados, se elaboró un cuestionario de preguntas abiertas, que se aplicó conjuntamente con una entrevista cara a cara, ya sea con los dueños o integrantes de las familias que colaboran dentro de la empresas familiares productoras de guitarras en Paracho, Michoacán, México. Desde principio se planeó aplicar el mayor número de entrevistas posibles, lamentablemente una de las limitaciones que tuvimos fue la poca disposición de los artesanos para atender a nuestra investigación, debido a la desconfianza que se ha originado por la inseguridad en el Estado de Michoacán, por lo que pudimos aplicar un total de 60 encuestas. Esta investigación de tipo exploratoria y cualitativa. El cuestionario mencionado está integrado por los siguientes apartados:

 información de unidad económica y establecimiento.
Financiamiento.
Carga tributaria
Problemática y expectativas.
Tiempo de duración en el mercado.

CONCLUSIONES

Derivado de los resultados obtenidos en la investigación se puede identificar que existen tanto artesanos como productores de guitarras en la región de Paracho; cuya diferencia consiste en que un "artesano" es aquella persona a la que se dedica a la fabricación de guitarras, pero esta las hace a mano sin utilizar maquinaria, por lo regular estas personas tienen años en este oficio y mínimo para elaborar una guitarra tardan aproximadamente un mes y en ocasiones un poco más dependiendo la calidad de guitarra. Y los que se dedican a la venta y fabricación no se consideran artesanos porque ellos utilizan maquinaria para la elaboración de guitarras y por lo consecuente tiene más producción, aproximadamente 100 guitarras diarias. Siendo mayoría los artesanos con un 60%, por lo que observamos que una actividad que en sus orígenes era 100% artesanal está cediendo terreno a la actividad industrial automatizada.

El tipo de empresa que pertenecen estas productoras de guitarras con base a la estratificación de la Secretaría de Economía 2009, podemos observar que el predominante de estas empresas son las microempresas con un 50% de la muestra, donde podemos observar que siguen siendo importantes porque estas a su vez generan de 1 a 10 empleos dentro de la sociedad, cabe mencionar que las microempresas son las que generan más empleo dentro de esa región. El 100% de los encuestados reconocen que su empresa es de tipo familiar y además expresan que el 75% de sus trabajadores son familiares involucrados directamente en la empresa y el 25% de sus trabajadores, no son familiares. Hablan de que es difícil ya que el negocio no da para contratar trabajadores, por lo que, el emprendimiento se da para auto emplearse más que para generar empleos. La formación académica de sus dirigentes es muy baja sólo el 12% cuentan con estudios de licenciatura.

Con lo que respecta al tipo de establecimiento que ocupan en la elaboración y/o fabricación de sus productos. Un 45% de los encuestados tienen un taller propio para realizar su trabajo, se podría mencionar

que el taller es el más usual para realizar su trabajo. En tanto que para realizar las ventas de las guitarras un 70% vende sus guitarras en un local comercial, un 20% realiza las ventas en puestos de mercado, y un 10% no cuenta con un establecimiento, esto quiere decir que el 90% cuentan con establecimiento o local comercial. Los productores de guitarras tienen obligaciones fiscales que deben cumplir ya sea Municipales, Estatales y Federal. En la situación fiscal federal se encontró que el 80% de las empresas de Paracho sí cumplen con sus obligaciones fiscales (pago de impuestos).

Según las encuestas realizas en la investigación, un 20% no pagan impuestos y por lo tanto no cumplen con sus obligaciones. Este tipo de acciones, como el no pago de impuestos se convierte en una competencia desleal contra los que sí pagan. Del total que si pagan, el 50% se encuentran registrados en el régimen intermedio, el 30% se encuentra en el registro de pequeños contribuyentes y un 20% lo integran las personas morales dentro de su actividad económica. Cabe mencionar que no se quejaron de la carga fiscal. Existen algunos focos rojos que deben ser atendidos como son la no asociación y el desabasto y encarecimiento de las materias primas. Sobre todo problema de desabasto de madera que proviene de la región, que hace que se tengan que importar de Brasil y E.E.U.U. Provocando el aumento de los costos en detrimento de la utilidad. Con lo que respecta al financiamiento público, el gobierno debe elaborar estrategias de comunicación que garanticen que la información llegue a todos los artesanos y productores de guitarra de Paracho. Pero también el sector debe organizarse bien para que los programas de financiamiento de bajo costo; así como las ayudas, sean aprovechados por este sector.

REFERENCIAS BIBLIOGRÁFICAS

Belausteguigoitia, R. I.(2010) *Empresas familiares su dinámica, equilibrio y consolidación*. Mac Graw hill. México.

Gallo, M. A. (1997). *La empresa familiar.* Barcelona. Biblioteca*: IESE de Gestión de Empresas*. Grabinsky Steider Salo (1994) *La empresa Familiar*. México: Nacional Financiera.

Instituto Nacional de Estadística, Geografía e Informática (2004). Censos económicos (2004). *Micro, pequeña, mediana y gran empresa. Estratificación de los establecimientos.* Obtenido de http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/censos/economicos/2004/industrial

Instituto Nacional de Estadística, Geografía e Informática (2010) *Población. Hogares*. Recuperado el 12 de Octubre de 2011 de http://cuentame.inegi.org.mx/poblacion/hogares.aspx?tema=P Ley de Propiedad Industrial. Cámara de diputados del H. Congreso de la Unión. Recuperado el 1de julio de 2012 de http://www.diputados.gob.mx/LeyesBiblio/pdf/50.pdf

Navarro García, F.(2001) *Estrategias de marketing ferial*. España: ESIC editorial.

Maza P. A. y Páez A. A.(1998) *Causas de la desaparición de la Microy Pequeña Empresa*,2da. Edición. México: FUNDES.

Plan Estatal de Desarrollo (2008-2012) Recuperado el 11 de Octubre de 2012 de http://www.michoacan.gob.mx/Plan_Estatal_de_Desarrollo

Rodríguez Valencia, J. (2002). *Administración de pequeñas y medianas empresas*.5ta ed. México: Thomson Learning. Rodríguez Valencia, J. (2010). *Administración de pequeñas y medianas empresas* (6a. ed.). México: Cengage Learning.

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LA FELICIDAD ES IGUAL A PRODUCTIVIDAD: UN COLABORADOR SATISFECHO EN LAS EMPRESAS DEL SECTOR INDUSTRIAL DE TIJUANA, B.C., MÉXICO

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RESUMEN

La presente investigación busca determinar los principales factores que inciden en la felicidad que incrementan la productividad en las empresas del Sector Industrial de Tijuana, B.C., México ya que las empresas deben considerar a sus empleados como seres humanos y lo pueden alcanzar a través de la felicidad para que estos sean más productivos. Por lo tanto no solo las organizaciones deben preocuparse por incentivarlos económicamente, sino a través del reconocimiento por sus logros alcanzados, capacitarlos de manera continua para que se desarrollen profesionalmente, para que se sientan satisfechos con lo que hacen y comprometidos con las organizaciones en donde laboran y mejorar su estado emocional. Cuando se logra llegar a este nivel el empleado se vuelve productivo, se concentra en lo que hace porque está feliz y las jornadas laborales no le parecen largas, por lo tanto es importante prestar atención felicidad para saber si el empleado está siendo productivo.

PALABRAS CLAVES: felicidad, productividad, sector industrial

JEL: D21, L1, L2, L16, L23

Happiness is equal to productivity: A satisfied collaborator in the companies of the Sector Industrial de Tijuana, B.C., Mexico

ABSTRACT

The present research is to determine the factors that influence directly the happiness that increase productivity in the enterprises of the Industrial Sector of Tijuana, B.C., Mexico since companies must consider their employees as human beings and they can reach it through happiness so they can be more productive. Organizations must worry about encourage them economically, but through the recognition of their achievements, enable them continuously to develop professionally, so they feel satisfied with what they do and committed to the organizations where they work and improve your emotional state. When one achieves this level to reach the employee becomes productive, focused on making because he is happy and working hours does not seem long, it is important to ensure happiness to know if the employee is being productive.

KEY WORDS: Happiness, Productivity, Industrial Sector

JEL: D21, L1, L2, L16, L23

INTRODUCCIÓN

En la actualidad las organizaciones están tomando en cuenta la felicidad como un factor decisivo en la gestión del talento humano, basándose en la premisa de que un empleado feliz forja empresas productivas, relacionando esta variable con los resultados de la organización, lo cual conlleva el cambio de una cultura organizacional dentro de las mismas. Es relativamente reciente que se esté tomando en cuenta a la felicidad laboral como parte de la cultura organizacional, incluso menos nuestro país un empleado feliz no se relacionaría con que fuera más productivo y que a través de la felicidad o la satisfacción laboral este fuera a generar un aumento en el rendimiento laboral como tal. Si se realiza un análisis de los principales que factores que inciden en la felicidad para que el empleado sea más productivo, se debe iniciar con un cambio organizacional, es decir, cambiar la cultura organizacional Entonces el siguiente trabajo, intenta conectar como valoran las empresas la productividad de las personas considerando diversos aspectos, no solo económicas y su impacto en la mejora de productos y servicios que ofrecen, y los aspectos que hacen feliz a las personas.

REVISIÓN LITERARIA

Para abordar el tema de la felicidad y su relación con la productividad laboral es preciso darle una definición a tan subjetivo concepto en el ámbito laboral y una de las definiciones más aceptadas en la actualidad es la Lyubomirski en la cual menciona que la felicidad es una combinación de una sensación de placer y plenitud con una experiencia profunda de significado y propósito. El placer se refiere a la primera parte de la definición, la cual se refiere al presente al presente, es decir, lo que estamos viviendo aquí y el ahora, por lo tanto esta experiencia debe ser agradable a nuestros sentidos, debe generarnos bienestar y valor en ese momento. (Stuve, 2015). Actualmente, muchas organizaciones consideran la felicidad como un factor clave en la gestión de personas. Se basan en la creencia de que un empleado feliz hace una empresa productiva, relacionando así esta variable con los resultados del negocio. (Pantoja, 2015). Desde un punto con vocación universal y objetivista, diremos que la felicidad podría entenderse como el estado cognitivo emocional de plenitud vital duradera y consciente, en base a una evaluación subjetiva positiva del plano tanto físico y material como social y afectivo, psicológico y espiritual de la propia existencia (Muñiz, 2012).

Esto supone un cambio de enfoque cultural, o al menos conceptual. Hasta hace una década, incluso menos en nuestras latitudes, un empleado más feliz no era necesariamente un empleado más productivo. Incrementar aspectos como la felicidad o la satisfacción no generaba incrementos en el rendimiento laboral tanto como si, por ejemplo, impulsamos el compromiso. La tendencia actual es la de integrar la felicidad como una dimensión del compromiso, más que descartar una de ellas. (Pantoja, 2015). Asimismo parte de la felicidad es encontrar la plenitud humana, una plenitud humana que para ser tal debiera contar con todas las esferas de las que puede llegar a gozar el ser humano, esto es, desde lo puramente material para la supervivencia, hasta llegar a lo más elevado, su espiritualidad. (Anchor, 2010)

Medición Científica de la Felicidad

En un estudio realizado por Álvarez (2013), hace referencia acerca de diferentes estudios de las mediciones pioneras, las cuales mencionan la escala presentada por Diener *et al.* (1985), la *Satisfaction With Life Scale (SWLS)*, más tarde revisada por Diener y Pavot (1993), con ítems que hacen referencia tanto al pasado como al presente de la persona, aunque sin llegar a ver qué elementos o facetas existenciales se manifiestan en la consciencia del sujeto entrevistado y que está teniendo en cuenta para sus respuestas. Asimismo, cabe mencionar el *Oxford Happiness Inventory*, planteado en primera instancia por Argyle, Martin y Crossland (1989) y más tarde corregido, ajustado y renombrado como *Oxford Happiness Questionnaire* por Hill y Argyle (2002). Ambas versiones alcanzaron notable reconocimiento, si bien también críticas, pues no dejan de plantearproblemas de precisión metodológica en la redacción de determinados ítems,como recoge

Lyubomirsky (2008), o incluso adolecen de insuficientesubstrato teórico que avale la presencia de algunos de ellos, calificados de problemáticos cuanto menos (Kashdan, 2004). Felicidad y desarrollo de la Cultura en las organizaciones, un enfoque psicosocial presentada por Kahneman *et al.* (2004), y que viene utilizándose en estudios con una perspectiva más enfocada en lo político y socioeconómico. Aunque sin duda, uno de los trabajos que más notoriedad ha alcanzado es el de Seligman (2002), y su *felicidad auténtica*, todo un programa de medición global *online* (www.authentichappiness.org), con múltiples herramientas y escalas con una exhaustividad notable, entre las cuales incorpora escalas de otros autores, como la del pionero Fordyce (1977), una escala que si bien ha gozado de gran uso por su sencillez, no se puede decir lo mismo en cuanto a su potencia psicométrica (Castro, 2009). Asimismo Álvarez (2013), menciona que no se puede terminar este somero repaso de las mediciones de la felicidad que gozan de mayor notoriedad y consenso en la actualidad, sin mencionar la labor de Lyubomirsky, de la cual se extrae el cuestionario de felicidad general (Lyubomirsky & Lepper, 1999), incorporado, por otro lado, al mencionado proyecto de Seligman.

Estudios más recientes se han hecho y en entrevista realizada por Stuve (2015), a Marks, director de *Happiness Works*, explica que la felicidad en el trabajo no sólo es el resultado de buenas experiencias, sino también un buen pronosticador de futuras buenas experiencias. Las personas más felices en la empresa tienden a ser más creativas e innovadoras, más leales, más dispuestas a recomendarte ante amigos, colegas, consumidores y clientes y más orgullosas de la organización a la que representan. De acuerdo Stuve (2015), en la entrevista titulada "La felicidad sí es un gran negocio" realizada a Marks (director del Proyecto *Happiness* para Latinoamérica), menciona que las personas felices toman mayor responsabilidad por sus resultados dentro de la compañía sin importar su cargo. La felicidad afecta positivamente tanto a la persona que opera maquinaria o chofer de la compañía como a las cabezas de cada empresa. Define a una empresa feliz como un lugar donde las personas disfrutan trabajar, donde existe una cultura de respeto y buenas relaciones humanas, donde las personas disfrutan y encuentran tareas con propósito. Asimismo Marks agrega que los mismos reportes muestran que las personas más felices también se desempeñan de mejor manera. Es por esto que la felicidad en el trabajo trasciende de ser algo bueno de tener, y por el contrario, es un marco fundamental para aumentar los niveles de productividad y optimización en la organización. Nutrir la felicidad en el empleo tiene un retorno de inversión muy alto para la empresa, además de dejar una satisfacción por el trabajo bien hecho.

También la psicología tradicional nos explica que nuestra capacidad de desempeño y éxito viene dada por una combinación de nuestro coeficiente intelectual (CI), inteligencia emocional (IE) y nuestra habilidad de relacionamiento o inteligencia social (IS). Sin embargo, los estudios neurológicos y fisiológicos de la ciencia de la felicidad han descubierto que normalmente sólo tenemos acceso hasta el 70% de esas capacidades. Ese último 30% de nuestro rango alto de capacidades sólo se activa en nosotros cuando nuestro cerebro libera endorfinas y dopaminas de manera sostenida, y esto ocurre justo cuando somos felices. (Stuve, 2015). Asimismo de acuerdo con Stuve (2015), las personas felices tienen un mejor desempeño frente a quienes no lo son y la felicidad les da una ventaja competitiva al tener acceso a su rango alto de competencias: Mayor capacidad de razonamiento (CI): Les permite pensar con mayor rapidez, ser más asertivos, entender las situaciones desde diferentes puntos de vista, hacer más y mejores conexiones entre ideas. Mayor inteligencia emocional (IE): Les brinda herramientas para controlarse mejor en situaciones complejas y de alto nivel de estrés. Disminuye la reactividad emocional frente a imprevistos. Mejora los niveles de salud al disminuir los de estrés. Mayor inteligencia social (IS): Que se traduce en mejores relaciones e interacciones con pares, jefes, colaboradores y clientes. En este mismo trabajo, hace mención Marks acerca de las empresas mexicanas, son similares a otras naciones en lo siguiente: los trabajadores altamente cualificados son más felices frente a los menos cualificados. Las personas que pertenecen a la gerencia son más felices que aquellas en mando de una gerencia. En general, los colaboradores con mayor autonomía tienden a ser más felices. De igual manera sucede con los miembros que tienen un mayor sentido de propósito en lo que hacen. La felicidad también depende de ser tratado justamente. (Stuve, 2015)

Proyecto Happiness en México

A finales del 2014 se inicia a correr una encuesta, Proyecto *Happiness* sobre una muestra de la población trabajadora en México, a través de un cuestionario en línea y entrevistas personales consultándose a 990 empleados del país acerca de la felicidad en el trabajo. (Torres, 2015. Por lo tanto es importante entender los estados de ánimo que pueden afectar a los empleados en su desempeño laboral, considerando que este debe sentirse satisfecho y que logre un nivel de felicidad dentro de la empresa, es decir, tomar en cuenta los factores que hacen que se sientan contentos con sus logros o que tipos de logros son los que los llevan a un nivel de felicidad tal, que el empleado contribuya con su productividad al crecimiento de su puesto y por ende de la compañía. El documento reveló que el nivel de felicidad en el país en este ámbito se sitúa en 5.5 y que lo más importante para los profesionales en el país es tener logros, una paga justa y buena relación con su equipo de trabajo. (López, 2015)

En el primer punto, sobre lo valioso del trabajo para las personas de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 78.2% de la población encuestada considera que su trabajo es valioso no solo en la organización sino también para la sociedad, 18.5% medianamente y 3.3% considera que poco. Es una buena noticia que en México la mayoría de los trabajadores encuestados reconozcan y privilegien el valor para ellos y para otros, del trabajo que realizan. Si bien esto no necesariamente está relacionado con el propósito personal de cada trabajador, el hecho de encontrar valor en lo que hacen contribuye en sus niveles de satisfacción en el trabajo diario

El segundo punto, se refiere a la oportunidad de aplicar sus habilidades y/o conocimientos. Así es como lo ven los trabajadores encuestados de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 74,5% de los encuestados consideran que en el trabajo tienen la oportunidad de hacer lo que mejor saben hacer. 20.5% considera que tienen una oportunidad promedio y 4,9% que su oportunidad es mínima. Tener espacios en el día a día para hacer lo que mejor se sabe hacer, genera una sensación personal de utilidad y valor en la tarea realizada, lo cual genera bienestar y contribuye a obtener mejores niveles de felicidad. Y el tercer punto, que hace sentirse más feliz a los mexicanos, se refiere a la relación con su superior. Esta es la respuesta de los trabajadores en este punto de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 72,5% de la población encuestada considera tener una buena relación con su jefe inmediato. 21.3% considera tener una relación promedio mientras que el 6.2% afirma que la relación es mala. Uno de los 6 caminos principales hacia la felicidad es la conexión. Tener buenas relaciones con nuestros pares, jefes, familiares, amigos y contactos nos da un sentido de pertenencia que contribuye a nuestros niveles de felicidad.

El Proyecto *Happiness* en México (2015), también analiza tres factores, que en principio no aumentan la felicidad de las personas, pero pueden afectar su desempeño vinculado con sentirse a gusto por lo que hacen: una paga justa, prospecto de progreso en la carrera y la retroalimentación constructiva. En el primer factor, la remuneración debe ser un justo pago por la aportación del trabajador a la productividad en la empresa, pero ¿Cómo lo perciben en cuanto al grado de felicidad que otorga?. Casi la mitad de los empleados consideran que son remunerados adecuadamente de acuerdo a lo que realizan en su lugar de trabajo de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 47,3% de la población encuestada considera que recibe una paga justa. 33% considera que recibe una paga medianamente justa y 19,7% de la población encuestada considera recibir una paga injusta. Recibir una paga justa por el esfuerzo y tiempo dedicado hacia el trabajo hace parte del grupo de factores externos que determinan la felicidad en un 10%. Sin embargo este indicador está ligado con sentirse respetado dentro de la organización y con el balance vida-trabajo, factores internos que afectan en un 90% a los niveles de felicidad. Para las personas, recibir remuneraciones que consideran justas a lo que realizan o aportan, sólo le hacen sentir medianamente satisfechos, pero consideran que el pago les ofrece un status de crecimiento y desarrollo dentro de la organización que los lleva a recibir mejores salarios. Podemos decir, la mejor remuneración es una consecuencia de un mejor trabajo o desarrollo, y lo que motiva en realidad al trabajador es el

reconocimiento por mejorar su trabajo y eventualmente ser promovido a mejores puestos mejorando su lugar dentro de la empresa. Proyecto *Happiness* en México (2015)

El segundo factor, se refiere a la necesidad humana de mejorar nuestras habilidades y conocimientos y la oportunidad percibida de que se nos dé la oportunidad de crecer en la empresa. Se puede observar que casi el 50% de los encuestados toman muy en cuenta este factor para considerar cubiertas sus necesidades de logro y en consecuencia de satisfacción de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 48,5% de la población encuestada cree firmemente que su organización ofrece oportunidades para progresar en sus carreras profesionales. 33,3% considera que sus organizaciones ofrecen oportunidades medianas y 18,2% considera que sus organizaciones no ofrecen ninguna oportunidad. Seguir aprendiendo es uno de los caminos más importantes hacia la felicidad. Saber que se puede progresar en la carrera profesional y aprender nuevas habilidades en cada paso es un impulsor de los niveles de felicidad. El trabajo mismo, como una actividad para realizarnos como personas, es importante para la mayoría de la gente, y consideran que las empresas ofrecen esa oportunidad de crecer a través de su esfuerzo en la empresa. Sólo el 18% no cree que la empresa le ofrece la oportunidad de aprovechar sus habilidades, es probable que esto suceda porque no esté en el lugar adecuado para desarrollarse y aplicar sus conocimientos aprendidos a través de estudios profesionales, técnicos o de algún oficio. Proyecto *Happiness* en México (2015),

El tercer factor es relacionado con la oportunidad de conocer el avance logrado, esto es la retroalimentación que recibe de la empresa que le ayude a medir sus avances. Alcanzar metas requiere de primero establecerlas y tener los medios de medirlas y ver cómo y cuándo alcanzarlas, por lo que se vuelve importante que la organización informe al trabajador de sus alcances, de acuerdo con los resultados del Proyecto *Happiness* en México (2015), el 52,3% de la población encuestada afirma recibir retroalimentación constructiva de parte de sus pares y superiores. 29,6% considera que reciben una cantidad promedio y 18,1% confirma que no recibe retroalimentación constructiva. Recibir retroalimentación constructiva es clave para reforzar el sentimiento de progreso que todo ser humano necesita. Uno de los caminos hacia la felicidad es seguir aprendiendo y está herramienta es ideal para aprender desde la percepción y aporte de las personas que nos rodean.

La Felicidad y su Relación con la Productividad

Cualquier persona que disfruta de lo que hace es, siempre y sin excepción, más productiva que la persona que lo hace sin ganas o sin gustarle. Una sonrisa en la cara, la felicidad que nos llena por dentro, querer hacer las cosas que nos apasionan de la mejor forma posible… todas esas cosas son potenciadores de nuestra productividad. Otra cosa que tenemos que tener en cuenta es la relación inversa: de forma general, ser productivo nos ayuda a ser felices, ya que aprovechamos nuestro tiempo en las cosas que realmente son importantes. Cuando somos mucho más productivos (generando grandes resultados haciendo lo que más nos apasiona), conseguimos aumentar nuestra felicidad. Ser productivo nos ayuda a ser felices, ya que aprovechamos nuestro tiempo en las cosas que realmente son importantes Por lo tanto, productividad y felicidad van muy de la mano, pero en general, acostumbramos a escribir, a leer, a dar consejo centrándonos mucho más en la productividad que en la felicidad, cuando el objetivo de nuestras vidas es ser felices, no sencillamente ser productivos. Es por este motivo que creo que debemos hacer un cambio de chip, e ir pensando cada vez más en la productividad como una herramienta para ser felices. La productividad apoya a las empresas a aprovechar el tiempo de sus empleados haciendo lo que realmente creen que es importante hacer para ellos, ya sea en su vida profesional o personal.

En cualquier caso, es importante aprovechar la productividad para hacer cosas que para los empleados sean importantes, ya que es eso mismo lo que los hará felices en tanto lo estén haciendo alineados tanto a los objetivos profesionales y personales. Por lo tanto, para ser productivo es parte de un objetivo vital que va más allá de la productividad: simplificar el trabajo de un empleado para hacer con sus vidas lo que realmente

quiere y que disfrute siendo feliz con lo que hace. Ser productivo ayuda a los empleados a ser felices, ya que aprovechan su tiempo en las cosas que realmente son importantes Por lo tanto, productividad y felicidad van muy de la mano, pero en general, pero las empresas no se deben centrar mucho más en la productividad que en la felicidad, cuando el objetivo en la vida es ser felices, no sencillamente ser productivos, por lo cual las organizaciones deben pensar más en la productividad como una herramienta para ser felices. (Sánchez, 2015)

MÉTODO

Justificación

Si tenemos la capacidad de analizar la situación actual de las empresas con mayor profundidad, se puede observar que hay otro aspecto muy importante a considerar como la felicidad del trabajador dentro de la empresa para que este eleve su productividad. Ya no solo se trata de obtener una destacada carrera profesional a través del cual se logra el bienestar económico. Las organizaciones han iniciado a tomar en cuenta nuevos valores, sin dejar de lado que es obvio que los empleados buscan el tener un trabajo bien remunerado, pero se está valorando un aspecto vital para que el empleado sea productivo dentro de las empresas, como lo es la felicidad, algo que se puede considerar subjetivo pero que si es factible medir. Esta evolución en las empresas no se ha dado de manera repentina, las causas han sido numerosas, además si se tiene la capacidad de analizar la situación con mayor profundidad, se puede observar que hay otro aspecto muy importante a considerar, la productividad del empleado en las empresas. Bajo esta nueva concepción es que se busca que el empleado sea feliz para que sea productivo a través de la capacitación, reconocimiento, satisfacción y el compromiso del empleado con la empresa.

Objetivos

Objetivo General. Determinar los principales factores que inciden en la felicidad del empleado para que incremente su productividad en las empresas del Sector Industrial de Tijuana, B.C., México.

Objetivo Específico. Determinar si los principales factores que inciden en la felicidad del empleado son: la capacitación, reconocimiento, satisfacción y el compromiso para que incremente su productividad en las empresas del Sector Industrial de Tijuana, B.C.

La metodología de la investigación es cuantitativa y cualitativa. La investigación cuantitativa se aplica para el levantamiento de encuestas, a través de cuestionarios a los empleados según una muestra aleatoria de la población total del Sector Industrial. Se procesará la información recabada con la aplicación del programa estadístico SPSS para el análisis descriptivo e inferencial. Para el análisis inferencial se utilizará la Matriz de *Pearson*, ya que es una prueba estadística para analizar la relación entre dos variables medidas en un nivel por intervalo de razón. (Hernández Sampieri, 2010). Por lo tanto el método utilizado para medir la felicidad es a través de la Matriz de Correlación de *Pearson,* ya que mide el grado de dependencia de una variable respecto a otra, es decir, la variable dependiente es la productividad y las variables independientes como factores de la felicidad se tomaron los siguientes: capacitación, reconocimiento, satisfacción y el compromiso. En este momento la investigación está en proceso.

Diseño de la Muestra

El diseño de la muestra es resultado de la identificación de una población total del Sector Industrial, registradas en el Sistema de Información Empresarial Mexicano (SIEM) de Marzo 2015, de Tijuana, B.C. México y de la consideración del porcentaje de presencia sobre la población total, se determinara la muestra en base a los factores que se tomarán en cuenta en el cálculo de la muestra, siendo que la población se considera con características homogéneas, además, de contarse con una población finita, ya que el número

de empresas del Sector Industrial es conocido y la representatividad de la muestra está determinada por un error permisible de 0.068, con un nivel de confianza del 95% y p = q= 0.5. Para la recolección de la información se realizarán entrevistas personales, para aclarar cualquier duda que tuviera el entrevistado, acerca de alguna de las preguntas del cuestionario que se diseñara para esta investigación.

Validación del Instrumento

A los sujetos de estudio se les aplicará un cuestionario el cual se está diseñado y se validará conforme al tema de estudio. Se utilizará una escala de medición con categorías de respuestas de opción múltiple. Se elaborarán los cuadros descriptivos y una matriz de correlación que permitan un análisis de los principales factores que inciden en la felicidad de las empresas del Sector Industrial. La validez del cuestionario se determinará mediante el coeficiente de confiabilidad de *Alfa-Cronbach,* por medio del programa SPSS.

CONCLUSIONES

De acuerdo a lo expuesto anteriormente, podemos concluir que no es una fantasía que la gente pueda ser feliz con su trabajo, al contrario, el trabajo es determinante para que una persona se sienta segura, que sienta que la empresa en la que labora tiene planes de desarrollo para él, no es solo el aspecto económico, también es el conseguir que avancen positivamente en su estado emocional, para que se sienta cómodo de lo que realiza, feliz de aportar y ser productivo en la empresa. Por otro lado, la sociedad nos presiona a tener cada vez más bienes materiales, provocando un estrés derivando enfermedades físicas y nerviosas, aunque existen cada vez más cosas materiales, tecnológicas, etc., pareciera que nos sentimos solos e incomprendidos. Las personas más felices, son por lo regular más creativas, más emprendedoras y están dispuestas a recomendar amigos, colegas, clientes, consumidores etc., ya que se sienten orgullosos de pertenecer a la empresa. Las personas felices son capaces de tomar más responsabilidades sin importar su puesto, la felicidad nos favorece tanto en la persona para el trabajo más sencillo, como a los funcionarios de alto nivel de la empresa. Una empresa feliz, es un lugar en donde las personas gozan el trabajo, donde existe una cultura de respeto y buenas relaciones humanas, y así disfrutan el hacer sus tareas con un propósito. Teniendo presente lo que menciona Sánchez (2015), en cuanto al que ser productivo ayuda a los empleados a ser felices, ya que aprovechan su tiempo en las cosas que realmente son importantes Por lo tanto, productividad y felicidad van muy de la mano, pero en general, pero las empresas no se deben centrar mucho más en la productividad que en la felicidad, cuando el objetivo en la vida es ser felices, no sencillamente ser productivos, por lo cual las organizaciones deben pensar más en la productividad como una herramienta para ser felices. Por lo tanto los resultados esperados es determinar los principales factores que inciden en la felicidad del empleado para que incremente su productividad en las empresas del Sector Industrial de Tijuana, B.C., México

BIBLIOGRAFÍA

Achor, S. (2010) "The happiness advantage: The seven principles of positive psychologythat fuel success and performance at work." New York: Crown Business.

Álvarez, A. (2013) "Felicidad y desarrollo de la Cultura en las organizaciones, un enfoque psicosocial." Revista Comunicación pp. 7-31

Argyle, M., Rgyle, M., Martin, M. y Crossland, J. (1989) "Happiness as a function of personality and a social encounters. In Forgas, J.P. y Innes, J.M. (eds.), *Recent advances in social psychology: an international perspective*, 189-203.

Castro Solano, A. (2009) "El bienestar psicológico: cuatro décadas de progreso." Revista Interuniversitaria de formación del profesorado, 66, 43-72.

Diener, E. (2000) "Subjective well-being: the science of happiness, and a proposal for a national index. " *American Psychologist*, 55, 34–43.

Diener, E., E. y Pavot, W. (1993) "Review of the Satisfaction with life Scale." *Psychological Assessment*, vol. 5, 2, 164-172.

Diener, E.D., Emmons, R.A., Larsen, R.J. y Griffin, S. (1985) "The Satisfaction with Life Scale". *Journal of Personality Assessment,* 49, 71-75.

Fordyce, M. W.(1977) "Development of a program to increase happiness." *Journal of Counseling Psychology*, p.24, pp. 511-521

Hernández Sampieri, R., Fernadez, C., Baptista M.P. (2010) "Metodología de la Investigación." Quinta Edición. Editorial McGraw Hill. p. 305

Hills, P., & Argyle, M. (2002) "The Oxford Happiness Questionnaire: a compact scale for the measurement of psychological well-being." *Personality and Individual Differences*, p.33, 1073–1082

Kashdant, T. B. (2004) "The assessment of subjective well-being (issues raised by the Oxford Happiness Questionnaire)." *Personality and Individual Differences* p.36, pp.1225–1232

Kahneman, D., Krueger, A. B., Schkade, D. A., Schwarz, N., y Stone, A. A. (2004) " A survey method for characterizing daily life experience: The day reconstruction method." *Science*, 3, pp. 1776–1780.

Lyubomirsky, S. y Lepper, H. (1999) "A measure of subjective happiness: Preliminary reliability and construct validation". *Social Indicators Research*, 46, 137-155.

Lyubomirsky (2008) "La ciencia de la felicidad. Un método probado para conseguir el bienestar." Barcelona: Urano.

Muñíz, J. A. (2012) "Organizaciones saludables en Forcano", *A.* ¿Organizar el cambio o cambiar las organizaciones? Zaragoza: Ediciones San Jorge.

Seligman, M.E.P. (2002*) "*The authentic Happiness. Using the new positive psychology." New York: The Free Press.

Stuve, J. (2015) "La felicidad si es negocio." Revista Mundo Ejecutivo de marzo 2015. pp. 43-46

Torres, J. A. (2015) "¿Qué tan felices son los mexicanos?" Revista Mundo Ejecutivo de marzo 2015. pp. 46-49

REFERENCIAS DIGITALES

Baltazar, E. y Bibian, C. (2015). *Las empresas le echan la mano al Estado.* Extraído 01 de Octubre de 2015 del sitio web: http://www.segurosenlosmedios.com/las-empresas-le-echan-la-mano-al-estado/

López, A. I. (2015). *Empleados felices, negocios más productivos.* Extraído 01 de Septiembre de 2015 de la página web: http://mundoejecutivo.com.mx/management/2015/03/12/empleados-felices-negocios-mas-productivos

Pantoja, A. I. (2015). *Felicidad = Productividad*. Extraído 12 de Julio de 2015 de la página web http://comunidad.iebschool.com/alejandrapantoja/2015/05/17/felicidad-productividad/

Proyecto *Happinnes* (2015). *Ser feliz es un buen negocio*. Extraído 01 de Agosto de 2015 de la página web: www.proyectohappiness.mx

Proyecto *Happiness* (2015). *Factores principales que impulsan la felicidad en México*. Extraído 01 de Agosto de 2015 de la página web: www.proyectohappiness.mx

Sánchez (2015). *La productividad, una herramienta para ser felices*. Extraído 01 de Agosto de 2015 de la página web: http://productivemag.es/3/la-productividad-una-herramienta-para-ser-felices

BIOGRAFÍA

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BEBIDAS ARTESANALES HACIA UNA RESPONSABILIDAD SOCIAL: UNA APROXIMACION

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RESUMEN

La producción de mezcal mexicano de años recientes a la fecha ha cobrado importancia y ha pasado de la fase artesanal a la industrial, aunque no en todos los estados, está cobrando un auge importante a nivel nacional como tanto en el internacional, beneficiando a todos los sectores de la cadena agave-mezcal. La mayoría de los estados que cuentan con la Denominación de origen buscan estrategias alternativas de comercialización para incrementar sus ventas y por ende producción. Para algunos autores la RSE se entiende como una herramienta estratégico de la empresa que ayuda a obtener mayores ganancias, incrementar su competitividad o adelantarse a ciertas medidas legislativas. La presente investigación no experimental, de tipo cualitativo, descriptivo, busco en evaluar la responsabilidad social de estas empresas en dos ejes, el primero analizo que tan apagados estaban con la normatividad correspondiente a sus giro. El segundo eje realizo un análisis comparativo de 13 empresas mezcaleras que contaban con herramientas TIC. Se observó que de 359 empresas registradas en el INEGI dentro de los estados que se precian de estar en el corredor del mezcal, aún más de un 50% son micro empresas, adicionalmente, de la totalidad de estudio solo un 4% contaba TIC, y de estas últimas solo un 3% aproximadamente cumplían con la RSE.

PALABRAS CLAVE : Mezcal Mexicano, Responsabilidad Social, Pymes

TRADITIONAL SPIRIT DRINK TOWARDS SOCIAL RESPONSIBILITY: AN APPROACH

ABSTRACT

Mexican mezcal production in recent years to date has gained importance and has gone from artisanal process to the industrial stage, is becoming a major boom both domestically and internationally, benefiting all chain sectors agave-mezcal eventhough this occurs only in few states of the country. Most states with the denomination of origin constatly seeks alternative marketing strategies to increase sales and therefore production. For some authors, CSR is understood as a strategic business tool that increase utilities, improve their competitiveness or achive certain legislative measures. This non-experimental research, mostly qualitative and descriptive, seeked to assess the social responsibility of these companies in two aspects. The first aspect analised the performance corresponding to national regulations were fully acomplish. The second aspect was conducted through a comparative analysis of 13 companies that had mezcal ICT tools. It was noted that of 359 registered in the INEGI in states that boast of being at the mescal Mexican corridor, companies even more than 50% are micro enterprises, in addition, of all study only 4% had ICT, and the latter only about 3% met CSR

JEL: Mezcal, Corporate Social Responsibility, Smes

INTRODUCCIÓN

Al día de hoy la venta de mezcal toma vuelo, "El mezcal es la única gran bebida espirituosa en el mundo que todavía no tiene una estructura comercial", comenta Ainsley Cole, fundadora de Craft Distillers en Estados Unidos (Jong & Lopez, 2011). El mezcal ya ocupa un lugar importante en el gusto de los

consumidores, no sólo en México sino a nivel internacional. Tan sólo en los últimos 9 años, la producción de esta bebida típica mexicana se incrementó en más de 360 por ciento, al pasar de 433 mil a 2 millones de litros al año, mientras que en ese mismo periodo las exportaciones crecieron en 245 por ciento, En 1995 el mezcal obtuvo la Denominación de Origen. Bajo el estricto cumplimiento de la Norma Oficial Mexicana quedando registrados como productores exclusivos de mezcal los estados de Oaxaca, Guerrero, Guanajuato, San Luis Potosí, Zacatecas, Durango y Tamaulipas. (Financiera Rural, 2013) Y en 2013 se unió a ellos algunos municipios del estado de Michoacán. Como estrategia comercial impulsora del sector. A pesar de la importancia que ha tomado la RSE en los últimos años, pocos son los trabajos realizados en este tema en el sector de las bebidas artesanales como lo es el caso del Mezcal. Particularmente en México la investigación en este tema, en este sector en específico, es aún incipiente.

En este sentido, este trabajo tiene como objetivo analizar a las empresas registradas con el giro comercial 312142 (Elaboración de bebidas destiladas de agave), pertenecientes al corredor del mezcal con Denominación de Origen (DO) otorgada por decreto, ante él Instituto Nacional de Estadística y Geografía (INEGI), en su Directorio Estadístico Nacional de Unidades Económicas (DENUE) con la finalidad de conocer el grado que guardan estas vs la responsabilidad social empresarial y normativa que los regula, ya se bien como actividad consiente y en apoyo a la sociedad o como actividad estratégica a la par de la DO para incrementar sus ventas. Es importante mencionar que esta investigación se trata de la primera aproximación en este campo para establecer este tipo de relación. El presente trabajo se encuentra estructurado de la siguiente manera, en la primera sección se hace un resumen de la revisión literaria realizada durante la investigación respecto los conceptos de la RSE y otras variables. En la segunda se aborda la metodología llevada a cabo para el logro del objetivo utilizando técnicas cualitativas para el análisis. En la tercera sección se discuten y analizan los resultados de las misma y en última pate se presentan las conclusiones.

ASPECTOS METODOLÓGICOS LA RSE

Menciona Côté, Booth y Luis, (2005) así como Seifferty y Loch, (2005) en (Vázquez, 2006), que el "Informe Brundtland" fue un reporte socio-económico realizado por un conjunto de naciones, principalmente las que integran el grupo de los siete. Dicho documento fue elaborado en 1987 para la ONU por una comisión encabezada por la doctora Gro Harlem Brundtland. Originalmente titulado "Nuestro Futuro Común" (Our Common Future). La conclusión del informe señala que debe de existir una relación de cooperación por parte de los actores sociales, (individuos, familias, empresas y gobiernos) para poder generar un desarrollo económico que minimice los efectos al medio ambiente. De acuerdo a la definición proporcionada por la Secretaría de Economía en su norma "NMX-SAST-26000" menciona que el desarrollo sostenible tiene tres dimensiones – económica, social y ambiental–,y que son interdependientes y se refuerzan mutuamente. A su vez puede considerarse como una vía para expresar las más amplias expectativas de la sociedad en su conjunto y consiste en satisfacerlas respetando los límites ecológicos del planeta y sin comprometer la capacidad de las futuras generaciones de satisfacer sus necesidades (S E, 2015). Por otra parte, en el contexto latinoamericano, las principales instituciones promotoras (AliaRSECOPARMEX, CCE, CONCAMIN, USEM, CEMEFI, entre otras), la definen como el compromiso consciente y congruente que asume el empresario y la empresa de cumplir integralmente con los fines de la empresa tanto en lo interno como en lo externo, considerando las expectativas de todos los participantes (partes interesadas) en lo económico, social o humano y ambiental, demostrando respeto por los valores éticos, las personas, las comunidades y la construcción del bien común con justicia social (Cemefi, 2006) en (Villafan, Castro, & Alcaraz, 2011)

Desde la Teoría de los Stakeholders (Agüero, Carbonell y Martínez, 2006) en (Barradas, 2013), la acción social y el resto de las actividades de Responsabilidad Corporativa pueden considerarse como el conjunto de prácticas que la empresa lleva a cabo para mejorar las relaciones con sus grupos de interés. Esta teoría

incorpora dentro del proceso de toma de decisiones a ciertos grupos que anteriormente habían sido excluidos por considerarse ajenos a la actividad empresarial y parte de la creencia en el reparto de poder en las las organizaciones, y en el reconocimiento del papel desempeñado por cada uno de los grupos que lo conforman, no solo el grupo interno (propietarios, directivos y empleados) si no del externo ques son los clientes, los proveedores, los competidores, la comunidad local, nacional y ahora, más que antes, la internacional con sus distintos colectivos y grupos de interés (gobierno, sindicatos, movimientos sociales, medios de comunicación, entre otros).

RSE en el Contexto Mexicano

Se aprecian algunos antecedentes que permiten evidenciar diferentes estudios nacionales e internacionales sobre la incorporación de RSE en las empresas del sector de Alimentos y Bebidas (Garcés 2014; Adecco, 2014; Gómez et al., 2014; Barradas, 2013; Ramírez, 2013; Riaño, 2013; Hrebicek et al., 2012; López et al., 2012; López et al., 2011; Hartmann, 2011; García et al., 2010) en (Ocampo, 2015) Se destaca el análisis realizado por Riaño (2013) quien puntualiza sobre el papel que juega la RSE como creadora de innovación en valor y la importancia de la gerencia desde una visión humana, holística y comprometida con la construcción de su entorno. A pesar de estos estudios y otras investigaciones aplicadas a diversos temas sociales, en el tema agroindustrial de RSE, en la literatura científica mexicana es escasa. En especial enfocado a la cadena productiva del mezcal. De los estudios detectados en su mayoría se enfocan en los desperdicios del proceso o en el mejoramiento o tecnificación del mismo. Tal es el caso de (Chávez & M, 2009), los cuales proponen que los reciduos del bagazo cuenta con la producción de mezcal potencial como combustible sólido, a través de una medición calorimétrica diferencial de barrido del bagazo y el bagazo pirolizado.

Por ejemplo encontramos la investigación de (Villafan & Ayala, 2012) donde evalúan al sector aguacatero a través de encuestas considerando el modelo del CEMEFI, al aplicar las variables, calidad de vida, Etica empresarial, Vinculacion con la comunidad y Medio ambiente. Concluyen que la calidad de vida es alto, la ética empresarial está en un nivel regular, la vinculación con la comunidad está en un nivel bajo y el medio ambiente en un nivel muy bajo. Y que aún existe mucho trabajo por realizar Otro trabajo que si aborda la perspectiva operativa de un estudio de caso de una empresa mezcalera, fue el realizado por (Vázquez, 2006) dentro del cual usa un enfoque cualitativo descriptivo, al utilizar una medición de indicadores de generación de residuos sólidos y líquidos; medición de consumo de agua, energía y materia prima. Concluyendo que presentaba niveles bajos eficiencia ambiental y que para obtener un porcentaje aceptable será necesario que el dueño de la empresa y los encargados de la misma se sujeten a las recomendaciones que se exponen en cada una de las fases de producción de la fábrica. Con esto se refuerza la teoría de los stakeholders.

PROPUESTA METODOLÓGICA

Esta investigación es de tipo no experimental, cualitativa mayormente descriptiva y busca formar parte de literatura de RSE carente hasta el momento en el sector agroindustrial del mezcal. Dentro de este primer acercamiento esta investigación realizó un análisis de contenido de las páginas de internet de ??? Empresas mezcaleras, tanto productoras como comercializadoras. Ya Ya que varios autores (Nejati, et al., 2011 y Capriottti, 2007) han realizado investigaciones utilizando esta metodología, debido a la importancia que representa hoy en día el internet como herramienta para la comunicación organizacional (Stuart & Jones, 2004 ; Sullivan, 1999) y en particular para la comunicación de acciones de responsabilidad social y sustentabilidad (Nejati, et al., 2011) en (Villafán & K, 2015) El presente trabajo se dividió en dos ejes, en el primero se realizó una revisión documental sobre la RSE y las empresas mezcaleras que cuentan con denominación de origen en el país, el segundo consistió en aplicar una revisión sobre la RSE a las empresas que contaban con páginas de internet para analizar el apego o cumplimiento con la RSE y por último se realizaron entrevistas con el sector mezcalero y gubernamental. Se tomó la base de 359 organizaciones

registradas en el último censo del INEGI dentro del Directorio Estadístico Nacional de Unidades Económicas (DENUE) actualizado al año 2015. Revisando los establecimientos registrados en los estados que componen el corredor del mezcal según la Modificación a la Declaración General de Protección de la Denominación de Origen Mezcal. (DOF 22/11/13) siendo Guerrero, Oaxaca, Durango, San Luis Potosí, Zacatecas, Guanajuato, Tamaulipas y Michoacán. Siendo este el último estado en incorporarse a la denominación de origen.

Tabla 1: Escala Likert Para el Análisis de Páginas de Internet de Empresas Mezcaleras Ubicadas en el Corredor del Mezcal Que Cuentan con Denominación de Origen

Valor	Definición
5 Muy buena	Compete a aquellas páginas fáciles de navegar, cuenta con misión, visión y antecedentes. Muestra información sobre su comercialización, procesos y su apego a las NOMs del ramo. Solicita ser mayor de edad para revisar su contenido. Adicionalmente muestra en cualquiera de sus apartados información sobre RSE o sustentabilidad o ligas a ello.
4 Buena	Satisface las características anteriores pero en menor medida, tal vez una o dos de las características no la encontremos en la página. Y contiene temas de sustentabilidad o RSE pero se deben analizarse con detalle.
3 Regular	Cumple en término medio las características que debe cumplir la página. Muestra menos de la mitad de los requisitos del primer apartado. Adicionalmente pone énfasis neutro en la sustentabilidad o RSE, es más difícil encontrarla.
2 Mala	Es complicado navegar en la página. No muestra ni los elementos esenciales de empresa (misión, visión, objetivos etc.) . No existe información sobre normatividades, sustentabilidad o RSE.
1 Muy Mala	La página no se encontró o no cuenta con información relevante. Existen links rotos o no cuenta con ningún tipo de información de empresa y/o normatividad. Carente de información sobre sustentabilidad o RSE.

Fuente: Elaboración propia

Análisis y Discusión Resultados

Es difícil hacer una evaluación sobre la RSE agrícola y en especial relativa a la cadena del agave-mezcal, al no contar con referencia teórica, resulta complicado hacer una discusión de resultados basándose exclusivamente en hallazgos previos de otras investigaciones. Sin embargo, en esta sección se hace una discusión en particular y versa sobre los resultados y la estrategia de la denominación de origen como herramienta de gestión. Debido a que en la actualidad no existe un único modelo para media la RSE. Esta investigación pretende hacer un acercamiento respecto al desempeño de la cadena agave-mezcal de México con sus estrategias de comercialización

RESULTADOS

Los resultados que a continuación se muestran en el cuadro comparativo corresponden a la evaluación que se realizó del sector agavero productivo y comercial registrados ante el INEGI con la actividad 312142 (Elaboración de bebidas destiladas de agave), con el objetivo de evaluar la participación que tienen con la dinámica de su responsabilidad social y sustentabilidad dada su denominación de origen.

Tabla 2: Resultados del Análisis Cualitativo

	Razon Social	Pagina Web	Ubicación Empresa	Cumplimiento Con Aspectos de Empresa y RSE o Sustentabilidad	Accesibilidad y Navegación	Muestra Cumplimiento Con la Normatividad de los Procesos
1	BROWN FORMAN TEQUILA MÉXICO S. DE R.L. DE C.V.	WWW.CASAH ERRADURA.C OM.MX	GUANAJUATO	3	1	No
2	TEQUILERA CORRALEJO S.A. DE C.V.	WWW.TEQUIL ACORRALEJO .COM	GUANAJUATO	3	1	No
3	AGAVEROS DE MICHOACÁN S. P. R. DE R.L.	AGAMICH.CO M.MX	MICHOACÁN DE OCAMPO	0	Link roto	No
4	DESTILERÍA LOS DANZANTES S.A. DE C.V.	WWW.LOS DANZANTES. COM	OAXACA	2	2	No
5	ESCORPIÓN MEZCAL S.A. DE C.V.	WWW.ESCOR PION MEZCAL.COM	OAXACA	3	2	No
6	GLOBAL MAGUEY AZUL S.A. DE C.V.	WWW.MEZCA LCORALSNA KE.COM.MX	OAXACA	0	Link roto	No
7	MEZCAL DON AGAVE TRADICIÓN OAXAQUEÑA	WWW.DONAG AVE.COM.MX	OAXACA	4	4	No
8	MEZCAL EMBAJADOR S.P.R. DE R.I.	WWW.MEZCA LEMBAJADO R.COM	OAXACA	4	4	Si
9	MEZCAL BENEVÁ S.A. DE C.V.	WWW.MEZCA LBENEVA.CO M	OAXACA	4	4	No
10	MEZCAL DE LOS ÁNGELES S.C. DE R.L.	WWW.REALM INERO.COM. MX	OAXACA	2	2	No
11	GRUPO YUU BAAL S.A. DE C.V.	WWW.MEZCA LYUUBAAL.C OM	OAXACA	2	2	No
12	VINÍCOLA DEL ALTIPLANO S.A. DE C.V.	WWW.VINAL SA.COM	SAN LUIS POTOSÍ	3	3	No
13	MEZCALES DE CALIDAD DON AURELIO LAMAS S.A. DE C.V.	MEZCALESD ONAURELIO. COM	ZACATECAS	2	2	No

Fuente: Elaboración propia

Resultados del primer eje, se observó que existe poca o nula información científica que aborde esta relación del sector del agave-mezca junto con esta estrategia de la RSE. Dentro de la revisión hecha en literatura y bases de datos, dentro de este eje, se observó que de 359 organizaciones registradas ante el INEGI al 2015, y que cuentan con la Denominación de origen que les permite comercializar nacional e internacionalmente con la leyenda de mezcal, más de 60% son micro empresas ya que tienen registrados con un número de trabajadores de 0 a 5 evidenciando la estructura familiar de estas organizaciones. Adicionalmente solo un 4% contaban con tecnologías

de la información y comunicación (TIC) con mayor precisión nos referimos al uso de página de internet para promoción y comercialización. Resultados segundo eje, se observó que pocas organizaciones cuentan con elementos de empresa en sus páginas de internet, esto es que muestran la visión, misión y elementos normativos. Como parte de la RSE, se observa que algunas páginas cuenta con un blindaje respecto al acceso de menores de edad, sin embargo dentro de su contenido, muy pocas cumplen con la mención siquiera del uso de prácticas (productivas y comerciales) sustentables y socialmente responsables. Solo un productor de los 359 cumplió con todos los aspectos evaluados. Se observa que la información proporcionada a la autoridad en ocasiones es incorrecta o incompleta forzando a que los stakeholders les cueste trabajo encontrarlos con las tecnologías de información actuales. Adicionalmente se realizaron entrevistas con miembros del sector mezcalero identificando los siguientes conflictos:

Los productores de mezcal de pequeñas comunidades no cuentan en ocasiones con fabrica propia si no que le piden prestada a alguien más debido a la cuestión económica. Los productores que han querido comercializar nacionalmente se han topado con grandes listas de requisitos ante la Secretaría de Hacienda y Crédito público y con tramitología esto es gran cantidad de trámites para generar un marbete. Al contar con la estandarización de proceso de acuerdo a la DO los productores tienen que realizar gastos alto para cumplir con la normatividad. No se cuenta con apoyo y seguimiento a los programas por parte de la autoridad

CONCLUSIONES

Los impactos de ésta política estratégica y competencia de estado DO y RSE, han derivado en distorsiones del sector industrial mezcalero, pues en medianos plazos se han concentrado la producción en ciertos territorios, específicamente oaxaqueños y determinados por un pequeño grupo de productores. Que muy claro que existe aún mucho trabajo por recorrer de este sector, tanto en lo productivo como comercial sin dejar de lado la política y normatividad de la RSE. Este trabajo genera nuevas líneas de investigación para continuar revisando costos y procesos (según DO) junto con el desempeño de este sector productivo.

BIBLIOGRAFÍA

Financiera Rural. (26 de 03 de 2013). Obtenido de http://consulmex.sre.gob.mx/montreal/images/Consulado/MasReciente/nota%20informativa%20mezcal.pdf

Bailón C, M. J. (1980). Artesanías y capital comercial en los Valles Centrales de Oaxaca. En Compilador de Sociedad y Política de Oaxaca 15 estudios de casos (págs. 83-109). Oaxaca: Universidad Benito Juarez.

Barradas, G. (2013). Del Liderazgo Visionario hacia la Responsabilidad Social Corporativa de Empresas Licoreras. Visión Gerencial, 258-280.

Chávez, G. L., & M, H. (2009). Base from de Mezcal Industry as an alternative renewable energy produced in arid lands. Fuel, 4049-4052.

De la Paz Hernández G, J., & Domínguez H., M. L. (2003). Estrategias de mercadotecnia y los negocios de mezcal. Convergencia, 187-203.

Hernandez L, E. (1993). Evolución de la PTF en la Economía Mexicana. Mexico: Secretaria del trabajo y previsión social.

Iglesias, S. (2014). Crecimiento de la Industria Mezcalera. El Financiero.

Jong, F., & Lopez, A. (20 de Septiembre de 2011). CNN Expansion. Obtenido de http://www.cnnexpansion.com/expansion/2011/09/14/el-laberinto-del-mezcal

Martínez G., A. (2008). Tequila, Mezcal y Cerveza: de México para el Mundo. Agricultuara, Sociedad y Desarrollo, 143-150.

Mercado Ramirez, E. (1997). Productividad Base de la Competitividad. México: Limusa.

Ocampo, L. L. (2015). Responsabilidad Social en Empresas del sector de Alimentos y Bebidas.

Olmedo, C. B. (2007). El Tequila: de su origen a su desnaturalización. ¿A quién le pertenece su conocimiento? Una aproximación. Mexico: Instituto de Investigaciones Económicas, Universidad Nacional Autónoma de México. Obtenido de Ebscho.

Pedraza R., O. H. (2006). La productividad de la Industria Láctea en el Estado de Michoacán. Morelia.

Rosiles, L. F. (21 de Noviembre de 2012). Agencia Quadratin. Obtenido de http://www.quadratin.com.mx/politica/Adquiere-mezcal-michoacano-denominacion-de-origen/
S E, S. d. (1 de 11 de 2015). NMX-SAST-26000-IMNC-2011/ISO 26000:2010 Guía de Responsabilidad Social. México: http://www.economia.gob.mx/comunidad-negocios/competitividad-normatividad/normalizacion/normalizacion-internacional/iso-26000/guia-de-responsabilidad-social.

Sumanth, D. (2005). Administración para la productividad total: Un enfoque sistemico y cuantitativo para competir en calidad precio y tiempo. Mexico: CECSA.

Toffler, A., & Toffler, H. (1997). La Creación de una Nueva Civilización. México: Plaza y James.

Vázquez, B. A. (26 de Junio de 2006). El Desarrollo Sustentable y la Evaluación Ambiental en una Fábrica de Mezcal del Estado de Oaxaca. Memorias del Congreso Iberoamericano de Ciencia Tecnología y Sociedad e Innovación CTS+I. Distrito Federal, México.

Villafan, K., & Ayala, D. (2012). La RSE, La calidad de vida, Etica empresarial, Vinculacion con la comunidad y Medio ambiente. Revista Contaduría y Administración.

villafan, k., castro, y., & alcaraz, j. (2011). eficiencia y responsabilidad socialempresarial en el sector minero en méxico:caso de cinco compañias MINERAS. Global Conference on Business and Finance Proceedings, 1229-1238.

Villafán, V. K., & K, C. M. (2015). Multi-enfoques de la Responsabilidad Social: Análisis comparativo de 18.
http://www.rsu.umich.mx/documentos/Multienfoques%20de%20la%20Responsabilidad%20Social%20A nalisis%20comparativo%20de%2018%20universidades.pdf.

BIOGRAPHY

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CALIDAD DEL SERVICIO Y LEALTAD EN RESTAURANTES DE COMIDA CHINA

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RESUMEN

La presente investigación tiene como objetivo analizar la calidad del servicio y la lealtad en clientes de restaurantes de comida china en Mexicali, Baja California, México. Es un estudio descriptivo, con enfoque teórico. Se revisarán las teorías de la calidad del servicio, se compararán los diferentes hallazgos sobre la variable de percepción de la calidad del servicio en restaurantes de comida china, y la relación que existe con la variable de lealtad. La importancia de estudiar este tema es que la industria restaurantera en México según datos del INEGI en el 2012 representaba el 1.4% del PIB, y el 13% del PIB turístico. En los restaurantes se ofrecen servicios, entonces es necesario que se brinden con la mejor calidad por parte del personal que labora en estas organizaciones, para finalmente satisfacer las necesidades de los consumidores generando lealtad, que se conviertan en clientes frecuentes, con el fin de que los restaurantes adquieran un posicionamiento en su ámbito, además de contribuir a la economía de la región al generar empleos.

JEL: M31

PALABRAS CLAVE: Calidad del Servicio, Lealtad, Restaurantes, Servicios

SERVICE QUALITY AND LOYALTY IN CHINESE FOOD RESTAURANTS

ABSTRACT

This research aims to analyze the quality of service and customer loyalty in Chinese restaurants in Mexicali, Baja California, Mexico. It is a descriptive study with theoretical approach. Theories of service quality will be reviewed, the different findings on the variable perception of the quality of service in Chinese restaurants, and the relationship with the loyalty variable will be compared. The importance of studying this issue is that the restaurant industry in Mexico according to the INEGI in 2012 represented 1.4% of GDP, and 13% of tourism GDP. Services are offered in restaurants, then it is necessary to provide the best quality of the personnel working in these organizations to finally meet the needs of consumers generating loyalty, they become frequent customers, so that restaurants acquire a position in its field, and contribute to the economy of the region by creating jobs.

KEYWORDS: Quality of Service, Loyalty, Restaurants, Services

INTRODUCCIÓN

En el presente estudio se aborda el problema de la relación que existe entre la percepción de la calidad del servicio y la lealtad de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2. La investigación destaca importancia para los empresarios restauranteros, clientes, asociaciones, gobierno, y sociedad. En ella se incluyen la revisión literaria que sustenta la investigación definiendo las variables de calidad del servicio y lealtad, las dimensiones de cada variable con sus respectivos indicadores. Los autores teóricos en los que se fundamenta la investigación

son en la variable de calidad del servicio Zeithaml, y Berry (1988) y en la variable de lealtad Zeithaml, Berry, y Parasuraman (1996). Después se desarrolla el objetivo general, específicos, la pregunta de investigación, las preguntas específicas, la hipótesis general, las hipótesis específicas, los métodos de investigación, los resultados esperados y las referencias bibliográficas.

Marco Teórico

Antecedentes de la Calidad

Muchas de las metodologías para mejorar la calidad se originaron en el contexto de procesos del sector de la manufactura, sobre todo por la gran presión para incrementar la calidad y productividad que se viene dando en dicho sector desde las últimas décadas del siglo XX. Algunas metodologías fueron adaptándose para aplicarse a los procesos de servicios, sin embargo, es necesario profundizar en la naturaleza especial de estos procesos y sus problemáticas, para así identificar herramientas más apropiadas. (Gutiérrez Humberto, Gutiérrez Porfirio, Díaz Lizbeth, Garibay Cecilia, 2014) Evans (2008) indica una definición de calidad, "en 1987, el American National Standars Institute (ANSI), y la American Society for Quality (ASQ) estandarizaron las definiciones oficiales de la terminología relacionada con la calidad. Estos grupos definieron la calidad como la totalidad de los rasgos y características de un producto o servicio en que se sustenta su capacidad para satisfacer determinadas necesidades."Stoner (1996) indica los 14 puntos de Deming para la administración de la calidad total:

1.-Lograr la constancia de propósito para mejorar los productos y servicios, 2.- Adoptar la nueva filosofía, 3.-No seguir dependiendo de las inspecciones masivas, 4.-Acabar con las costumbre de conceder negocios solo con base en el precio marcado, 5.-Mejorar en forma constante y permanente el sistema de producción y los servicios, 6.-Instituir métodos modernos de capacitación en el trabajo, 7.-Instituir un liderazgo, 8.-Acabar con el miedo, 9.-Reducir las barreras entre las áreas Staff, 10.-liminar lemas, exhortaciones y objetivos de la fuerza de trabajo, 11.-Eliminar las cuotas numéricas, 12.- Retirar obstáculos para el orgullo en el trabajo, 13.-Instituir un programa vigoroso de educación y capacitación, y 14.-Tomar medidas para lograr la transformación.

Según Fernández (2010), indica "el premio Baldrige presenta 7 criterios, subdivididos en 28 factores: Liderazgo, información y análisis, planificación estratégica de la calidad, desarrollo y gestión de los recursos humanos, gestión de la calidad de los procesos, resultados de calidad operativos, y objetivo y satisfacción del cliente." En 1991 nació el modelo EFQM de excelencia, y se basa en la siguiente premisa: los resultados excelentes en el rendimiento general de una organización, en sus clientes, personas y en la sociedad en la que actúa se logran mediante un liderazgo que dirija e impulse la política y estrategia, que se hará realidad a través de las personas de la organización, las alianzas y recursos y los procesos. Se divide en agentes facilitadores y resultados. Ferrando (2005) La norma ISO 9001:2000 especifica los requisitos para que un sistema de gestión de la calidad pueda utilizarse para su aplicación interna en las organizaciones, ya sea para efectos de certificación o con fines contractuales. Es de destacar, que se centra en la eficacia del sistema de gestión de calidad para dar cumplimiento a los requisitos del cliente. Franklin (2007)

Calidad del Servicio

Peinador (2008), cita la definición de Grönroos, (1994), "servicio es una actividad o serie de actividades, con más o menos naturaleza intangible, que generalmente, aunque no siempre necesariamente, es generada mediante la interacción producida entre un cliente y los empleados que proporcionan el servicio y/o los recursos o bienes intangibles y/o sistemas del proveedor del servicio que son puestos a disposición como soluciones a los problemas de los clientes". "La intangibilidad es la primera característica que nos permite diferenciar a los servicios de los productos, refiriéndose ésta a la imposibilidad de apreciar los servicios por

los sentidos antes de su adquisición, implicando que los resultados no puedan ser medidos, comprobados y verificados para asegurar la calidad antes de la venta. De ahí que los criterios que utilicen los consumidores para evaluar la calidad del servicio puedan ser muy complejos y difíciles de definir con exactitud. Un servicio tiene otras características distintivas como la inseparabilidad, la caducidad y la variabilidad." (Setó, 2004, p. 4) Según Carrete (2011), "después de un resentimiento en el sector servicios debido a la crisis en México de 2008 estas actividades se acrecentaron nuevamente, logrando crecer 7.4% durante el segundo trimestre de 2010. Los sectores que contribuyeron a ese crecimiento fueron: comercio: 18.9%, transportes, correos y almacenamiento: 10.9%, servicios educativos: 14%, alojamiento temporal y preparación de alimentos y bebidas: 11.5%, servicios financieros y seguros: 5.7% e información en medios masivos: 5.4%." Kotler (2003) afirma que las empresas de servicios de éxito concentran su atención tanto en sus clientes como en sus empleados; ellas entienden la cadena de utilidades del servicio que vincula las utilidades de una empresa de servicios con la satisfacción de los empleados y los clientes. Esta cadena se conforma de cinco eslabones como la calidad interna del servicio (selección y capacitación de los empleados), empleados de servicio productivos y satisfechos, mayor valor del servicio, clientes satisfechos y leales y utilidades y crecimiento saludables.

Uno de los mayores problemas que existen en el área del servicio es la negativa de los directivos al ver el servicio como una estrategia de marketing. Demasiados lo ven únicamente como parte del servicio postventa; es decir, algo que se relaciona con una venta ya realizada, no con las ventas que se realizarán en el futuro. Los estudios han demostrado que en muchas empresas el servicio es más eficaz para incrementar el volumen de negocios que el marketing, la promoción de ventas o la publicidad. Se ha sospechado que en una empresa que posea una estrategia de servicios global, altamente profesional, el servicio añade más a los beneficios netos finales que las actividades que se realizan en las áreas de investigación y desarrollo, innovación del producto, incrementos del capital, ampliación del portafolio financiero, servicios de crédito o cualquier otra estrategia de gestión. (Tschohl John, Ranzmeier Steve, 1994) La calidad del servicio hoy en día es trascendental para todas las organizaciones en cuestión de permanencia, porque en base al cumplimiento de las normas ó estándares que cumpla la empresa hacia los clientes, adquirirá más aceptación en el mercado. Reyes (2011)

La Industria Restaurantera

En México, la Industria restaurantera empleó a 1 310 381 personas, aportando el 6.5% del total de la ocupación, de acuerdo con los Censos Económicos 2009. En promedio cada establecimiento o unidad económica tiene 3.8 personas ocupadas, siendo este sector uno de los más importantes por el empleo que genera. Sólo se ubican por arriba de esta actividad el comercio, la industria manufacturera y los servicios de apoyo a los negocios. Asimismo, 9 de cada 100 unidades económicas corresponden a la Industria restaurantera. INEGI (2014) El Producto Interno Bruto (PIB) de los Servicios de preparación de alimentos y bebidas, donde se encuentra la Industria restaurantera en México registró variaciones anuales positivas en el cuarto trimestre de 2013 y el primer trimestre de 2014, sin embargo este comportamiento es insuficiente para alcanzar los niveles de consumo que se tenían en momentos previos a las crisis de 2009. INEGI (2014) De la producción de la industria en estudio, el 10% se destina a cubrir la Demanda intermedia que tienen las actividades económicas del país, como son los gastos que realizan las empresas y el gobierno en alimentos, y el 90% de la industria restaurantera cubre la Demanda final que realizan las familias u hogares, según la MIP. INEGI (2014) Fernández (2014) indica que la oferta de servicio de comidas y bebidas (concepto de restaurante) está presente en diferentes grupos de establecimientos. Hay dos grandes grupos de negocio en restauración: La restauración comercial: cafeterías, bares, restaurantes, la oferta de los hoteles (con sus propias cafeterías, restaurantes y servicios especiales en sus salones), los pubs de copas y salas de fiestas, la neurorestauración que incluye modalidades de servicio rápido como:

a) Fast food: comida rápida, b) Delivery food: comida rápida servida a domicilio, c) Take-away: comida lista para consumir y llevársela al cliente, d) Drug-store: tienda que vende comida elaborada y otros

productos, e) Restaurantes étnicos: kebab, chinos, mexicanos, f) Restaurantes temáticos: creperías, sandwicherías, bocaterías.

La restauración cautiva: se trata de un servicio para un número de personas pactado previamente con el cliente en la restauración cautiva comercial, y sin posibilidad de elección en la social.

Calidad del Servicio en Restaurantes

Un servicio correcto está conformado por los siguientes factores: saludo, ayuda en la elección de mesas y lugares para sentarse, acomodación, repartición de cartas de menú (según el protocolo), toma del pedido de bebidas y repartición de las mismas, asesoría en la elección de platos (si es deseada), toma del pedido de las comidas, repartición de los platos (según el protocolo), anticipación y atención todo el tiempo. Posteriormente se recogen los platos y se ofrece la carta de postres y digestivos y se sirven. Finalmente se trae la cuenta después de haber sido pedida. Cuando es posible se acompaña a los comensales hasta la salida, se les agradece su estadía en el restaurante y se desea un pronto regreso. Hochsmann (2014) El restaurante de servicio a mesa se caracteriza por ser uno donde el cliente se sienta en una de las mesas y espera ser atendido por personal del restaurante y que generalmente inicia por la presentación de un mesero. Se distingue de otros tipos como los restaurantes de comida rápida, en los cuales el cliente se aproxima a un mostrador a realizar su pedido y los alimentos normalmente son proporcionados en ese mismo mostrador, y restaurantes de solo bufet, que consisten en que los alimentos no son ordenados y llevados desde la mesa, sino que se presenta una barra de alimentos a la cual el cliente se aproxima. (Carrete, López, Trujillo y Vera, 2011) Ron Petty, en 1993 ocupó la dirección de operaciones de las cadenas de restaurantes Denny`s, y se concentró en mejorar la calidad del servicio en cada restaurant, porque cree que la fuerza de la marca es una función del valor que los clientes reciben en el restaurante y que la calidad del servicio determina el valor. Denny`s se somete a prueba con una tecnología para mejorar la rapidez del servicio y el grado de cocción en el proceso de preparación de las comidas. (Berry, 2002)

En un estudio realizado por Ramírez (2012) manifiesta lo siguiente sobre el sector restaurantero en Ensenada, Baja California…en el sector servicios es indispensable contar con habilidades, debido al trato directo de persona a persona, ya sea cliente, proveedor, empleado, compañero o jefe inmediato superior, para generar una ventaja y permanencia en el gusto de los demás, y con mayor razón, si este sector son los restaurantes turísticos de esta ciudad, ya que su actuación afecta directamente en los ingresos de estas organizaciones y a su vez de la ciudad. En otro estudio realizado en Ecuador se obtiene el resultado de que la percepción de los clientes con respecto a la experiencia al comer en un restaurante de comida china y de acuerdo a la importancia que dan a los determinantes en el servicio de comida tiene en cuenta que el sabor es lo más importante para ellos. Se concluyó que la mitad de los consumidores de comida china frecuentan por lo menos una vez y hasta dos veces en semana a los restaurantes. González (2013)

Lealtad de los Clientes

La fidelización del cliente es el proceso que se lleva a cabo en una empresa con la intención de conseguir que un cliente ocasional se convierta en asiduo. González (2014.) Existen infinidad de empresas de servicios como lo son hospitales, hoteles, restaurantes, escuelas, bancos etc. Las empresas de servicios deben proporcionar calidad a los clientes, para que estos no sean consumidores esporádicos sino asiduos, quienes con lealtad seguirán solicitando los servicios constantemente, y recomendarán a sus conocidos. Reyes (2011) Kotler, Philip y Keller Kevin Lane (2006) afirman que consumidores presentan diferentes niveles de lealtad a determinadas marcas, establecimientos y empresas. Oliver define la lealtad como "un profundo compromiso de volver a comprar o adquirir un producto o servicio en el futuro a pesar de las influencias coyunturales o de los esfuerzos de marketing que podrían inducir un cambio de comportamiento" Con respecto a la lealtad de los clientes de restaurantes, Carrete (2011) menciona que en investigaciones anteriores sobre calidad del servicio en restaurantes se han encontrado relaciones directas entre los aspectos

tangibles (instalaciones, accesibilidad, presentación del personal, ambiente, iluminación), con la opinión general que el comensal tiene después de haber comido en el mismo. Existe el círculo de la lealtad, y Lovelock (2009) indica que es un esquema para organizar la forma en que se pude crear lealtad en los clientes. Este círculo incluye tres estrategias secuenciales: En primer lugar, la empresa necesita una base sólida para crear lealtad en el cliente, la cual incluye contar con el portafolio correcto de segmentos de clientes, atraer a los clientes correctos, jerarquizar el servicio, y entregar altos niveles de satisfacción. En segundo lugar, para crear una verdadera lealtad, una empresa necesita desarrollar vínculos cercanos con sus clientes, los cuales estrechan la relación a través de ventas complementarias y ventas de paquetes, o añaden valor al cliente a través de recompensas por la lealtad y vínculos de nivel alto. En tercer lugar, la empresa necesita identificar y eliminar factores que provocan deserciones, es decir, la pérdida de clientes existentes y la necesidad de reemplazarlos por otros nuevos.

El Modelo Servqual

López (2012) afirma que " …la escala o tipo de escala que ha conseguido una mayor difusión en el ámbito turístico tiene su origen en la escala SERVQUAL, que mide la calidad del servicio y que ha sido desarrollada por Parasuraman, Zeithaml y Berry (1988). La versión final de la escala SERVQUAL se compone de cinco dimensiones y 22 ítems en total. Las cinco dimensiones son las siguientes:

Tangibilidad: la apariencia de los recursos materiales, instalaciones, equipamiento y personal. b) Fiabilidad: la capacidad para prestar el servicio prometido con claridad y precisión. c) Capacidad de respuesta: voluntad para ayudar a los clientes y prestar el servicio con rapidez. d) Seguridad: el conocimiento y la cortesía de los empleados y su capacidad para infundir confianza. e) Empatía: la capacidad de prestar a los clientes una atención individualizada y cuidadosa. Según Miranda González Francisco J., Chamorro Mera Antonio y Rubio Lacoba Sergio. (2007), los indicadores del SERVQUAL son los siguientes: En la dimensión de tangibilidad, los ítems son:

La organización de servicios objeto del estudio tiene equipos de apariencia moderna. Las instalaciones físicas de la organización de servicios objeto del estudio son visualmente atractivas. Los empleados de la organización de servicios objeto del estudio tienen apariencia pulcra. En la organización de servicios objeto del estudio, los elementos materiales relacionados con el servicio son visualmente atractivos.
En la dimensión de fiabilidad los ítems son:

Cuando la organización de servicios objeto del estudio promete hacer algo en cierto tiempo, lo hace. Cuando un cliente tiene un problema, la organización de servicios objeto del estudio muestra un sincero interés en solucionarlo. La organización de servicios objeto del estudio realiza bien en servicio en la primera vez. La organización de servicios objeto del estudio concluye el servicio en el tiempo prometido. La organización de servicios objeto del estudio no comete errores. En la dimensión capacidad de respuesta los ítems son:

La organización de servicios objeto del estudio comunica a los clientes cuando concluirá la realización del servicio. En la organización de servicios objeto del estudio, los empleados ofrecen un servicio rápido a sus clientes. En la organización de servicios objeto del estudio, los empleados siempre están dispuestos a ayudar a los clientes. En la organización de servicios objeto del estudio los empleados nunca están demasiado ocupados para responder a las preguntas de los clientes. En la dimensión de seguridad los ítems son: El comportamiento de los empleados en la organización de servicios objeto del estudio transmite confianza a los clientes. Los clientes de la organización de servicios objeto del estudio se sienten seguros en su relación con ellos. En la organización de servicios objeto del estudio, los empleados siempre son amables con los clientes. En la organización de servicios objeto del estudio, los empleados tienen conocimientos suficientes para responder a las preguntas de los clientes. En la dimensión de empatía los ítems son:

La organización de servicios objeto del estudio da a sus clientes una atención individualizada. La organización de servicios objeto del estudio tiene horarios de trabajo convenientes para sus clientes. La organización de servicios objeto del estudio tiene empleados que ofrecen una atención personalizada a sus clientes. La organización de servicios objeto del estudio se preocupa por los mejores intereses de sus clientes. Los empleados de la organización de servicios objeto del estudio comprenden las necesidades específicas de los clientes. De acuerdo a Carrete (2011) en una investigación realizada en México, se creó un instrumento que parte del SERVQUAL, denominado DINESERV, el cual está conformado por las siguientes dimensiones:Instalaciones: espacio físico (tangible) que constituye la estructura del restaurante; Accesibilidad: facilidad que se tiene para llegar al restaurante según su ubicación; Personal: presentación y modales; Ambiente: entorno que envuelve a los comensales durante su estancia en el restaurante; -Comida: Características que el cliente toma en cuenta al degustar sus alimentos, y Consistencia y honestidad: que el servicio sea igual que en cualquier circunstancia y que se respete lo establecido".

La Escala Para Medir Intenciones de Compra (Fidelidad)

Setó (2004) afirma que Zeithaml, Berry y Parasuraman (1996) desarrollaron una escala de trece ítems para poder medir un amplio rango de intenciones de comportamiento, está conformado de 5 dimensiones las cuales son fidelidad, cambio, sensibilidad al precio, queja externa y queja interna. La dimensión de fidelidad está conformada de 5 indicadores: Contaré aspectos positivos sobre XYZ a otras personas. Recomendaré XYZ a cualquiera que busque mi consejo. Animaré a mis amigos y familiares a hacer negocios con XYZ. Cuando necesite este servicio consideraré a XYZ como la primera opción. En los próximos años realizaré más operaciones con XYZ. En la dimensión de cambio se encuentran los siguientes indicadores: 6.-En los próximos años realizare menos operaciones con XYZ. 7.-Puede que para algunos servicios acuda a otro proveedor que ofrezca mejore precios. En la dimensión de sensibilidad al precio se conforma de los siguientes ítems: Aunque los precios aumenten algo, continuare comprando a XYZ. Estoy dispuesto a pagar un precio más alto por los actuales beneficios que recibo del servicio de XYZ. En la dimensión de queja externa, se encuentran los siguientes indicadores: Si tengo un problema con el servicio de XYZ, cambiare a otro proveedor. Si tengo un problema con el servicio de XYZ, se lo contaré a otros clientes. Si tengo un problema con el servicio de XYZ, reclamaré en entidades externas como la asociación de consumidores y usuarios. La dimensión de queja interna solo tiene un indicador: Si tengo un problema con el servicio de XYZ, reclamare a los empleados de XYZ.

METODOLOGÍA

OBJETIVO GENERAL

Analizar la relación que existe entre la percepción de la calidad del servicio y la lealtad de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

OBJETIVOS ESPECÍFICOS

Conocer la percepción de la calidad del servicio de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

Definir las características que contempla la lealtad de los consumidores de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

Analizar las dimensiones de la calidad del servicio de acuerdo al modelo SERVQUAL de los restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

Pregunta General de Investigación

El problema que se pretende investigar es ¿qué relación que existe entre la percepción de la calidad del servicio y la lealtad de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.?

Preguntas Específicas de Investigación

¿Cuál es la percepción de la calidad del servicio de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2?

¿Qué características contempla la lealtad de los consumidores de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2?

¿Cuáles son las dimensiones de la calidad del servicio de acuerdo al modelo SERVQUAL de los restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

Hipótesis General

Existe relación entre la percepción la percepción de la calidad del servicio y la lealtad de los clientes de los restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

Hipótesis Específicas

La percepción de la calidad del servicio de los clientes de los restaurantes de comida china a, b y c, es favorable, en la ciudad de Mexicali, Baja California durante el periodo 2015-2. La lealtad está caracterizada por la intención de los consumidores de restaurantes de comida china a, b y c, de volver al restaurante de comida china y recomendarlo a otras personas, en la ciudad de Mexicali, Baja California durante el periodo 2015-2. Las dimensiones de la calidad del servicio de los restaurantes de comida china a, b y c, de acuerdo al modelo SERVQUAL son: elementos tangibles, fiabilidad, capacidad de respuesta, seguridad y empatía, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

MÉTODOS

Estudio de caso, con apoyo del paradigma epistemológico cuantitativo, hipotético deductivo. Es un estudio descriptivo correlacional. El contexto o escenario de la investigación es la ciudad de Mexicali, Baja California México, las unidades de análisis son tres restaurantes de comida china de la localidad, y la muestra es no probabilística a conveniencia de la investigadora. Los instrumentos a utilizar son: para medir la calidad del servicio, el servqual de Parasuraman, Zeithaml, y Berry (1988) adaptado al contexto de los restaurantes de comida china, y para medir la lealtad, la escala de intenciones de comportamiento de Zeithaml, Berry y Parasuraman (1996).

RESULTADOS ESPERADOS

Se esperan obtener resultados estadísticos confiables en relación a definir la relación que existe entre la percepción de la calidad del servicio y la lealtad de los clientes de restaurantes de comida china a, b y c, en la ciudad de Mexicali, Baja California durante el periodo 2015-2.

REFERENCIAS BIBLIOGRÁFICAS

Berry Leonard L. (2002). Un buen servicio ya no basta: cuatro principios del servicio excepcional al cliente. Grupo editorial norma.

Carrete Lorena, López Sara, Trujillo Andrea y Vera Jorge. (2011). Servir con calidad en México. LID editorial mexicana.

Evans James Robert, Lindsay William M. (2008). Administración Y Control de la Calidad. CENGAGE Learnig editorial. 2008. p. 132.

Fernández García Ricardo. (2010). La mejora de la productividad en la pequeña y mediana empresa. Editorial club universitario. p.132.

Fernández Menéndez Miguel Ángel y Motto López Marina (2014). UF0259 - Servicio y atención al cliente en restaurante. Editorial Paraninfo.

Ferrando Sánchez Miguel, y Javier Granero Castro (2005). Calidad total: modelo EFQM de excelencia. España: fundación confemetal.

Franklin F. Enrique Benjamín (2007). Auditoría administrativa. Gestión estratégica del cambio. México: Segunda edición. Pearson educación.

González Montero Francisco Javier (2014). Servicio y atención al cliente en restaurante: normas de servicio, protocolos de comunicación y técnicas de venta. España: Editorial ideaspropias.

González Jurado Jorge Andrés (2013). "La gestión del mix de marketing y el servicio al cliente en los restaurantes de comida china de la provincia del Carchi." Tesis de grado previa la obtención del título de Ingeniero en Administración de Empresas y Marketing. Facultad de comercio internacional, integración, administración y economía. Escuela de administración de empresas y Marketing.

Gutiérrez Humberto, Gutiérrez Porfirio, Díaz Lizbeth, Garibay Cecilia. (2014). Análisis multivariado y QFD como herramientas para escuchar la voz del cliente y mejorar la calidad del servicio. . (Vol. 22). *Revista Chilena de Ingeniería*, 62.

Hochsmann Frank (2014). Servicio de calidad desde el punto de vista del huésped y del comensal. Manual para mejor servicio de calidad en hoteles y restaurantes. Alemania: BOD.

INEGI (2014). Estadísticas a propósito de la Reunión de la Comisión Ejecutiva Nacional Cámara Nacional de la Industria de Restaurantes y Alimentos Condimentados. Recuperado de: http://www.inegi.org.mx/prod_serv/contenidos/espanol/bvinegi/productos/censos/economicos/2009/servi cios/restaurant/Mono_Restaurantera.pdf

Kotler, Philip y Armstrong, Gary (2003). Fundamentos de marketing. México: Editorial Pearson.
Kotler, Philip y Keller Kevin Lane (2006). Fundamentos de marketing. México: Editorial Pearson.

López Bonilla Luis Miguel, y López Bonilla Jesús Manuel (2012). Investigación de mercados turísticos. España: Ediciones Pirámide.

Lovelock, Cristopher y Jochen Wirtz (2009). Marketing de servicios. Personal, tecnología y estrategia. México: Pearson educación.

Miranda González Francisco J., Chamorro Mera Antonio y Rubio Lacoba Sergio. (2007). Introducción a la gestión de la calidad. España: Delta publicaciones.

Peinador de Juana Julián. (2008). Marketing de Servicios. En C. José María, et. Al. ESIC editorial. p.25.

Ramírez Barón Karla Ramírez, Martínez Moreno Omaira Cecilia y Ramírez Barón Concepción (2012).

Habilidades sociales, factor determinante en la toma de decisiones en el sector servicios: restaurantes turísticos, en Ensenada, B.C. Global Conference on Business and Finance Proceedings. Volume 7. Number 1.

Reyes, Marcela (2011). Percepción de la Calidad del Servicio Educativo en Estudiantes Universitarios. Tesis de maestría. UABC.

Setó D. (2004) De la calidad del servicio a la fidelidad del cliente, (1ª. Ed.), Madrid, ESIC.
Stoner James A.f., Freeman Edward, Gilbert Daniel. (1996). Administración. Editorial Pearson Education. p. 234.

BIOGRAFÍA

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EFICIENCIA Y RESPONSABIILIDAD SOCIAL EN EL SECTOR PORTUARIO: ACERCAMIENTO TEÓRICO DE TERMINALES CONTENEDORAS MEXICANAS

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RESUMEN

Las economías y el comercio global han ejercido que en los últimos años, la actividad portuaria ha venido cobrando cada vez mayor importancia en todo el mundo. En México por su cercanía con Estados Unidos y derivado de su vecino natural Asia han generado un incremento en sus movimientos de carga contenedora a nivel nacional pero en especial en los puertos ubicados en el pacifico, moviendo más del 50% de la carga contenedora del país. Sin embargo al igual que otros sectores de la economía, el transporte marítimo hace frente a un doble reto en relación con el cambio climático, según la UNCTAD existe una demanda a este sector para mejorar el rendimiento ambiental y energético, incluida su huella de carbono, corresponde, por un lado, a la reglamentación, por el otro, a las demandas en favor de una mayor responsabilidad social empresarial (RSE) en las cadenas de suministro mundiales. El presente trabajo, de carácter no experimental mixto, busca hacer una aproximación metodológica entre el desempeño de las terminales así como sus prácticas de RSE. Para su estudio se dividió en dos aspectos, en el primero se evaluó a las terminales cualitativamente respecto a distintos aspectos de la RSE y posteriormente se validó el desempeño de las mismas. Se concluye afirmando que empíricamente si existe una relación entre eficiencia y RSE, sin embargo se requiere de un análisis más riguroso que permita establecer dicha relación teórica.

PALABRAS CLAVE : Terminales Contenedoras, México, RSE

EFFICIENCY AND CORPORATE SOCIAL RESPONSIBILITY AT THE CONTAINER PORT SECTOR: MEXICAN TERMINALS THEORETICAL APPROACH

ABSTRACT

Economies and global trade have had in recent years, the port activity has been gaining increasing importance worldwide. Mexican container terminals due to its proximity to the United States and derived from its natural neighborhood with Asia they have generated an increase in movement of container cargo nationwide but especially at the ports located in the Pacific ocean, moving more than 50% of the container cargo in the country . But like other sectors of the economy, shipping faces a double challenge in relation to climate change, according to UNCTAD there is a demand in this sector to improve environmental and energy performance, including its carbon footprint, It corresponds, on the one hand, to the regulation, on the other, the demands for greater corporate social responsibility (CSR) in global supply chains. This paper, mixed nonexperimental, seeks to make a methodological approach between the performance of terminals and their CSR practices. For their study was divided into two aspects, the first was assessed qualitatively terminals regarding different aspects of CSR performance and then validated them. It concludes that empirically whether there is a relationship between efficiency and CSR, but requires a more rigorous analysis to establish such a theoretical relationship.

KEY WORDS: CSR, Container Terminals, Eficiency, México

JEL: M00

INTRODUCCIÓN

Los operadores de las terminales, que por lo general son entidades independientes de la autoridad portuaria, y son de carácter privado, pueden ser locales o internacionales y son los que manejan la operación física del muelle de un puerto, son los que cargan con la eficiencia y productividad de la terminal y se les alienta para que mantengan la eficiencia de las operaciones de patio combinando a su vez la efectiva coordinación de la carga y descarga del tren (en caso de tener en la terminal) la atracción de nuevas navieras, y lidiar con la unión de estibadores (Maloni & Jackson, 2005). De acuerdo a Tongzon,(1995), existen dos variables que los puertos pueden controlar: los cargos portuarios y la eficiencia de las terminales. También concluye que el factor único y más significativo en el desempeño de una terminal es su eficiencia (Song, Cullinane, & Roe, 2001).

La duración de una compañía requiere la preservación de todos los sistemas con los que se encuentra correlacionada, constatando así la RSE. Para ello es necesario la inclusión de los grupos de interés dentro el desarrollo ético y estratégico de la empresa. Para lograr todo esto, es necesario que en las estrategias de la empresa, en la visión y misión, en sus objetivos y en el proceso de toma de decisiones, el cual debe ser participativo, así como en la rigurosidad de sus políticas, controles y auditorías, se incorpore la RSE, se generen alianzas y asociaciones exitosas, se cree valor financiero, social, medio ambiental y comunitario (Alvarez & Zamora, 2010). De acuerdo con Idrovo (2006), algunos puntos que pueden llevarse a cabo para incorporar la RSE en la gestión empresarial son: Profundizar la vocación como agentes de desarrollo; Innovar los procesos, productos y servicios, así como la manera de relacionarse con el público, comprometiéndolos en la construcción de un futuro sustentable. (Alvarez & Zamora, 2010).

Dado el escaso trabajo en materia de eficiencia y RSE, enfocado en el sector portuario, el presente trabajo tiene como objetivo realizar un primer acercamiento teórico para conocer en qué grado inciden las prácticas de RSE y el desempeño de los operadores de terminales contenedoras, enfocado a las terminales contenedoras mexicanas ubicadas en el pacifico de la Republica Mexicana dada su importancia por el nivel de carga contenedora a nivel nacional y algunas de estas terminales incluso a nivel internacional. En la primera sección se hace un resumen de la revisión literaria realizada durante la investigación respecto los conceptos de la RSE y la eficiencia (DEA). En la segunda se aborda la metodología llevada a cabo para el logro del objetivo utilizando técnicas mixtas planteadas para la investigación, DEA para la eficiencia y técnicas cualitativas para el análisis de la RSE. En última sección se presentan los resultados observados y después las conclusiones.

Aspectos Metodológicos

RSE

La Responsabilidad Social Empresarial se define como el compromiso que asumen las empresas hacia la sociedad en beneficio del desarrollo sostenible, es decir, es el equilibrio entre el crecimiento económico y el bienestar social. Para Bateman & Snell (2005), "la empresa socialmente responsable maximiza los efectos positivos sobre la sociedad y minimiza sus efectos negativos" en (Hernandez & Jiménez, 2015)Este tema tiene sus orígenes en Norteamérica en los años cincuentas. Es un concepto que ha ido evolucionando desde sus inicios y hoy en día existe una diversidad de enfoques y conceptos (Garriga y Mélé, 2004) en (Villafan, Castro, & Alcaraz, 2011). Menciona Côté, Booth y Luis, (2005). así como Seifferty y Loch, (2005) en (Vázquez, 2006), que el "Informe Brundtland" fue un reporte socio-económico realizado por un conjunto de naciones, principalmente las que integran el grupo de los siete1. Dicho documento fue

elaborado en 1987 para la ONU por una comisión encabezada por la doctora Gro Harlem Brundtland. Originalmente titulado "Nuestro Futuro Común" (Our Common Future). El Informe Brundtland plantea que para que se pueda dar el desarrollo sustentable se tiene que hacer una dimensión de los factores que influyen en él, y éstos son los económicos, sociales y ambientales. La conclusión del informe señala que debe de existir una relación de cooperación por parte de los actores sociales, (individuos, familias, empresas y gobiernos) para poder generar un desarrollo económico que minimice los efectos al medio ambiente. Nos enfocaremos en dos de las definiciones que han sido mayormente aceptadas tanto por académicos como por el sector empresarial. A nivel mundial el World Business Council Sustainable Development (2000) define a la RSE como el compromiso de las empresas para contribuir al desarrollo económico sustentable, trabajando con empleados, sus familias, la comunidad local y la sociedad en general para mejorar su calidad de vida (Villafan, Castro, & Alcaraz, 2011).

Para (Hernandez & Jiménez, 2015)La Responsabilidad Social Empresarial es una decisión personal y la empresa determina deliberadamente si asume o no ese compromiso. Una vez asumida, la Responsabilidad Social Empresarial debe ir orientada coherentemente con los principios de la empresa y con el cumplimiento integral de la visión que se ha establecido tanto a nivel interno como a nivel externo; considerando las expectativas de las partes interesadas.

Eficiencia DEA

El análisis DEA es una metodología poderosa para organizar y analizar información y de esta manera estimar la eficiencia relativa de las unidades de decisión comparando cada una de ellas solamente con las mejores unidades de decisión DMU. En este tipo de método, se asume que si A es capaz de producir Y (A) resultados con X (A) insumos, entonces los otros productores deben de producir lo mismo que A para poder ser eficientes (Cuevas,2003) (Arieu 2003). Según el modelo básico de Charnes et all. 1978, se requieren tantas optimizaciones como unidades de decisión (DMU), a partir del modelo de programación lineal siguiente:

Max θ = μ1y10 + ... + μsys0
sa
v1x10 + ... + vmxm0=1
μ1y1j + ... + μsysj <= v1x1j + ... + vmxmj (j=1,...,n)
v1, v2, ..., vm >= 0
μ1, μ2, ..., μs >= 0

Siendo vi y μi respectivamente las ponderaciones para los inputs (xi) y los outputs (yi).

En los modelos no paramétricos, el análisis de eficiencia no requiere ninguna hipótesis sobre la frontera de producción, siendo la eficiencia de una unidad definida con respecto a las unidades "observadas" con mejor comportamiento. Este análisis se detiene en la identificación del "mejor comportamiento" en lugar de un "comportamiento medio", como hace el análisis de regresión. Orientación de los Modelos (Charnes et al 1981)

Input orientados: Buscan, dado el nivel del Outputs, la máxima reducción proporcional en el vector de Inputs mientras permanece en la frontera de posibilidades de producción. Una DMU no es eficiente si es posible disminuir cualquier Input sin alterar sus Outputs.

Output orientados: buscan, dado el nivel de Inputs, el máximo incremento proporcional de los Outputs permaneciendo dentro de la frontera de posibilidades de producción. En este sentido una DMU no puede ser caracterizada como eficiente si es posible incrementar cualquier Output sin incrementar ningún Input y sin disminuir ningún Output.

DEA Con Bootstrap: Establecimiento de los Parámetros Boostrap

Para realizar el análisis de sensibilidad bootstrap, a las mediciones de eficiencia, se utilizó el software "R "que es una plataforma que cuenta con varias aplicaciones matemáticas y estadísticas de uso gratuito. La aplicación "FEAR" (Frontier Efficiency Analysis Recursive) que se utiliza dentro de esta plataforma fue creada por (Wilson, 2008) , de la Universidad Clemson de Carolina del Sur. Este software pretende combatir las controversias o inconvenientes que presenta la metodología DEA respecto a su falta de manejo de ruidos dentro de la programación lineal y el carácter determínistico de la metodología. Esta aplicación pretende ayudar al DEA dando un soporte más econométrico dado que al hacer el análisis "recursivamente" para corroborar niveles de error puede proporcionar la robustez econométrica que se requiere de estos análisis, es de uso libre solo si se aplica para fines académicos Para el cálculo de ancho de banda se optó por utilizar la "regla normal de referencia" (Walden, 2006) :

$$ h = \left[\frac{4}{(p+q+2)} \right]^{\left(\frac{1}{(p+q+4)} \right)} N^{\frac{-1}{(p+q+4)}} $$

Dónde:
p= el número de inputs
q= número de outputs
N= número de observaciones de la muestra

PROPUESTA METODOLÓGICA

El presente trabajo tiene carácter no experimental, mixto . Con la finalidad de conocer o tratar de establecer alguna relación entre la eficiencia de las terminales contenedoras Mexicanas y las prácticas de RSE de las mismas. El tipo de estudio fue transversal para el año 2010. Para lograr el objetivo de la investigación se utilizó el método mixto con dos ejes. Para su estudio primero se evaluó a las terminales cualitativamente respecto a distintos aspectos de la RSE, se analizo su página de internet validando el cumplimiento de la RSE de la terminal a través de esta herramienta, validando si se orientaba coherentemente con los principios de la empresa y con el cumplimiento integral de la visión que se ha establecido tanto a nivel interno como a nivel externo; considerando las expectativas de las partes interesadas. Dado que varios autores (Nejati, et al., 2011 y Capriottti, 2007) han realizado investigaciones utilizando esta metodología, debido a la importancia que representa hoy en día el internet como herramienta para la comunicación organizacional (Stuart & Jones, 2004 ; Sullivan, 1999) y en particular para la comunicación de acciones de responsabilidad social y sustentabilidad (Nejati, et al., 2011) en (Villafán & K, 2015). El análisis también incluyo la revisión de certificados de sustentabilidad como los son la ISO 14001 y distintivos como lo es el certificado de calidad ambiental SEMARNAT.

Los valores asignados estas variables fueron de cero a las que no contaban con ningún aspecto evaluado y de uno a las que si contaban con ello. En el segundo eje se evalúa la eficiencia, de los operadores portuarios a través de la metodología DEA (Data envelopment analysis) y para fortalecerla se utilizó un análisis bootstrap para conocer con mayor precisión los resultados dado que se obtienen intervalos de confianza. Para esta investigación solo se tomó el resultado de eficiencia de las cinco terminales contenedoras mexicanas más representativas para el país respecto al movimiento de su carga, de un total de 33 terminales ubicadas en los puertos de Norte América por el año 2010. Las variables mediadas fueron eficiencia a través del volumen de contenedores movidos anualmente vs el área de las terminales, el equipo total, el número de grúas de pórtico. Los modelos se corrieron orientados hacia el output= el número de contenedores movidos, en los modelos BCC y CCR. Cabe mencionar que la relación que busca este trabajo entre eficiencia y las mejores prácticas de la RSE, son escasas o nulas hasta este punto de la investigación.

RESULTADOS

RSE

Al analizar las páginas nacionales de los operadores portuarios privados pudimos observar lo siguiente (ver tabla 1): La mayoría de los operadores de las terminales contenedoras evaluadas cuentan en su mayoría con los requerimientos de la RSE. Adicionalmente cuentan con certificados ISO 14000 Estos operadores cuentan con su certificado de SAGARPA de " Calidad ambiental" Aunque en su página de internet el operador SSA Marine ubicado en el puerto de Manzanillo, no se observa ninguna practica de RSE, al hacer un poco de más análisis, se observó que obtuvo su certificado de SAGARPA hasta el 2011(fuera de nuestro periodo de análisis) sin embargo ya venía trabajando con la implementación de las prácticas de RSE y es probable que eso influyo en sus resultados de eficiencia. Es importante mencionar que la mayoría de los operadores de contenedores portuarios, con excepción de la terminal OCUPA, son operadores de clase mundial y que en sus respectivas páginas muestran claramente toda su política y prácticas sobre RSE. Por ejemplo la empresa Hutchitson Ports holding Limited que tiene su operaciones matriz en Hong Kong muestra claramente en su página corporativa su postura ante la RSE así como sus acciones y políticas al respecto. A pesar de esto era importante destacar como se comportaban sus extensiones corporativas en la ubicación de análisis

Eficiencia

En el segundo eje, se aprecia que para 2010, los resultados obtenidos de los modelos analizados. El modelo CCR   presento mejores niveles de eficiencia de escala en comparación con el modelo básico de rendimientos constantes (BCC). Las terminales con los 2 mejores resultados, en ambos modelos para ese mismo año, fueron: SSA de México, S.A. de C.V ubicada y Operadora de la Cuenca del Pacífico, S.A. de C.V. ambas en manzanillo con resultados de 74%(BCC) y 70%(BCC) y 82%(CCR) respectivamente ver tabla 1.

CONCLUSIONES

Derivado de este trabajo teórico podríamos inferir teóricamente, de manera no concluyente, que existe una relación entre el desempeño de los operadores de las terminales contenedoras portuarias evaluados y el cumplimiento de las prácticas de RSE. Sin embargo se requiere de un análisis más riguroso que permita establecer dicha relación teórica. Aunque es prematuro llegar a conclusiones generalizadas, con este primer acercamiento podemos inferir que las empresas con un grado de eficiencia aceptable cumplieron con varios aspectos evaluados de la RSE, eso habla de empresas comprometidas con los empleados, los accionistas, el medio ambiente y sociedad. Todo lo anterior nos sugiere que un estudio posterior será conveniente, en la medida de lo posible, realizar una evaluación agregando más variables y poder observar el comportamiento. Será también interesante, a reserva de la disponibilidad de información, realizar estudios de corte longitudinal. Queda abierta la línea de investigación relativa a estos sectores y en especial mediciones cuantitativas en el sector de RSE.

Tabla 1: Resultados del Análisis de Eficiencia y RSE

| PUERTO | TERMINAL | Operador de la terminal | Página web | Nivel Through put/ Carga anual | EFICIENCIA | | Green Ports | | RSE |
					Modelo BCC-O con bootstrap 2009	Modelo CCR-O con bootstrap 2009	Calidad ambient al SEMAR NAP	Otros reconoci mientos/a cciones medioam bientales	Visión, Misión, Pagina principal
API Lazaro Cardenas	Lazaro Cardenas TerminalPortu aria de contenedores	Hutchison Ports	http://www.l ctpc.com.m x/conoce-lctpc/acerca-de-lctpc/	1	0.379515427	0.587470891	●	NA	◆
API Manzanillo	TERMINAL INTERNACIO NAL DE MANZANILL O S.A. DE C.V. (TIMSA)	Hutchison Ports	http://www.t imsamx.co m/	1	0.700898552	0.807588098	●	■	◆
API Ensenada	Ensenada International Terminal, S.A. de C.V. (EIT)	Hutchison Ports	http://www. enseit.com/r esponsabilid ad-corp/certific aciones/	1	0.69908413	0.8178494	●	▲	◆
API Manzanillo	Operadora de la Cuenca del Pacífico, S.A. de C.V. (OCUPA	Nacional	http://www. ocupa.com. mx/php/	1	0.700959473	0.820372137	NA	NA	NA
API Manzanillo	SSA de México,	SSA Marine	https://www. ssamexico.c om/manzani llo.aspx?co ntPage=zlo #	2	0.742359635	0.836859301	NA	NA	NA

Nivel Throughput (TEUs movidos en el año)

1   100.000 - 500,000
2   500,000 -999,000
3   1,000,000 +

● Cumple

NA   No lo menciona en la pagina
■   ISO14001:2004
▲   EIT Green

◆ En pagina principal/ apartado especial se mencionan acciones que contribuyen a RSE
★ Dentro de la visión y misión se mencionan acciones que

BIBLIOGRAFÍA

Alvarez, O., & Zamora, L. J. (Julio de 2010). El informe social o de sostenibilidad como herramienta para dar cuenta de la RSE en las empresas. Contaduría Universidad de Antoquía, 119-144.

Bailón C, M. J. (1980). Artesanías y capital comercial en los Valles Centrales de Oaxaca. En Compilador de Sociedad y Política de Oaxaca 15 estudios de casos (págs. 83-109). Oaxaca: Universidad Benito Juarez.

De la Paz Hernández G, J., & Domínguez H., M. L. (2003). Estrategias de mercadotecnia y los negocios de mezcal. Convergencia, 187-203.

Financiera Rural. (26 de 03 de 2013). Obtenido de http://consulmex.sre.gob.mx/montreal/images/Consulado/MasReciente/nota%20informativa%20mezcal.pdf

Hernandez L, E. (1993). Evolución de la PTF en la Economía Mexicana. Mexico: Secretaria del trabajo y previsión social.

Hernandez, H., & Jiménez, A. (2015). Responsabilidad social empresarial zona urbana del distrito de Barranquilla: estudio etnografico . Económicas, 9-18.

Iglesias, S. (2014). Crecimiento de la Industria Mezcalera. El Financiero.

Jong, F., & Lopez, A. (20 de Septiembre de 2011). CNN Expansion. Obtenido de http://www.cnnexpansion.com/expansion/2011/09/14/el-laberinto-del-mezcal

Martínez G., A. (2008). Tequila, Mezcal y Cerveza: de México para el Mundo. Agricultuara, Sociedad y Desarrollo, 143-150.

Mercado Ramirez, E. (1997). Productividad Base de la Competitividad. México: Limusa.

Olmedo, C. B. (2007). El Tequila: de su origen a su desnaturalización. ¿A quién le pertenece su conocimiento? Una aproximación. Mexico: Instituto de Investigaciones Económicas, Universidad Nacional Autónoma de México. Obtenido de Ebscho

Pedraza R., O. H. (2006). La productividad de la Industria Láctea en el Estado de Michoacán. Morelia. Rosiles, L. F. (21 de Noviembre de 2012). Agencia Quadratin. Obtenido de http://www.quadratin.com.mx/politica/Adquiere-mezcal-michoacano-denominacion-de-origen/ Simar, L., & Wilson, P. (2000 a). Statistical Inference in Nonparametric Frontier Models: The Sate of the Art. Journal of Productivity Analysis, 49-78.

Sumanth, D. (2005). Administración para la productividad total: Un enfoque sistemico y cuantitativo para competir en calidad precio y tiempo. Mexico: CECSA.

Toffler, A., & Toffler, H. (1997). La Creación de una Nueva Civilización. México: Plaza y James. Vázquez, B. A. (26 de Junio de 2006). El Desarrollo Sustentable y la Evaluación Ambiental en una Fábrica de Mezcal del Estado de Oaxaca. Memorias del Congreso Iberoamericano de Ciencia Tecnología y Sociedad e Innovación CTS+I. Distrito Federal, México.

Villafan, K., Castro, Y., & Alcaraz, J. (2011). EFICIENCIA Y RESPONSABILIDAD SOCIALEMPRESARIAL EN EL SECTOR MINERO EN MÉXICO:CASO DE CINCO COMPAÑIAS MINERAS. Global Conference on Business and Finance Proceedings, 1229-1238.

Villafán, V. K., & K, C. M. (2015). Multi-enfoques de la Responsabilidad Social: Análisis comparativo de 18.

http://www.rsu.umich.mx/documentos/Multienfoques%20de%20la%20Responsabilidad%20Social%20Analisis%20comparativo%20de%2018%20universidades.pdf.

Walden, J. (2006). Estimating Vessel Efficiency Using a Bootstrpped Data Envelopment Analysis Model. Marine Resource Economics, 21, 181-192.

Wilson, P. (2008). FEAR 1.2 Command Reference. A library for estimating productive efficiency, etc. using R. Paul Wilson.

FACTORES PARA LA COMPETITIVIDAD DE LA INDUSTRIA RESTAURANTERA EN TIJUANA B. C.

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RESUMEN

El siguiente trabajo de investigación se deriva de los avances de tesis para la obtención del grado de Maestría en Administración cuyos avances se encuentra en la fase del diseño y aplicación de instrumento; se busca identificar los factores que inciden en la competitividad de la Industria Restaurantera en Tijuana, B.C., Mexico, siendo objeto de estudio las empresas pertenecientes a la Cámara Nacional de la Industria del Restaurante y Alimentos Condimentados (CANIRAC) cuya característica principal de sus afiliados es ser una empresa formalmente establecida; debido a que la industria del restaurante es la segunda actividad del sector turístico más importante se tiene el objetivo de identificar los factores competitivos que ofrece la región de Tijuana para impulsar el fortalecimiento y crecimiento de la industria del restaurante con la finalidad de proporcionar conocimiento estratégico (know-how) para promover la competitividad ante un sector de gran diversificación de oferta en alimentos y estilos de cocina nacional e internacional que da debido la privilegiada ubicación fronteriza con la que cuenta Tijuana.

PALABRAS CLAVES: Competitividad, Industria Restaurantera

FACTORS FOR COMPETITIVENESS IN TIJUANA BC RESTAURANT INDUSTRY

ABSTRACT

The following research is derived from the progress of thesis for obtaining the degree of MBA whose progress is in the design phase and implementation of the instrument; It seeks to identify the factors affecting the competitiveness of the Restaurant Industry in Tijuana, Mexico, under study companies belonging to the National Chamber of the Restaurant Industry and Seasoned Foods (CANIRAC) whose main feature is its affiliates be a company formally established; because the restaurant industry is the second most important activity of the tourism sector aims to identify the competitive factors that provides the Tijuana to promote the strengthening and growth of the restaurant industry in order to provide strategic knowledge (know-how) to promote competitiveness in a sector of great diversification of food supply and styles of national and international cuisine that gives due border privileged location that has Tijuana.

KEYWORDS: Competitiveness, Restaurant Industry

JEL: M14, M20

INTRODUCCIÓN

En México, los negocios de alimentos y bebidas aportan importantes beneficios a la economía. De 2011 a 2012 existían más de 428,000 empresas del ramo, como torterías, loncherías, juguerías, taquerías, antojerías, cafeterías, restaurantes de comida rápida y restaurantes de servicio completo. La venta total anual registró $182,992 millones de pesos con una aportación al PIB Nacional de 1.4% y 13% al PIB Turístico. CONOCER.GOB (2014) De acuerdo con PROMÉXICO (2014) en nuestro país existen 4

millones 15 mil unidades empresariales de las cuales 99.8% son PYMES que generan 52% del Producto Interno Bruto (PIB) y el 72% del empleo en el país, la importancia de las PYMES para la economía de nuestro país es una razón por la cual se deben implementar acciones para mejorar el entorno de las condiciones para ayudar a su establecimiento, crecimiento y consolidación.

Cada año se crean alrededor de 200 mil empresas nuevas lo cual pareciera ser un gran acierto de esfuerzos por parte del gobierno y de los ciudadanos pero desafortunadamente la mortalidad de estas empresas no tienen tanta suerte, de las nuevas empresas el 65% desaparece antes de los dos años, aunque en el primer año desaparecen el 50%, a los diez años solo el 10.8% de las 200 mil empresas sobrevivieron, es decir, de un total de 100 empresas tan solo 10 de ellas logran consolidarse formalmente. De las 130 mil empresas que fallan en los dos primeros años, 66% fue ocasionado por falta de capacitación adecuada y oportuna, 34% restante no se especifican las causas. Indudablemente, dentro de 66% están implícitos factores relacionados con el desconocimiento del mercado, del tipo de producto requerido, de los competidores, con técnicas y calidad del producto, de habilidades para vender, de su inserción en la cadena productiva; es decir, factores de riesgo asociados con un bajo perfil innovador. Morales (2011)

De acuerdo con el censo DENUE INEGI (2014) en la ciudad de Tijuana se encontraron 4464 restaurantes de los cuales el 95% son PYMES, dicho lo anterior podemos apreciar que las PYMES en Tijuana requieren de un mayor conocimiento y formación empresarial que les permita lograr su establecimiento y poder competir contra empresas nacionales e internacionales ya consolidadas como las franquicias de restaurantes u hotelería que brindan servicio de alimentos y bebidas y que por su naturaleza tienen un know how que les permite asegurar su permanencia y posicionamiento de mercado en esta ubicación geográfica fronteriza. El presente documento se organiza de la siguiente forma: en la sección de revisión literaria se presentan conceptos generales de competitividad así como los modelos de competitividad de diversos autores y un análisis del sector restaurantero; en el apartado metodológico se presenta los procedimientos utilizados para el diseño de la investigación hasta su fase de elaboración y aplicación del instrumento. Por último se encuentran las conclusiones preliminares.

REVISIÓN LITERARIA

El termino competitividad procede de competencia. En el ámbito económico, la palabra tiene dos significados: por un lado, el grado de rivalidad económica que existe en un mercado y, por el otro, la forma de actuación de los agentes en dicho mercado. Desde este punto de vista se deriva su primera característica. Se trata de un término relativo: si se está en condiciones de competir con otro. La posición relativa frente al agente rival se constituye como una de las variables determinantes del éxito o fracaso competitivo de la unidad analizada. Vega (2011) La competitividad es una medida definida por la productividad con la que un país, empresa o individuo utiliza los recursos que tienen disponibles, ya sean humanos, económicos o naturales, de acuerdo con Porter (2005) el nivel de vida de un país se determina por la productividad de su economía, que se mide por el valor de bienes y servicios producidos por unidad de sus recursos humanos, económicos y naturales. La competitividad permite que un país tenga la capacidad de soportar el cambio macroeconómico y de globalización debido a que se convierte en un reto para las organizaciones el competir al mismo ritmo y adaptarse ante entornos de constante cambio.

De acuerdo con el Foro Económico Mundial en su Informe de Competitividad Mundial (1996) la competitividad es "La capacidad de un país de alcanzar en forma sostenida altos índices de crecimiento de su PIB per cápita", en el mismo año la Organización para la Cooperación y Desarrollo Económicos (OCDE) aporta su definición "La competitividad refleja la medida en que una nación, en un sistema de libre comercio y condiciones equitativas de mercado, puede producir bienes y servicios que superen la prueba de los mercados internacionales, al tiempo que mantiene e incrementa el ingreso real de su pueblo a largo plazo". Proporcionando una definición personal "La competitividad busca el desarrollo y posicionamiento de las organizaciones en el mercado con la finalidad de lograr la sostenibilidad a lo largo del tiempo y lograr un

crecimiento continuo que trae consigo aprendizaje generado por la experiencia de competir eficazmente ante entornos de constante cambio, por esta razón es de vital importancia contar con estrategias que favorezcan para la competitividad en las organizaciones."

Modelos de Competitividad

En la actualidad existen distintos modelos para la competitividad que diversos enfoques aplicables de forma internacional, nacional, local y empresarial, para efectos de esta investigación se detallara el modelo de Porter, Esser, Cho y el modelo nacional para la competitividad. Los que a continuación se mencionan:

Modelo de las 5 Fuerzas de Porter

Las 5 Fuerzas de Porter es un modelo holístico integrador desarrollado por Michael Porter, para analizar cualquier industria en términos de rentabilidad. Según Porter indicó en 1979, la rivalidad con los competidores viene dada por cuatro elementos o fuerzas que combinadas crean una quinta fuerza, la rivalidad entre los competidores, a continuación se describe el modelo:

 (F1) Poder de negociación de los compradores. Los compradores ejercer fuertes presiones competitivas sobre la industria respecto a dos puntos principales 1) el grado en que los compradores tienen poder de negociación y 2) la medida en que los compradores son sensibles al precio.

(F2) Poder de negociación de los proveedores. Los proveedores de los miembros de la industria representan una fuerza competitiva fuerte o débil y esto depende de si tienen el poder de negociación suficiente para influir en los términos y condiciones de la oferta a su favor.

(F3) Amenaza de nuevos participantes potenciales. Las empresas de nuevo ingreso a un mercado traen una nueva capacidad de producción, el deseo de establecerse dentro del mercado y en algunas ocasiones poseen recursos sustanciales, la gravedad de la amenaza de nuevos participantes se presenta cuando se establecen las barreras de ingreso y por la reacción que se espera de las empresas ya establecidas ante estos nuevos ingresos de competidores.

(F4) Amenaza de productos sustitutivos. Las empresas de una industria resisten una presión competitiva por las acciones de las compañías de una industria relacionada cuando los compradores consideran los productos de ambas empresas buenos sustitutos.

(F5) Rivalidad entre los competidores Los vendedores reales son capaces de emplear cualquier arma que tengan a su disposición para fortalecer su posición en el mercado y obtener ganancias. El reto es idear una estrategia competitiva que al menos permita que una empresa mantenga la suya contra sus competidores y que produzca una ventaja competitiva sobre los rivales.

El Modelo de los Nueve Factores de Cho

El modelo de los nuevo factores de Cho (1994), tiene una visión amplia entre los factores humanos cuya clasificación representa a los trabajadores, los políticos, los empresarios y los profesionales y los factores físicos representan los recursos que se heredaron, la demanda local, las industrias que tiene relación y son afines, así como otros entornos empresariales, todo esto representa una forma de diferenciar el modelo de Michael Porter que sirvió de base para este nuevo modelo. Cho expone que el modelo de Porter resulta ser limitado en el sentido de que su aplicación mide la competitividad de países desarrollados pero difícilmente mide bajo las mismas condiciones a países menos desarrollados o en pleno desarrollo. A su vez Cho (1994), explica que la competitividad de una nación no puede definirse únicamente por tener una posición fuerte

ante algún mercado determinado sino que una nación resulta ser competitiva internacionalmente cuando tiene una posición fuerte y competitiva en varios sectores de los mercados nacionales e internacionales.

Enfoque de Competitividad Sistémica de Esser

Los países más competitivos poseen: i) en el nivel meta, estructuras básicas de organización jurídica, política y económica, capacidad social de organización e integración, y capacidad de los actores para la interacción estratégica; ii) un contexto macro que exige mayor eficacia de las empresas; iii) un nivel meso estructurado donde el Estado y los actores sociales desarrollan políticas de apoyo específico, fomentan la formación de estructuras y articulan los procesos de aprendizaje a nivel de la sociedad, y iv) en el nivel micro un gran número de empresas que buscan simultáneamente la eficiencia, calidad, flexibilidad y rapidez de reacción, estando muchas de ellas articuladas en redes de colaboración recíproca. (Esser 1996)

En este sentido la competitividad es sistémica por estas tres razones de acuerdo con (Esser 1996): la primera es que una empresa en general no es competitiva por sí misma, especialmente si no cuenta con un entorno de apoyo a proveedores o servicios orientados a la producción, o una presión competitiva de competidores locales. La competitividad en el nivel micro está basada en la interacción. El aprendizaje de interacciones (*learn-by-learn*) es clave en el proceso de innovación, especialmente cuando se constituyen ventajas competitivas dinámicas. La segunda es un entorno que favorece la competitividad se encuentra arraigado a un sistema nacional de normas, reglas, valores e instituciones que definen los incentivos que moldean el comportamiento de las empresas. La tercera el estado tiene un papel decisivo en el momento de definir el desarrollo industrial y la reestructuración productiva de un país, especialmente bajo las nuevas modalidades de gobernabilidad. De acuerdo con el enfoque sistémico aplicado a la pyme, se considera que existen cuatro esferas que condicionan y modelan su desempeño:

El nivel Microeconómico: Procesos en el interior de la empresa para crear ventajas competitivas. Capacidad de gestión de las empresas, sus estrategias empresariales, gestión e innovación. El nivel Mesoeconómico. Eficiencia del entorno, mercados de factores, infraestructura física e institucional. Y en general, las políticas específicas para la creación de ventajas competitivas, como la política educacional, tecnológica, ambiental, entre otras. El nivel Macroeconómico. Política fiscal, monetaria, comercial, cambiaria, presupuestaria, competencia, que hacen posible una asignación eficaz de los recursos y, al mismo tiempo, exigen una mayor eficacia de las empresas. El nivel Metaeconómico o Estratégico. Estructura política y economía orientada al desarrollo, estructura competitiva de la economía, visiones estratégicas, planes nacionales de desarrollo.

Modelo nacional para la competitividad: El Modelo Nacional para la Competitividad (MNC) diseñado por el Instituto para el Fomento a la Calidad Total, A.C., es un instrumento desarrollado por el Instituto para el Fomento a la Calidad Total A.C., para responder a la dinámica de los retos macro y micro económicos globales que enfrentan las organizaciones de nuestro país, enfatizando en las oportunidades comunes de la gestión organizacional de México. IBCC (2014). El Modelo Nacional para la Competitividad aplicable para las micro y pequeñas empresas se en ocho ejes: conocimiento del Entorno y Desarrollo de la Estrategia, relación con los clientes, fuente de ingresos, propuesta de valor, alianzas, recursos y actividades clave, estructura de costos, y por último los resultados. Este enfoque a la micro y pequeñas empresas busca promover principios que contribuyan a dar forma a una cultura de alto desempeño que son características esenciales a las organizaciones más admiradas y respetadas por sus resultados. IBCC (2014).

Análisis de la Industria Restaurantera

La industria restaurantera se define como los servicios de prestación de alimentos y bebidas para su consumo inmediato. En general, consiste en la mezcla o cocción de los ingredientes para obtener un guiso, independientemente del grado de complejidad que represente su elaboración, se caracteriza por no efectuar ningún procedimiento de conservación o envasado del producto, de esta manera, entre la preparación de

alimentos y bebidas y su consumo, existe una brecha temporal muy corta, lo cual implica que no se puedan formar inventarios. INEGI (2009) En relación a la generación de valor de la industria de preparación de alimentos, debe tomarse en consideración que la actividad contiene un lado tangible conformado por la atención que recibe el cliente, la importancia del servicio puede percibirse de manera diferente entre los consumidores, quienes consideran incluso la rapidez, variedad y otros aspectos que complementan la actividad. De acuerdo con INEGI (2009) los establecimientos restauranteros se clasifican de acuerdo a sus características físicas, entro ellos están:

Establecimiento fijo. La unidad económica que en una sola ubicación física, asentada en un lugar de manera permanente y delimitada por construcciones o instalaciones fijas, combina acciones y recursos bajo la dirección de una sola entidad propietaria o controladora, para proporcionar el servicio de preparación de alimentos y bebidas. Establecimiento semifijo. Para fines prácticos, los establecimientos semifijos se identificaron, cuando cumplieron con las siguientes condiciones: según el sitio donde se localizan, debieron permanecer activos cuando menos dos días a la semana en el mismo sitio. Tijuana se distingue por su gastronomía, aplicando las raíces de la cocina mexicana en conjunto con los ingredientes mediterráneos, lo cual se traduce en una fusión muy interesante para los amantes del arte culinario, de hecho existen áreas o zonas donde se ubican los principales restaurantes de diversas especialidades.

En conjunto, nuestra cercanía al Estado de California, donde pueden encontrarse los mejores ingredientes del mundo, así como lo propio de nuestro estado, hacen que esta zona esté considerada como una de las más importantes de América Latina, pues la gran influencia de la cocina francesa, española, italiana y americana, convierte a Tijuana en un centro gourmet fuera de serie.

Entre su gama de especialidades, están: Cocina Argentina, brasileña, Carne Cortes Finos, China, Española. Griega, Internacional, Italiana, japonesa, Mariscos, Mexicana, Mediterránea, Comida Rápida, los famosos Tacos de Carne Asada, de Pescado y las Tortas de Carne Asada, entre otras. (Gobierno del Estado de Baja California, 2013). De acuerdo con INEGI (2014) en la ciudad de Tijuana existen 4464 restaurantes en dos sus dos características físicas principales "fijos - semifijos", en la siguiente tabla se muestra una radiográfica general de los establecimientos de acuerdo a la clase de actividad que realizan y el número de personal que ocupan de acuerdo a los datos presentados en la Tabla 1:

MÉTODO

El presente apartado está enfocado a explicar el desarrollo que lleva la investigación, se definen los conceptos clave para el análisis y la recolección de datos que se requieren para determinar los factores de competitividad de la industria restaurantera en la ciudad de Tijuana, así mismo este capítulo busca detallar los pasos a seguir para cumplir con los objetivos y preguntas de investigación propuestos. La metodología de la investigación es mixta (cuantitativa y cualitativa), el instrumento de recolección de datos se ha estructurado de esa forma, el tipo de investigación es "descriptivo" pues se busca especificar las propiedades, características y perfiles del grupo de empresas afiliados a CANIRAC, es una investigación "no experimental" ya que no se manipulan las variables, la dimensión del tiempo es "transaccional" debido a que se recolectaran datos en un solo momento. Hernández (2010) En la tabla 2. se muestra la operacionalización a nivel a conceptual de las variables derivadas del modelo de competitividad sistémica de Esser.

Tabla 1: Características de los Restaurantes en Tijuana (Censo 2014)

Características	Número de Restaurantes
Fijo	4318
Semifijo	146
Personal ocupado:	.
0 a 5 personas	3585
6 a 10 personas	487
11 a 30 personas	310
31 a 50 personas	37
51 a 100 personas	34
101 a 250 personas	8
Más de 250 personas	2
Clase de actividad:	
Restaurantes con servicio de preparación de tacos y tortas.	822
Restaurantes con servicio de preparación de alimentos a la carta o de comida corrida.	753
Cafeterías, fuentes de sodas, neverías, refresquerías y similares.	747
Restaurantes con servicio de preparación de antojitos.	630
Restaurantes con servicio de preparación de pizzas, hamburguesas, hot dogs y pollos rostizados para llevar.	549
Servicios de preparación de otros alimentos para consumo inmediato.	357
Restaurantes con servicio de preparación de pescados y mariscos.	238
Restaurantes que preparan otro tipo de alimentos para llevar.	217
Restaurantes de autoservicio.	129
Servicios de preparación de alimentos para ocasiones especiales.	12
Servicios de comedor para empresas e instituciones.	10

La tabla muestra las características de los restaurantes en Tijuana. (Censo 2014). Fuente: Elaboración propia. DENUE INEGI (2014)

Planteamiento del problema: La constante competencia derivada de la extensa variedad de tipos de cocina, el desconocimiento del mercando, así como la falta de capacitación de los empresarios son factores de riesgo que aceleran el ciclo de vida de las empresas, Morales (2011), debido a esto es necesario identificar los factores que inciden en su competitividad de la industria del restaurante en Tijuana. La identificación de estos factores dentro de la empresa contribuye a tomar decisiones oportunas para encaminar al logro de los objetivos organizacionales.

Justificación de la investigación: Al identificar los factores de competitividad de la industria restaurantera de la ciudad de Tijuana B. C., la presente investigación aportara información sustancial de las características, habilidades y estrategias que deben tomar en cuenta las empresas en relación a factores internos y del medio ambiente que se vive en la región, dicho conocimiento es de utilidad también a los nuevos emprendedores para poder tomar decisiones oportunas que les permitan sobrevivir, crecer, innovar y competir ante cualquier tipo empresa dentro del sector.

Tabla 2: Operacionalización de las Variables a Nivel Conceptual

Variable Dependiente	Variables Independientes	Definición Conceptual
	Nivel Meta	
	Factores socioculturales	Factores y escalas de valores socioculturales: de ellos depende por ejemplo que se aliente o desaliente el despliegue de la dinámica empresarial en el seno de la sociedad.
	Escala de Valores	
	Patrones básicos de organización político – jurídico - económica	El patrón básico de organización político - económica: un patrón básico que apuesta por la competencia (entre empresas, pero también entre formaciones políticas) y se orienta hacia el mercado mundial, fomenta la competitividad internacional; un patrón básico que apuesta por el clientelismo, el proteccionismo, y la orientación "hacia dentro" no la fomentara.
	Capacidad estratégica y política	La capacidad estratégica y política de los actores sociales: la competitividad internacional surge solamente cuando una sociedad logra establecer un consenso viable en torno a este objetivo y desarrollo estrategias en el mediano plazo.
	Nivel Macro	
	Política presupuestaria	La política presupuestaria persigue mantener el déficit bajo control para garantizar la consistencia macro.
	Política monetaria	La política monetaria procura un macro estable (baja tasa inflacionaria), sin obstaculizar la inversión con tasas de interés demasiado elevadas.
	Política fiscal	La política fiscal estimula la productividad de la inversión. El sistema tributario esta escalonado con justicia y transparencia, siendo de carácter progresivo.
	Política de competencia	La política de competencia contrarresta la formación de monopolios y carteles, así como el abuso de poder del mercado
Competitividad Sistemica. Constituye un marco de referencia para países tanto industriales como en vía de desarrollo. La visión de mediano a largo plazo y la intensa interacción potenciales de eficacia en los diferentes niveles del sistema, movilizando capacidades sociales de creatividad con el fin de desarrollar ventajas competitivas nacionales. Ello ocurre porque ningún país puede escoger políticas o elementos de competitividad a partir del juego de determinantes (nivel del sistema e instrumental de conducción. (Esser et. Al 1994)	Política cambiaria	La política cambiaria está concebida para impedir que las exportaciones encuentren obstáculos y las importaciones necesarias se encarezcan demasiado.
	Política comercial	La política comercial fomenta una integración activa al mercado mundial.
	Nivel Meso	
	Política de infraestructura física	La política de infraestructura física asegura que las ventajas competitivas de la producción no quedan anuladas por perdidas en el transporte o las comunicaciones, sino que las ramas industriales prosperas pueden apoyarse en una infraestructura moderna.
	Política educacional	La política educacional está diseñada con miras a asegurar una educación básica amplia y sólida a todos los ciudadanos, independientemente de su sexo, ofreciendo al mayor número posible de personas una enseñanza secundaria y de mayor nivel, concebida pensando en las necesidades de las áreas de especialización del sector productivo.
	Política tecnológica	La política tecnológica tiene por objetivo primordial la amplia difusión de nuevas tecnológicas y nuevos conceptos organizativos, fomentando así un proceso ininterrumpido de modernización industrial.
	Política de infraestructura industrial	La creación de nuevas ramas industriales es iniciada y estimulada por el Estado.
	Política ambiental	La política ambiental asegura que la competitividad sea el producto de la efectividad técnica y organizativa, y no de la explotación exhaustiva de recursos humanos y naturales; asegura la búsqueda simultánea de eficiencia económica y ecológica.
	Política selectiva de importaciones	Las políticas de importación y exportación se manejan de manera que protegen o fomentan durante un periodo fijo y limitado ramas industriales designadas con criterio selectivo.
	Nivel Micro	
	Capacidad de gestión	Son factores determinantes para la competitividad de las empresas la calificación del personal y la capacidad de gestión.
	Estrategias empresariales	Las empresas competitivas están en condiciones de diseñar y crear estrategias
	Gestión de la innovación	Una premisa importante para la competitividad es la capacidad de gestión en el área de innovación
	Best Practice en el ciclo completo de producción (Desarrollo, producción, comercialización)	La competitividad de una empresa se basa en la aplicación de Best Practice a lo largo de toda la cadena de valor agregado (desarrollo, adquisición, almacenaje, producción y comercialización)
	Integración en redes de cooperación tecnológicas	La competitividad de las empresas se fortalece a través de su integración a redes de cooperación tecnológica (con empresas y con instituciones de investigación científica y tecnológica)
	Logística empresarial	Una logística eficaz entre empresas constituye un importante punto de partida para incrementar la eficiencia.
	Interacción entre proveedores, productores y usuarios.	Los impulsos innovadores son productos de procesos de aprendizaje que se forman para la interacción entre subcontratistas, productores y clientes.

La tabla 2, muestra la operacionalización a nivel a conceptual de las variables derivadas del modelo de competitividad sistémica de Esser. Fuente: Elaboración propia con datos del Modelo de Esser (1996)

Objetivos

Objetivo General: Identificar los factores que inciden en la competitividad y proponer estrategias que impulsen el desarrollo de la industria restaurantera de la ciudad de Tijuana B. C., México.

Objetivos Específicos: Identificar los factores que inciden en la competitividad de la industria restaurantera Proponer estrategias que impulsen la competitividad de la industria restaurantera. De acuerdo con el censo de DENUE INEGI (2014) existen en Tijuana Baja California un universo de 4999 establecimientos en la clasificación de "Servicios de alojamiento temporal y de preparación de alimentos y bebidas" dicha clasificación es emitida por el Sistema de Clasificación Industrial de América del Norte (SCIAN). El sector propiamente restaurantero de la ciudad consta de 4464 establecimientos fijos y semifijos de los cuales para fines de esta investigación se tomara únicamente a los 500 establecimientos que están afiliados a la Cámara Nacional de la Industria de Restaurantes y Alimentos Condimentados (CANIRAC) en Tijuana Baja California hasta la fecha de Junio del 2015, cuya principal característica y requisito para obtener la afiliación es ser una empresa formalmente establecida; el tipo de muestre es "probabilístico" para la selección de las empresas a encuestar se realizara un "muestreo aleatorio simple" en donde cada restaurante tiene la misma posibilidad de ser elegido para esta investigación.

MÉTODO

Para esta investigación la metodología utilizada es cuantitativa. En la investigación se aplicaran encuestas a través, de cuestionarios y entrevistas a los propietarios, de acuerdo a una muestra aleatoria, de la población total de los restaurantes de acuerdo al padrón de CANIRAC. Se procesara la información recabada con aplicación del programa estadístico SPSS 15.0 para el análisis descriptivo e inferencial.

Muestra: El diseño de la muestra se determinara en base al resultado de la identificación de una población total del padrón de CANIRAC de Tijuana, Baja California. México, y de la consideración del porcentaje de presencia sobre la población total. Los factores que se tomaran en cuenta en el cálculo de la muestra, es que la población se considerara con características homogéneas, además, de contarse con una población finita, ya que el número de restaurantes es conocido y la representatividad de la muestra está determinada por un error permisible de 0.068, con un nivel de confianza del 95% y p = q= 0.5.

Diseño del Instrumento: Se aplicara un cuestionario el cual será validado en relación al tema de estudio. Se utilizara una escala de medición de *Likert.*

Validación del Instrumento: La validez del cuestionario se determinara mediante el coeficiente de confiabilidad de *Alfa-Cronbach,* por medio del programa SPSS: tomando en cuenta que es recomendable que se obtenga una puntuación por arriba .60 y de 0.70, la cual es puntuación mínima aceptable.

RESULTADOS ESPERADOS

Es una investigación que se encuentra en proceso y se pretende identificar los factores que inciden en la competitividad de la industria restaurantera y proponer estrategias que impulsen la competitividad de la industria restaurantera.

BIBLIOGRAFÍA

Cho, D.S. (1994). "A dynamic approach to international competitiveness: The case of Korea". *Journal of Far Eastern Business. 1(1): 17-36*

Esser, K.; Hillebrand, W.; Messner, D., & Meyer-Stamer, J. (1996) "Competitividad sistémica: Nuevo desafío a las empresas y a la política." CEPAL, Santiago, núm. 59, pág. 39-52

Hernández, R. (2010) "Metodología de la investigación. " (5ta Ed.) México. McGrawHill.

Michael E. Porter, (2004) "Competitive Strategy: Techniques for Analyzing Industries and Competitors. "New York: Free Press.

Vega, A., Flores V. (2011). "La industria del mueble y productos de madera." (1ra Ed.). México. ILSA

REFERENCIAS DIGITALES

Conocer, Relevancia en México del Sector Restaurantero (2014). Extraído el 12 de Marzo 2014 del Sitio web: http://www.conocer.gob.mx/sector_restaurantero/relevancia.html

Promexico.gob. Pymes, eslabón fundamental para el crecimiento en México Extraído el 12 de Marzo 2014 del Sitio web: http://www.promexico.gob.mx/negocios-internacionales/pymes-eslabon-fundamental-para-el-crecimiento-en-mexico.html

INEGI (2009). DENUE INEGI. Extraído el 24 de Mayo 2014 del Sitio web: http://www3.inegi.org.mx/sistemas/descarga/?c=200

INEGI (2014). DENUE INEGI. Extraído el 24 de Mayo 2014 del Sitio web: http://www3.inegi.org.mx/sistemas/descarga/?c=200

Porter, M. (2005). ¿Qué es la competitividad?. Extraído el 24 de Mayo 2014 del Sitio web http://www.iese.edu/es/ad/AnselmoRubiralta/Apuntes/Competitividad_es.html

Warner, A. (2005). Definición y evaluación de la competitividad: consenso sobre su definición y medición de su impacto. Extraído el 12 de Agosto 2014 del Sitio web: http://www.cepal.org/mexico/capacidadescomerciales/TallerBasesdeDatosRep.Dom/Documentosypresentaciones/2.2Warner.pdf

Instituto Baja California Para la Calidad. (2012). Modelo Nacional para la Competitividad. Extraído el 24 de Julio 2014 del Sitio web http://www.pnc.org.mx/modelo-nacional-para-la-competitividad-micro-y-pequenas-empresas/

CANIRAC (2014). Monografía de la industria restaurantera. Extraído el 24 de Mayo 2014 del Sitio web http://canirac.org.mx/monografias/index.php

Gobierno del Estado de Baja California (2013). Tijuana, atractivos culturales y turísticos. Extraído el 12 de diciembre de 2014 de Gobierno del Estado de Baja California Web site:http://www.bajacalifornia.gob.mx/portal/nuestro_estado/municipios/tijuana/patrimonio_alimentos.jsp

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METODOLOGÍA DE SEGUIMIENTO DE EGRESADOS PARA FORTALECER LA VINCULACIÓN DE LA UNIVERSIDAD CON LA SOCIEDAD

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RESUMEN

El seguimiento de egresados no solo es un puente necesario entre las Instituciones de Educación Superior y el mercado laboral sino también contribuye al desarrollo de la responsabilidad social universitaria porque a través de este programa la Institución se reconecta con el contexto social, y reencuentra su identidad con los egresados con quienes tiene el compromiso de seguir brindando formación continua pertinente para mejorar su desempeño. En la Facultad de Contaduría Pública de la Benemérita Universidad Autónoma de Puebla, se aplica el cuestionario del recién egresado, obteniendo datos confiables sobre la utilidad y áreas de oportunidad de los conocimientos adquiridos durante su carrera universitaria. Como herramienta digital, se utiliza una plataforma que se va actualizando cada periodo. Para la obtención de información se aplican tres instrumentos; el primero a recién egresados para saber su opinión respecto al Plan de estudios y procesos de colocación; el segundo a egresados con antigüedad de 3 a 5 años para conocer su situación laboral, necesidades de educación continua y opiniones sobre la formación recibida; y el tercero es aplicado de manera presencial al os empleadores para conocer el desempeño laboral de los egresados de la BUAP. En las conclusiones del estudio, se puede afirmar que con este programa, la institución está cumpliendo con uno de los ejes de la Responsabilidad Social Universitaria, al reafirmar el compromiso con sus egresados y la sociedad misma de formar profesionistas capaces, con formación continua y mejora de sus planes y programas de estudio derivada de la retroalimentación recibida por estos dos grupos de interés: egresados y empleadores

JEL: I23, M0, M14

PALABRAS CLAVE: Seguimiento de Egresados, Instituciones de Educación Superior, Responsabilidad Social Universitaria y Empleadores

METHODOLOGY FOR MONITORING OF GRADUATES TO STRENGTHEN THE INVOLVEMENT OF THE UNIVERSITY WITH SOCIETY

ABSTRAC

The monitoring of the graduates is not only the bridge between the Instituciones de Educación Superior and the labor market, also it contributes to the development to the university social responsibility, since this program, the Institution is reconnected with the social context, inasmuch as rediscovers its identity with the graduates with whom has the compromise of continue to provide the appropriate continue formation to the purpose to improve its performance. At the Facultad de Contaduría Pública of the Benemérita Universidad Autónoma de Puebla, they applies the new graduates questioner, obtaining reliable information about the useful and opportunity areas about the knowledge getting during their

university career. As digital tool, the use a platform that are actualized each period. To obtain the information they applies three instruments; the first is applied to new graduates to know their opinion about the Study Plan and collocation process; the second is applies to graduates who graduated 3 or 5 years ago to know their labor situation; continue education requirements and opinions about the received information; and the third is applies in a presence way to the employers to know the labor performance of the BUAP graduates. In the conclusions on the study, it can say that with this program, the institution is meeting with one of the columns of the University Social Responsibility, to reaffirm the compromise with its graduates and the society to give able professionals, with continue education and improve in their study programs as a result of the feedback received of two interest groups: graduates and employers.

KEYWORDS: Monitoring of graduates, Instituciones de Educación Superior, University Social Responsibility

INTRODUCCIÓN

Los estudios de egresados tienen un antecedente en el Programa de Gestión de Transformaciones Sociales de UNESCO (2002), el cual pretendió dar respuesta a las problemáticas de formación universitaria, evaluación del empleo y prácticas profesionales, que resolverían las necesidades comunitarias específicas. En apoyo a ello, dicho proyecto pretendía el mejoramiento de la generación, uso de las técnicas y conocimientos, así como el fortalecimiento de las capacidades institucionales. Referente al tema, se enfatizó en la necesidad de pertinencia que ha adquirido nuevas dimensiones y una mayor urgencia, a medida que las actividades económicas de la sociedad requieren graduados capaces de actualizar constantemente sus conocimientos y adquirir nuevos que les permitan, no solo encontrar trabajo, sino también crear empleos en un mercado en constante cambio. Otro antecedente lo constituye el reto de la Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES), de asegurar que los profesionistas egresados de las Instituciones de

Educación Superior (IES) continúen desempeñando un papel fundamental en el proceso de desarrollo nacional en el contexto de la sociedad del conocimiento, para lo cual es necesario que las IES actualicen periódicamente los perfiles terminales de los programas que ofrecen para atender tanto las aspiraciones de los estudiantes como los requerimientos laborales y aseguren que el alumno aprenda lo previsto en los planes y programas de estudio, y refuercen los esquemas de evaluación de los aprendizajes para garantizar que los egresados cuenten con los conocimientos, competencias y valores éticos que corresponden a la profesión que eligieron (ANUIES, 1998). Posteriormente el Consejo Nacional de la ANUIES, aprobó el "Esquema básico para estudios de egresados" (ANUIES, 1998), que posteriormente se plasma en el documento "La Educación Superior en el siglo XXI", donde se establece que las IES deberán considerar la realización permanente de estudios de seguimiento de egresados con propósitos de retroalimentación curricular y de evaluación institucional. (ANUIES, 2000) Al interior de la Benemérita Universidad Autónoma de Puebla, inicia en julio de 1999, como un programa institucional con el propósito de conocer la situación en que se encuentran los egresados de la Benemérita Universidad Autónoma de Puebla, y de contar con información confiable para establecer estrategias que garanticen niveles satisfactorios de calidad en la educación superior. (Porras 2005)

REVISIÓN LITERARIA

De acuerdo con Quezada (2008), el estudio de egresados es aquel que recaba información de una misma población en diferentes momentos de un tiempo prolongado. Algunos beneficios de estos estudios, según lo manifiestan los expertos, son los siguientes:

El seguimiento de egresados no solo es un puente necesario entre las Instituciones de Educación Superior y el mercado laboral sino también contribuye al desarrollo de la responsabilidad social universitaria porque a través de este programa la Institución se reconecta con el contexto social, puesto que reencuentra   su identidad con los egresados con quienes tiene el compromiso de seguir brindando formación continua pertinente para mejorar su desempeño. Los estudios de egresados pueden ser una herramienta básica para el diseño de estrategias tendientes a propiciar el desarrollo y el fortalecimiento de todas las instituciones educativas (Fresan, 1998). Los estudios de opinión de empleadores son un complemento importante en el seguimiento de egresados que permite recabar información del sector productivo, resultados que permiten obtener información sobre el grado de satisfacción de los empleadores, respecto al desempeño de los graduados universitarios, sus demandas y requisitos para la contratación, y esta información puede ser de utilidad para mejorar las condiciones de inserción de los egresados. (De Vries, W., Cabrera, A. y Anderson, S 2007). El seguimiento de egresados no solo es un puente necesario entre las Instituciones de Educación Superior y el mercado laboral sino también contribuye al desarrollo de la responsabilidad social universitaria porque a través de este programa la Institución se reconecta con el contexto social, y reencuentra su identidad con los egresados con quienes tiene el compromiso de   seguir brindando formación continua pertinente para mejorar su desempeño.

Situación Actual del Seguimiento a Egresados

En la Facultad de Contaduría Pública de la Benemérita Universidad Autónoma de Puebla, como en otras dependencias se une al Proyecto Internacional de Seguimiento de Egresados (PROFLEX), desarrollado por un grupo de investigadores de la Unión Europea, inicialmente aplicado en 12 países europeos, y actualmente se aplica en más de 40 universidades de América Latina, y en el caso de México, han participado 9 universidades. Este instrumento es contestado en un lapso de tres a cinco años después de haber salido de la Universidad, obteniendo datos confiables sobre la utilidad y áreas de oportunidad de los conocimientos adquiridos durante su carrera universitaria. Como herramienta digital, se utiliza una plataforma que se va actualizando cada periodo. El objetivo general del estudio es: Desarrollar un esquema básico para los estudios de egresados y de empleadores es obtener información confiable y pertinente para obtener información confiable y pertinente sobre la ubicación y las actividades que desempeñan los egresados en el ámbito laboral, el grado de satisfacción y el nivel de exigencia de los empleadores en el desempeño profesional, permitiendo apoyar la toma de decisiones en la programación de la educación continua y retroalimentación del Plan de Estudios para fortalecer la oferta educativa y el impacto social en el estado de Puebla.

DISEÑO METODOLÓGICO

Para la obtención de información se aplican tres instrumentos; el primero a recién egresados para saber su opinión respecto al Plan de estudios y procesos de colocación; el segundo a egresados con antigüedad de 3 a 5 años para conocer su situación laboral, necesidades de educación continua y opiniones sobre la formación recibida; y el tercero es aplicado de manera presencial al los empleadores para conocer el desempeño laboral de los egresados de la BUAP. Las encuestas aplicadas permiten a la Institución llevar un seguimiento sistemático y representativo de los egresados para obtener datos confiables sobre la utilidad y las áreas de oportunidad de los conocimientos adquiridos durante la carrera universitaria. En la aplicación del primer instrumento se sigue el siguiente proceso:

Selección de la población en estudio: esta etapa consiste en determinar el cohorte generacional (año de egreso específicamente) objeto de estudio, con dos años máximo de haber egresado. Elaboración de un directorio de egresados con direcciones domiciliarias y de centros de trabajo, teléfono y correos electrónicos de estos, la población fue de 1844.Aplicación del instrumento semiestructdenominado de seguimiento de egresados, diseñado por ANUIES, 2009) considerando los siguientes ítems:

Datos generales del egresado y antecedentes socio familiares
Datos académicos
Trayectoria y ubicación en el mercado laboral
Exigencias en el desempeño profesional cotidiano del empleo actual
Opinión sobre el Plan de Estudios y las habilidades obtenidas
Recomendaciones para mejorar el desempeño profesional
Opinión sobre la organización académica
Opinión sobre las instalaciones
Comentarios adicionales para el mejoramiento académico

Para la segunda etapa se utiliza como estrategia de seguimiento, además de la base de datos utilizada en la primera etapa, la creación de una página WEB especial para egresados, donde se publica la oferta académica, noticias universitarias y cuestionarios en línea, cuyas respuestas se orientan también a la opinión del modelo educativo vigente, "Modelo Universitario Minerva" (MUM), además de la organización de foros donde asisten más de tres mil participantes, los cuales ya tienen de tres a cinco años de haber egresado; a los que se les entregan credenciales de identificación como egresados, contando a través de esta beneficios como descuentos en estudios de posgrado, cursos de educación continua y diversas tiendas. Para este fin se utiliza como herramienta digital una plataforma que se va actualizando cada periodo a través del departamento de Exámenes Profesionales y Educación Continua, además de utilizar las redes sociales como otra opción de comunicación como es el Facebook y Twitter. En la aplicación del segundo instrumento se sigue el siguiente proceso:

Selección de la población en estudio: esta etapa consiste en identificar electrónicamente, o presencialmente a través de los medios señalados a egresados que tengan de tres a cinco años de haber concluido su carrera universitaria. Aplicación del segundo instrumento de seguimiento de egresados denominado PROFLEX, con preguntas cerradas considerando los siguientes ítems:

Nivel de calificaciones en la licenciatura
Información sobre la obtención de trabajo remunerado
Experiencia laboral relacionada con su profesión
Información sobre la obtención de trabajo independiente
Información sobre el nivel de estudios requeridos para el puesto que ocupa
Nivel jerárquico del puesto actual que ocupa

En la tercera etapa se realizan encuestas de opinión con los empleadores mediante reuniones presenciales con el fin de conocer el desempeño profesional de los egresados, información que complementada con otras líneas de investigación, retroalimentan el currículo y hacen posible su mejora para asegurar mejores condiciones de la inserción laboral a nivel local, regional, nacional y mundial. Se aplicaron 104 encuestas a empleadores de distintos sectores económicos, descritos en la tabla 1

Tabla 1: Sectores Económicos Encuestados

SECTOR	NÚMERO	PORCENTAJE
Alimentos	6	5.77
Automotriz	1	0.96
Bancario	3	2.88
Comercio	11	10.58
Construcción	4	3.85
Educación	10	9.62
Entretenimiento	1	0.96
Gobierno	7	6.73
Industrial	17	16.35
Organizaciones no Gubernamentales	1	0.96
Refresquera	1	0.96
Salud	18	17.31
Servicios	24	23.08
TOTAL GENERAL	104	100%

Las encuestas fueron aplicadas de manera presencial, distribuyéndose la participación de acuerdo a la tabla 2

Tabla 2: Perfil de los Empleadores Encuestados

Perfil del encuestado	Número	Porcentaje
Propietaro	3	2.94
Gerente	23	22.55
Responsable de Recursos Humanos	26	25.49
Otro	50	49.02
No respondió	2	1.96
TOTAL GENERAL	102	100%

Tabla 3: Distribución por Tamaño de las Empresas Encuestadas

Tamaño de Empresa	Número	Porcentaje
Microempresa	22	21.15
Pequeña	22	21.15
Mediana	16	39.42
Grande	41	39.42
No determinada	3	2.88
TOTAL GENERAL	104	100%

Como se puede observar en la tabla 3, la mayoría de las empresas participantes, están en la categoría de grandes empresas y por tanto cuentan con más de 250 empleados, por lo que la información proporcionada por los empresarios encuestados se considera de gran valor para la mejora continua de los programas, además de conocer el posicionamiento de los egresados.

RESULTADOS

Respecto a los encuestados recién egresados, se obtuvieron los siguientes resultados: Un 69% ya se encuentran trabajando durante el último año de sus estudios, mientras que un 83% lo encontró dentro de los primeros seis meses; y del total, el 86% encontró empleo relacionado con su profesión. Con relación al cuestionario aplicado a egresados con un rango de tres a cinco años de haber concluido sus estudios, se obtuvieron los siguientes datos: El 67% afirma que existe similitud del empleo encontrado con sus estudios de licenciatura, y que los ingresos promedio percibidos fluctúan entre tres y cinco salarios mínimos al mes, cantidad que se considera baja comparada con otros países considerando los años de estudio. Se detectó que casi el 50% de los egresados trabajan en el nivel de empleado profesional, y una minoría trabaja en niveles gerenciales o directivos. Asimismo, los resultados destacan que las competencias altamente exigidas son: Capacidad para trabajar bajo presión, capacidad de comunicación, la de generar nuevas ideas o

soluciones, hacer valer la autoridad y usar el tiempo de manera efectiva, el auto aprendizaje, trabajo colaborativo, autogestión, pensamiento objetivo, responsabilidad y compromiso; y reforzamiento de sus valores. De manera general, se puede afirmar que los egresados sujetos de este estudio cuentan con niveles aceptables de competencias que el mercado requiere. Respecto a las encuestas aplicadas a los empleadores, estos contestaron que los profesionistas que se contratan con mayor frecuencia son los Contadores Públicos, seguidos por administradores de empresas.

CONCLUSIONES

Con la información obtenida, se puede concluir lo siguiente: La sociedad actual demanda mayor calidad en los servicios educativos, no solo en los conocimientos transmitidos, sino también en la formación de los alumnos en competencias profesionales. También con este programa se puede concluir que la institución está cumpliendo con uno de los ejes de la Responsabilidad Social Universitaria al reafirmar el compromiso con sus egresados y la sociedad misma de formar profesionistas capaces, con formación continua y mejora de sus planes y programas de estudio, derivada de la retroalimentación recibida por estos dos grupos de interés: egresados y empleadores.

BIBLIOGRAFÍA

ANUIES. 1998. Esquema Básico para Estudios de Egresados en Educación Superior, en http:/www.anuies.mx/index1024.html

ANUIES. 2000. Publicaciones ANUIES, en http://publicaciones.anuies.mx/pdfs/revista/Revista113_S5A2ES.pdf

(De Vries, W., Cabrera, A. y Anderson, S 2007). "Being Job Satisfied: Contribution Does a MexicanUniversity Make" Ponencia presentada en la Association for the Study of Higher Education, 32nd Annual Conference, noviembre 2007.

Fresan Orozco, M. 1999. Los Estudios de Egresados: Una estrategia para el autoconocimiento y la mejora de las Instituciones de Educación Superior. Antología de Seguimiento de Egresados. UACH. Dirección de Extensión y Difusión. Chihuahua.

Porras Sánchez Fernando. Seguimiento y contacto del graduado universitario en formación permanente y su contribución a la sociedad. Memorias diálogos universitarios siglo XXI. Foro Calidad e Innovación Educativa en la BUAP, 2005.

Quezada Castillo Rocio. El Seguimiento de egresados en la evaluación de programas de capacitación docente. Revista de Educación Superior, vol. 12, 2003.
UNESCO.2002. Programa de Gestión de Transformaciones Sociales MOST. Recuperado el 17 de septiembre del 2015.

ANÁLISIS DE LA PRODUCTIVIDAD DE LA INDUSTRIA MANUFACTURERA DEL ECUADOR

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RESUMEN

El presente trabajo estudia el comportamiento de la productividad en los factores trabajo y capital en el sector de industrias manufactureras en el Ecuador para el período de 1979 a 2014. Se ha empleado el modelo clásico de Cobb-Douglas para medir la relación de la mezcla de ambos factores con su producto y se ha mantenido la constante en el modelo para verificar la hipótesis planteada por Solow en el sentido que el progreso técnico, significado de la constante en dicho modelo, crece a una tasa constante que no genera mayor efecto en la productividad y rendimiento. Los resultados demuestran que en este sector de la economía ecuatoriana, los factores trabajo y capital tienen un comportamiento creciente de escala, es decir, que pueden obtener como resultado un producto mayor ante el incremento unitario de dichos factores así como apoyan la hipótesis de Solow de irrelevancia del progreso técnico como medida de mejora de productividad y rendimiento en los factores. Sin embargo, el rendimiento es mayor en el factor trabajo que en el capital y ello se debe a la fuerte dependencia de ese recurso para producir, el mismo que a su vez es rígido y por tanto no permite acercarse a un nivel de mayor eficiencia productiva. Debido a las características propias del sistema empresarial ecuatoriano, los resultados demuestran que la actividad está concentrada en pocos negocios suficientemente fuertes como para operar con algún poder de mercado, afectando de esa manera el entorno de competitividad interna.

PALABRAS CLAVES: Productividad, Rendimiento, Función de Producción Cobb-Douglas, Manufactura

PRODUCTIVITY ANALYSIS OF MANUFACTURING INDUSTRY OF ECUADOR

ABSTRACT

This paper studies the behavior of productivity in the labor and capital in the manufacturing sector in Ecuador for the period 1979 to 2014. It has used the classic Cobb-Douglas model to measure the ratio of the mixture of factors both factors with your product and has remained constant in the model to verify the hypothesis by Solow in the sense that technical progress, meaning constant in the model, it grows at a constant rate that does not generate greater effect on productivity and performance. The results show that in this sector of the Ecuadorian economy, labor and capital are increasingly scaling behavior, ie, they can get results in greater product to the unit increase of these factors and support the hypothesis of Solow irrelevance of technical progress as a means of improving productivity and performance factors. However, the yield is greater factor at work in the capital and this is due to the strong dependence of the resource to produce, the same which in turn is rigid and therefore not allowed to approach a higher level of productive efficiency . Due to the characteristics of the Ecuadorian enterprise system, the results show that the activity is concentrated in a few strong enough business to operate with some market power, thereby affecting the internal competitiveness environment.

Key Words: Productivity, Performance, Cobb –Douglas's Model, Manufacturing

INTRODUCCIÓN

El uso de una función de producción para poder determinar el comportamiento de una empresa es posiblemente el concepto más importante de la economía clásica. Su primera aparición fue con Wicksteed (1894) y de ahí en adelante se ha ido perfeccionando su enfoque y alcance a partir de estudios focales que permitan definir de mejor forma el mecanismo de creación de productos a través de los factores que se emplean. Así por ejemplo, se desarrolló la medición de rendimientos de escala en un sistema productivo con el modelo Coob-Douglas, en el cual se introduce por primera vez como variables al trabajo y capital en términos de su aporte (elasticidad) a la producción (Cobb & Douglas, 1928; Douglas, 1948), precisamente sobre esas variables se han continuado trabajando el resto de modelos de función de producción. El aporte de Cassel (1918) y Leontief (1941) a la función de producción fue su propuesta que las industrias son interdependientes y complementarias en una economía y por tanto los shocks que se generen en la entrada (inputs) de una industria serían no sólo sentido en sus propias salidas (outputs) sino en todos las empresas que sean parte de su cadena de negocios, esto dio origen a la Función de Leontief.

Finalmente sobre estas aportaciones Arrow (1961) propone una Función de Elasticidad de Sustitución Constante (CES) la cual indica que las mejoras tecnológicas en producción producen un efecto de variación ligado a su tasa marginal de sustitución técnica, es decir, la cuantía los montos de cambio es semejante al progreso técnico. Solow (1957) define al progreso técnico como el incremento que se logra en la cantidad productiva sin cambiar la cantidad de factores empleados. Estos saltos obviamente se logran con la experiencia ganada en ensayo-error sobre la gestión de costos de una organización, esto es, la capacidad de trabajar en economías a escala o de regresar de una deseconomía a una economía de escala Sin embargo, ese progreso técnico se considera como neutro en un modelo agregado de Cobb-Douglas dado que las mejoras en los rendimiento de producción no se genera por un cambio particular en una industria sino por las mejoras que en conjunto hagan todas las industrias de la economía.

A esto denominaría luego Solow et al. (1957) como tasa exógena constante. Como se puede apreciar, una función de producción es útil para representar cómo las combinaciones de capital y trabajo son capaces de mejorar los rendimientos productivos en las organizaciones y de esa manera explicar el porqué de las diferencias en las retribuciones tanto a los propietarios del trabajo (familias) y del capital (inversionistas individuales, empresas). De esa manera se deja de lado la fundamentación tradicional de los marxistas de superioridad del trabajo sobre el capital. El contexto de competitividad en los negocios actuales exige a las empresas ser capaces de innovar de forma perenne a fin de que se pueda lograr una apropiada inserción en los mercados tanto nacionales como internacionales. El escenario actual de baja en los precios del petróleo en el mercado mundial afecta de manera a los países extractivistas, como el Ecuador, debido a que restringe sus flujos de liquidez y les plantea un enorme reto de diversificar su oferta exportable. Esto último sólo se puede lograr en la medida que las empresas en conjunto desarrollen actividades de innovación que permitan competir con sus pares extranjeras. Un sector de alta importancia en la actividad económica es la manufactura debido a su alta capacidad de contratación y la condición de poseer un mayor valor agregado que la producción primaria y extractivistas que permite obtener mayores recursos en su venta tanto nacional como internacional. En el presente estudio se va a pasar una revisión de cómo ha evolucionado los niveles de rendimiento y productividad en el sector manufacturero del Ecuador durante el período 1979 – 2014.

METODOLOGIA

El presente trabajo es de investigación científica aplicada, se emplea el método inductivo y el enfoque descriptivo para determinar el tipo de rendimiento promedio que han tenido los factores de la producción durante el período 1979 – 2014 en el sector de manufactura. Los datos para el análisis son de fuente secundaria y su escala es serie de tiempo. Las variables empleadas para el análisis son:

Formación Bruta de Capital Fijo Privada (K_t^α): se refiere a los desembolsos que hacen las empresas del sector manufactura para mejorar/reponer sus activos fijos más las variaciones en existencias para hacer frente a los cambios estacionales del mercado. Su escala es en miles de dólares corrientes.

PEA manufactura (L_t^β): se refiere a la cantidad de personas miembros de la población económicamente activa que mantienen una relación laboral directa o indirecta dentro del sector manufactura. Su escala es en miles.

PIB manufactura (Y_t): se refiere al valor de la producción de bienes finales en el sector de manufactura valorados en miles de dólares corrientes.

Los datos para K_t^α e Y_t se obtienen de las publicaciones del Banco Central del Ecuador: Cuentas Nacionales retropolación 1965 – 2007) y Cuentas Nacionales 2007 y 2014. Para el caso de $\mathbf{L_t^\beta}$ se utilizan los datos del Sistema Integrado de Indicadores Sociales del Ecuador (SIISE – Estadísticas Laborales). El modelo que se trabaja es la función de producción clásica de Cobb-Douglas, cuya versión original se especifica como:

$Y_t = A * K_t^\alpha L_t^\beta$

Debido a que la estimación de este modelo supone algunas complicaciones para su cálculo, se propone la siguiente transformación lineal:

$\ln Y_t = \ln A + \alpha \ln K_t + \beta \ln L_t + u_t$

Las propiedades matemáticas que debe observar la serie de datos para poder ser modelados con Cobb-Douglas son:

Los parámetros α y β no deben ser menores a cero.
Debido a que la agregación de trabajo y/o capital debe de lograr mejorar los rendimientos de producción, la sumatoria de α y β debe de ser igual a 1.

Las propiedades estadísticas que deben cumplirse para validarse el modelo Cobb-Douglas a obtener, tomando en cuenta un nivel de confianza de 95%, son:

El coeficiente de correlación y el R cuadrado debe ser mayor a 0.60
El p-value general del modelo debe ser menor o igual a 0.05.
El p-value de los regresores individuales debe ser menor o igual a 0.05.

RESULTADOS Y DISCUSIÓN

En la tabla # 1 se presenta el resumen del modelo. El valor del coeficiente de correlación (0.964) y el R cuadrado (0.928) que demuestran que hay una alta relación entre las variables utilizadas así como un ajuste correcto en la explicación de la variable dependiente por parte de las variables independientes. Por otro lado el coeficiente Durbin-Watson (0.535) es significativo y muestra que la serie de tiempo no tiene problemas de autocorrelación que afecten la eficiencia del modelo. Esta eficiencia de la que hablamos se puede validar con el primer renglón de la Figura 1 donde se nota que la transformación logarítmica es un buen ajuste.

Tabla 1: Resumen del Modelo I

Modelo	R	R cuadrado	R cuadrado ajustado	Error estándar de la estimación	Durbin-Watson
1	,964[a]	,928	,924	,13187	,535

a. Predictores: (Constante), LNEmpInd, LNFBKFind

b. Variable dependiente: LNProd

Figura 1: Matriz de Correlaciones Modelo I

La tabla # 2 muestra los resultados del análisis de varianza (ANOVA) del modelo. El p-value de la prueba general es menor a 0.05 por tanto se concluye que el modelo es significativo y suficiente para explicar los rendimientos de los factores de producción a partir del producto.

Tabla 2: ANOVA del Modelo I

Modelo		Suma de cuadrados	gl	Media cuadrática	F	Sig.
1	Regresión	7,438	2	3,719	213,858	,000[b]
	Residuo	,574	33	,017		
	Total	8,011	35			

a. Variable dependiente: LNProd

b. Predictores: (Constante), LNEmpInd, LNFBKFind

La Tabla # 3 Muestra la Matriz de Coeficientes del Modelo. Los P-Value de las Variables Exógenas Son Menores A 0.05 Para Todos los Casos, Por Tanto Se Concluye Que los Estimadores Son Válidos

Tabla 3: Matriz de Coeficientes del Modelo I

Modelo		Coeficientes no estandarizados		Coeficientes estandarizados	t	Sig.
		B	Error estándar	Beta		
1	(Constante)	-3,097	,705		-4,392	,000
	LNFBKFind	,528	,056	,506	9,424	,000
	LNEmpInd	1,467	,130	,607	11,312	,000

a. Variable dependiente: LNProd

A partir de los resultados expuestos se puede contrastar que se cumplieron los tres requisitos exigidos a nivel estadístico. Para verificar si los requisitos matemáticos se han alcanzado es importante hacer una transformación aritmética de los betas hallados dado que todos se encuentran en base logarítmica cuando el planteo del modelo Cobb-Douglas es exponencial. Aplicando antilogaritmos neperianos se obtienen que el valor de α es 3.37 y para β es 29.30. En ambos casos se cumple el requisito de que sean valores diferentes a cero, sin embargo, la sumatoria de ambos es mucho mayor a uno, esto quiere decir que el rendimiento de los factores de producción en el sector de manufactura en promedio ha sido crecientes de escala. Por otra parte, aplicando el mismo criterio de antilogaritmos a la constante, se verifica el supuesto de Solow con respecto a que el progreso técnico es un factor constante en lo que respecta a rendimientos y productividad. Para el caso de Ecuador en su sector de manufacturas, esta tasa de progreso técnico es de 0.07%. Según Douglas et al. (1948), las fuentes de economía creciente de escala proviene de las siguientes razones:

Operación por debajo del mínimo eficiente, lo cual impide que las organizaciones puedan ofertar un producto a un precio competitivo en el mercado.

Concentración de la operación en empresas grandes, lo cual impide que el mercado sea eficientemente abastecido pues facilita la formación de monopolios privados o monopolios naturales.

Limitada exposición al comercio internacional en parte porque los productos no son competitivos y en otra parte porque existen fuertes barreras de entrada (arancelarias, por ejemplo) que desmotivan la entrada de productos extranjeros y por tanto reduce la búsqueda de innovación y mejora en las empresas nacionales.

Brechas de producción y mercado por explotar, esta última tiene que ver con espacios de mercado a los cuales no se ha ingresado y donde existe demanda pero por la presencia de costos de menú agregados las empresas no pueden tomar parte o explotar ese nicho.

Este último aspecto de potencialidad de crecimiento se puede contrastar haciendo una regresión en la que se vincule la asignación trabajo (L_t) – capital (C_t) con la productividad a partir del trabajo. Para ese caso el modelo quedaría especificado de la siguiente manera.

$$\ln Y_t / K_t = \ln A + \beta \ln L_t / K_t + u_t$$

Las propiedades matemáticas que debe observar la serie de datos para poder ser modelados con Cobb-Douglas así como las propiedades estadísticas son las que se mencionaron al final del apartado anterior.

Tabla 4: Resumen del Modelo II

Modelo	R	R cuadrado	R cuadrado ajustado	Error estándar de la estimación	Durbin-Watson
1	,692[a]	,479	,464	,23794	,161

a. Predictores: (Constante), CapTrab

b. Variable dependiente: ProdTrabajo

La tabla # 4 presenta el valor del coeficiente de correlación (0.692) y el R cuadrado (0.479) lo cual demuestra que hay un ajuste medio de las variables hacia el modelo. Adicionalmente el coeficiente Durbin-Watson (0.161) es significativo y muestra que la serie de tiempo no es afectada por problemas de autocorrelación y es válido. En la Figura 2 se muestra la bondad del ajuste logarítmico para la representación del modelo II en el primer renglón,

Tabla 5: ANOVA del Modelo II

Modelo		Suma de cuadrados	gl	Media cuadrática	F	Sig.
1	Regresión	1,772	1	1,772	31,295	,000[b]
	Residuo	1,925	34	,057		
	Total	3,697	35			

a. Variable dependiente: ProdTrabajo

b. Predictores: (Constante), CapTrab

Figura 2: Matriz de Correlaciones Modelo II

La tabla # 5 muestra la matriz de análisis de varianza general del modelo II. El p-value de la prueba general es menor a 0.05 por tanto se concluye que el modelo es significativo y robusto para explicar la tasa de relación trabajo / capital en la productividad del factor trabajo.

Tabla 6: Matriz de Coeficientes del Modelo II

Modelo		Coeficientes no estandarizados		Coeficientes estandarizados		
		B	Error estándar	Beta	t	Sig.
1	(Constante)	3,113	,056		55,124	,000
	CapTrab	,564	,101	,692	5,594	,000

a. Variable dependiente: ProdTrabajo

La tabla # 6 muestra la matriz de coeficientes del nuevo modelo. Los p-value de las variables exógenas son menores a 0.05 para todos los casos, de manera que se concluye que los estimadores son robustos para explicar las variaciones de la productividad ante la agregación-desagregación de trabajo ante el capital físico. En otras palabras, muestra que existe un ajuste perfecto y directo entre el costo de conversión y la productividad que se reporta a partir del trabajo. Los resultados del modelo II muestran que existe un potencial de desarrollo para el sector de manufacturas del Ecuador y por tanto es importante comenzar a trabajar en dar mayor valor a los procesos de esta actividad económica para que pueda ser más dinámica y más competitiva en el mercado nacional y luego poder adaptarse al exigente mercado internacional.

CONCLUSIONES

Se ha demostrado que el sector de manufacturas presenta un perfil de rendimientos crecientes de escala debido a poseer una gran capacidad instalada pero que se orienta a un mercado interno muy reducido lo cual afecta a la eficiencia de sus organizaciones. Se vuelve imperativo dotar de mayor flexibilidad en las relaciones laborales de este sector así como ir progresivamente suavizando las barreras de entrada a productos extranjeros de manera que se permita un entorno de mayor competitividad que estimule a todos los actores a mejorar e innovar. Una forma como se podría mejorar la dinámica del sector es aplicando tercerización de ciertos procesos en este tipos de negocios para superar las rigideces salariales y por otro lado ir implementando de forma paulatina activos de capital que doten de mayor productividad al trabajo para que este a su vez pueda complementar su actividad con los rendimientos esperados sobre la capacidad instalada.

BIBLIOGRAFÍA

Arrow, K. J.; Chenery, H. B.; Minhas, B. S. y Solow, R. M. (1961): "Capital – Labor Substitution and Economic Efficiency", Review of Economics and Statistics, Vol. 43, p. 225 – 250.

Cassel, Gustav (1918): Theoretische Sozialökonomie; Leipzig: C. F. Winter.

Cobb, C. W. y Douglas, P. H. (1928): "A Theory of Production"; American Economic Review, vol. 18, pp. 139 – 165.

Douglas, Paul (1948): "Are there Laws of Production?", American Economic Review, vol. 38, pp. 1 – 41.

Leontief, Wassily (1941): The Structure of the American Economy: 1919 – 1939, an empirical application of equilibrium analysis, Harvard University Press.

Solow, Robert Merton (1957): "Technical Change and the Aggregate Production Function", Review of Economics and Statistics, Vol. 39, pp. 312 – 320.

BIOGRAFIA

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INDICADORES DE PERMANENCIA EN LAS EMPRESAS TURÍSTICAS DE PUERTO ESCONDIDO, OAXACA, MÉXICO

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RESUMEN

El impulso del turismo de Puerto Escondido en la Costa oaxaqueña del sur de México se destacó en los setentas debido al interés de los surfistas por sus olas y por su ambiente tradicional. Con la llegada de turismo de sol y playa, propulsó la creación de pequeños alojamientos para hospedar y ofrecer alimentos a los visitantes. Actualmente se observa que muchos de los establecimientos turísticos originados en los 70s permanecen y muestran contraste con los establecimientos de Gran Turismo porque mientras los grandes hoteles ofrecen elementos modernos y nuevas tecnologías; los establecimientos Tradicionales permanecen con el servicio clásico. El objetivo de esta investigación fue identificar y analizar los indicadores de permanencia en los hoteles tradicionales de Puerto Escondido. Con una entrevista semi-estructurada aplicada a administradores de ocho hoteles en cuatro lugares turísticos de la bahía de Puerto Escondido. Se analizaron como indicadores de permanencia el manejo hotelero, los elementos de preferencia del visitante e intención de nuevas visitas. Los resultados mostraron que los aspectos de servicio, la adaptación a nuevas tecnologías y elementos del turismo clásico forman un balance para explicar la permanencia de los hoteles tradicionales de Puerto Escondido. Se concluyó que el turismo tradicional permanece por la adecuación de nuevos elementos y la conservación del trato tradicional. Este trabajo contribuye con la identificación de elementos de adecuación entre lo moderno y lo tradicional para la permanencia de hoteles de Puerto Escondido y muestra coincidencia con los resultados obtenidos en la isla de Puerto Rico por Gómez et al 2015 (Gómez-Velázquez, Robles Maldonado, Velázquez-Sánchez, & Morales Santiago , 2015).

PALABRAS CLAVE: Indicadores, Permanencia, Turismo Tradicional

PERMANENCE INDICATORS ON TOURISM BUSINESS OF PUERTO ESCONDIDO, OAXACA, MEXICO

ABSTRACT

Tourism promotion in Puerto Escondido in the coast of Oaxaca of southern Mexico stood out in the seventies due to the interest of surfers for its waves and its traditional atmosphere. With the arrival of sun and beach tourism, the creation of small accommodation to host and provide food to the visitors was propelled. Currently it is observed that many of the tourism establishments started in the 70s, actually remain and show contrast with Great Tourism establishments because while the big hotels offer modern and new technology elements; Traditional establishments remain with classic service. The objective of this research was to identify and analyze the indicators of permanence in the traditional hotels in Puerto Escondido. With a semi-structured interview applied to managers of eight hotels in four sights of Puerto Escondido bay. They were analyzed as indicators of permanence by the hotel management, elements of preference and intention of new visitor visits. The results showed that the service aspects, adaptation to new technologies and factors related to the visitor are classic elements of a balance to explain the permanence of the traditional hotels in Puerto

Escondido. It was concluded that traditional tourism remains by the adaptation of new elements and the conservation of traditional treatment. This paper contributes to the identification of elements fit between the modern and the traditional to the permanence of hotels in Puerto Escondido and shows agreement with the results obtained in the island of Puerto Rico by Gomez et al 2015 (Gomez-Velazquez Maldonado Robles, Velazquez-Sanchez, Morales & James, 2015).

KEYWORDS: Indicators, Permanence, Traditional Tourism

JEL: L83, O13, F18, A13

INTRODUCCIÓN

El problema que se aborda en este estudio es la situación de los hoteles tradicionales de Puerto Escondido en los que se observan prácticas tradicionales de manejo hotelero ante el embate de hoteles pertenecientes a cadenas que ofertan gran turismo. La presencia hoteles modernos en Puerto Escondido representa una competencia para los pequeños hoteles tradicionales. De acuerdo a los datos de la Asociación de hoteles y moteles de Puerto Escondido, el veinte por ciento de los hoteles establecidos se consideran tradicionales y ofrecen servicios de alojamiento y alimentos a turistas locales y extranjeros en torno a las principales playas que se localizan en sus bahías. Sin embargo, existe una gran diferencia en el manejo turístico, entre los hoteles nuevos y los tradicionales. Al respecto Gómez-Velázquez et al (2015) estudiaron la adecuación de aspectos de modernidad que integran las empresas turísticas antiguas en sus servicios en la isla de Puerto Rico, sin embargo, no se ha realizado algo parecido en Puerto Escondido, en este estudio se planteó como pregunta de investigación ¿Cuáles son los indicadores de permanencia de los hoteles tradicionales de Puerto Escondido?

Esta investigación se presenta organizada de la manera siguiente. En la sección de revisión de la literatura se presentan los resultados disponibles sobre el estudio de permanencia en empresas turísticas en E.U. y particularmente en Puerto Rico, el análisis sobre el concepto de permanencia y la comparación en los indicadores empleados para evaluar los servicios turísticos antiguos y recientes. En el apartado de Metodología se incluyen las características de la muestra, la definición operacional de las variables, el procedimiento seguido para diseñar las entrevistas y su aplicación y el análisis de los datos. En la sección de resultados se emplean tablas para facilitar la presentación de los datos y su explicación resumida. Las conclusiones permiten comparar los resultados con el objetivo planteado y mostrar la relevancia de este estudio para la comprensión de los factores de permanencia en los hoteles tradicionales de Puerto Escondido, Oaxaca, México.

REVISIÓN DE LITERATURA

De acuerdo a Ortuño (1990), la exigencia de movilidad expresada por los visitantes, e inspirada por un imaginario impulsa al sujeto a viajar. Este sujeto pretende encontrar una serie de elementos que su imaginario integra por medio de sugestiones a inspiraciones previamente adquiridas (Ortuño, 1990). Del mismo modo para Villa Real (2007), el turista busca un paquete completo de diversión, entretenimiento, bienestar, higiene y cortesía. Puerto Escondido en el estado sureño de Oaxaca, México, se observa que a pesar de no contar con una tradición empresarial de servicio turístico, sim embargo, se la hospitalidad de los habitantes de las comunidades originarias es parte de su cultura y de sus tradiciones, razón por lo que Oaxaca es considerado un destino hospitalario a nivel mundial.

Puerto Escondido gracias a la mercadotecnia del turismo de aventura y para la práctica del Surfing, se hace popular alrededor, primero a nivel nacional y actualmente para el mundo. Puerto Escondido inicio con establecimientos tradicionales pero al ritmo del incremento de visitantes se instalaron hoteles con infraestructura moderna. A pesar de la presencia de hoteles modernos, muchos de los establecimientos

tradicionales permanecen como una aliterativa de turismo conservador como el que observaron (Gómez-Velázquez, Robles Maldonado, Velázquez-Sánchez, & Morales Santiago , 2015) en establecimientos de Puerto Rico. Con respecto al estudio del turismo tradicional se pueden consultar estudios que analizan los aspectos tradicionales en términos de cultura y de sustentabilidad como los realizados por Velázquez et al (2014), en los estudios del ecoturismo en comunidades indígenas se han desarrollado indicadores de sustentabilidad en el turismo.

En aspectos de calidad en el turismo (Gómez-Velázquez, Marquez Alburqueque , & Velázquez-Sánchez, Enviromental Quality Indicators of the Alternative Tourism in Portugal and México. A comparative Analysis, 2015), analizaron los indicadores que definen la calidad en el turismo tradicional, sin embargo, en torno a los indicadores de permanencia son pocos los documentos disponibles, además de Cervantes y Gallardo (2009), mencionados por (Gómez-Velázquez, Robles Maldonado, Velázquez-Sánchez, & Morales Santiago , 2015) quienes desarrollaron el concepto de permanencia en micro y pequeñas empresas, Gómez-Velázquez et al (2015), realizan un primer acercamiento al estudio de la permeancia de establecimientos de turismo tradicional en Puerto Rico.

METODOLOGÍA

Para este estudio, se analizó una muestra de ocho prestadores de servicios turísticos tradicionales. Se diseñó una entrevista semi-estructurada con preguntas orientadas a revisar las características que definen la permanencia de las empresas turísticas y se entrevistó a ocho prestadores ó administradores de empresas hoteleras en las localidades de Zicatela y Puerto Escondido en el estado sureño de Oaxaca-México.

Se incluyeron las variables: Categorías de las prácticas de manejo clásicas y categorías de manejo contemporáneas o modernas. Los datos obtenidos han permitido hacer una primera aproximación, identificación y definición de los indicadores de permanencia y adecuación entre los elementos clásicos y modernos de manejo turístico de hoteles en Puerto Escondido Oaxaca.

Definición Operacional de las Variables

Elementos de manejo hotelero clásico. Se consideró como una variable numérica. A partir de los indicadores de autenticidad, técnicas propias iniciales y adaptación. Y se midió con base a las respuestas de los entrevistados. Elementos de manejo hotelero contemporáneo-moderno**.** Se definió por los servicios ofrecidos y se consideró como una variable numérica. Se midió con base a las respuestas emitidas por los prestadores o administradores de las empresas turísticas.

Descripción del Procedimiento

De acuerdo con la información obtenida por la SECTUR (2015), se realizó la clasificación de ocho establecimientos turísticos en Puerto Escondido, estos fueron estudiados bajo las rúbricas de manejo hotelero clásico y moderno-contemporáneo.

Tabla 1: Definición Operacional de las Variables Contempladas Para Manejo Hotelero Clásico y Contemporáneo o Moderno

Variables	Categorias	Indicadores
Elementos de manejo hotelero clásico.	Autenticidad	Originalidad Filosofía Servicios ofrecidos Mercado a dirigirse
	Técnicas propias iniciales.	Atención al huésped Sistemas de información Administración
Elementos de manejo hotelero contemporáneo- moderno.	Innovación	Servicios agregados Crecimiento y contrataciones Remodelación Cambios en la administración Convenios y otros
	Tecnologías	Tecnologías incorporadas Infraestructura Equipamiento
	Marketing	Medios físicos Medios electrónicos Análisis de mercado
	Recreación	Deportes y actividades

En la tabla 1: se observa las categorías y los indicadores de las variables de manejo hotelero clásico y moderno o contemporáneo. Las variables son numéricas y se incluirán en el análisis de la relación entre los servicios iniciales y las categorías de modernidad en virtud de la adaptación. Fuente: elaboración en base al artículo de Velázquez-Sánchez 2015

Convenios externos para recreación Atractivos turísticos naturales Atractivos turísticos culturales Entorno general

Tabla 2: Muestra de las Empresas Turísticas Analizadas En Puerto Escondido, Oaxaca

EMPRESA TURISTICA	LOCALIDAD
Hotel Chegue	Puerto Escondido, Oaxaca, México
Hotel Casa Vieja	Puerto Escondido, Oaxaca, México
Hotel Rockaway	Puerto Escondido, Oaxaca, México
Hotel Nayar	Puerto Escondido, Oaxaca, México
Hotel Paraíso Escondido	Puerto Escondido, Oaxaca, México
Hotel Acalí	Puerto Escondido, Oaxaca, México
Hotel Casa de las Iguanas	Puerto Escondido, Oaxaca, México
Hotel Bungalows Puerta del Sol	Puerto Escondido, Oaxaca, México

En la tabla 2: se pueden observar las ocho empresas turísticas analizadas en esta investigación y que se encuentran localizadas en Puerto Escondido, Oaxaca, México. Fuente: elaboración propia con datos revisados en la costa y articulo de Velázquez–Sánchez 2105.

Descripción de los Establecimientos Turísticos Analizados En Puerto Escondido, Oaxaca, México

Hotel Chegue: se localiza en calle Agua Zarca, al lado del Restaurante Hipocampo en la colonia Agua Marina. Actualmente cuenta con 14 habitaciones, 2 sencillas y 12 dobles, la cuales cuentan con internet, televisión con cable, agua caliente y ventilador. El hotel cuenta con un área de hamacas y un estacionamiento para autos chicos.

Hotel Casa Vieja: El hotel está ubicado en Av. Pérez Gazga, centro de la zona adoquinada. El hotel ofrece 20 habitaciones, 6 dobles y 14 con cama King size, estas cuentan con televisión con cable, Wi- Fi, agua calienta, aire acondicionado y ventilador. De igual manera cuenta con tienda de artesanías regionales.

Hotel Boutique Rockaway: Se encuentra en el corazón de la playa Zicatela, mundialmente conocida por sus grandes olas. El hotel cuenta con un estilo propio. El hotel está conformado por 32 habitaciones y 12 departamentos, un restaurante, dos albercas, un gimnasio equipado con aire acondicionado, un adala de

conferencias, zona lounge una estancia infantil con niñeras y cuenta con una zona comercial con distintas boutiques. Además el hotel ofrece servicios de masajes/spa, agua caliente, televisión con cable, WI-FI en todo el hotel, lavandería. El hotel se promociona en redes sociales, viajes de familiarización, Blitz turísticos y en revistas de aerolíneas y un poco de publicidad local. Su mercado está orientado hacia personas que buscan una estancia placentera o turistas de placer.

Hotel Nayar: El Hotel Nayar se encuentra ubicado en la avenida principal Pérez Gazga, a sólo unos minutos del adoquín turístico y de la playa principal. Ofrecen habitaciones estándar, y estas cuentan con   aire acondicionado, televisión por cable, e internet inalámbrico. Cuenta con reservaciones en línea, marketing en redes sociales y publicidad local. Su restaurante ofrece lo mejor de la cocina regional y nacional. Su mercado se centra en turismo de relajación, turismo de aventura y familiar.

Hotel Paraíso Escondido: El hotel se ubica en el centro de Puerto Escondido, cuenta con 20 habitaciones, cada una de ellas cuenta con dos camas matrimoniales, aire acondicionado, baño privado, TV local. Las que se encuentran en el primer piso tienen acceso directo con el ara de alberca y restaurante, las del segundo piso cuentan con balcón hacia la bahía principal. Las habitaciones suites cuentan con una cama King Size, aire acondicionado, terraza y cocineta compartida. La master suite contiene dos camas matrimoniales, aire acondicionado, tv, terraza, cocineta y mini alberca. El hotel cuenta con alberca, estacionamiento, internet inalámbrico, el restaurante solo está abierto en temporadas altas.

Hotel Acali: se ubica en la mundialmente reconocida, Playa Zicatela. Cuenta con 20 cabañas y bungalows. Las casas de playa están construidas con maderas preciosas de la región. Sus techos son de teja de barro, las paredes de tejamanil, y los pisos de madera, lo que permite una buena ventilación y frescura en sus interiores. Todas las cabañas cuentan con baño privado, ventilador de techo, internet inalámbrico, closet, cómoda, mesas y sillas, mosquiteros, servicio de limpieza diario, vista a la alberca y jardín. Algunas cabañas cuentan con aire acondicionado, cocina, refrigerador, terraza privada con hamacas y vista panorámica frente al mar. El hotel cuenta con palapa bar, alberca, WIFI, servicio telefónico, estacionamiento, clases de surf, renta de motos, paseos en lancha, lavandería.

Hotel Casa De Las Iguanas: se ubica a solo unos metros de la playa Zicatela. Casa de las iguanas surf y hotel le ofrece 12 habitaciones dobles y triples con aire acondicionado, ventilador de techo, caja de seguridad, TV cable, balcón o terraza privada y un diseño muy especial para los huéspedes más exigentes. El hotel cuenta con jacuzzis de hidromasajes, servicios de bar dentro de la alberca, saltos de cascadas, confortables camastros y sombrillas, etc. De igual manera le ofrece excursiones a los sitios más insólitos, traslados a playas desconocidas, lecciones de surf para principiantes y expertos. Cuenta con Snack Bar donde podrás disfrutar del mejor ambiente, los más exclusivos tragos y juegos de salón.

Bungalows Puerta Del Sol: Se ubica frente a la playa Zicatela, desde las habitaciones se puede observar la playa. El hotel cuenta con 17 habitaciones sencillas y dos departamentos. Bungalows Puerta del Sol no solo ofrece alojamiento a un precio razonable sino también los siguientes servicios: alberca, cocina, estacionamiento, aire acondicionado, internet inalámbrico, Spa masaje y Temazcal, servicio de lavandería, T.V con cable, servicios de renta de autos y motos, agencia de viajes actividades y tours.

Análisis de Datos

Se realizó el análisis factorial a los datos de la entrevista realizada a los administradores de los establecimientos. Mostrando los siguientes resultados.

ocho dueños o administradores en los dos destinos turísticos que comprenden Puerto Escondido. En los resultados se destaca la identificación de factores de permanencia y adaptación hacia los nuevos elementos, principalmente tecnológicos.

Hotel Chegue: En este hotel se destaca la categoría de *Tecnologías*, porque han implementado la adaptación de servicios modernos en internet, cable y acceso a redes y porque la infraestructura es relativamente nueva. Además en I*nnovación* porque a pesar de ser de origen un negocio familiar ha evolucionado a los elementos de la tecnología.

Hotel Casa Vieja: El *Marketing* es el principal factor que destaca a este hotel, debido a la adaptación de su oferta de alojamiento a los medios de difusión, como estrategia han adquirido convenio con agencias locales de viajes para promover sus habitaciones y han orientado su meta al mercado compuesto por jóvenes veraniegos y viejos surfistas que regresan año con año al evento internacional de surfing y en todo el año. La ubicación es una muy buena estrategia que promueven en para su venta. La *recreación* destaca ya que tiene convenios con empresa que ofrecen viajes.   .

Hotel Boutique Rockaway: Este hotel se destaca en *Innovación*, ya que toda su estructura es totalmente nueva a pesar de ser un hotel tradicional se han determinado llevarlo a la modernidad y en sus nuevas instalaciones han incluido tecnología para la atención de los clientes y para medios de comunicación. *Marketing*, también han implementado estrategias para la promoción y venta de habitaciones por medio de agencias locales y promoción por página web, además de que su ubicación está en un lugar altamente concurrido.

RESULTADOS

Hotel Nayar: En este establecimiento Sobresale la *autenticidad* ya que fue uno de los primeros hoteles que de manera formal se establecieron en la bahía principal del Puerto Escondido y hasta la fecha se observan los detalles tradicionales en sus habitaciones y en sus servicios. También se destaca en *Técnicas propias iniciales* ya que aún permanece con los mismos propietarios y con los mismos medios de promoción que se basa en las recomendaciones de sus visitantes y en los visitantes que regresan temporalmente a los eventos deportivos y de verano.

Hotel Paraíso Escondido: El hotel se destaca por su *autenticidad* por los años que lleva operando con la misma estructura y con los mismos servicios, tomando como base los materiales tradicionales y el proceso de servicio basado en el trato personalizado. También continúa empleando *Técnicas propias iniciales*, ya que su administración ha permanecido basada en la estructura familiar.

Hotel Acali: Los elementos de *Autenticidad*, se destacan en este hotel, el cual fue uno de primeros hoteles en la localidad en su servicio se observan *técnicas propias iniciales*, ya que permanece al mismo dueño y el servicio se basa en trato personalizado y basa su demanda en los viajeros que regresan y en los que promueven de boca a boca. Con respecto a la *Adaptación*, ha sabido mantenerse a pesar de la competencia y no consideran enemigos a los grandes hoteles porque confían en la fidelidad de sus visitantes.

Hotel Casa De Las Iguanas: En ese hotel destaca la implementación de aspectos basados en la nuevas *Tecnologías*, por la infraestructura en la que ofrecen internet, y los servicios se apoyan en medios electrónicos para su difusión y venta. También destaca el empleo de *Marketing* para promover sus servicios y por su medio físico. Destacan en la prestación de servicios en los que difunden la *Recreación*, ya que tiene convenios con empresas que ofrecen actividades recreativas y las ofrecen como parte de sus servicios.

Bungalows Puerta Del Sol: Los factores de *Autenticidad* destacan en este hotel porque fue uno de los primeros hoteles y porque conservan las instalaciones tradicionales, las cuales son de interés para los visitantes que permanecen largas temporadas en las paradisiacas playas. Se observa las *Técnicas propias iniciales* para atender a los visitantes de forma personalizada por permanecer a la misma familia. Los aspectos de *Adaptación* se observan al promoverse en agencias de viajes para reducir los efectos de la fuerte

competencia a sus al alrededores. También incluyen *Recreación* a través de los convenios que tiene con otras empresas.

Tabla 3: Índice de Indicadores de Permanencia Identificados en Base a la Entrevista Aplicada a los Prestadores de Servicios Turísticos en Puerto Escondido, Oaxaca, México

Empresa Turistica	Categorias Destacadas	Indicadores
Hotel Chegüe	Destaca en la categoría de *Tecnologías*, ya que su infraestructura es relativamente nueva. Además en I*nnovación* ya que es un negocio familiar.	Originalidad Atención al huésped Administración
Hotel Casa Vieja	*Marketing,* ya que su ubicación es una muy buena estrategia de venta. La *recreación* destaca ya que tiene convenios con empresa que ofrecen viajes.	Atención al huésped Servicios agregados Convenios y otros
Hotel Rockaway	*Innovación*, ya que toda su estructura es totalmente nueva. *Marketing*, su ubicación está en un lugar muy atractivo.	Atención al huésped Remodelación
Hotel Nayar	Sobre sale *autenticidad* ya que fue uno de los primeros hoteles. *Técnicas propias iniciales* ya que aún permanece con los mismos propietarios.	Originalidad Atención al huésped Administración
Hotel Paraíso Escondido	Destaca *autenticidad* por los años que lleva operando. *Técnicas propias iniciales*, ya que su administración ha permanecido familiar.	Originalidad Atención al huésped Administración Remodelación
Hotel Acalí	*Autenticidad*, primeros hoteles en la ciudad, *técnicas propias iniciales*, ya que permanece al mismo dueño. *Adaptación*, ha sabido mantenerse a pesar de la competencia.	Originalidad Atención al huésped
Hotel Casa de las Iguanas	*Tecnologías*, por la infraestructura. *Marketing* por su medio físico. *Recreación*, ya que tiene convenios con empresas que ofrecen actividades recreativas.	Atención al huésped Servicios agregados Deportes y actividades
Hotel Bungalows Puerta del Sol	*Autenticidad*, es porque fue uno de los primeros hoteles. *Técnicas propias iniciales*, por permanecer a la misma familia. *Adaptación*, ya que tiene fuerte competencia a sus al rededores. *Recreación* dado los convenios que tiene con otras empresas.	Originalidad Atención al huésped Administración Servicios agregados Convenios y otros Deportes y actividades

Tabla 3. Se pueden observar los resultados obtenidos del análisis de los datos de las entrevistas realizadas a

CONCLUSIONES

Los resultados obtenidos en esta investigación permiten demostrar que destacan las empresas con elementos de manejo clásico hotelero, ya que siendo una zona potencialmente turística sigue permaneciendo el sentido de cuidado hacia el medio ambiente. Los turistas hoy en día se preocupan por el medio ambiente al momento de buscar alojamiento. Los establecimientos turísticos que ofrecen servicio de alojamiento han visto la necesidad de adecuarse a ciertas necesidades de los clientes, otros a las necesidades de adaptación de acuerdo al entorno que se encuentran, todo esto sin perder su esencia original. Podemos observar que los elementos hoteleros clásicos han permitido la adaptación a las nuevas técnicas, tecnologías, e incluso exigencias de los turistas y por consecuencia la armonía y posteriormente un sentido de pertenencia propia. Toma aun mayor sentido sabiendo que Puerto Escondido tiene presente la sustentabilidad.

BIBLIOGRAFÍA

Ortuño. (1993). Study of Tourism. (Estudio del Turismo). Second Edition. Editorial Porrúa.   México, D.F.

Villarreal. (2007), Happy Tourism (Turismo Felíz)First Edition. México. 2007.

Cervantes and Gallardo. (2009). Permanencia de PyMES: Estrategias de viabilidad y riesgos. ECORFAN. Santiago de Compostela, España. http://www.ecorfan.org/series/cap20.pdf

Gómez-Velázquez, J., Marquez Alburqueque , A., & Velázquez-Sánchez, R. M. (2015). Enviromental Quality Indicators of the Alternative Tourism in Portugal and México. A comparative Analysis. *The Macrotheme Review*, 3442.

Gómez-Velázquez, J., Robles Maldonado, E., Velázquez-Sánchez, R., & Morales Santiago , A. (2015). Empresas Turísticas en el Aninimato y sus Indicadores de Permanencia en Puerto Rico. *Revista Global de Negocios*, 89-98.

Marin , G. (27 de Octubre de 2015). *AQUI OAXACA*. Obtenido de http://www.aquioaxaca.com/index.php?option=com_content&view=article&id=469:histori a-de-puerto-escondido&catid=89:historia&Itemid=114

Velasquez Sanchez , E. (2105). Indicadores de Permanencia en las Empresas Turisticas de Puerto Rico. *Revista Internacional de Administracion y Finanzas*.

Velázquez-Sánchez, R. M., Gómez-Velázquez, J., & Solana Vásquez, O. (2014). Indicadoresw Económicos, Ambientales y Sustentabilidad del Ecoturismo en México. (T. I. Research, Ed.) *Revista Internacional Administración y Finanzas, 7*(7), 135. http://www.escondido.com.mx/Historia/historia.htm

EL RIESGO CAMBIARIO Y SU EFECTO EN EL DESEMPEÑO Y PERMANENCIA DE LAS EMPRESAS EN MEXICALI, BAJA CALIFORNIA

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RESUMEN

La presente investigación tiene como objetivo determinar la manera en que el riesgo cambiario afecta el desempeño de las empresas comerciales dedicadas a la compra-venta de ropa de mujer, ubicadas en la ciudad de Mexicali, Baja California, derivado principalmente por el alza de precio del dólar, situación que impacta a las empresas situadas en esta ciudad debido a que una parte importante de sus operaciones las realizan en esa moneda, al llevar a cabo de manera constante importaciones de sus inventarios, los cuales son indispensables para que las empresas puedan permanecer en el mercado. El diseño de investigación es descriptivo, no experimental, transversal. Utilizando como instrumento de medición un cuestionario el cual fue sometido a pruebas estadísticas a través del alfa de Cronbach para determinar su confiabilidad. Dentro de los resultados obtenidos hasta este momento se tiene que ante los cambios en el precio del dólar la primera reacción de las empresas es aumentar sus precios, sin analizar el comportamiento de sus competidores, además de reducir sus compras y en algunos de los casos buscar otras opciones de abastecimiento de sus productos en el mercado nacional. Adicionalmente estas empresas no cuentan con ningún tipo de coberturas para protegerse contra este tipo de eventos económicos, situación que afecta su liquidez y pone en riesgo su permanencia.

PALABRAS CLAVE*: Riesgo Cambiario, Desempeño y Permanencia*

CURRENCY RISK AND ITS EFFECT ON PERFORMANCE AND PERMANENCE OF COMPANIES IN MEXICALI, BAJA CALIFORNIA

ABSTRACT

This research aims to determine how the currency risk affects the performance of commercial companies engaged in the sale of women's clothing, located in the city of Mexicali, Baja California, driven mainly by rising prices dollar, a situation that impacts businesses located in this city because a significant portion of its operations are conducted in that currency, to perform steadily imports of inventories, which are essential for companies to remain in the market. The research design is descriptive, not experimental and transversal. Measuring instrument used as a questionnaire which was submitted to statistical tests through Cronbach's alpha to determine its reliability. Among the results obtained until now has to be to changes in the dollar's first reaction of companies is to increase their prices without analyzing the behavior of their competitors, while reducing their purchases and in some cases search other options for supplying their products in the domestic market. Additionally these companies do not have any hedges to protect against this type of economic events, which affects liquidity and endangers its permanence.

JEL: G00

KEYWORDS: Currency Risk, Performance and Permanence

INTRODUCCIÓN

Actualmente las economías se encuentran entrelazadas debido a la globalización de tal forma que lo que acontece en un país afecta a otros en diversos aspectos, sobre todo los de tipo económico, los cuales a su vez impactan en el desarrollo y las operaciones de las empresas. Es indudable que el fenómeno de la globalización e integración de las economías en el ámbito mundial ha generado un escenario de alta competitividad y de cambiantes condiciones de mercado para las empresas, las cuales en la búsqueda del logro de sus objetivos, siguiendo los de su misión, y proyectándose hacia el futuro con la visión, establecen estrategias dentro de toda la cadena de valor, que les permitan sobrevivir, crecer y generar beneficios económicos (Rivera & Ruiz ,2011).

Un ejemplo actual de los efectos de la globalización es lo que sucede con la economía de China, Grecia, el desplome de los precios del petróleo, entre otros eventos, los cuales han venido afectando directamente a la economía de México y por consecuencia a las empresas mexicanas, principalmente en aquellas donde se realizan transacciones con otros países. Chapoy (2004) señala que las noticias importantes e impredecibles, desde el punto de vista económico y político, circulan casi instantáneamente por todo el mundo, afectando de manera determinante las decisiones de quienes participan en el mercado cambiario. Asimismo la interacción de particulares, empresas e instituciones financieras que para realizar pagos internacionales compran y venden divisas en el mercado cambiario es lo que determina los tipos de cambio. En relación a esto Fiorito, Guaita & Guaita (2015) refieren que las modificaciones en los tipos de cambio tienen efectos limitados en el aumento del producto, mientras que, inversamente, esos cambios impactan especialmente en la distribución del ingreso al incidir en los precios domésticos. En este sentido México es un país el cual se ve seriamente afectado por los cambios en la economía norteamericana, al compartir su frontera y llevar a cabo diariamente miles de operaciones comerciales, tanto de importación como de exportación, siendo esa economía su principal socio comercial. Esta situación afecta también a los estados y municipios que tienen frontera con Estados Unidos como es el caso de Mexicali. Ante esto Gómez (2012) señala que la tendencia de los mercados y la dinámica económica global, exige a las empresas definir modelos de administración eficientes.

México ha experimentado sus más graves crisis inflacionarias, cambiarias y de fuga de capitales, aún a pesar de haber estado dentro de la política económica vigente, la estrategia de intervenciones. A su vez el gobierno de México no ha abandonado el control directo de los precios líderes, a pesar de tener en marcha la estrategia de objetivos de inflación, como es el caso de los salarios, las gasolinas, la electricidad y el transporte urbano, así como el propio tipo de cambio. Este tipo de intervenciones esterilizadas influyen en el desenvolvimiento del tipo de cambio y la inflación (Rodríguez, 2015). Consecuentemente, las fluctuaciones de los tipos de cambio durante las últimas décadas han convertido la identificación, medición y gestión de los riesgos que de ellas se derivan en un aspecto muy destacado en la tarea directiva (Rahnema, 2007). Al igual que en México otros países de Latinoamérica como Colombia, donde la situación del sector externo asociada con la fuerte caída de las ventas a mercados importantes como Estados Unidos, ha sido de los principales factores generadores del deterioro de la actividad económica en el año. Junto a lo anterior, el desplome de la demanda interna resultado del bajo crecimiento del crédito, la inestabilidad de la tasa de cambio, y el aumento de la tasa de desempleo; se han convertido en componentes que han debilitado el comportamiento del Producto Interno Bruto (PIB) y han propiciado el bajo crecimiento de la economía del país (Correa, Castaño & Mesa, 2010).

Con esta investigación se desea determinar en qué medida las variaciones en las divisas que se han estado presentando en el transcurso del periodo 2015 están afectando las operaciones de las empresas que se encuentran ubicadas dentro de la zona fronteriza y se dedican al comercio de ropa de mujer, denominadas "Boutiques". Asimismo se identificarán cuáles son las estrategias o planes que han tenido que realizar los

dueños o gerentes de las mismas, ante estos cambios de tipo económico. Ante el fenómeno de la globalización y el entorno económico tan cambiante en la actualidad, es necesario que las empresas independientemente de su tamaño deben reaccionar con rapidez y ajustarse a los cambios con facilidad y prontitud. Sin embargo la mayoría de las empresas, principalmente las de menor tamaño no cuentan con herramientas financieras para afrontar los riesgos cambiarios; ante esta situación este tipo de empresas, se adecuan en forma tardía a la realidad, o en ocasiones no tienen tiempo para responder a los cambios que se están dando actualmente en el mercado, debido a la falta de información teniendo que sobrellevar los riesgos cambiarios, situación que afecta la liquidez inmediata de las empresas.

Además el que los tipos de cambio se muevan tan rápido, en ocasiones no permite a las empresas establecer estrategias que minimicen los efectos que traen consigo. En este sentido las empresas que tienen deudas en dólares han visto un fuerte aumento en el costo de sus obligaciones. Por otra parte aun cuando existen empresas que manejan sus carteras de clientes en dólares y no corren riesgos por el alza del precio del dólar, también son afectadas debido a que los clientes prefieren que se les facture en pesos ante la incertidumbre y el costo que deben asumir. A su vez esta situación ocasiona que las empresas suban sus precios y queden en desventaja ante otras empresas que no tienen productos de importación, o bien empresas en el extranjero que aun cuando el precio del dólar este alto, les es más barato a los consumidores adquirir los productos en estas empresas extranjeras; lo cual puede incluso provocar que las empresas salgan del mercado al ya no ser competitivas en precio, y disminuyan sus ventas hasta el extremo de llegar a cesar su operación, este fenómeno no solo afecta al empresario sino a la economía en general, ocasionando desempleo y disminución en la capacidad de ingresos al PIB, así como en las contribuciones que realizan las empresas vía impuestos.

Además el tener un inadecuado manejo del control de inventarios puede ocasionar que las empresas fracasen, debido a que pueden tener un exceso o escasez de los insumos. En la actualidad, una parte significativa de la sociedad percibe a las empresas como organizaciones sociales centradas, de forma excesiva, en la maximización de beneficios. Ante esto una modificación negativa en el desempeño económico de una empresa, podrá afectar a su desempeño social y ambiental (Lopes de Oliveir & Moneva, 2013). Es por ello que este tipo de empresas deben desarrollar estrategias tendientes a reducir el riesgo cambiario, de tal forma que el impacto en sus operaciones sea el menor posible y que las fluctuaciones en el tipo de cambio no pongan en riesgo su operación, tal como lo hacen las grandes empresas que cubren aspectos tales como contratos de coberturas, planeación, administración, controles, entre otros; lo cual les permite consolidarse. Debido a la falta de recursos para poder dar cumplimiento a sus obligaciones, a su vez las empresas con cuentas por cobrar en dólares deben establecer esquemas que permitan a sus clientes tener una mayor certidumbre en épocas en los que los tipos de cambio se van a la alza. Ante esta situación es necesario conocer cómo las empresas en Mexicali, que adquieren la mayor parte de sus inventarios en el extranjero enfrentan este tipo de situaciones económicas.

En la ciudad de Mexicali diversas empresas están presentando problemas como consecuencia del alza del dólar, provocando que se presenten retrasos en sus obligaciones, disminuyendo sus compras de inventarios, en virtud de que la mayoría de empresas analizadas realizan sus compras en dólares al manejar principalmente inventario de importación, dando como resultado que las empresas aumenten sus precios y esto provoque una reducción en sus ventas tanto por el aumento de precios como el desabasto de sus productos. Si bien es cierto como lo señala Mantey (2013) el efecto de la devaluación en la inversión y el empleo es difícil de predecir, ante el alza de los tipos de cambio, es importante que las empresas independientemente de su tamaño o sector al que pertenezcan realicen una adecuada planeación de estrategias tendientes a prever este tipo de situaciones, estableciendo mecanismos de control y por qué no, el contrato de coberturas. En este sentido Lizarzaburu & Berggrun (2013) mencionan que una empresa que es capaz de tomar ventaja de sus opciones reales y emplear contratos financieros que reduzcan su riesgo, entiende en su totalidad el valor de los beneficios de una estrategia de administración de riesgos.

REVISIÓN DE LITERATURA

La empresa es una organización económica de producción de bienes y servicios para un mercado específico, cuyo objeto primario o fin último es la obtención de utilidades para sus dueños. De acuerdo con Ferrell & Hirt (2010) las empresas mediante sus actividades ofrecen productos que proporcionan satisfacción y beneficios a las personas. De acuerdo con la Secretaría de Economía la estratificación de las empresas como se muestra en la tabla 1, se realiza con base al número de empleados y ventas anuales. Por otra parte las empresas comerciales son aquellas cuya actividad consiste en realizar operaciones de compraventa, es decir, se constituyen en intermediarias entre el productor y el consumidor (Del Castillo, Cereceres, Rodríguez & Borboa, 2005).

Tabla 1: Clasificación de Empresas Por Tamaño

		Estratificación		
Tamaño	Sector	Rango del N° de trabajadores	Rango del monto de ventas anuales (mdp)	Tope máximo combinado*
Micro	Todas	Hasta 10	Hasta $4	4.6
Pequeña	Comercio	Desde 11 hasta 30	Desde $4.01 hasta $100	93
	Industrias y servicios	Desde 11 hasta 50	Desde $4.01 hasta $100	95
Mediana	Comercio	Desde 31 hasta 100		235
	Industria	Desde 51 hasta 100	Desde $100.01 hasta $250	
	Servicio	Desde 51 hasta 250		250

Fuente: Diario oficial de la Federación 25 de Junio 2009

Las micros y pequeñas empresas son las que tienen una mayor representatividad y son parte esencial en la economía de cualquier país, como lo son en México, en virtud de que estas empresas constituyen una fuente importante en la generación de ingresos y empleos, convirtiéndose en un motor de su economía. Estas empresas tienen un importante papel en el crecimiento económico del Estado de Baja California y en el Municipio de Mexicali sobre todo hoy en día, donde el medio ambiente actual exige empresas con una mejor administración e innovadoras, que mantengan un estrecho contacto con el cliente, debiendo reaccionar con rapidez y ajustarse a los cambios con facilidad y prontitud. Sin embargo la mayoría de las empresas, principalmente las de menor tamaño no cuentan con herramientas financieras para afrontar los riesgos cambiarios; por lo que se adecuan en forma tardía a la realidad, o en ocasiones no tienen tiempo para responder a los cambios que se están dando actualmente en el mercado, debido principalmente a la falta de información teniendo que sobrellevar los riesgos cambiarios, situación que afecta la liquidez inmediata de las empresas.

Dentro de las empresas comerciales de menor tamaño se encuentran las tiendas de ropa de mujer denominadas "Boutiques" palabra que proviene del francés y es utilizada para hacer referencia a una entidad comercial pequeña, especialista en la venta de artículos de moda y lujo como prendas de vestir y joyería. De acuerdo con Instituto Nacional de Estadística y Geografía (INEGI) este tipo de empresas son unidades económicas dedicadas principalmente al comercio al por menor especializado de ropa, de bisutería y accesorios de vestir nuevos, como aretes y artículos para el cabello (INEGI, 2015). La mayoría de las boutiques establecidas en Mexicali se encuentran dentro de la clasificación de microempresas de acuerdo a lo establecido por la Secretaría de Economía, tomando principalmente en consideración el número de empleados, tal como se muestra en la figura1.

Figura 1: Tamaños de Boutiques de Mexicali

Fuente: (INEGI, 2015)

Riesgo Cambiario

El riesgo cambiario de acuerdo con Lizarzaburu & Berggrun (2013) es definido como las variaciones en los tipos de cambio que se presentan de la moneda local frente al dólar o al euro las cuales pueden ser causa de pérdidas, o de ganancias, considerables para el inversor extranjero. Adicionalmente, señalan que dentro del riesgo cambiario se presenta la volatilidad del tipo de cambio el cual juega un rol importante en la diversificación internacional del portafolio de inversiones y en varios otros aspectos de la política económica, en particular, en la determinación de la incertidumbre en torno a los precios de las exportaciones e importaciones. Asimismo establecen que la utilidad de la administración del riesgo cambiario no se debería cuantificar mediante la comparación de los resultados de las estrategias de cobertura frente al escenario de no haberlo empleado. Por el contrario, debería cuantificarse como la posibilidad de generar certeza en un contexto de incertidumbre y poder tomar las decisiones pertinentes, y para ello es necesario el apoyo del más alto nivel gerencial de la compañía.

Asimismo Kozikowki (2013) refiere que el riesgo cambiario es la parte de la varianza total del valor en moneda nacional de un activo expresado en moneda extranjera, que se debe a los cambios inesperados en el tipo de cambio Este tipo de riesgo está siempre latente en las empresas que realizan operaciones en una moneda extranjera a la de su país de origen. De acuerdo con Vivel (2010) el riesgo cambiario que afrontan las empresas se puede clasificar en tres tipos: el riesgo de transacción, el riesgo económico y el riesgo contable o de conversión. El riesgo de transacción se deriva de los efectos que las alteraciones no previstas en el tipo de cambio pueden tener sobre los cobros y/o pagos aplazados en divisas. Frente a este, el riesgo operativo se refiere al impacto de estas alteraciones cambiarias sobre los flujos de tesorería futuros, tanto aquellos denominados en divisa como en moneda local.

En el cada vez más complejo y dinámico mundo de los negocios, contar con herramientas y estrategias que permitan solucionar problemas específicos, minimizando el riesgo financiero, representa una necesidad recurrente de los agentes económicos. El análisis del riesgo financiero representa una actividad imprescindible, porque implica tener en cuenta la existencia de factores externos que coadyuvan a que la empresa evite incurrir en pérdidas significativas, producto de malas decisiones y de no haber contado con esquemas estratégicos que le hayan permitido minimizar el impacto de los eventos económicos que afectan a la empresa (Austria, 2007). Este tipo de empresas deben desarrollar estrategias tendientes a reducir el riesgo cambiario, de tal forma que el impacto en sus operaciones sea el menor posible y que las fluctuaciones en el tipo de cambio no pongan en riesgo su operación, como es el caso que permite a las grandes empresas consolidarse, aspectos tales como contratos de coberturas, planeación, administración, controles, entre otros. Ante la falta de recursos para poder dar cumplimiento a sus obligaciones, a su vez

las empresas con cuentas por cobrar en dólares deben establecer esquemas que permitan a sus clientes tener una mayor certidumbre en épocas en los que los tipos de cambio se van a la alza.

Coberturas

Como se ha mencionado anteriormente estas empresas están muy expuestas al riesgo cambiario, las micro y pequeñas empresas no cuentan con estrategias para mitigar los efectos del riesgo cambiario a esto se le conoce como especulación, las acciones por las que pueden optar estas empresas son tres, eliminar el riesgo, ignorarlo o cubrirlo. Si una empresa opta por adquirir un tipo de cobertura lo que hace es que va a garantizar la rentabilidad que se había definido, esto quiere decir que la cobertura permite fijar un precio para el futuro pactándolo en el presente.

Las Coberturas Financieras son instrumentos que nos ayudan a cubrir diferentes tipos de riesgos como son tasas de cambio, tasas de interés, entre otros. Lizarzaburu & Berggrun (2013) señalan que existen dos alternativas para minimizar el riesgo cambiario, que son: el forward y el factoring. Definiendo al forward como la operación de un derivado financiero cuyo propósito es reducir el riesgo cambiario a partir de la fijación de un valor en el tipo de cambio en un período de tiempo futuro, logrando con ello planificar futuros ingresos y salidas en el flujo de caja de una empresa sin necesidad de estar expuesto a las volatilidades del mercado cambiario. En este mismo sentido Madura (2010) precisa que un contrato de forward de tipo de cambio es el contrato entre una corporación y un banco comercial para cambiar una divisa por otra a un tipo de cambio específico en una fecha futura.

En tanto que el factoring es un contrato financiero que establece que una empresa traslada a un tercero el servicio de cobranza futuro de los créditos y las facturas existentes a su favor por ventas de sus productos o servicios. A cambio, recibirá inmediatamente el monto de las facturas menos un descuento, calculado con base en una tasa de descuento previamente acordada. Entre sus principales ventajas se destacan que permite a las empresas obtener liquidez de manera rápida y disponer de un flujo de caja adecuado a los requerimientos del giro del negocio; permite reducir la exposición de la empresa al riesgo de crédito y reduce los costos para la administración de cuentas por cobrar (Lizarzaburu & Berggrun, 2013). Adicionalmente en el mercado existen diversos tipos de coberturas para manejar el riesgo cambiario en las empresas que son los las opciones y los futuros. Siendo las opciones de compra denominadas en las instituciones bancarias como "call", un contrato en donde se establece que al momento de que se paga una prima el empresario adquiere el derecho pero no la obligación a comprar, a un precio establecido en una determinada fecha futura, pero no se ve obligado a realizar la operación si esta no le favorece. Por otra parte los futuros son contratos en los que se obliga al comprador a adquirir cierto número de divisas a una fecha futura a un precio ya pactado, en este tipo de coberturas no se recibe una cantidad de divisas si no que solo se recibe la diferencia entre la tasa que se pactó y la tasa del mercado al día en que solventa el contrato. Los beneficios que obtienen las empresas por adquirir cualquier tipo de cobertura son muchos pero los más relevantes es el eliminar el riesgo cambiario y volver a la empresa más competitiva.

Desempeño Financiero

El desempeño financiero de una empresa se mide en base a los indicadores financieros, principalmente, solvencia, liquidez, productividad, rentabilidad y endeudamiento. De acuerdo con Correa, Castaño & Mesa (2010) cada indicador permite evaluar diferentes aspectos de la empresa, sea en el corto o largo plazo, sin embargo, se debe observar una visión integral de todos estos aspectos a fin de obtener los resultados que tengan en cuenta el todo. Estos autores consideran como indicadores de mayor relevancia a la liquidez y la rentabilidad, definiendo a la liquidez como la capacidad que tienen las empresas para solventarse en el corto plazo, teniendo presente que cuentan con recursos de corto plazo, pero que también deben cumplir con obligaciones en el mismo horizonte de tiempo. En tanto que a la rentabilidad la definen como el resultado de la relación entre los recursos dispuestos para la actividad económica y las utilidades obtenidas. Anderson,

Fornell, y Lehmann (1994) sostienen que el beneficio económico está positivamente relacionado a la satisfacción del cliente, mientras que la satisfacción del cliente está positivamente afectada por las expectativas de mercado y con las experiencias del mercado en periodos recientes. Esto muchas veces depende de cómo se ha visto afectada la empresa por el riesgo cambiario, que modificaciones a tenido que hacer en su administración para lograr mantener la satisfacción del cliente, pudiendo ver esta disminuida su ganancia sobre los artículos en venta, para evitar incrementar los precios y perder competitividad ante otras empresas que tal vez no se dedican a la importación, o bien son empresas grandes que al comprar en mayor cantidad se les ofrece un mejor precio, dejando a las microempresas fuera de competencia.

METODOLOGÍA

Diseño

Esta investigación es de corte cuantitativo, descriptivo, no experimental y transeccional. Esta investigación es no experimental en virtud de que no existe una manipulación de las variables. Asimismo el diseño de la investigación es transeccional o transversal, es decir, los datos se recolectan en un solo momento, con el propósito de describir las variables y posteriormente analizar su interacción. La metodología empleada para el desarrollo se realizó en dos etapas, en la primera parte se llevó a cabo la revisión y análisis de bibliografía en bases de datos, libros y revistas. En la segunda parte se realizó la elaboración del instrumento de medición, determinación de la muestra y aplicación del instrumento de medición a las personas a cargo de la administración y funcionamiento de las empresas estudiadas, así como el análisis de datos.

Instrumento

El instrumento de medición que se elaboró para medir las variables, fue un cuestionario constituido en su mayoría por preguntas cerradas con respuestas de opción múltiple, sin embargo se elaboraron algunas preguntas abiertas para la obtención de datos generales. Una vez elaborado el cuestionario se revisó por expertos en el área. Posteriormente se modificaron aquellos ítems a los cuales se les hicieron observaciones. Los cuestionarios se aplicaron a los gerentes o dueños de las empresas. Los informantes fueron personas relacionadas con el tema de investigación conocedoras y con amplia experiencia en la actividad que desempeñan, lo que proporciona validez y confiabilidad a los datos obtenidos.

Población y Muestra

Se determinó el tamaño de la población, de acuerdo a la información proporcionada por Instituto Nacional de Estadística y Geografía (INEGI), el cual cuenta con un registro de empresas, clasificadas de acuerdo a su entidad, municipio, tamaño y sector. Determinándose una población aproximada de 630 boutiques ubicadas en la zona urbana de Mexicali. El tipo de muestreo es probabilístico aleatorio por reemplazo, es decir, todos los elementos de la población tienen la misma posibilidad de ser escogidos, para determinar el tamaño de la muestra se utilizó la fórmula de poblaciones finitas, considerando un margen de error del 5%, con un grado de confiabilidad del 95%. Obteniendo como resultado una muestra de 237 empresas a las cuales se les aplicará el instrumento de medición. Cabe mencionar que los resultados que se obtuvieron son previos en virtud de que se presentan los datos obtenidos de la aplicación del instrumento a 52 empresas. La captura y análisis de datos se llevó a cabo en el programa estadístico SPSS, en donde se efectuaron pruebas estadísticas para determinar la confiabilidad de los datos obtenidos a través del índice del Alpha de Cronbach. Una vez analizados los datos se realizaron las conclusiones de la investigación.

RESULTADOS

A continuación se presentan los principales resultados derivados de la aplicación del instrumento, captura y análisis de datos de 52 empresas dedicadas a la comercialización de ropa de mujer, las cuales forman

parte de la muestra. En relación a la adquisición de inventarios tal y como se muestra en la figura 2 las empresas manifestaron que es principalmente en el mercado extranjero, donde realizan sus compras representando estás el 92.7% de las empresas encuestadas y solo un 7.3% las realizan en territorio nacional, de ahí la importancia de que este tipo de empresas establezcan estrategias que deben realizar para minimizar el impacto del alza del tipo de cambio. Asimismo el 96.4% compra los dólares en multiservicios cambiarios y solo el 5.6% lo hace en instituciones bancarias, debido a que consideran que es más costoso hacerlo en este tipo de instituciones.

Figura 2: Mercado Donde Realiza Sus Compras

Fuente: Elaboración propia con resultados del cuestionario aplicado a las boutiques en Mexicali, B.C. durante el periodo 2015.

De acuerdo a la manera en cómo reaccionan los empresarios ante el alza del tipo de cambio de acuerdo con la figura 3, se tiene que el 100% de los encuestados elige incrementar el precio de sus productos y disminuir sus compras, siendo el cliente el que se ve afectado por el aumento de los precios y solo un 33% reduce su margen de utilidad, tratando de que el impacto del alza sea absorbida por ambas partes. Sin embargo no analizan las acciones de la competencia.

Figura 3: Acciones Ante El Alza del Dólar

Fuente: Elaboración propia con resultados del cuestionario aplicado a las boutiques en Mexicali, B.C. durante el periodo 2015.

En cuanto a las razones por las que los empresarios compran en el extranjero se muestra en la figura 4, que el 92% es debido a que los productos que requieren aun cuando el precio de compra del dólar sube, sigue siendo más barato adquirirlos en Estados Unidos que en el mercado nacional, además de que el 89% manifestó que en este mercado encuentran más variedad de productos y que son de moda, sin dar importancia a la calidad de los mismos.

Figura 4: Razones Por las Que Realiza Sus Compras en el Extranjero

Fuente: Elaboración propia con resultados del cuestionario aplicado a las boutiques en Mexicali, B.C. durante el periodo 2015.

En relación a la adquisición de inventarios en territorio nacional cuando se incrementa el tipo de cambio de acuerdo con la figura 5, el 87% de los empresarios manifestaron que buscan comprar una parte de su inventario en el mercado nacional, para evitar el incremento excesivo de los precios y solo el 13% sigue realizando la totalidad de sus compras en el extranjero.

Figura 5: Búsqueda de Proveedores Nacionales Cuando el Dólar Tiende a la Alza

Fuente: Elaboración propia con resultados del cuestionario aplicado a las boutiques en Mexicali, B.C. durante el periodo 2015.

Respecto así las empresas tienen contratadas algún tipo de coberturas, el 100% comento no contar con este tipo de instrumentos financieros que ayudan a mitigar los efectos del riesgo cambiario, ante la volatilidad de los tipos de cambio, sin embargo se manifestaron interesados en recibir información respecto a este tema. Además algunos de los empresarios manifestaron que a raíz de la homologación del Impuesto al Valor Agregado (IVA) en las ciudades fronterizas, vieron disminuidas sus ventas debido a que el precio de venta se elevó, dejándolos aún más en desventaja frente a las empresas del mismo giro en Estados Unidos, que es la principal opción de compra para sus clientes por poseer precios más económicos, y tienen un impuesto al consumo mucho menor que el que se tiene en México. Adicionalmente señalan que cada vez es más difícil importar sus productos, debido a que las autoridades establecen mayores requisitos para poder introducir legalmente sus productos y los tiempos que tardan para realizar las importaciones son largos, lo cual no les permite tener en tiempo sus inventarios y perder ventas, situación que para algunos de ellos los hace pensar en emigrar a la informalidad o bien cambiar de giro, situación muy grave para la economía local.

CONCLUSIONES

Las empresas principalmente aquellas de menor tamaño que no tienen estructuras financieras sólidas, pueden ser las más afectadas en tiempos de una alta volatilidad en los tipos de cambio, debido a que no tienen contratadas coberturas o bien no existe una planeación de estrategias encaminadas a enfrentar este tipo de situaciones, lo cual trae como consecuencia, retrasos en el pago de sus pasivos en moneda extranjera, reducción en los montos de adquisición de sus inventarios, así como el aumentar de precio sus productos lo cual puede ocasionar una disminución en sus ventas, provocando con ello que no se cuente con los ingresos suficientes para cubrir sus costos y gastos de operación, ocasionando que en algunos de los casos las empresas cesen sus operaciones de manera anticipada.

Las fluctuaciones cambiaras generan riesgos importantes y estos riesgos a diferencia de otros, se pueden cubrir y proteger los resultados de la operación evitando pérdidas considerables. Asimismo la volatilidad del dólar ha generado que los consumidores noten un encarecimiento de los artículos importados, debido a que el empresario tiene dos opciones, incrementar los costos del producto o asumir el incremento y ver una disminución de su rentabilidad. Una de las opciones que han tomado los dueños es el buscar proveedores mexicanos. Además la mayoría de las empresas tienen que comprar las divisas en multiservicios cambiarios, mientras que las medianas y grandes empresas tienen la oportunidad de comprar esta moneda al mayoreo a un precio un poco más accesible. Algo muy importante que resaltar es que un número importante de empresarios están pensando en cerrar sus negocios en el corto plazo, debido no solo a la afectación en sus operaciones por el tipo de cambio sino que también las regulaciones que las autoridades en el país están imponiendo a las importaciones de textiles y que pocas agencias aduanales en la localidad manejan este tipo de importación por las exigencias de los requisitos para su introducción legal al país, dejándolos sin más opciones para su permanencia.

BIBLIOGRAFÍA

Anderson, E. W., Fornell, C., & Mazvancheryl, S. K. (2004). Customer satisfaction and shareholder value. Journal of Marketing, Vol. 68, 172-185.Austria Carlos, M. A. (2007).

Construcción de índices de desempeño financiero mediante el Análisis de Componentes Principales, 2004-2005. Análisis Económico, XXII (51) 199-222. Recuperado de http://www.redalyc.org/articulo.oa?id=41311486011

Chapoy B. A. (2004). El dólar estadounidense: el impacto de sus fluctuaciones. Problemas del Desarrollo. Revista Latinoamericana de Economía, 35(136) 27-47. Recuperado de http://www.redalyc.org/articulo.oa?id=11825946003

Correa García, J. A., Castaño Ríos, C. E. & Mesa Callejas, R. J. (2010). Desempeño financiero empresarial en Colombia en 2009: un análisis por sectores. Perfil de Coyuntura Económica, (15) 149-170. Recuperado de http://www.redalyc.org/articulo.oa?id=86120154008

Del Castillo, C.O., Cereceres, G.L., Rodríguez, P.M. & Borboa, Q.M. (2005). Fundamentos Básicos de Administración. Culiacán: Universidad Autónoma de Sinaloa.

Ferrell, O. C., & Hirt, G.A. (2010). Introducción a los negocios en un mundo cambiante. Séptima edición, México, Mc Graw Hill.

Fiorito, A., Guaita, N. & Guaita, S. (2015). Neodesarrollismo y el tipo de cambio competitivo. Cuadernos de Economía, XXXIV(64) 45-88.

Gómez Niño, O. (2012). Costo, volumen, precio y utilidad: dinámica del desempeño financiero industria confecciones infantiles. Cuadernos de Administración, 28(47) 53-64. Recuperado de http://www.redalyc.org/articulo.oa?id=225025086005

Instituto Nacional de Estadística y Geografía (2015). www.inegi.org.mx
Kozikowksi, Z. (2013). Finanzas internacionales Tercera edición. México, D.F.: Mc Graw Hill Education. 341-342

Lizarzaburu, E. & Berggrun, L. (2013). Gestión del riesgo cambiario: aplicación a una empresa exportadora peruana. Estudios Gerenciales, 29(128) 379-384. Recuperado de http://www.redalyc.org/articulo.oa?id=21229786012

Lopes de Oliveira Filho, M. & Moneva Abadía, J. M. (2013). El desempeño económico financiero y responsabilidad social corporativa Petrobrás versus Repsol. Contaduría y Administración, 58(1) 131-167. Recuperado de http://www.redalyc.org/articulo.oa?id=39525580007

Madura, J. (2010). International financial management (1.ª ed.). Cincinnati, Ohio: Thomson South-Western College.

Mántey, G. (2013). ¿Conviene flexibilizar el tipo de cambio para mejorar la competitividad? Problemas del Desarrollo. Revista Latinoamericana de Economía, 44(175) 9-32. Recuperado de http://www.redalyc.org/articulo.oa?id=11828895002

Rahnema, A. (2007): Finanzas internacionales. Barcelona: Deusto.

Rivera Godoy, J. A. & Ruiz Acero, D. (2011). Análisis del desempeño financiero de empresas innovadoras del Sector Alimentos y Bebidas en Colombia. Pensamiento & Gestión, (31) 109-136. Recuperado de http://www.redalyc.org/articulo.oa?id=64620759006

Rodríguez, V. (2015). Límites de la estabilidad cambiaria de México. Problemas del Desarrollo. Revista Latinoamericana de Economía, 46(181) 49-74.

Vivel, B. M. (2010). El riesgo cambiario y su cobertura financiera. Revista Galega de Economía, 19(2) Recuperado de http://www.redalyc.org/articulo.oa?id=39115730011

ANÁLISIS DE LA LEY FEDERAL PARA LA PREVENCIÓN E IDENTIFICACIÓN DE OPERACIONES CON RECURSOS DE PROCEDENCIA ILÍCITA DE LOS CONTRIBUYENTES QUE DESARROLLAN ACTIVIDADES VULNERABLES

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RESUMEN

Esta investigación tiene como propósito realizar un análisis de la Ley Federal para la Prevención e Identificación de Operaciones con Recursos de Procedencia ilícita (LFPIORPI) en México. Dicha ley impone obligaciones administrativas, a contribuyentes que desarrollan actividades vulnerables. Es una investigación mixta, se aplicó el método analítico toda vez que por la naturaleza de dicha ley es necesario un análisis de cada actividad vulnerable, el tipo de estudio es exploratorio, descriptivo y explicativo. El diseño del instrumento fue basado en el artículo 17 de la LFPIORPI (2013), el cual enumera 15 actividades vulnerables; en algunos casos existen subgrupos de estas actividades. Se aplicó una muestra del tipo intencional a 20 contribuyentes que desarrollan actividades en la industria de construcción en la ciudad de Puebla México a través de la página de internet "encuesta fácil". El instrumento de investigación utilizado permitió detectar cuáles son las razones de la incorrecta interpretación y cumplimiento de la ley, así como afirmar que la iniciativa de ley vigente en la cámara de diputados, no observa con precisión la revisión continua de la LFPIORPI, ni propone un órgano autónomo independiente que vigile el cumplimento de la misma.

PALABRAS CLAVE: Análisis, Ley Federal Para la Prevención E Identificación de Operaciones Con Recursos de Procedencia Ilícita, Lavado de Dinero, Actividades Vulnerables, México

ANALYSIS OF FEDERAL LAW FOR PREVENTION AND IDENTIFICATION OF OPERATIONS WITH ILLEGAL RESOURCES OF TAXPAYERS TO DEVELOP VULNERABLE ACTIVITIES

ABSTRACT

This research aims to make an analysis of the Federal Law for the Prevention and Identification of operations with illegal proceeds (LFPIORPI) in Mexico. This law imposes administrative obligations, taxpayers who develop vulnerable activities. It is a joint research, analytical method whenever the nature of the law of each vulnerability analysis activity is required, the type of study is exploratory, descriptive and explanatory. The design of the instrument was based on article seventeen of the LFPIORPI (2013), which lists fifteen vulnerable activities; in some cases there are subgroups of these activities. A sign of intentional type 20 taxpayers operating in the construction industry in the city of Puebla Mexico was applied through the website "easy survey". The research instrument used to detect which allowed the reasons for the incorrect interpretation and enforcement are, and say that the current bill in the Chamber of Deputies, accurately observed the ongoing review of the LFPIORPI, nor proposes an independent autonomous body to monitor compliance with it.

JEL: M48

KEYWORDS: Analysis, Federal Law For Prevention and Identification of Operations With Illegal Resources, Money Laundering, Vulnerable Activities, Mexico

INTRODUCCIÓN

El presente trabajo de investigación tiene por objeto analizar la Ley Federal para la Prevención e Identificación de Operaciones con recursos de Procedencia Ilícita que regula las actividades vulnerables (LFPIORPI); también conocida como "ley anti lavado de dinero". Inicialmente se presentan brevemente las diversas etapas en la historia del blanqueamiento de capitales en el ámbito nacional e internacional que ha permitido comprender la implementación en México de dicha ley, que regula actividades que se consideran vulnerables. El concepto "ley anti lavado" tiene sus orígenes históricos en el año 67 A.C., Pompeyo emprendió una expedición contra los piratas del Mediterráneo que robaban los víveres a Roma. Cilicio era entonces, la guarida tradicional de los piratas. Hoy en día los refugios financieros son la versión moderna de aquellas guaridas y el complemento indispensable para coronar prácticas de operaciones dudosas o abiertamente fraudulentas que se han abierto paso en el mundo, en la medida en que el lavado de dinero progresa. Los piratas fueron pioneros en la práctica del lavado de oro y el blanco de sus ataques fueron las naves comerciales europeas que surcaban el Atlántico durante los siglos XVI y XVIII. No obstante el término de "lavado de dinero" se le atribuye al mafioso norteamericano Meyer Lanski, quien creo en Nueva York una cadena de lavanderías para lavar los fondos provenientes de la explotación de casinos ilegales; las ganancias que generaban estos lugares se colocaban en las cajas de las lavanderías ingresando así al sistema financiero (Córdova y Palencia, 2001).

El primer antecedente jurídico lo encontramos en la ley del secreto bancario (The Bank Secrecy Act) de Estados Unidos en 1970, que obligó a las instituciones financieras a identificar ciertas operaciones inusuales o relevantes y reportarlas a las autoridades. Existen registros que señalan que la ley antes mencionada resultó ineficaz en sus inicios, por carecer de una sanción, ante tal deficiencia, en 1986, el Congreso de los Estados Unidos de América, expidió la denominada "Ley de Control de lavado de Dinero". La cual tipificó este delito, sancionándolo con pena de prisión hasta de 20 años. A través de esa ley se federalizó esta actividad, se autorizó la confiscación de ganancias obtenidas por los lavadores y se proporcionaron a las autoridades herramientas adicionales para investigar el lavado de dinero. Como se observa tipificar como delito el blanqueamiento de capitales es una práctica reciente, anteriormente la atención se centraba en el delito cometido para obtener el dinero y no en el de ingresarlo a la economía formal. Esta acción es motivo suficiente para el decomiso de bienes. En algunos países, el blanqueo del producto del delito puede dar lugar a penas más severas que el mismo delito realizado para obtenerlo. Cabe mencionar que los países con mayor índice de lavado de dinero se encuentran en Asia, África y América Latina, esto es generado por el alto índice de países considerados paraísos fiscales.

Para el caso de México, en el artículo 2 de la exposición de motivos de la LFPIORPI (2013) se estipula el objetivo de ésta, el cual consiste en proteger el sistema financiero y la economía nacional, estableciendo medidas y procedimientos para prevenir y detectar actos u operaciones que involucren recursos de procedencia ilícita, a través de una coordinación interinstitucional, que tenga como fin recabar elementos útiles para investigar y perseguir los delitos de operaciones con recursos de procedencia ilegal, o los relacionados con estos últimos, así como las estructuras financieras de las organizaciones delictivas y evitar el uso de los recursos para su financiamiento. Es pertinente señalar que la investigación está organizada de la siguiente manera: en primera instancia se abordan los antecedentes del lavado de dinero, posteriormente se señala la forma en que se lleva a cabo la metodología, se presenta un análisis de la LFPIORPI y conclusiones.

Estado del Arte

*Antecedentes internacionales del lavado de dinero:*A nivel mundial, el esfuerzo por combatir el lavado de dinero es innegable, y tiene por finalidad evitar que se filtren recursos provenientes de actividades ilícitas que al blanquearse fortalezcan las estructuras criminales. Esta es la causa más fuerte que dio como resultado el surgimiento del Grupo de Acción Financiera Internacional (GAFI, 2015), una institución intergubernamental constituida en 1989 por los ministerios y su jurisdicción miembro.

El objetivo del GAFI es fijar estándares y promover la implementación efectiva de medidas legales, regulatorias y operativas para combatir el lavado de activos, el financiamiento del terrorismo y el financiamiento de la proliferación y otras amenazas a la integridad del Sistema Financiero Internacional. En colaboración con otras partes involucradas internacionalmente, el GAFI también trata de identificar vulnerabilidades a nivel nacional para proteger el sistema financiero internacional de usos indebidos. Las recomendaciones del GAFI constituyen un esquema de medidas que los países deben implementar para combatir el lavado de activos y el financiamiento del terrorismo, así como también el financiamiento de la proliferación de armas de destrucción masiva. Los países tienen diversos marcos legales, administrativos y operacionales y diferentes sistemas financieros por lo cual no pueden tomar medidas idénticas contra estas amenazas. Por lo tanto, las recomendaciones del GAFI, fijan un estándar internacional que los países deberían implementar por medio de medidas adaptadas a sus circunstancias particulares.

Las 40 recomendaciones emitidas por GAFI en 1990 fueron una iniciativa para combatir los usos indebidos de los sistemas financieros por parte de personas que lavaban el dinero del tráfico ilícito de drogas. En 1996, se revisaron las recomendaciones por primera vez para reflejar las crecientes tendencias y técnicas de lavado de activos y ampliar su campo más allá del lavado de activos proveniente de las drogas. En octubre de 2001, el GAFI expandió su mandato e incluyó el financiamiento de actos y organizaciones terroristas y creó las ocho (luego ampliadas a nueve) recomendaciones especiales sobre el financiamiento del terrorismo. En 2003, las recomendaciones del GAFI se revisaron por segunda vez y junto con las recomendaciones especiales fueron avaladas por más de 180 países, y son reconocidas universalmente como el estándar internacional contra el lavado de activos y el financiamiento del terrorismo. Actualmente GAFI está integrada por 34 países los cuales son: Alemania, Argentina, Australia, Austria, Bélgica, Brasil, Canadá, México, Grecia, El Consejo del Golfo Pérsico, Hong Kong, China, Islandia, Irlanda, Italia, Japón, Luxemburgo, La Comisión Europea, Dinamarca, España, Estados Unidos de América, Finlandia, Francia, Holanda, Nueva Zelanda, Noruega, Portugal, La Federación Rusa, Singapur, Sudáfrica, Suecia, Turquía y Reino Unido (GAFI, 2015).

Antecedentes del lavado de dinero en México: En México el delito de lavado de dinero se reguló en el año de 1990, en el Código Fiscal de la Federación (CFF) y en su artículo 115 Bis estableció una sanción de tres a nueve años de prisión cuando se comprobara que existía enriquecimiento ilícito, y es en 1996 cuando migran este delito al Código Penal Federal (CPF) en el artículo 400 bis y a partir de esa fecha se encuentra tipificado como delincuencia organizada. Al año siguiente se integró al Sistema Financiera Mexicano (SFM) la normatividad para la prevención del lavado de dinero a través de disposiciones generales que emanan de diferentes leyes aplicables a instituciones financieras, y en el año 2000 se tipificaron las operaciones sospechosas a operaciones inusuales. Fue hasta 2009 y 2010 que se implementaron umbrales de operación por producto y establecieron nuevos reportes regulatorios y restricciones en compras en efectivo, siendo ésta la antesala a la publicación de la LFPIORPI en el Diario Oficial de la Federación (DOF) el 17 de Octubre de 2012, entrando en vigor el 17 de Julio de 2013; así como la publicación de su reglamento el día 16 de agosto de ese mismo año, entrando en vigor el 1° de septiembre del año 2013, teniendo como obligación de presentar avisos de acuerdo a la LFPIORPI a partir del 17 de Octubre del 2013.

METODOLOGÍA

Para realizar esta investigación se recopiló información de diferentes fuentes como son: libros, tesis, leyes, reglamentos y artículos científicos. Es una investigación mixta, se aplicó el método analítico toda vez que por la naturaleza de dicha ley es necesario un análisis de cada actividad vulnerable. El tipo de estudio es exploratorio, descriptivo y explicativo, se diseñó el instrumento con base en el artículo 17 de la LFPIORPI (2013); el cual enumera 15 actividades vulnerables y en algunos casos existen subgrupos de estas actividades. Se aplicó una muestra del tipo intencional (Hernández, 1991) a 20 contribuyentes que desarrollan actividades de construcción y enajenación de bienes inmuebles (constructoras) en la ciudad de Puebla México. La muestra fue recopilada durante el periodo del 15 al 19 de mayo de 2015 a través de la página de internet denominada "encuesta fácil". El instrumento de investigación se estructuró considerando los siguientes ejes a saber: a) conocimiento de la LFPIORPI, b) correcto cumplimiento de la LFPIORPI, d) problemas y limitaciones en el cumplimiento de la LFPIORPI, e) autoridades encargadas del cumplimiento de la LFPIORPI, f) negativa de los usuarios de actividades vulnerables para entregar la información requerida que estipula la LFPIORPI. A continuación se muestran las variables aplicables a la presente investigación. Es preciso señalar que la falta de uniformidad en la interpretación de la LFPIORPI genera deficiencias en el cumplimiento de ésta y el incumplimiento tiene como consecuencia sanciones económicas o privación de la libertad.

Tabla 1: Definición Operacional de las Variables de Investigación

VARIABLES	DEFINICIÓN	ÍTEM	UNIDAD DE MEDICIÓN
Dependiente	Falta De Uniformidad En La Interpretación De La Lfpiorpi	A) Conocimiento De La Ley Federal Para La Prevención E Identificación De Operaciones Con Recursos De Procedencia Ilícita, B) Correcto Cumplimiento De La Lfpiorpi, D) Problemas Y Limitaciones En El Cumplimiento De La Lfpiorpi	Instrumento Diseñado Con Base En 15 Actividades Vulnerables Señaladas En El Artículo 17 De La Lfpiorpi (2013)
	Sanciones Económicas Y Privacidad De La Libertad	E) Autoridades Encargadas Del Cumplimiento De La Lfpiorpi, F) Negativa De Los Usuarios De Actividades Vulnerables Para Entregar La Información Requerida Que Estipula La Lfpiorpi.	
Independiente	Deficiencia En El Cumplimiento De La Ley Lfpiorpi (Persona Física Y Persona Moral).	Análisis De La Ley Lfpiorpi	

Fuente: Elaboración propia

RESULTADOS

Analizando el objetivo de la LFPIORPI en su exposición de motivos, suponemos que dicha ley está dirigida a los delincuentes, traficantes de droga, manejo de prostitución, secuestro, entre otros. No obstante el artículo 1° de la LFPIORPI estipula lo siguiente: "La presente Ley es de orden e interés público y de observancia general en los Estados Unidos Mexicanos". La pregunta que surge es ¿cuál es la razón por la que se publica una nueva ley si el delito de lavado de dinero ya estaba legislado en el Código Penal Federal en su artículo 400-Bis?, a esto se puede responder que la redacción de la exposición de motivos inicialmente causa confusión a los contribuyentes, argumentando que ellos no son sujetos a las sanciones que estipula esta normatividad, por no ser delincuentes. A pesar de la generalidad que se estipula en el artículo 1° de la LFPIORPI, el artículo 17 (LFPIORPI) de forma exclusiva tipifica algunos giros de empresas como "*actividades vulnerables*", en donde de manera discrecional los contribuyentes que desarrollen ese tipo de actividades van a estar reportando a los usuarios de sus productos o servicios y al no acatar dicha disposición serán acreedores a multas cuantiosas; y en caso de ser usuario de alguna actividad y no tener elementos suficientes que justifiquen el origen de los recursos éstos les serán incautados o en casos extremos

castigados con cárcel. En la tabla siguiente se presentan las actividades, los momentos de identificación y envío de avisos de acuerdo a la LFPIORPI.

Tabla 2: Actividades Vulnerables

ACTIVIDADES	IDENTIFICACIÓN	AVISO
Juegos, sorteos, apuestas, concursos	$21,869.25	$43,402.05
Gasto mensual acumulado en tarjetas de servicios o de crédito otorgadas por entidades no financieras	$54,168.45	$86,467.65
Comercialización de tarjetas pre pagadas emitidas por entidades no financieras	$43,402.05	$43,402.05
Emisión y comercialización de cheques de viajero de entidades no financieras	Se identifica cualquier operación independientemente de su monto	$43,402.05
Ofrecimiento habitual o profesional de operaciones de mutuo o de garantía o de otorgamiento de préstamos o créditos, por parte de sujetos distintos a las entidades financieras		$108,000.45
Prestación habitual o profesional de los siguientes servicios relacionados con inmuebles, siempre que involucren operaciones de compra o venta de dichos bienes por cuenta o a favor de los clientes a quienes se presten dichos servicios		$540,002.25
Construcción o desarrollo de inmuebles Intermediación en la transmisión de la propiedad Constitución de derechos sobre dichos bienes		
Comercialización o intermediación habitual o profesional de metales preciosos, piedras preciosas, joyas o relojes	$54,168.45	$108,000.45
Subasta o comercialización habitual o profesional de obras de arte Blindaje de vehículos y de inmuebles	$162,168.90	$324,001.35
Comercialización o distribución habitual profesional de vehículos aéreos, marítimos o terrestres	$216,000.90	$432,001.80
Traslado o custodia de dinero o valores	Se identifica cualquier operación	$216,000.90
La prestación de servicios profesionales, de manera independiente, sin que medie relación laboral con el cliente respectivo, en aquellos casos en los que se prepare para un cliente o se lleven a cabo en nombre y representación del cliente cualquiera de las siguientes operaciones:	Se identifica cualquier operación independientemente de su monto	Aún sin monto se debe dar aviso
Compraventa de bienes inmuebles o la cesión de derechos sobre estos Administración y manejo de recursos, valores o cualquier otro activo Manejo de cuentas bancarias, de ahorro o de valores Organización de aportaciones de capital o cualquier otro tipo de recursos para la constitución, operación y administración de sociedades mercantiles		
La constitución, escisión, fusión, operación y administración de personas morales o vehículos corporativos, incluido el fideicomiso y la compra o venta de entidades mercantiles		
La prestación de servicios de fe pública por parte de los notarios públicos respecto de las siguientes operaciones:		
Transmisión o constitución de derechos reales sobre inmuebles Constitución de personas morales o su modificación patrimonial Constitución de fideicomisos traslativos de dominio o de garantía sobre inmuebles	Se identifica cualquier operación independientemente de su monto	$1,076,640.00 $540,002.25
Otorgamiento de poderes para actos de administración o dominio con carácter irrevocable		Siempre se debe dar aviso
Otorgamiento de contratos de mutuo en los que el acreedor no forme parte del sistema financiero o no sea un organismo público de vivienda La prestación de servicios de fe pública por parte de los corredores públicos respecto de las siguientes operaciones:		
Realización de avalúos Constitución de personas morales mercantiles, su modificación patrimonial derivada de aumento o disminución de capital social, fusión o escisión, así como la compraventa de acciones y partes sociales Constitución, modificación o cesión de derechos de fideicomiso, en los que de acuerdo con la legislación aplicable puedan actuar Otorgamiento de contratos de mutuo mercantil o créditos mercantiles en los que de acuerdo con la legislación aplicable puedan actuar y en los que el acreedor no forme parte del sistema financiero	$540,002.25 Se identifica cualquier operación independientemente de su monto	Aún sin monto se debe dar aviso
Recepción de donativos, por parte de asociaciones sin fines de lucro	$108,000.45	$216,000.90
Prestación de servicios de comercio exterior como agente o apoderado aduanal, para promover por cuenta ajena, el despacho de las siguientes mercancías:		
Vehículos terrestres, aéreos y marítimos Máquinas para juegos de apuesta y sorteos Equipos y materiales para la elaboración de tarjetas de pago Materiales de resistencia balística para la prestación de servicios de blindaje	Se identifica cualquier operación independientemente de su monto	Siempre se debe dar aviso
Joyas, metales, piedras preciosas, relojes Obras de arte Constitución de derechos personales de uso o goce de bienes inmuebles por valor mensual	$32,635.65 $324,001.35 $108,000.45	$216,000.90

Fuente: IDC, 2015

Después de analizar, la información, podemos deducir que esta actividad está dirigida a todos los mexicanos, que estén o no registrados ante el Registro Federal de Contribuyentes (RFC), es decir, solo por el hecho de ser usuarios de estos bienes y/o servicios, siempre y cuando no justifiquen el origen de los recursos, motivo por el cual es de vital importancia el análisis a detalle de la LFPIORPI para evitar incurrir en algún error sustancial que represente en un futuro un problema mayor.   Es importante mencionar que la implementación de una Ley anti lavado en México no es un caso aislado, a nivel mundial existe organismos que regulan las acciones de cada país que cuenta con dicha Ley, por esa razón se constituye en México la Unidad de Inteligencia Financiera (UIF, 2015), misma que fue creada de forma especial para vigilar y evitar el blanqueamiento de capitales. Dentro de las funciones de la UIF se encuentran las siguientes: a) recibir reportes de operaciones financieras, b) analizar las operaciones financieras y económicas y otra información relacionada con estas actividades, c)diseñar reportes de inteligencia y otros documentos útiles para detectar operaciones probablemente vinculadas con el lavado de dinero o el financiamiento al terrorismo d) implementar y dar seguimiento a mecanismos de prevención y detección de actos, omisiones y operaciones, que pudieran favorecer o coadyuvar de cualquier manera para la comisión de delitos que tienen que ver con operaciones de recursos de procedencia ilícita que se estipula en el artículo 400 bis, terrorismo nacional y su financiamiento según articulo 139 y 148 bis que regula el terrorismo internacional y su financiamiento.

La UIF de México, tiene sus estándares de calidad a la par de Estados Unidos, Italia, Japón, Reino Unido según evaluación realizada por el GAFI y otros organismos internacionales. Adicionalmente se suman a esta tarea otros organismos como la Comisión Nacional Bancaria y de Valores (CNBV), la Procuraduría General de la República (PGR) y el Servicio de Administración Tributaria (SAT); estos vigilan que los contribuyentes que desarrollan actividades vulnerables cumplan con las obligaciones de acuerdo al artículo 18 de la LFPIORPI (2013), que son las siguientes: Identificar a los clientes y usuarios con quienes realicen las propias actividades sujetas a supervisión y verificar su identidad basándose en credenciales o documentación oficial, así como recabar copia de la documentación.

Para los casos en que se establezca una relación de negocios, se solicitará al cliente o usuario la información sobre su actividad u ocupación, basándose entre otros, en los avisos de inscripción y actualización de actividades presentados para efectos del Registro Federal de Contribuyentes. Solicitar al cliente o usuario que participe en actividades vulnerables; información acerca de si tiene conocimiento de la existencia del dueño beneficiario y, en su caso, exhiban documentación oficial que permita identificarlo, si esta obrare en su poder; en caso contrario, declarara que no cuenta con ella. Custodiar, proteger, resguardar y evitar la destrucción u ocultamiento de la información y documentación que sirva de soporte a la actividad vulnerable, así como la que identifique a sus clientes o usuarios. La información y documentación a que se refiere el párrafo anterior deberá conservarse de manera física o electrónica, por un plazo de cinco años contado a partir de la fecha de la realización de la actividad vulnerable, salvo que las leyes de la materia de las entidades federativas establezcan un plazo diferente. Brindar las facilidades necesarias para que se lleven a cabo las visitas de verificación en los términos de la LFPIORPI. Presentar los avisos en el portal de prevención de lavado de dinero que se encuentra en la página del SAT, en los tiempos y bajo la forma prevista en la LFPIORPI.

Los plazos para la presentación de los avisos se encuentran señalados en el artículo 23 de la LFPIORPI (2013) como a continuación se describe: "Quienes realicen actividades vulnerables de las previstas en el artículo 17 de la LFPIORPI presentarán los avisos correspondientes, a más tardar el día 17 del mes inmediato siguiente, según corresponda a aquel en que se hubiera llevado a cabo la operación que le diera origen y que sea objeto de aviso", mientras que el artículo 24 de la LFPIORPI (2013) señala la forma para la presentación de dichos avisos y precisa que se llevará a cabo a través de los medios electrónicos y en el formato oficial que establezca el portal de prevención de lavado de dinero que se encuentra en la página de SAT, dichos avisos contendrán respecto del acto u operación relacionados con la actividad vulnerable que

se informe, lo siguiente: a) datos generales de quien realice la actividad vulnerable, b) datos generales del cliente, usuarios o del beneficiario controlador y la información sobre su actividad u ocupación de conformidad con el artículo 18 fracción II de la LFPIORPI, y d) descripción general de la actividad vulnerable sobre la cual se de aviso. A los notarios y corredores públicos se les tendrán por cumplidas las obligaciones de presentar los avisos correspondientes mediante el sistema electrónico por el que informen o presenten las declaraciones y avisos a que se refieren las disposiciones fiscales federales.

Con la entrada en vigor de la ley anti lavado no solo se reglamentaron algunas de las actividades comerciales que de forma cotidiana se realizan, sino que también restringió el uso de efectivo en el momento de cumplir con obligaciones, tal como lo señala el artículo 32 de la LFPIORPI (2013); "queda prohibido dar cumplimiento a obligaciones y, en general, liquidar o pagar, así como aceptar la liquidación o el pago, de actos u operaciones mediante el uso de monedas y billetes, en moneda nacional o divisas y metales preciosos, en los supuestos siguientes:

Constitución o transmisión de derechos reales sobre bienes inmuebles por un valor igual o superior al equivalente a ocho mil veinticinco veces salario mínimo vigente en el Distrito Federal, al día en que se realice el pago o se cumpla la obligación. Transmisión de propiedad o constitución de derechos reales sobre vehículos, nuevos o usados ya sean aéreos, marítimos o terrestres por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal, al día en que se realice el pago o se cumpla la obligación. Transmisión de propiedad de relojes, joyería, metales preciosos y piedras preciosas, ya sea por pieza o por lote y de obras de arte, por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal al día. Adquisición de boletos que permita participar en juegos con apuestas, concursos o sorteos, así como la entrega o pago de premios por haber participado en dichos juegos con apuesta, concurso sorteos por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal, al día en que se realice el pago o se cumpla la obligación.

Prestación de servicios de blindaje para cualquier vehículo de los referidos en la fracción II del artículo 32 de la LFPIORPI o bien, para bienes inmuebles por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal, al día que en que se realice el pago o se cumpla la obligación. Transmisión de dominio o constitución de derechos de cualquier naturaleza sobre los títulos representativos de partes sociales o acciones de personas morales por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal, al día en que se realice el pago o se cumpla la obligación. Constitución de derechos personales de uso o goce de cualquier de los bienes a que se refieren las fracciones I, II Y V del artículo 32 de la LFPIORPI (2013), por un valor igual o superior al equivalente a tres mil doscientas diez veces el salario mínimo vigente en el Distrito Federal, mensuales al día en que se realice el pago o se cumpla la obligación". El artículo 52 de la LFPIORPI establece las sanciones por el incumplimiento de "la ley anti lavado". Adicionalmente el artículo 53 de la LFPIORPI (2013) precisa: se aplicara la multa correspondiente a quienes:

Se abstengan de cumplir con los requerimientos que les formule la Secretaria De Hacienda y Crédito Público (SHCP) en términos de la LFPIORPI; Incumplan con cualquiera de las obligaciones establecidas en el artículo 18 de la LFPIORPI; Incumplan con la obligación de presentar en tiempo y forma los avisos a que se refiere el artículo 17 de la LFPIORPI. La sanción prevista en la fracción IV del artículo 17 de la LFPIORPI será aplicable cuando la presentación del aviso se realice a más tardar dentro de los 30 días siguientes a la fecha en que debió haber sido presentado. En caso de que la extemporaneidad u omisión exceda este plazo, se aplicará la sanción prevista para el caso de omisión en el artículo 55 de la LFPIORPI. Incumplan con las obligaciones de presentar aviso sin reunir los requisitos a que se refiere el artículo 24 de la LFPIORPI. Incumplan con las obligaciones que impone el artículo 33 la LFPIORPI; Omitan presentar

los avisos a que se refiere el artículo 17 la LFPIORPI; Participen en cualquiera de los actos u operaciones prohibidos por el artículo 32 de la LFPIORPI (2013).

Tabla 3: Esquema de Multas

MULTA	FUNDAMENTO LEGAL
200 a 2000 días, SMDF Incumplimiento fracciones I,II,III Y IV	Fracción I,II,III Y IV, artículo 53 de la LFPIORPI
2000 a 10000 días SMDF Incumplimiento	Fracción V, artículo 53 de la LFPIORPI
10,000 a 65,000 SMGD o del 100% del valor de la operación	Fracción VI y VII, artículo 53 de la LFPIORPI

Fuente: Artículo 53 de la LFPIORPI.

Como se puede observar en la tabla anterior el incumplimiento de identificación del cliente o usuario de los servicios o bienes que ofrezcan los contribuyentes que desarrollan actividades vulnerables así como él envío de avisos ante el portal de prevención de lavado de dinero ante el SAT y el correcto llenado de los mismos y el uso de efectivo sin respetar los topes se traduce en el pago de multas que oscilan entre los 200 hasta 65,000 Salarios Mínimos Generales del DF (SMGDF), lo que sin duda impactará en las finanzas de los contribuyentes que desarrollan actividades vulnerables, a pesar de que en la mayoría de los casos la obligación de recabar la información recae en ellos y se ven en situaciones de impotencia por no obtener la documentación requerida para cumplir correctamente. En el artículo 52 de la LFPIORPI (2013) establece que se sancionará con prisión de dos años y con quinientos a dos mil días de multa conforme al Código Penal Federal a quien:

Proporcione de manera dolosa a quienes deban dar avisos, información, documentación, datos o imágenes que sean falsos, o sean completamente ilegibles, para ser incorporados en aquellos que deban presentarse; II.- De manera dolosa, modifique o altere información, documentación, datos o imágenes destinados a ser incorporados a los avisos, o incorporados en avisos presentados. El artículo 63 de la LFPIORPI (2013), se sancionará con prisión de cuatro años a diez años y con quinientos a dos mil días de multa conforme a Código Penal Federal: Al servidor público de alguna de las dependencias o entidades de la administración pública federal, del poder judicial de la federación, de la procuraduría o de los órganos constitucionales autónomos que indebidamente utilice la información, datos, documentación o imágenes a las que tenga acceso o reciban con motivo de la LFPIORPI, o que transgreda lo dispuesto por el capítulo VI de la reserva y manejo de información, y   A quien, sin contar con autorización de la autoridad competente, revele o divulgue, por cualquier medio información en la que se vincule a una persona física o moral o servidor público con cualquier aviso o requerimiento de información hecho entre autoridades, en relación con algún acto u operación relacionada con las actividades vulnerables, independientemente de que el aviso exista o no. Resalta que las sanciones monetarias y las penas corporales establecidas la LFPIORPI son muy altas y desde la perspectiva de los encuestados la mayoría de los contribuyentes en México se encuentran con una carga de reportes y declaraciones de información ante la SHCP que les imposibilita cumplir con una más de forma adecuada, así también consideran que es solo letra muerta por lo que no cumplirá con el objetivo de evitar el blanqueamiento de capitales y precisan que poco van disminuyendo el interés en el cumplimiento de la LFPIORPI, olvidando que las sanciones están legalmente estipuladas y en cualquier momento pueden ejercer su facultad de verificación . Con la intensión de profundizar en el análisis y teniendo como referencia información, tomada de las estadísticas publicadas en la página del Servicio de Administración Tributaria (SAT), podemos observar la magnitud de la base de contribuyentes que están registrados solo en el municipio de Puebla como se observa en la figura siguiente:

Tabla 4: Padrón de Contribuyentes en Puebla

AÑO	MES	PUEBLA
2012	Mayo	1,278,848
2012	Junio	1,283,435
2012	Julio	1,302,570
2012	Agosto	1,307,591
2012	Septiembre	1,311,968
2012	Octubre	1,318,612
2012	Noviembre	1,325,214
2012	Diciembre	1,329,783
2013	Enero	1,336,167
2013	Febrero	1,343,830
2013	Marzo	1,350,307
2013	Abril	1,359,238
2013	Mayo	1,363,348
2013	Junio	1,374,027
2013	Julio	1,381,977
2013	Agosto	1,400,441
2013	Septiembre	1,425,858
2013	Octubre	1,437,227
2013	Noviembre	1,452,683
2013	Diciembre	1,460,974
2014	Enero	1,471,552
2014	Febrero	1,487,645
2014	Marzo	1,502,961
2014	Julio	1,565,018
2014	Agosto	1,586,303
2014	Septiembre	1,604,020
2014	Octubre	1,621,887
2014	Noviembre	1,634,773
2014	Diciembre	1,652,822
2015	Enero	1,686,843

Cifras preliminares, número de contribuyentes activos Fuente: SAT, 2015

Otro dato importante es el que engloba el número de contribuyentes por sector a nivel nacional como se anexa en la tabla siguiente.

Tabla 5: Padrón Por Sector de Actividad Económica

AÑO	TRIMESTRE	CONSTRUCCIÓN	SERVICIOS EDUCATIVOS	SERVICIOS INMOBILIARIOS Y DE ALQUILER DE BIENES MUEBLES E INTANGIBLES	SERVICIOS PROFESIONALES, CIENTÍFICOS Y TÉCNICOS
2011	Primero	1,472,642	984,601	1,002,892	1,515,644
2011	Segundo	1,538,711	1,021,262	1,012,718	1,565,617
2011	Tercero	1,598,033	1,057,433	1,029,638	1,627,687
2011	Cuarto	1,645,368	1,085,275	1,040,419	1,680,658
2012	Primero	1,658,511	1,100,972	1,041,231	1,699,393
2012	Segundo	1,678,225	1,136,455	1,038,709	1,755,143
2012	Tercero	1,695,567	1,161,187	1,039,744	1,787,304
2012	Cuarto	1,719,422	1,180,182	1,042,472	1,820,458
2013	Primero	1,748,842	1,198,466	1,044,383	1,861,039
2013	Segundo	1,769,821	1,220,907	1,045,393	1,902,717
2013	Tercero	1,789,550	1,252,404	1,045,636	1,941,198
2013	Cuarto	1,808,235	1,269,380	1,053,211	1,975,423
2014	Primero	1,820,536	1,259,676	1,054,796	2,098,002
2014	Segundo	1,828,116	1,255,254	1,057,787	2,618,087
2014	Tercero	1,832,891	1,252,999	1,059,670	3,331,800
2014	Cuarto	1,835,265	1,265,642	1,059,637	3,908,183

Cifras preliminares, número de contribuyentes activos. Fuente: SAT, 2015.

A continuación se presentan los resultados de las entrevistas realizadas a los contribuyentes, de los cuales solo el 90% respondió, al respecto consideramos que es por desconocimiento del tema.

Tabla 6: Conocimiento Sobre el Organismo Internacional Que Publicó las 40 Recomendaciones Para Evitar el Blanqueamiento de Capitales

ANÁLISIS TÉCNICO		CONCLUSIONES DESTACADAS
Media	1.250	El "95,00%" eligieron:
Intervalo de confianza (95%)	[1,009 - 1,491]	Grupo de Acción Financiera Internacional (GAFI)
Tamaño de la muestra	20	Organización para la Cooperación y el Desarrollo Económico (OCDE)
Desviación típica	0.550	La opción menos elegida representa el "5,00%":
Error estándar	0.123	Grupo de Acción Financiera de Sudamérica (GAFISUD)

Por el sector al que fue dirigida la encuesta el 95% conoce el organismo que público las cuarenta recomendaciones, consideramos que el los mexicanos que no están directamente relacionados con la empresa lo desconocen.

Tabla 7: Conocimiento de los Obligados al Cumplimiento de la LFPIORPI?

ANÁLISIS TÉCNICO		CONCLUSIONES DESTACADAS
Media	3.650	El "100,00%" eligieron:
Intervalo de confianza (95%)	[3,436 - 3,864]	Todos los mexicanos
Tamaño de la muestra	20	Contribuyentes inscritos en el RFC
Desviación típica	0.489	2 opciones quedaron sin elegir.
Error estándar	0.109	

EL 100% de los encuestados conoce quiénes son los obligados a cumplir con la LFPIORPI, con relación a la información requerida por SAT, pero desconocen la utilización de esta por parte de dicha institución.

Tabla 8: Conocimiento Sobre los Obligados a Inscribirse en el Portal de Prevención Anti-Lavado Para Cumplir Con las Obligaciones

ANÁLISIS TÉCNICO		CONCLUSIONES DESTACADAS
Media	2.150	El "85,00%" eligieron:
Intervalo de confianza (95%)	[1,741 - 2,559]	Ambos
Tamaño de la muestra	20	Contribuyentes que desarrollan actividades vulnerables
Desviación típica	0.933	La opción menos elegida representa el "15,00%":
Error estándar	0.209	Cualquier persona que sea usuario de las actividades vulnerables

Al analizar las respuestas un 85% identifica quien está obligado a cumplir con la LFPIORPI y la mayoría presenta dudas en el vaciado de la información.

Tabla 9: ¿Considera Que Ha Dado Correcto Cumplimiento a la LFPIORPI?

ANÁLISIS TÉCNICO		CONCLUSIONES DESTACADAS
Media	1.550	La opción más elegida fue "No".
Intervalo de confianza (95%)	[1,326 - 1,774]	
Tamaño de la muestra	20	
Desviación típica	0.510	La opción menos elegida fue "Si".
Error estándar	0.114	

En México los contribuyentes por temor cumplen, pero el 100% coincidió en que existe mucha confusión en las disposiciones de la ley.

Tabla 10: Problemas Más Recurrentes a los Que Se Ha Enfrentado, Que le Impiden Cumplir Con la LFPIORPI

ANÁLISIS TÉCNICO			CONCLUSIONES DESTACADAS
Media	2.500		El "70,00%" eligieron:
Intervalo de confianza (95%)	[1,922 3,078]	-	Interpretación de Ley
Tamaño de la muestra	20		Los usuarios no proporcionan la información requerida
Desviación típica	1.318		La opción menos elegida representa el "15,00%":
Error estándar	0.295		Poca claridad en el reglamento

Los contribuyentes en México señalan que no cumplen correctamente con la ley porque no tienen claridad en el procedimiento.

Tabla 11: ¿Conoce Las Sanciones Administrativas y Penales a las Que Se Hace Acreedor al No Cumplir Con Esta Ley?

ANÁLISIS TÉCNICO			CONCLUSIONES DESTACADAS
Media	1.800		La opción más elegida fue "No".
Intervalo de confianza (95%)	[1,620 1,980]	-	
Tamaño de la muestra	20		
Desviación típica	0.410		La opción menos elegida fue "Si".
Error estándar	0.092		

A pesar de las altas multas, sanciones y penas corporales, la mayoría de los contribuyentes desconoce las consecuencias que pueden tener en su patrimonio y libertad.

Tabla 12: ¿Identifica a las Autoridades Realizaran las Visitas de Verificación de Cumplimiento E Impondrán Las Sanciones Correspondientes?

ANÁLISIS TÉCNICO			CONCLUSIONES DESTACADAS
Media	2.000		El "80,00%" eligieron:
Intervalo de confianza (95%)	[1,550 2,450]	-	Unidad de Inteligencia Financiera (UIF)
Tamaño de la muestra	20		Servicio de Administración Tributaria (SAT)
Desviación típica	1.026		La opción menos elegida representa el "5,00%":
Error estándar	0.229		Procuraduría General de la República (PGR)

Los contribuyentes a quienes se aplicó el instrumento de investigación no tienen claridad en qué autoridad mexicana realizará las visitas de verificación de cumplimiento.

Tabla 13: Casos en los Cuales los Usuarios No Proporcionan la Documentación Requerida Para Cumplir Con la LFPIORPI

ANÁLISIS TÉCNICO			CONCLUSIONES DESTACADAS
Media	2.350		El "75,00%" eligieron:
Intervalo de confianza (95%)	[1,852 2,848]	-	Casi siempre
Tamaño de la muestra	20		A veces
Desviación típica	1.137		La opción menos elegida representa el "10,00%":
Error estándar	0.254		Siempre

Los contribuyentes encuestados eligieron como mayor causa de incumplimiento la negativa de los usuarios de sus bienes o servicios de entregar la información solicitada.

Tabla 14: Motivo de Resistencia Por Parte de los Usuarios de las Actividades Vulnerables a Proporcionar Sus Datos

ANÁLISIS TÉCNICO			CONCLUSIONES DESTACADAS
Media	2.250		El "75,00%" eligieron:
Intervalo de confianza (95%)	[1,740 2,760]	-	Por temor a ser más vigilados
Tamaño de la muestra	20		Por qué no conocen las consecuencias que les pueda traer
Desviación típica	1.164		La opción menos elegida representa el "10,00%":
Error estándar	0.260		Porque tienen operaciones fraudulentas

Los usuarios de los bienes y servicios se niegan a entregar la información por miedo a ser más vigilados.

CONCLUSIONES

Los contribuyentes conocen el organismo que publicó las 40 recomendaciones que son la base de la LFPIORPI, sin embargo ningún contribuyente puede identificar con claridad si la LFPIORPI es de aplicación general o si está dirigida a delincuentes o narcotraficantes en México. La muestra arrojó que la mayoría de los empresarios que desarrollan actividades vulnerables cumplen con enviar los avisos que señalados en la LFPIORPI y la solicitud de información que integra el expediente, pero aún no tienen claro el objetivo de enviar estos datos a través de la página de SAT. Destaca que los contribuyentes dudan sobre los montos a reportar en una constructora que se encuentra en copropiedad, por mencionar un ejemplo específico. En este sentido la interpretación resulta confusa ya que estos están bajo la responsabilidad solidaria de un representante común, y el reglamento la LFPIORPI indica montos por operación. Por otra parte desde la perspectiva de los encuestados existe poca claridad en la LFPIORPI, así también precisan que el arranque de la plataforma de envió de avisos de dicha ley en forma desfasada ha impedido que los sujetos obligados a enviar avisos computen de forma correcta los plazos de uno a seis meses, toda vez que fue posible enviarlos correctamente hasta febrero 2014, siendo que se tenía obligación de presentar dichos a partir del 17 de Octubre 2013.

El 85% de los contribuyentes que desarrollan actividades vulnerables no tienen claridad en saber quiénes les solicitaran expedientes que cumplan con avisos, como tampoco quiénes aplicaran multas o en qué casos y ni quiénes estarán sujetos a penas corporales de cárcel. Un problema recurrente es que la mayoría de usuarios de las actividades vulnerables no quieren proporcionar todos los datos requeridos para armar el expediente, por el temor de estar vigilados. Como se puede observar el surgimiento de la LFPIORPI, no solo ha causado polémica sino también una serie de dudas, lo que dificulta su correcta interpretación y aplicación. En México a dos años de la implementación de la ley existen deficiencias en la ejecución de la figura de extinción del dominio en contra de los bienes utilizados y obtenidos por lavado de dinero, la falta de información pública es otro factor que imposibilita la obtención de información que facilite la implementación de la ley, el no cumplir con las cuarenta recomendaciones de GAFY ha generado que los contribuyentes cumplan parcialmente las obligaciones y constituya un freno para la economía sobre todo en los sectores de la construcción, venta de automóviles, joyas y tarjetas de crédito. Así entonces cada país debe adoptarlas de acuerdo a sus circunstancias particulares y hacer una evaluación anual de su aplicación con la intención que se cumpla el verdadero objetivo de la ley que es evitar el blanqueamiento de capitales y no que se convierta en una ley recaudatoria por las multas tan cuantiosas que impone.

REFERENCIAS

Córdova Gutiérrez, A y Palencia Escalante C, (2001). El Lavado de Dinero; Distorsiones Económicas e Implicaciones Sociales, ed. Instituto de Investigación   Económica y Social Lucas Alamán, A.C.

Diario Oficial de la Federación (2012). Disponible en:
http://www.dof.gob.mx/nota_detalle.php?codigo=5273403&fecha=7/04/2014, [acceso 08/11/15].

Diario Oficial de la Federación (2013). Disponible en:
http://www.dof.gob.mx/nota_detalle.php?codigo=5310763&fecha=16/03/2014, [acceso 08/11/15].

Grupo de Acción Financiera de Sudamérica (2010). Disponible en:http://www.gafisud.info/documentos/por/evaluaciones_mutuas/Brasil_3era_Ronda_2010.pdf[acceso 05/11/15].

Hernández, R. (1991). Metodología de la investigación, Mc Graw Hill.

Ley Federal para la Prevención e Identificación de Operaciones con Recursos de Procedencia Ilícita, Ed. ISEF, 2013.

Secretaria de Hacienda y Crédito Público Tributaria (2015). Inteligencia Financiera. Disponible en: http://www.shcp.gob.mx/inteligencia_financiera/Paginas/presentacion.aspx[acceso 10/11/15].

BIOGRAFÍA

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EL PAPEL DE LOS EMPRESARIOS EN LA OPERACIÓN DE LAS REDES ORGANIZACIONALES

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RESUMEN

El objetivo de la presente investigación es describir los diferentes roles y en qué medida las acciones que realiza el empresario dentro de una red de organizaciones, inciden de manera directa o indirecta en el crecimiento de las empresas rurales que revisamos a lo largo del estudio. Para ello, analizaremos las características de las agrupaciones empresariales, las actividades de los empresarios en la creación e integración de redes exitosas y las variables más relevantes entre las empresas, nacionales e internacionales, que participan en la Red Nacional de Desarrollo Sustentable (Rendrus), la red de productores comunitarios en México, en relación con las que no pertenecen a dicha red. La investigación se realiza a partir del marco conceptual de redes, ya que es una herramienta que permite comprender cómo se llevan a cabo las conexiones entre todas las personas o actores que participan en la empresa como: los familiares, los amigos, los clientes, los proveedores de materias primas, las instancias de gobierno, las agrupaciones empresariales, los intermediarios, las prácticas culturales de las comunidades, etc. Con las redes podemos observar interacciones institucionalizadas (procesos de negociación, cooperación, subordinación) así como develar conflictos, manifestaciones culturales y estrategias de solidaridad, amistad y familiares, en el marco de estructuras sociales diferenciadas que los influyen, condicionan o permiten. La mayoría de estos actores precisa un análisis en donde las redes personales se convierten, en todas las empresas que se analizaron, en el eje central de la organización. Los empresarios hacen uso de su capital social no sólo para construir su firma, sino también para posicionarla en mercados locales, nacionales e internacionales.

PALABRAS CLAVE: Rol del Empresario, Red Empresarial, Transferencia de Conocimiento, Mejores Prácticas

EMPLOYERS ROLE IN THE OPERATION OF ORGANIZATIONAL NETWORKS

ABSTRACT

The objective of this research is to describe how the different roles and the actions taken by the employer within a network of organizations directly or indirectly affect the growth of rural enterprises. To do this, we analyzed the characteristics of the business groups, the activities of entrepreneurs in the creation and integration of successful networks and relevant variables between businesses, national and international, involved in the National Sustainable Development Network (RENDRUS), a producer's community network in Mexico, versus to those outside that network. The research begins with the conceptual framework of networks because it is a tool to understand how they carry out the connections between all persons or actors involved in the company as family, friends, customers, suppliers of raw materials, government agencies, business associations, intermediaries, cultural practices of communities, etc. In this sense, within a network we see institutionalized interactions (negotiation, cooperation, subordination) and reveal conflicts, cultural events and strategies of solidarity, friendship and family, under different social structures. In all the companies analyzed, personal relationships were elements of the core of the organization success. Entrepreneurs use their capital not only to build his signature, but also to position it in local, national and international markets.

JEL: M110, M140, M210

KEYWORDS: Entrepreneur Role, Business Network, Knowledge Transfer, Best Practices

INTRODUCCIÓN

La Red Nacional de Desarrollo Rural Sustentable (RENDRUS), busca generar una sinergia entre aquellos empresarios rurales que han logrado desarrollar proyectos exitosos para ser ejemplo de otros dirigentes, promoviendo así la difusión del conocimiento y el intercambio de experiencias para proyectarlos entre los diferentes grupos de interés como inversionistas, compradores, instancias de gobierno, organizaciones locales, institutos de investigación, entre otros. Al respecto, Ripollés y Blesa (2006), analizan la influencia que las redes personales del empresario ejercen en el desarrollo de su empresa. Además, proponen estudiar el papel de las redes personales como proveedoras de recursos intangibles y capacidades especiales idóneas para brindar una serie de ventajas competitivas sostenibles a largo plazo. Exponen que no sólo se deben estudiar las redes personales como generadoras de información, sino también se debe tomar en cuenta en qué medida esa información ayuda en el desarrollo del conocimiento en las nuevas empresas.

REVISIÓN DE LITERATURA

Una red personal es "un conjunto de relaciones directas entre el empresario y distintas personas en su entorno socio-económico y familiar" (Ripollés y Blesa, 2006: 77). Se considera una red personal porque: a) Los intercambios del empresario tienen una dimensión social y de negocios; b). Estas relaciones pueden dar pie a una relación personal bidimensional ya sea originada en un evento social o de negocios –planificadas o casuales-; c). Al reconocer, en los lazos de las redes personales la dimensión social y de negocios, puede comprenderse su dinámica de una manera más clara. La red personal, siguiendo con los autores mencionados, se puede caracterizar en tres grupos: 1. Amigos, 2. Clientes y proveedores y 3. Instituciones de investigación, asociaciones empresariales y/o asesorías. A estas categorías consideramos que falta sumar a las instituciones gubernamentales como Sagarpa - Rendrus, Fonaes, Fondo Pyme, etc.; actores que sirven como nodos fundamentales en la red, que a su vez se estructuran en otras redes más complejas. En el caso de nuestra investigación, la mayoría de las empresas han participado en concursos y ferias locales, regionales y regionales a través de la Rendrus; por lo tanto, la participación del gobierno se convierte en un nodo más de la red.

Es claro identificar, en el trabajo de campo que realizamos en estados como Coahuila, Chihuahua, Distrito Federal, Guanajuato, Michoacán, Morelos, Oaxaca, Puebla, Sonora y Veracruz, que la mayor parte de las empresas tiene un impacto directo en las comunidades de origen. Al respecto, Ripollés y Blesa (2006) recurren a la metáfora del arraigamiento social al decir que cuanto más reconocimiento y credibilidad tenga el empresario entre los miembros de su localidad, más será el crecimiento de su empresa. La legitimidad y la aceptación del producto o servicio dentro de su red personal, le dará mayor seguridad y certeza sobre el futuro de su empresa. Es decir, las empresas se encuentran unidas a través de vínculos empresariales con sus localidades de origen y poseen un fuerte contenido de valor porque no sólo se establecen las relaciones en una comunidad sino que guardan información, valores morales y normas de comportamiento (Pérez, 2010). Las redes personales no son el único elemento útil para el crecimiento y éxito de una empresa. Éstos dependen también del rol del empresario dentro de la red empresarial, así como, de la calidad de su producto o servicio, de la creatividad para diversificar sus productos o servicios, de las competencias de servicio de sus intermediarios (según sea el caso), de conocer los mecanismos gubernamentales para acceder a fondos de inversión, del diseño de la marca, de los proveedores y clientes, etc. Son muchos los actores que intervienen de manera directa o indirecta en el proceso de producción del producto, por un lado, y en el de comercialización por el otro. No obstante, en ambos procesos, el empresario es una pieza clave para salir adelante. A continuación revisaremos el papel del empresario como miembro de una red.

METODOLOGÍA

El objetivo de la presente investigación es evaluar la gestión del conocimiento y la colaboración que se presenta entre los productores participantes de la RENDRUS para verificar el aprovechamiento del talento y la experiencia compartida entre ellos y mediante la determinación de los roles que asume un emprendedor en beneficio del desarrollo económico propio y el de sus comunidades. Para realizar el análisis mencionado, se tomó una muestra de 50 organizaciones, de las cuales 34 han sido participantes en los eventos de RENDRUS, para conocer sus opiniones respecto a los impactos que los foros han tenido en sus negocios. Se realizaron 54 entrevistas a empresarios de las organizaciones participantes en RENDRUS y de comunidades rurales en los estados de Coahuila, Chihuahua, Distrito Federal, Guanajuato, Michoacán, Morelos, Oaxaca, Puebla, Sonora y Veracruz.

RESULTADOS

De acuerdo con Zontanos y Anderson (2004), las redes funcionan como una liga activa inmersa en las estructuras sociales. Es decir, esta liga se va a estirar o aflojar dependiendo de los requerimientos tanto de las empresas como de las distintas sociedades en donde se encuentren operando. Es a través de los nodos que las ligas se unirán y se mantendrán activas a través del tiempo. Sin embargo, ¿de qué o quién depende que la liga de mantenga activa? Depende en gran medida de los empresarios, de sus valores y actitudes, de sus competencias para realizar los procesos de negociación y de su capital social. Un empresario es un diseñador quien hace una combinación nueva, innovadora en función del producto o servicio, de la materia prima, de los bienes intermedios, de los métodos de producción, de la accesibilidad de los mercados o de la organización de la producción. Es creativo, tiene visión y carácter (Giraudeau, 2007). A partir de 54 entrevistas realizadas a empresarios de las organizaciones participantes en Rendrus y de comunidades rurales en los estados de Coahuila, Chihuahua, Distrito Federal, Guanajuato, Michoacán, Morelos, Oaxaca, Puebla, Sonora y Veracruz, se determinan los siguientes roles o funciones que contribuyen de manera positiva al desarrollo de su negocio.

Figura 1: Roles y Funciones del Empresario Dentro de la Rendrus

Fuente: Elaboración propia a partir de las entrevistas de campo.

Estratega: El empresario determina el rumbo de la organización, detecta oportunidades de negocio, reconoce sus limitaciones y busca aprovechar dichas oportunidades mediante acciones administrativas y operativas. A partir de una idea de negocio, genera un concepto del mismo, que al paso del tiempo tiene que moldear a los requerimientos del entorno cambiante, para dar origen a un modelo de negocio mejorado.

Formador: Procura la mejora e innovación en sus procesos productivos y fomenta la capacitación de su personal, ha identificado que para poder competir y extender su participación de mercado requiere incrementar sus capacidades de producción y eficiencia. Así busca que su personal adquiera nuevos conocimientos y habilidades.

Enlace: El empresario opera como vínculo con otras empresas, organizaciones gubernamentales, educativas, y miembros de su familia, proveedores y clientes con las cuales intercambia información, insumos, productos, capacidades, capacitación, financiamiento y conocimiento.

Motivador: El empresario es un elemento motivador e impulsor del proyecto de negocio, donde da continuidad a un proyecto que inició alguno de sus familiares. Es de llamar la atención como estas organizaciones han estado cerca de su desaparición, sin embargo, surge en las generaciones posteriores un emprendedor, que se vuelve un impulsor de la idea, la asume como propia y la desarrolla.

Aval y Financiero: El empresario funge como responsable de la empresa para trámites gubernamentales y de financiamiento, así como para procesos de certificación, ello es una dificultad importante ya que es un factor común que el propietario de la empresa carezca de conocimientos financieros y contables.

Representante: El empresario forma parte de agrupaciones y asociaciones que percibe contribuirán al desarrollo de la industria de la cual su organización forma parte. Una vez que la organización supera la etapa de introducción el ciclo de vida, el propietario ocupa posiciones en organizaciones en las que busca representar a su gremio, pues considera que el beneficio de todos los participantes contribuirá a la mejora de la comunidad.

Amortiguador de crisis: En momentos en que el empresario mismo o su familia se enfrentan a situaciones de crisis, como la pérdida del empleo, la descomposición familiar en una comunidad o la carencia de servicios; busca alternativas de solución y entre ellas desarrolla su organización.

Organizador: El empresario al ver que existe una estructura diferente en su familia o comunidad, como lo son el carecer de empleo, quedar viudo(a), reconocer las carencias educativas, o identificar un proceso migratorio de abandono de las familias; asume un rol de generador de estructuras funcionales benéficas, en las que organiza a los miembros de la familia, y a sectores de la comunidad para generar actividades productivas, que permitan no solo la supervivencia, sino el desarrollo de la misma.

Informador: El empresario al ser un vínculo con otras empresas, organizaciones gubernamentales, educativas, y miembros de su familia, proveedores y clientes; y al mismo tiempo ser un estratega que determina el rumbo de la empresa, se convierte en un informador entre estos diferentes actores, por lo que genera sistemas de información que le permite comunicar los aspectos importantes que afectan a la organización.

Innovador: En gran medida las organizaciones participantes en Rendrus, surgen de una propuesta innovadora que ofrece un producto diferenciado que atiende las necesidades de un segmento en específico, esto es, son empresas que generalmente emplean una estrategia de nicho de mercado, ya sea porque el producto es orgánico, artesanal, hecho a la medida o con propiedades únicas, por lo que el empresario para mantenerse en el mercado y continuar con dicha estrategia se ve en la necesidad de realizar continuas innovaciones y mejoras al modelo de negocio.

Supervisor: El principal supervisor de la calidad de sus productos es el empresario mismo, ya que al mismo tiempo que es productor del bien, es consumidor de los mismos. Ello le permite tener una idea clara de las oportunidades de mejora a las que se enfrenta, y mediante su rol de enlace busca obtener las capacidades que le permitan mejorar sus procesos.

Vendedor y publicista: El empresario mismo es el principal vendedor de la organización y su mercadólogo. Al ser microempresas, las funciones múltiples recaen en un mismo puesto, por lo que el dirigente es así mismo un vendedor y desarrollador de la estrategia de mercadeo y publicidad que sigue la empresa. En este punto las organizaciones se enfrentan al reto de desarrollar sobre la operación del negocio mismo procesos como el registro de marca, selección de envase, etiquetas, y de canales de venta óptimos para la comercialización del producto.

Durante el trabajo de campo, cuando les preguntamos a los empresarios o a los encargados de la empresa ¿qué hicieron para formar su empresa y comercializar su producto? La respuesta generalizada fue que buscaron a sus familiares, amigos, empresarios, personas conocidas que trabajaban en el gobierno, etc. Es decir, tuvieron que hacer uso de sus "contactos" en las diversas etapas del proceso de producción y en la comercialización de sus productos. De acuerdo con las entrevistas realizadas para esta investigación, el 94% de las empresas se construye primeramente con los familiares y el otro 6% se compone de firmas en donde se han asociado amigos o vecinos de la comunidad, es decir, en un contexto social. Los empresarios están involucrados en un contexto social, sujetado o inhibido por gente que tiene una posición en las redes sociales de su comunidad, región o país. Así, una investigación sobre dirigentes debe considerar por un lado, que la iniciativa empresarial es un proceso y debe ser vista en términos dinámicos, y por otro, requiere de ligas o relaciones entre los componentes claves del mismo. Los empresarios se caracterizan porque desean construir una organización, es una acción conductual, y no por un simple deseo de invertir recursos. Es ésta la diferencia entre el empresario y el administrador, este último dirigido a invertir los recursos (Aldrich y Zimmer, 1986).

De igual forma, Ripollés y Blesa (2006) exponen que los empresarios se reconocen por la orientación emprendedora, la cual se caracteriza por el nivel de innovación, la asunción de riesgo y proactividad de los dirigentes. En ambos casos, la actitud del emprendedor es la clave para crear y formalizar una organización. En el trabajo de campo que realizamos encontramos que la mayoría de los empresarios son proactivos para sacar adelante su negocio, ya sea para buscar a los proveedores de sus materias primas, para invitar a posibles clientes y sobre todo para la comercialización de sus productos. Es decir, los empresarios son dinámicos y se caracterizan por su autonomía, y su capacidad para aprovechar los lazos de confianza y cooperación. En este caso, la mayor parte de los empresarios participó en la Rendrus debido a una invitación directa por parte de un amigo de confianza o por un funcionario de la Sagarpa. Algunos no sabían cuáles eran las implicaciones de estar en esta red, no obstante, lo hicieron con el voto de confianza de quien los invitó. En este punto, actores como: amigos, personas de gobierno, posibles clientes, proveedores etc., se re-significan a partir del capital social del empresario.

El capital social es un conjunto de recursos tangibles y virtuales para que los actores, a través de la estructura social, alcancen sus metas. El capital social actúa de dos formas, como un pegamento para formar las redes, y al mismo tiempo como un lubricante para facilitar los intercambios de información entre los diversos actores. Las redes sociales no están predeterminadas, se dan en diferentes contextos de negocios y se activan dependiendo de las necesidades que presenten cada una de las organizaciones (Zontanos y Anderson, 2004). Desde una perspectiva local, el concepto de capital social, es muy importante, aún más que el capital económico y humano. Es decir "El capital social asume dos formas: una corresponde a los lazos internos, en el interior de un lugar/comunidad (bonding capital); la otra discurre de las conexiones en el exterior, entre lugares/comunidades (brinding capital)" (Putnam, 2000, citado en André y Rego, 2003: 120). No obstante, es fundamental incluir, en el concepto de capital social la noción de red en relación con otros dos

aspectos; a) la pertenencia a localidades donde las relaciones de proximidad generan redes social más fuertes, y b) la importancia de la innovación (Baerenhold y Aarsaether, 2002, citado en André y Rego, 2003). Estos dos puntos se vinculan muy bien con lo que revisamos anteriormente, por un lado la aceptación y legitimación del producto por los miembros de la comunidad le dará mayor proyección a la empresa hacia el exterior, y por el otro, cuando vimos el término orientación emprendedora en donde la innovación es una característica fundamental que deben tener todos los empresarios.

Para Miller (1986), la innovación no sólo se refiere a la creación de un nuevo recurso, sino también abarca las innovaciones menores que resultan de formas nuevas de combinar los recursos que ya existen. En el Manual de Oslo (2007) se explican los tipos de innovación – producto, proceso, comercial y organizativa- las cuales sirven como marco de referencia para comprender con mayor claridad los cambios o transformaciones (menores) de los productos o servicios. Un aspecto importante para identificar la innovación emprendedora es que suponga la búsqueda de relaciones nuevas entre los productos y/o los recursos existentes (Ripollés y Blesa ,2006). Otras acciones que se insertan en la innovación pueden ser las modificaciones en la gama de productos o servicios ofrecidos, en los precios o en las técnicas de ventas – ofrecer muestras del producto- y comercialización (Giraudeau, 2007). La mayoría de los empresarios entrevistados para el estudio, menciona el término innovación como una ventaja competitiva de su producto. Michael Porter (1985) resalta esta idea precisamente porque menciona que la única ventaja competitiva que tienen hoy en día las empresas es la innovación. Dentro de la Rendrus, encontramos las siguientes prácticas de innovación: la empresa "Somex" en Guanajuato, la cual produce el xoconostle cristalizado, proyecto que surge de un concurso de creatividad en el Tecnológico de Celaya. La empresaria, crea también el xoconostle enchilado, crema de xoconostle, dulces y mermeladas de la misma fruta. Otra empresa es "Manzanas Nanines" en Chihuahua, la cual para contrarrestar la comida chatarra que se vende en las escuelas, introduce las manzanas deshidratadas las cuales han tenido mucho éxito en la región, se vende en algunas tiendas Oxxo y establecimientos en algunas partes de México. Otro más, es la Industria Alimentaria Inalim, la cual produce sal de chapulín, chapulín botanero y sazonador de chapulín.

Huggins (2000) refuerza la perspectiva de redes en la explicación del rol social del empresario y la relevancia de su involucramiento en el contexto social. Es decir, el dueño de la empresa participa en la red para acceder a la asistencia financiera y a la posibilidad de comercializar sus productos o servicios con otras personas, para aprender las acciones rudimentarias en la administración empresarial, para extender contactos con otras empresas locales, para el intercambio del conocimiento y de la información, para ganar nuevos contratos con empresas o instituciones, etc. En concreto, el estudio de las organizaciones a partir de la metodología de redes favorece el desarrollo económico al facilitar la información, transferencia de conocimientos y conductas de comportamiento.

Los empresarios, como hemos visto anteriormente, son actores dentro de una red más compleja en donde además de los clientes, de los proveedores y de las instituciones gubernamentales y no gubernamentales, están las agrupaciones empresariales, las cuales fortalecen los lazos de comunicación y el intercambio de información entre las firmas participantes. A continuación mostraremos las características de tales agrupaciones. A lo largo de la presente investigación hemos podido definir que el empresario de una red empresarial juega un papel fundamental en el desempeño de la misma, asumiendo la siguiente diversidad de funciones: capacitador-formador, mecanismo de enlace, estratega, motivador, aval y asesor financiero, amortiguador de las crisis, organizador de recursos, informador; innovador, supervisor, vendedor y publicista. Así mismo se establece que los contactos iniciales se centran en familiares y amigos o vecinos, y posteriormente en un capital social, que ante la carencia de recursos monetarios y activos tangibles, se vuelve una herramienta fundamental de competitividad, ya que están organizaciones en zonas rurales buscan tener presencia ante las autoridades gubernamentales, otras empresas, miembros de la localidad e instituciones financieras y certificadoras.

REFERENCIAS

Aldrich H. Zimmer C. (1986) "Entrepreneurship though Social Network" en Sexton L.D. Smilor W.R. Ther art and science of entrepreneurship Ballinger Publising Company, Cambridge Massachusetts.

André, I., Rego, P. (2003). "Redes y desarrollo local: la importancia del capital social y de la innovación". Boletín de al A.G.E. No. 36. Pp. 117-127.

Dickson, K.E., y Hadjimanolis, A. (1998). "Innovation and networking amongt small and manufacturing firms in Cyprus", Vol. 4 pp. 5-17 MCB University Press.

Gulati et al., (2011). "How do nertworks matter? The performance effects of interorganizational nertwoks", Research in Organizational Behavior. Doi10.1016/j.riob.2011.09.005.

Hansen, Eric (1995). "Entrepreneurial Networks and New Organization Growth". Baylor University. Blackwell Publishing.

Huggins Robert (2000). "The success and failure of policy implanted inter-firm netwok initiatives: motivations, processes and structure, Entreprenerurship & Regional Development", 12:2, 111-135 disponible en Http://dx.doi.org/10.1080/089856200283036

Giraudeau, M. (2007). "Le travial entrepreneurial, ou I´entrepreneur shumpetérien performe", Sociologie du travail. No. 49. Pp. 330-350.

González G.C. y M. Basaldúa (2007) "La formación de redes sociales en el estudio de los actores y familias. Perspectiva de estudio en la historia y la antropología" Redes. Revista hispánica para el análisis de redes sociales. Junio, Vol 12.

Gómez, L.D., (2011). "Asociatividad empresarial y apropiación de la cadena productiva como factores que impulsan la competitividad de las micro, pequeñas y medianas empresas: tres estudios de caso". Revista Estudios Agrarios. No. 47. Pp. 133-144

Granovetter M. (1985) "Economic Action and Social Structure: The Problem of Embeddedness" American Journal of Sociology, Vol. 91, No. 3 (Nov.) pp. 481-510.

Lugo-Morin, Diosey (2009). "Análisis de redes sociales en el mundo rural: guía inicial". Revista de Estudios Sociales. No. 38. pp. 129-142

Manual Oslo (2007). Directrices para la recogida e interpretación de información relativa a la innovación. (Versión en español). OECD y Eurostat. (pp. 49-54). Recuperado el 08 de octubre de 2013.

Mitchell J. Clyde (1969). "Social networks in urban situations", Manchester, University Press.

Porter, M. (1985). Ventaja competitiva. Creación y sostenimiento de un desempeño superior. México. CECSA.

Requena Santos Felix (1989) "El concepto de red social", Reis, No. 48 (Oct.- Dec.), pp 137-

Ripollés, M., y Blesa, A. (2006). "Redes personales del empresario y orientación emprendedora en las nuevas empresas". Cuadernos de Economía y Dirección de la Empresa. Núm. 26. 79-94.

Zontanos, G., y Anderson A., (2004). "The nurturing and harvesting of a rural Greek network". International Journal of entrepreneurial behavior research. Vol. 10. No. 4.

IMPACTO DE LAS AGRUPACIONES EMPRESARIALES EN BENEFICIO DE UNA RED ORGANIZACIONAL

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RESUMEN

La presente investigación tiene por objetivo el determinar los beneficios que brinda la Red Empresarial de Productores en comunidades rurales en México, RENDRUS, para contrastarla con el impacto de otras agrupaciones. Así como establecer los objetivos que perciben los miembros de una red, para determinar acciones de mejora en beneficio de los participantes y el desarrollo de su comunidad. Una red puede tener diferentes propósitos como compartir información, interrelacionarse con otras personas, descubrir información, integrar información descubierta, acceder a ideas innovadora, integrarse creando nuevos negocios, colaborar con los integrantes de la red, entre otros. Las personas que se involucran en una red, deben definir exactamente que desean obtener de ella, qué patrones y niveles de conectividad deben seguir, y evaluar si son los mejores para lograr sus metas. Las redes les deben ayudar a reconocer oportunidades o desafíos y a coordinar respuestas apropiadas a los cambios del entorno. Aún en los casos de emprendimiento Ripollés y Blesa (2006) nos señalan que "los emprendedores deben estar conscientes de que su participación en las redes sociales, lejos de ser una pérdida de tiempo, constituye una fuente de recursos valiosos para el desarrollo de nuevas oportunidades de negocios, que a su vez se traducen en el crecimiento de sus empresas" (Ripollés y Blesa, 2006: 89). Así las agrupaciones empresariales brindan los siguientes beneficios: lograr un sentido de "pertenencia e identidad" entre los miembros de esta nueva red, construir objetivos a corto, mediano y largo plazo para el beneficio común, generar una dinámica de apoyo entre los actores de la red, participar en la toma de decisiones en las localidades cuando se requiera; solicitar cursos de capacitación a las autoridades gubernamentales, a los centros de investigación y a las universidades, de acuerdo con las necesidades presentadas; innovar en sus procesos productivos, y transferir el conocimiento entre los miembros de la red.

PALABRAS CLAVE: Agrupaciones Empresariales, Red Empresarial, Transferencia de Conocimiento, Mejores Prácticas

IMPACT AND BENEFITS BUSINESS GROUPS IN AN ORGANIZATIONAL NETWORK

ABSTRACT

This research aims to determine the benefits provided by the Business Network of Farmers in rural communities in Mexico, RENDRUS, in contrast with the impact of other orgamizational groups. And set the targetswhich follow the members of a network to determine improvement actions for the benefit of their community. A network can have different purposes such as sharing information, interact with others, discover information, integrate information pool, access to innovative ideas, creating new businesses integrate, collaborate with members of the network, among others. People who are involved in a network must define exactly who want to get it, what patterns and levels of connectivity must be followed, and assess their best to achieve their goals. Networks should help them recognize opportunities and challenges and to coordinate appropriate responses the changing environment. Even where entrepreneurship Ripollés and Blesa (2006) we note that "entrepreneurs must be aware that their participation in social networks, far from being a waste of time, is a source of valuable resources for the development of new opportunities business, which in turn result in the growth of their companies "(Ripollés and Blesa, 2006: 89). Business

groups provide the following benefits: achieve a sense of "belonging and identity" among the members of this new network, building out short, medium and long term for the common benefit, generating a dynamic of support among actors network, participate in decision-making processes in the community when required; request training to government authorities, research centers and universities, according to the needs presented; innovate in their production processes, and transfer knowledge between network members.

JEL: M110, M140, M210

KEYWORDS: Business Associations, business network, knowledge transfer, best practices

INTRODUCCIÓN

La Red Nacional de Desarrollo Rural Sustentable (RENDRUS), busca generar una sinergia entre aquellos empresarios rurales que han logrado desarrollar proyectos exitosos para ser ejemplo de otros dirigentes, promoviendo así la difusión del conocimiento y el intercambio de experiencias para proyectarlos entre los diferentes grupos de interés como inversionistas, compradores, instancias de gobierno, organizaciones locales, institutos de investigación, entre otros. Una agrupación empresarial se refiere al grupo de empresas o personas que se unen porque tienen los mismos intereses y objetivos comunes por los cuales trabajan para alcanzar las metas propuestas. En este sentido los empresarios se caracterizan por ser los responsables de las operaciones de sus empresas, por crear vínculos entre con otros actores como el gobierno, la comunidad, los clientes, proveedores, con las redes económicas locales, regionales, nacionales e internacionales y por generar lazos de comunicación y de trabajo con el aparato productivo tanto de sus localidades, como de espacios más allá de las fronteras de nuestro país (Basaldúa, 2007). En este sentido, "En el análisis de las redes no se presta tanta atención a los atributos de los actores que están en la red como a los vínculos que relacionan unos con otros, para dar una posible explicación de la conducta de los actores implicados" (Mitchell, 1969; citado en Requena, 1989: 140). Por eso, cuando hablamos de agrupaciones empresariales dentro de la teoría de redes, se vuelve más complejo porque no sólo nos referimos a la red del empresario, sino a los lazos que se generan entre las redes de los demás dueños de las firmas. En nuestro trabajo de investigación, el 34% de las empresas estudiadas pertenecen a una asociación o agrupación empresarial.

REVISIÓN DE LITERATURA

Una red se puede considerar como un tipo de relación específica que vincula a un grupo de personas, acontecimientos y objetos, y estas relaciones engloban procesos sociales en torno de la relación comercial (Szarka, 1990; citado en Ripollés y Blesa, 2006). El empresario busca conocer y dominar las relaciones externas de su organización, por lo que los estudios sobre "entrepreneurship", emprendimiento, deben diferenciar las redes de contactos personales de las redes de empresas o interinstitucionales (Ripollés y Blesa, 2006). Para fines de nuestro análisis los resultados obtenidos, se centran en ambos aspectos, tanto en su componente social, como en su aspecto inter-institucional.

En términos de Requena (1989), las redes se construyen a través de diversos actores individuales o colectivos, los cuales nos permiten realizar el análisis social. El grupo de los actores individuales, lo vimos cuando hicimos referencia a la red personal del empresario y a su capital social. Ahora es el turno de los actores colectivos, entendidos, para este apartado, como las instituciones sociales y gubernamentales necesarias para que la dinámica entre los actores de la Rendrus se ligue, a través de los nodos. Burt (1992, citado en Hansen, 1995: 7) ha observado "el emprendimiento involucra tres tipos de capital durante el proceso de conformación de una organizacional: recursos financieros, las habilidades personales, y el capital relacional". Ya comentamos el tema de los recursos personales cuando expusimos que la mayoría de la empresas son familiares y por tanto han tenido el capital económico para iniciar su empresa, las

habilidades personales las abordamos cuando estudiamos el rol del empresario dentro de la red y los recursos sociales, son los que vamos a revisar con más detalle es esta sección.

La Rendrus, a través de las reuniones institucionales y sociales promueve el aprendizaje y la capacitación en torno a los procesos productivos innovadores en el desarrollo rural, articulando la estrategia del desarrollo empresarial, el desarrollo humano en las zonas rurales del país. Además, incentiva a los empresarios para que den a conocer sus productos a otros mercados, promueve el intercambio de experiencias (aunque las empresas sean de ramas distintas) y genera transferencia de conocimientos aplicables para el desarrollo rural sustentable.

METODOLOGÍA

El objetivo de la presente investigación es evaluar la gestión del conocimiento y la colaboración que se presenta entre los productores participantes de la RENDRUS, verificando a que agrupaciones pertenecen y establecer los beneficios que obtienen a partir de dicha colaboración, contrastando el impacto positivo de Rendrus versus otras redes empresariales. Para realizar el análisis mencionado, se tomó una muestra de 50 organizaciones, de las cuales 34 han sido participantes en los eventos de RENDRUS, para conocer sus opiniones respecto a los impactos que los foros han tenido en sus negocios. Se realizaron 54 entrevistas a empresarios de las organizaciones participantes en Rendrus y de comunidades rurales en los estados de Coahuila, Chihuahua, Distrito Federal, Guanajuato, Michoacán, Morelos, Oaxaca, Puebla, Sonora y Veracruz.

RESULTADOS

Las agrupaciones empresariales son un vínculo entre la red de los empresarios que forman una asociación, y los demás actores necesarios para que esta red funcione. Tales agrupaciones, de acuerdo con el trabajo de campo que realizamos, se caracterizan principalmente por:

Lograr un sentido de "pertenencia e identidad" entre los miembros de esta nueva red.
Construir objetivos a corto, mediano y largo plazo para el beneficio común.
Generar una dinámica de apoyo entre los actores de la red.
Participar en la toma de decisiones en las localidades cuando se requiera.

Solicitar cursos de capacitación a las autoridades gubernamentales, a los centros de investigación y a las universidades, de acuerdo con las necesidades presentadas.

Innovar en sus procesos productivos.
Transferir el conocimiento entre los miembros de la red.

De los puntos anteriores, uno de los aspectos reiterativos en las empresas que investigamos fue la búsqueda de capacitación tanto de los empresarios como para sus empleados. Algunos actores que han fungido como capacitadores han sido Canacintra, Sagarpa, Sedeco, IMPI, empresa Manuel Morúa, Fonaes, UNAM, ITESM, UAP, Universidad Mixteca (Oaxaca), ASERCA (apoyos y servicios a la comercialización agropecuaria) Universidad Tecnológica de Puebla, UDLA, Secretaría de economía, Secretaría de Desarrollo Rural, FIRCO; Certimex, Universidad de Chapingo, COLPOS, entre otros. Los empresarios muestran una actitud proactiva y aprovechan su flexibilidad en beneficio de la adquisición de capacidades, en primer lugar han buscado la capacitación para profundizar sus conocimientos sobre los procesos de la misma organización (finanzas, comercialización, mercadotecnia, elaboración de un proyecto productivo para presentar ante organismos gubernamentales, exportación de productos, etc.) y para la capacitación de sus empleados. En segundo lugar, como agrupación empresarial, han logrado acceder a cursos especializados de acuerdo la rama productiva de su firma. Por ejemplo, el caso de las empresas, "Regant S.A de C.V", "Don Mateo de la Sierra", "Rancho el paraíso", "Toritos la chata" en Veracruz, entre otros.

En relación con la Rendrus, 64% de las empresas estudiadas comenta que sí ha recibido capacitación para su empresa, en especial lo relacionado con elaboración del proyecto productivo y con la presentación en power point que tenían que realizar para participar en esta red. Además, como veremos en el siguiente apartado, a través de las ferias y de los eventos que organiza esta red, los empresarios han podido ampliar su capital social al vincularse con otros actores a nivel regional, nacional e internacional.

Una labor fundamental de una red es la participación de sus organizaciones en beneficio del gremio en su conjunto, esto es la competitividad se construye a través de "clusters" o agrupaciones empresariales que permiten a una región destacar en una actividad, los esfuerzos individuales asilados difícilmente generan una ventaja competitiva regional o nacional, salvo que en su caso se trate de un monopolio. La Rendrus, como objeto de estudio para esta investigación, ha tenido un papel relevante en lo referente a la participación de las organizaciones en las agrupaciones empresariales. El papel de esta red es importante al invitar a las empresas a participar en ferias y eventos institucionales para dar a conocer sus productos. Una minoría de empresas, el 18%, ha manifestado que no ha tenido apoyo de la Rendrus y no recomendarían la experiencia de participar en dicha a red a ninguna otra firma. Otro 18% de las empresas no aclara si recibió apoyo de la Rendrus. Algunas de las razones por las cuales los empresarios no recomiendan participar en la Rendrus son:

Para participar en las ferias los participantes deben pagar sus viáticos, transporte, hotel y alimentos. Producen artículos distintos y no se pueden apoyar entre ellos. Por ejemplo, en el caso de Michoacán, hay una empresa que produce flores, granos y además vende toros para engorda; otra se dedica al reciclaje de PET; otra hace productos con el aguacate; otra realiza artesanías con la madera, hojas de maíz, bordados; otra más hace destilado del agave. Cuatro de los empresarios michoacanos comentaron que la Rendrus debería confirmar, antes de hacer las invitaciones a las empresas, las áreas de cada una para prever el apoyo o ayuda que se pudieran brindar entre ellas a pesar de que les quedaba claro que en las ferias o eventos debe haber empresas representativas de cada estado y que posiblemente por ese motivo los habían seleccionado.

Sienten que es una pérdida de tiempo, dinero y esfuerzo. La recomendación que hicieron para la Rendrus fue que hubiera empresas que se pudieran complementar ya sea con la producción de materias primas, con los procesos de fabricación o de comercialización de los productos. De esta forma, es posible aprovechar a la red y ampliar los "contactos", por tanto, incrementar su capital social. Al respecto, Aldrich y Zimmer (1986), introducen el término brockers para referirse a los actores cuya función es ligar a personas con intereses complementarios, transfiriendo información y facilitando los intereses de personas no directamente conectadas entre sí.

CONCLUSIONES

A continuación se presenta un cuadro que muestra las ventajas de la Rendrus en comparación con otras agrupaciones. Cabe señalar que un elemento muy importante en las redes es la flexibilidad, ya que las empresas pueden conectarse o desconectarse a las mismas, de acuerdo a sus necesidades de aprendizaje e innovación. Por lo que un empresario permanecerá en una red, siempre y cuando ella le permita obtener un beneficio para su organización, y este es el reto a que la Rendrus se enfrenta, es decir, el brindar un servicio que sobrepase el de un concurso. Al respecto Huggins (2000) afirma que para que exista un intercambio y proceso de interacción valioso en una red, debe prevalecer una relación de confianza y un deseo de pertenencia, basado en elementos formales y la mecánica de los grupos informales. Con base al comparativo entre la Rendrus y otras redes, se establecen los siguientes retos:

Red	Ventajas
Rendrus	Facilita aprender de las experiencias de otros participantes.
	Permite conocer otros proyectos de inversión.
	Facilita el identificar las etapas del ciclo de vida de las organizaciones participantes.
	Los eventos sirven de vínculo entre las organizaciones y SAGARPA.
	Contribuye a la transferencia de conocimiento.
Otras REDES	Transferencia del conocimiento, habilidades y oficio de una generación a otra (herencia familiar).
	Generación de planes de negocios e innovaciones en procesos productivos a través del vínculo con Universidades y Centros de Investigación.
	Capacidad de incrementar el poder de negociación en los procesos de compra-venta por volumen.
	Obtención de capacitación y asesoría tanto de instituciones privadas, como gubernamentales.
	Vínculos con medios de comunicación: radio y televisión.
	Participación en Cámaras de Comercio y Asociaciones Gremiales.
	Capacidad para la obtención de financiamiento mediante la banca privada y de desarrollo.
	Fortalecimiento en la integración de cadenas de valor y unidades de negocio concéntricas.
	Vínculos con organismos certificadores.
	Integración de actividades de logística y comercialización.
	Participación y organización de ferias, exposiciones y concursos.

Fuente: Elaboración propia.

Generar un plan de trabajo con los participantes, que les permita acrecentar sus lazos y vínculos con Universidades y Centros de Investigación, quienes contribuyen al perfeccionamiento del modelo de negocio.

Contribuir a acrecentar el poder de negociación de sus participantes, ya que ello repercute en el precio del bien, y por consecuencia en el nivel competitivo de las organizaciones.

Generar un directorio de asesores e instructores de capacitación que fortalezcan sus áreas de conocimientos, habilidades y de procesos endebles. Así como la generación de vínculos con medios de comunicación.

Brindar asesoría y apoyo en la evaluación de alternativas de financiamiento en la banca privada y de desarrollo.

Fortalecer la integración de cadenas de valor y procesos de diversificación que fortalezcan la diversidad de unidades de negocio.

Uno de los retos mayores de la Rendrus al ser comparada con otras redes es generar un sentido de pertenencia entre sus participantes, en el que busque generar beneficios para todos sus agremiados, superando el nivel de concurso, para consolidarse en una fuente de desarrollo de capacidades, vínculos, integraciones de cadenas productivas, y de proveedores de conocimiento y asesorías en un plan de trabajo de largo plazo al que se le brinde seguimiento, para posteriormente realizar ejercicios longitudinales comparativos a través del tiempo.

REFERENCIAS

Aldrich H. Zimmer C. (1986) "Entrepreneurship though Social Network" en Sexton L.D. Smilor W.R. Ther art and science of entrepreneurship Ballinger Publising Company, Cambridge Massachusetts.

André, I., Rego, P. (2003). "Redes y desarrollo local: la importancia del capital social y de la innovación". Boletín de al A.G.E. No. 36. Pp. 117-127.

Dickson, K.E., y Hadjimanolis, A. (1998). "Innovation and networking amongt small and manufacturing firms in Cyprus", Vol. 4 pp. 5-17 MCB University Press.

Gulati et al., (2011). "How do nertworks matter? The performance effects of interorganizational nertwoks", Research in Organizational Behavior. Doi10.1016/j.riob.2011.09.005.

Hansen, Eric (1995). "Entrepreneurial Networks and New Organization Growth". Baylor University. Blackwell Publishing.

Huggins Robert (2000). "The success and failure of policy implanted inter-firm netwok initiatives: motivations, processes and structure, Entreprenerurship & Regional Development", 12:2, 111-135 disponible en Http://dx.doi.org/10.1080/089856200283036

Giraudeau, M. (2007). "Le travial entrepreneurial, ou I´entrepreneur shumpetérien performe", Sociologie du travail. No. 49. Pp. 330-350.

González G.C. y M. Basaldúa (2007) "La formación de redes sociales en el estudio de los actores y familias. Perspectiva de estudio en la historia y la antropología" Redes. Revista hispánica para el análisis de redes sociales. Junio, Vol 12.

Gómez, L.D., (2011). "Asociatividad empresarial y apropiación de la cadena productiva como factores que impulsan la competitividad de las micro, pequeñas y medianas empresas: tres estudios de caso". Revista Estudios Agrarios. No. 47. Pp. 133-144

Granovetter M. (1985) "Economic Action and Social Structure: The Problem of Embeddedness" American Journal of Sociology, Vol. 91, No. 3 (Nov.) pp. 481-510.

Lugo-Morin, Diosey (2009). "Análisis de redes sociales en el mundo rural: guía inicial". Revista de Estudios Sociales. No. 38. pp. 129-142

Manual Oslo (2007). Directrices para la recogida e interpretación de información relativa a la innovación. (Versión en español). OECD y Eurostat. (pp. 49-54). Recuperado el 08 de octubre de 2013.

Mitchell J. Clyde (1969). "Social networks in urban situations", Manchester, University Press.
Porter, M. (1985). Ventaja competitiva. Creación y sostenimiento de un desempeño superior. México. CECSA.

Requena Santos Felix (1989) "El concepto de red social", Reis, No. 48 (Oct.- Dec.), pp 137-

Ripollés, M., y Blesa, A. (2006). "Redes personales del empresario y orientación emprendedora en las nuevas empresas". Cuadernos de Economía y Dirección de la Empresa. Núm. 26. 79-94.

Zontanos, G., y Anderson A., (2004). "The nurturing and harvesting of a rural Greek network". International Journal of entrepreneurial behavior research. Vol. 10. No. 4.

MEJORA EN LA COMPETENCIA DE LA CULTURA EMPRESARIAL EN EMPRENDEDORES CON NIVEL EDUCATIVO BÁSICO

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RESUMEN

Se realizó un estudio cuasi experimental, con pre test y post test, con dos grupos de empresarios –control e intervención- con niveles educativos de primaria y secundaria (educación básica en México), para medir su nivel de competencias de gestión con relación a la competencia cultura empresarial, se aplicó el Inventario de Gestión de Alto Rendimiento, (IGAR) (Harris P., 2001), resultando que los empresarios mostraron bajos niveles de desempeño. La intervención se realizó con una propuesta de consultoría universitaria integrando el enfoque socio formativo por competencias (Tobón) que incluyó el diseño y aplicación de secuencias didácticas integrando los aspectos saber conocer, saber hacer y saber ser, con la intención de lograr una mejora en el desempeño en gestión empresarial iniciado con la cultura empresarial. Para medir la efectividad de la propuesta educativa se utilizó el análisis estadístico descriptivo evaluando el desempeño y puesta en práctica de las estrategias de mejora al interior de sus unidades de negocio obteniendo una medición superior a 5.38 (competencia intermedia) y la prueba "T" de student para grupos independientes resultando una significancia de .00155 en el grupo intervención, lo que probó que los empresarios mejoraron su nivel de desempeño de básico a intermedio. Es necesario educar a empresarios no profesionistas desarrollando propuestas formativas que contribuyan a la mejora y sustentabilidad de las micro empresas.

PALABRAS CLAVE: Cultura Empresarial, Emprendimiento, Empresario sin formación, Mejora, Competencias, Socio Formación

IMPROVEMENT IN COMPETITION IN CORPORATE CULTURE ENTREPRENEURS WITH BASIC EDUCATION LEVEL

ABSTRACT

A quasi-experimental study was conducted, with pretest and posttest, two groups of entrepreneurs with educational primary and secondary levels: control and intervention, to measure their level of skills of using the Inventory Management High Performance Management, entrepreneurs showed low levels of performance. The procedure is performed with a proposal for integrating the university consulting partner competency training approach that included the design and implementation of teaching programs including aspects to know, to know how and to know being, with the intention of achieving an improvement in performance management business started with the corporate culture. Statistical analysis of the mean was used to evaluate the performance and implementation of improvement strategies within their business units getting a higher 5.38 (intermediate proficiency) measurement and test to measure the effectiveness of the educational proposal "T "student resulting in a significance of .00155 in the intervention group, which proved that entrepreneurs improved their performance level from basic to intermediate. We need to educate employers not training professionals develop proposals that contribute to the improvement and sustainability of micro enterprises.

JEL: D22, I20, I24, J24, L21, L26, M14, M53

INTRODUCCIÓN

La investigación se realizó en la Región Valles del Estado de Jalisco, en donde, al igual que en el resto de México, existen empresarios que carecen de formación básica (primaria y secundaria) y por ende conocimientos en el área de administración de negocios lo cual no les es impedimento para emprender una micro empresa cuyo objetivo principal es la sobrevivencia económica familiar. El empresario no profesionista vincula el éxito del negocio a la suerte, la experiencia y la tradición familiar, lo que limita el desempeño y crecimiento ordenado de la micro empresa. Lo anterior se constató mediante la aplicación del Inventario de Gestión de Alto Rendimiento de Harris (Harris P., 2001), donde se evidenció que los empresarios sin formación académica profesional -objeto de esta investigación-, cuentan con competencias de gestión a nivel básico con relacion a la cultura empresarial lo que llega a provocar diversas problemáticas de organización y administracion de los recursos al interior de sus empresas y que pueden ocasionar el cierre de la misma. Como una alternativa a esta problemática se diseñó y aplicó un proyecto formativo integrando el enfoque de la socioformación por competencias, aplicando secuencias didácticas que se utilizaron como una herramienta de intervención con desarrollo de productos e implementación de estrategias empresariales que permitieron mejorar el nivel de desempeño en las competencias de gestión en los empresarios no profesionistas y se confirmó que esta propuesta educativa puede ser aplicada en cualquier contexto, siempre y cuando exista un problema cuya premisa de solución se aborde mediante la capacitación.

REVISION DE LITERATURA

El empresario: (Tolentino, 1988) mencionó que el término "empresario" se utiliza en la literatura para designar a los que crean nuevos emprendimientos de negocios, se hacen cargo de los riesgos que ello implica y se dedican activamente a manejarlos, además expuso que los empresarios-gerentes de pequeñas empresas cumplen dos funciones distintas pero estrechamente entrelazadas: el emprendimiento y la gestión, al unirlas el problema es doble; existen diversos estudios sobre la supervivencia, el crecimiento y el deceso, de pequeñas empresas que han demostrado que los fracasos se deben principalmente a una mala gestión o desconocimiento empresarial; los emprendedores no profesionistas se caracterizan por que su hacer requiere pocas calificaciones, escaso capital y rinden ingresos bajos; por lo tanto son de fácil acceso, tienen baja productividad y capacidad de acumulación. (OIT) Los objetivos de estos empresarios se limitan al ingreso familiar, a la supervivencia del patrimonio familiar, la postura básica en relación al negocio es la adaptación reactiva al medio ambiente, el empresario busca estar atento a los cambios externos y reaccionar en consecuencia, el destino de la empresa está determinado por las condiciones económicas externas.

Formación Profesional del Empresario

Con referencia a esta actividad el (Banco Interamericano de Desarrollo., 2004) la formación profesional es un motor del desarrollo social que puede ayudar a los empresarios a construir una cultura empresarial, una mejora en la calidad de vida, generar empleos estables y organizar actividades económicas sustentables.

Competencias de los Empresarios

Al respecto de la educación por competencias la Organización de las Naciones Unidas para la Educación (UNESCO, 2005) en 1988 expresó que es necesario propiciar el aprendizaje permanente y la construcción de las competencias adecuadas para contribuir al desarrollo cultural social y económico. En relación al concepto en el 2010 la Secretaria de Educación Pública determinó que

"Una competencia implica un saber hacer (habilidades) con saber (conocimiento), así como la valoración de las consecuencias de ese hacer (valores y actitudes). La manifestación de una competencia revela la puesta en práctica de conocimientos, habilidades, actitudes y valores para el logro de propósitos en contextos y situaciones diversas, por esta razón se usa el concepto de "movilizar conocimientos".

De acuerdo con el proyecto DeSeCo de la OCDE (2002, p. 33):*«Una competencia es la capacidad para responder a las exigencias individuales o sociales o para realizar una actividad o una tarea [...] Cada competencia reposa sobre una combinación de habilidades prácticas y cognitivas interrelacionadas, conocimientos (incluyendo el conocimiento tácito), motivación, valores, actitudes, emociones y otros elementos sociales y de comportamiento que pueden ser movilizados conjuntamente para actuar de manera eficaz.»* (Coll, 2002)

Las competencias no son un concepto abstracto: se trata de las actuaciones que tienen las personas para resolver problemas integrales del contexto, con ética, idoneidad, apropiación del conocimiento y puesta en acción de las habilidades necesarias (Tobón Tobón, Pimienta Prieto, & García Fraile, 2010).

Existen dos clases generales de competencias: específicas y genéricas: Las competencias genéricas se refieren a las que son comunes a una rama profesional (por ejemplo, salud, ingeniería, educación) o a todas las profesiones y se caracterizan por ser deseables para todas las personas para que gestionen su formación, realización personal y aprendizaje continuo; tienen como base la actuación ética, así como los derechos humanos; se requieren para vivir plenamente y afrontar situaciones en diferentes contextos (familiares, sociales, laborales, profesionales, científicos, comunitarios, recreativos, artísticos. Además se requieren para la convivencia pacífica y armónica para la solución de conflictos interpersonales y sociales; aumentan las posibilidades de empleabilidad al permitir a las personas cambiar fácilmente de trabajo, favorecen la gestión, consecución y conservación del empleo.

Se adquieren mediante procesos sistemáticos de enseñanza y aprendizaje en la familia, la sociedad y las instituciones educativas. De ahí que uno de los retos de la educación actual sea la formación de competencias generales y amplias. (Delors, 1996) Las competencias específicas, a diferencia de las competencias genéricas, son propias de cada profesión y le dan identidad a una ocupación (en este sentido, hablamos de las competencias específicas del profesional en educación física, del profesional en ingeniería de sistemas o del profesional en psicología). (Esquetini Cáceres, 2013) En su reciente informe de reflexiones y perspectivas del profesional de la administración y los empresarios requieren las competencias siguientes y las categoriza en cuatro apartados como se especifica en la siguiente tabla:

El Empresario de las Micro y Pequeñas Empresas

(Zuluaga, 2010) Reconoce que la propia escencia de la pequeña compañía es el manejo diario y personal por parte del empresario-gerente de las transacciones y otras relaciones con clientes, canales de comercialización, proveedores, bancos, trabajadores, autoridades regulatorias, padres, amigos, familiares y otros interesados en el ambiente de negocios. Para Ros (2006), los antecedentes culturales, la personalidad, preferencias y comportamiento del empresario – gerente y las características de la pequeña empresa (tamaño, sector, nivel tecnológico) tienen una gran influencia mutua, que lleva prácticas de gestión muy especiales y específicas.

Tabla 1: Relación de Competencias Específicas del Administrador. Tunning la. (2013)

	Categorías	Macro competencias
1	Cultura empresarial, desarrollo personal y organizacional	Compromiso ético y responsabilidad social.
2		Ejercer el liderazgo para el logro de los objetivos en la organización.
3		Capacidad de aprender a aprender
4		Capacidad de comunicación y trabajo en equipo
5	Innovación y emprendimiento	Detectar oportunidades para emprender negocios innovadores/ Capacidad de emprendimiento e innovación
6		Formular, evaluar y administrar proyectos empresariales en diferentes tipos de organizaciones.
7	Gestión estratégica	Desarrollar un planeamiento estratégico, táctico y operativo, en distintos escenarios.
8		Mejorar e innovar el proceso administrativo y de negocios.
9		Identificar y administrar los riesgos de negocios de las organizaciones.
10		Formular y utilizar sistemas de información para la gestión.
11	Análisis del negocio.	Interpretar la información contable y financiera para la toma de decisiones,
12		Administrar los recursos humanos físicos, financieros y otros de la organización.
13		Evaluar el impacto del marco jurídico en la gestión de las organizaciones.

Adaptación de la relación de competencias para el administrador de una empresa a apartir de las señaladas en el Proyecto Tunning, para Latino America,2013. propia.

La Cultura Empresarial Como Competencia

El empresario requiere ser consciente y estar al día en la cultura de su organización, conocer las normas, identificar prioridades y los temas de poder relacionados con las vertientes externas, las tendencias y el desarrollo que provocaran al interior de su unidad de negocio, Looff (2002), apunta que el proceso gerencial de la pequeña empresa no puede separarse de la personalidad y la experiencia de la persona o personas que la manejan. (Bonet, 2001) describe que en algunas comunidades, la cultura, la tradición y la religión tienen un impacto directo en la cultura y los valores de la empresa, y en casos extremos la separación entre asuntos comerciales y familiares se hace difícil de distinguir, especialmente en las pequeñas empresas.

Enfoque Socio Formación Por Competencias.

En la concepción moderna de la consultoría, es trascendental que la finalidad de una consultoría es capacitar al empresario para que desarrolle sus competencias y las transmita al interior de la organización a menudo se destaca que de esta manera "se ayuda a las organizaciones a ayudarse a sí mismas". Se trata de un intercambio de doble dirección, puesto que el ayudar a sus clientes a aprender de la experiencia el consultor de empresas acrecienta sus propios conocimientos y competencia. (Kurb, 2006) El enfoque socio formativo por competencias aspira hacia la formación humana integral, parte de que la persona se mueva a través de un sólido proyecto ético de vida, promueve el emprendimiento creativo y el aprendizaje de competencias fundamentales, para el logro de objetivos que incluyen el fortalecimiento social, mejora en el desarrollo económico empresarial, la realización personal y la participación en la creación de un entorno ecológico y cultural que mejore la calidad de vida social. (Tobón Tobón, Pimienta Prieto, & García Fraile, 2010)

METODOLOGÍA

El tipo de estudio fue cuasi experimental. El diseño de este tipo de investigación fue estudio antes-después con dos grupos integrado por 15 empresarios: 9 integraron el grupo intervención y 6 el grupo control. Este tipo de diseño se basó en la medición y comparación de la variable respuesta antes y después de la exposición del sujeto a la intervención experimental – aplicación de la secuencia didáctica en el proceso de consultoría universitaria- con el grupo intervención; y con el grupo control la aplicación de la metodologia tradicional de intervención de empresas propuesta por el Fondo Jalisco (FOJAL), organismo de apoyo al

desarrollo de micro y pequeñas empresas del estado de Jalisco, México. La presente investigación tuvo un alcance correlacional que de acuerdo con Sampieri (2010) asocia variables mediante un patrón predecible (El empresario potencia o no las competencias de gestión una vez aplicando el enfoque socio formativo dentro del proceso de consultoría) p.81 La utilidad de la investigación radicó en el beneficio que obtuvieron los empresarios participantes al poner en práctica las actividades formativas integradas dentro de la secuencia didáctica, y que tienen como intención principal el generar al menos una estrategia de gestión que permita una mejora en la unidad productiva o de servicios, resultado que podrá ser medido con relación al impacto o indicadores. Fue un estudio longitudinal por que los individuos fueron observados a través del tiempo.

RESULTADOS

Con la finalidad de medir el nivel de desempeño en sus competencias de gestión en su rol de empresarios se les aplicó a los 15 participantes el Inventario de Gestión de Alto Rendimiento, el cuestionario se administró en algunos casos de manera grupal y otros casos a modo personal. El empresario en la hoja de respuestas registraba la opción A, B, C, D y para el manejo estadístico se utilizaron los siguientes valores e interpretaciones.

Tabla 2: Valores e Interpretación del Nivel de Desempeño de la Competencia

Letra asignada al cuestionario A	Letra asignada al cuestionario B	Letra asignada al cuestionario C	Letra asignada al cuestionario D
Valor = 2.75	Valor = 5.37	Valor = 8.24	Valor 9
Interpretación:	Interpretación:	Interpretación:	Interpretación:
No Competencia	Competencia Básica	Competencia Intermedia	Competencia Avanzada

Elaboración propia. Para determinar los valores, se utilizó la herramienta estadistica de cuartiles.

Los resultados obtenidos en la primera fase de aplicación del Inventario de Gestión de Alto Rendimiento se les aplicó el análisis estadístico descritivo; los valores obtenidos a partir de la totalidad de respuestas de los empresarios tanto del grupo intervención como al grupo control, por ítem del instrumento y agrupándolas por cada sección del instrumento. La sección analizada fue Conciencia Cultural Empresarial en la que se obtuvieron las medias siguientes:

Lo anterior nos indicó que los empresarios entrevistados con relación a su competencia en cultural empresarial se ubican en un nivel de no competencia, lo que significa que no están implicados en una cultura de trabajo, carecen de actualización tecnológica, pueden carecer de objetivos, normas en los que opera la unidad; cabe señalar que con relación al ítem 8 los empresarios son competentes en lo referente a la empatía existente entre los miembros del entorno en el que se desenvuelve su empresa.

Tabla 3: Resultados Previos. Nivel de Desempeño Competencia Cultura Empresarial

	Conciencia Cultural Empresarial								
Ítems	1	2	3	4	5	6	7	8	9
Media	5.19	3.71	4.53	3.79	3.55	4.37	4.72	6.91	4.29
Media del Bloque	4.31								

Elaboración Propia. Se considera que el empresario cuenta con una competencia en nivel básico a partir de la calificación 5.37, se observa que en ningun item los participantes obtuvieron tal desempeño.

Intervención

Posterior a la evaluación de los resultados del pre test, se convocó al grupo de intervención que participarán en el trayecto formativo denominado "Competencias de gestión para microempresarios" diseñado por el investigador apoyado de un equipo multidisciplinar integrado por expertos en el área de administración de empresas, comunicación, relaciones públicas, contaduría pública y finanzas, recursos humanos y la participación de un asesor experto en el enfoque socio formativo por competencias que validó el contenido y actividades del trayecto formativo.

Partiendo de los resultados del pre test, se diseñó la secuencia didáctica, misma que se implementó en diferentes momentos durante el año 2014, la dinámica de trabajo consistió en citar a los empresarios a recibir la asesoría-capacitación correspondiente, iniciando con el bloque Saber Conocer, se invitaba a reflexionar acerca de las herramientas propuestas, la utilidad de alguna de estas para su empresa, y el empresario se comprometía a iniciar con la implementación de la misma de inmediato, se le proporcionaba material para apoyarse a la implementación y se visitaba dentro de las siguientes dos semanas para verificar los avances de las implementaciones, despejar dudas , compartir experiencias y que el empresario valorara la utilidad de la misma e impacto para su negocio y aplicación de las Rúbricas diseñadas para evaluar el proceso formativo. En el anexo siguiente se presentan los componentes claves del trayecto formativo y ejemplo de una de las secuencias didácticas diseñadas (Tobón Tobón, Pimienta Prieto, & García Fraile, 2010).

Tabla 4: Secuencia Didáctica: Conciencia Cultural Empresarial

Criterios:		
Saber Conocer	Saber Hacer	Saber Ser
1.- Conocer, reflexionar y construir para aplicar en tu unidad de trabajo los términos: cultura de trabajo, desarrollo socioeconómico, cambios, misión, visión, objetivos, estrategia, roles, normas, actividades, políticas, normatividad y expectativas.	1.-Diagnosticar tu empresa para identificar la cultura de trabajo, el impacto de tu unidad en el desarrollo económico personal, de tu equipo de trabajo y tu comunidad.	1.- Tendrás un acercamiento con sus colaboradores, establecerás un diálogo respetuoso, escucharas sus propuestas, valorarlas y decidirás su inclusión aún si no estás totalmente de acuerdo.
	2.- Elaboraras un manual donde especificaras al menos la misión, visión, un objetivo, una estrategia.	2.- Impulsaras el trabajo colaborativo.
	3.- Elaboraras un manual con normas de aplicación para tu empresa	3.- Te Conducirás de forma ética en todas las actividades a realizar.
	4.- Identificaras y pondrás por escrito expectativas para tu empresa a nivel, personal y tomaras en cuenta las opiniones de su equipo de trabajo.	4.- Cumplirás con las fechas compromiso de asistencia a capacitación, mostraras avances de trabajo y comentaras las mejorías que observes en tus colaboradores.

			Rúbricas de evaluación				
Proyecto a realizar	Problemática que se aborda	Actividades del proyecto	A = 0 - 2.75	B = 2.76 - 5.37	C = 5.37 - 8.24	D = 8.25 - 9	
Elaboración del plan de negocios a nivel de definición de la cultura empresarial.	Ausencia de plan de negocios.	Actividades de Aprendizaje con el consultor. Actividades de Aprendizaje autónomo	No Competencia	Competencia Básica	Competencia Intermedia	Competencia Avanzada	Nivel de Competencia Alcanzado.
	Saber conocer: Utilizando la técnica expositiva el consultor apoya con la definición de los conceptos relacionados en la parte del saber conocer.	Saber Hacer: Construye un organizador de información de los términos, utilizando como ejemplo su empresa.	Transcribe los conceptos únicamente, no los relaciona con su empresa.	Escribe los conceptos y tiene ideas muy vagas en como a aplicarlos su empresa.	Interpreta los conceptos, los aplica a las áreas de la empresa, realiza su trabajo sin observar dedicación, no da más de lo que se solicita.	Elabora un esquema conceptual, aterriza los conceptos a su empresa, utiliza ejemplos claros, aplica su creatividad utilizando colores y figuras.	

Resultados de la Intervención (Post- Test) Grupo Experimental

Una vez desarrollado el proceso de intervención a las nueve empresas, se procedió al análisis de datos utilizando como herramienta el Coeficiencia de Correlación Lineal de Pearson, que es un índice que mide el grado de co - variación entre distintas variables relacionadas linealmente. Para validar si el Coeficiente de Correlación de Pearson, es la herramienta que nos permitiria verificar la hipótesis, se recurrió a realizar un procedimiento gráfico que demostrara la existencia de la tendencia lineal de la relación, tomando como base los resultados de los ítems que integran la valoración del nivel de desempeño dela competencia, para el caso se consideró la cultura empresarial, obteniendo la siguiente gráfica:

Figura 1:Resultados de la Intervención Para Mejora de Desempeño en La Competencia de Cultura Empresarial

Ítem	1	2	3	4	5	6	7	8	9	10
Antes	5.19	3.71	4.53	3.79	3.55	4.37	4.72	6.91	4.29	2.08
Interpretación	CB	CB	CB	CB	CB	CB	CB	CI	CB	NC
Después	6.13	5.02	5.51	5.13	4.89	5.84	5.86	7.23	5.31	4.1
Interpretación	CI	CB	CI	CB	CB	CI	CI	CI	CB	CB

NC = No Competente. CB = Competencia Básica. CI = Competencia Intermedia CA = Competencia Avanzada. La linea de la figura resalta que con la aplicación de la secuencia didactica propuesta el grupo intervención mejoró el desempeño en la competencia de la mejora de la conciencia cultural empresarial, demostrada en su concepcion personal como empresario, definición del planteamiento estrategico de su empresa y aspiración a la mejora permanente.

Se observa la existencia de una cierta tendencia lineal en la relación, en consecuencia se puede proceder a calcular el coeficiente de correlación de Pearson.

Tabla 5: Análisis ANOVA, para determinar el nivel de significancia de la implementación con el grupo de intervención

	Grados de Libertad	Suma de Cuadrados	Promedio de los Cuadrados	F	P
Regresión	1	6.2	6.2	284.2	0. 01554
Residuos	8	0.17	0.02		
Total	9	6.37056			

De acuerdo con la interpretación del Analisis Anova Guilford (1954) lo interpreta de la siguiente forma: r < 0.2, existe una correlación baja, no se rechaza el planteamiento de modificación del patron ya que existe un aprendizaje.

Tabla 6: Resultados Comparativos Pre Test Vs Post Test Grupo Intervención

Competencia	Promedio Antes	Promedio Después	Promedio de Estrategias Implementadas Por Empresa
Conciencia cultural Grupo Intervención	4.31 Competencia Básica.	5.50 Competencia Intermedia.	6
Conciencia cultural Grupo Control	4.18 Competencia Básica.	4.48 Competencia Básica	3

Elaboración propia. A partir de los resutados se observa que el grupo intervencion tiene una mejora relativa en su desempeño en la competencia de conciencia cultural empresarial con relacion al grupo control que conserva en interpretación un desempeño básico

Se aplicó ademas la Prueba T Student para muestras relacionadas en ambos grupos, el intervención obtuvó una significancia bilateral de 0.0198, superior a la obtenida por el grupo control de 0.000002. Se encontró que el nivel de significancia es mayor en el grupo intervención con relación al grupo control, dando validez a la hipótesis planteada en la presente investigación, si existe una mejora en el nivel de desempeño en competencias de gestión aplicando el enfoque de la socio formación por competencias en el proceso de consultoría universitaria. Otro hallazgo fue la relación de estrategias y productos implementados por ambos grupos, la siguiente tabla muestra como el grupo intervención tiene un mayor número de implementaciones que significaran - de continuarse aplicando- una mejora en sus empresas.

Con relación a los resultados obtenidos se revisó el estudio realizado por (Palmero - Piña, Padrón - Diaz, Rizo - Hernández, & Tejo - Rodriguez, 2012) en el que evaluaron el nivel de mejora en el desempeño a dueños de empresas después de recibir capacitación en temas de gestión los participantes obtuvieron un rango de calificaciones dentro de 3 y 6 puntos, considerado como brecha moderada y brecha considerable; las competencias evaluadas en una brecha considerable en dicho estudio fueron la de planificación, comunicación efectiva y toma de decisiones.

CONCLUSIONES

Además de lo planteado en la interpretación de los resultados se evidenció que el enfoque del socio formación es eficaz para resolver problemas que se puedan abordar a partir de una propuesta formativa.

REFERENCIAS

Coll, C. (2002). Las competencias en educación. Aula de Innovación Educativa. , 34-39.

Banco Interamericano de Desarrollo. (2004). El nuevo rostro empresarial: indagación sobre el empresariado juvenil en América Latina y el Caribe. . Bogota: Alfaomega Colombiana S.A.

Bonet, A. L. (2001). Economía y cultura: una reflexión en clave latinoamericana. Barcelona: Oficina para Europa del Banco Interamericano de Desarrollo.

Delors. (1996). Los cuatro pilares de la educación. México: UNESCO.

Esquetini Cáceres, C. (2013). Tuning América Latina. EducacionSuperior en América Latina: Reflexiones y perspectivas en Administración.

González Maura, V. (2002). ¿Qué significa ser un profesional competente? Reflexiones desde una perspectiva psicológica. (R. I. Educación, Ed.) Revista Cubana de Educación Superior. , 45 - 53.

Harris P., P. (2001). 20 Instrumentos de Diagnóstico para la nueva empresa. Madrid: Centro de Estudios Raóm Aceres.

Kurb, M. (2006). La Consultoría de Empresas. Guía para la Profesion. México.: LIMUSA.

Medina Elizondo, M., Molina Morejón, V. M., & López Chavarría, S. (2006). Las 20 competencias profesionales para la práctica docente. Revista Internacional Administración y Finanzas. , 1 (1), 95 - 109.

Palmero - Piña, M., Padrón - Diaz, M., Rizo - Hernández, J. E., & Tejo - Rodriguez, L. (2012).

Procedimiento para evaluar el impacto de la capacitación en la empresa. Ingenieria Industrial , XXXIII (3), 215 -225.

Rodríguez Gómez, D., & Valldeoriola Roquet, J. (2009). Metodología de la investigación. Cataluña, España.: Universitat Oberta de Cataluña.

Tolentino, A. L. (1988). Formación y desarrollo de empresarios - gerentes de pequeñas empresas. (Vol. Volumen 5 de Papeles de la oficina técnica). Texas: Cinterfor.
Tobón Tobón, S., Pimienta Prieto, J., & García Fraile, J. A. (2010). Secuencias Didácticas: Aprendizaje y Evaluación de Competencias. México: Pearson.

Zuluaga, A. P. (2010). Una perspectiva de las empresas de familia. Bogotá.: Universidad Nacional de Coombia.

PROPUESTA DE REDISTRIBUCIÓN DE PLANTA EN EL ÁREA DE PRODUCCIÓN DE LA EMPRESA SURTIMADERAS R.C.

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RESUMEN

El siguiente es un estudio de caso de tipo cualitativo, cuantitativo, descriptivo y deductivo, que tiene como objetivo evaluar el mejoramiento en el nivel de servicio de la empresa Surtimaderas a partir de una propuesta de redistribución de los espacios de su planta de producción. La unidad de análisis se limita a la empresa. Para la realización de este ejercicio se realizó un diagnóstico de localización, aprovisionamiento de materias primas, proveedores, productos, clientes, maquinaria y procesos productivos, donde se evidenciaron principalmente problemas como la inadecuada localización de las máquinas, falta de un plan de mantenimiento correctivo, tiempos perdidos en producción y alistamiento, así como acumulación de material en el espacio físico. Posteriormente se realizó una propuesta de mejoramiento para disminuir los tiempos de desplazamiento interno obteniendo ahorros anuales cercanos a los cinco mil dólares. El método utilizado fue en principio la exploración y descripción de la forma cómo funcionaban los procesos en la empresa. Finalmente se identificaron alternativas orientadas a lograr un mejoramiento en el proceso de producción obteniendo como resultado el incremento en el nivel de servicio. Este estudio confirma la utilidad de evaluar la distribución espacial para la producción, posibilitando el mejoramiento a nivel empresarial.

PALABRAS CLAVE: Distribución en planta, Mejoramiento continuo

LOGISTICS OPERATIONS INNOVATION IN THE COMPANY REINDUSTRIAS

ABSTRACT

The following is a case study of qualitative, quantitative, descriptive and inferential type, which aims to assess the improvement in the level of service the company Surtimaderas from a proposed redistribution of the spaces of its production plant. The unit of analysis is limited to the company. To carry out this exercise diagnosis localization, supply of raw materials, suppliers, products, customers, machinery and production processes, where mainly problems such as improper location of machinery, lack of a plan of corrective maintenance were evident was made, time lost in production and recruitment and accumulation of material in physical space. Subsequently a proposal for improvement are made to reduce internal displacement time getting annual savings of close to five thousand dollars. The method used was in principle the exploration and description of the way the process worked in the company. Finally they aimed at achieving an improvement in the production process resulting in an increase in the level of service alternatives identified.

JEL: L6, L7, M1

KEYWORDS: Lay Out, Continuous Improvement

INTRODUCCION

Surtimaderas R.C. es una microempresa con 18 años de experiencia que se dedica a la transformación de madera. En la actualidad provee productos a industrias de segunda transformación. La tecnología con la que cuenta incluye las siguientes máquinas: una planeadora, una motosierra, una sierra estática, un cepillo, una planeadora, una máquina machimbradora, una máquina sin fin, un torno, así como herramientas de mano. En la actualidad, Surtimaderas R.C. cuenta con una planta de producción ubicada en Colombia en la ciudad de Duitama, en la cual el área de producción presenta problemas en la distribución de planta que se evidencia en un desperdicio de tiempo por los largos recorridos que deben realizar los operarios con materiales pesados. La ubicación de las máquinas se ha realizado de acuerdo con el orden de compra de las mismas, sin tener un flujo de proceso continuo que disminuya las distancias entre las operaciones realizadas y mejore el tiempo de producción, que pueda ser utilizado para aumentar los productos y por ende las ventas y utilidades de la empresa. Este trabajo tiene como objetivo realizar una propuesta de redistribución de la planta para el área de producción de la empresa Surtimaderas R.C., que permita un flujo continuo de proceso y una disminución en el desperdicio de tiempo en recorridos dentro de la planta. Inicialmente se describe la problemática a solucionar, el diagnóstico de la situación actual de la empresa, se realiza un análisis de diagnóstico , para finalmente proponer una solución al mejoramiento del espacio de producción.

REVISIÓN DE LITERATURA

Se entiende por distribución de planta la ordenación física de los factores y elementos industriales que participan en el proceso productivo de la empresa, en la distribución del área, en la determinación de las figuras, formas relativas y ubicación de los distintos departamentos (de la Fuente, 2009, pág. 3). El objetivo es lograr la máxima eficiencia, implementando los sistemas de fabricación de la forma más productiva posible. La distribución física constituye un elemento importante en todo sistema de producción que incluye tarjetas de operación, control de inventarios, manejo de materiales, programación, enrutamiento y despacho. (Niebel & Freivalds, 2009).

La estrategia de la distribución en planta debe mejorar la satisfacción del cliente al facilitar sus transacciones, aumentar el retorno sobre los activos (ROA) al maximizar las vueltas del inventario, minimizar el inventario obsoleto, maximizar la participación de los empleados, y maximizar el mejoramiento continuo, maximizar la velocidad, para una rápida respuesta al cliente, reducir los costos y aumentar la rentabilidad de la cadena de suministro, apoyar la visión de la organización, a través del mejoramiento del manejo de materiales, el control de materiales y de un buen mantenimiento, utilizar con eficacia al personal, el equipo, el espacio y la energía, ser adaptable y promover la facilidad de mantenimiento (Tompkins, 2009, pág. 12).

Según (Palacios Acero, 2009) la importancia de estos factores puede variar de acuerdo con cada organización y situación concreta. Estos factores que influyen en la distribución en planta se dividen en ocho grupos, en donde a cada uno de ellos se le analizan diversas características y consideraciones que deben ser tomadas en cuenta en el momento de llevar a cabo una distribución en planta. La producción tiene como objetivo ayudar a mejorar el servicio al cliente, manejar un inventario menor, ofrecer al cliente tiempos de entrega más cortos, estabilizar los puntos de producción y esencialmente facilitar a la gerencia el manejo del negocio. Fundamentalmente, su diseño se basa en la estabilización de la oferta y la demanda, manteniéndola con el paso del tiempo con la integración de todos los departamentos de la empresa. (Chase, Jacobs, & Aquilano, 2009). La planeación agregada permite determinar la cantidad óptima de índice de producción, es decir, el número de unidades terminadas por unidad de tiempo; el nivel de la fuerza de trabajo, la estrategia de ajuste, la fuerza de trabajo estable (Chase, Jacobs, & Aquilano, 2009). La planeación sistemática de Muther plantea la aplicación de técnicas de diseño de plantas con base en la relación entre las áreas de la planta. El objetivo de la planeación sistemática de la distribución es ubicar dos áreas con grandes relaciones lógicas entre sí y de frecuencia cercanas entre sí, mediante el uso de un procedimiento

directo de seis pasos. (Niebel & Freivalds, 2009, págs. 88,). El primer paso es realizar el diagrama de relaciones entre las diferentes áreas. Una relación es el grado relativo de acercamiento, que se desea o que se requiere entre diferentes actividades, áreas, departamentos, habitaciones, etc., según lo determine la información cuantitativa del flujo (volumen, tiempo, costo, enrutamiento) de un diagrama desde-hacia, o más cualitativamente, de las interacciones funcionales o información subjetiva. Posteriormente se establecen las necesidades de espacio en términos de los metros cuadrados que existen. Estos valores pueden calcularse con base en las necesidades de producción, extrapoladas a partir de áreas existentes, proyectadas para expansiones futuras o establecidas por estándares legales. Se elaboran diagramas de relaciones entre actividades y se identifican las relaciones de espacio en la distribución: Se crea una representación espacial escalando las áreas en términos de su tamaño relativo. Una vez que los analistas están satisfechos con la distribución, las áreas se compactan en un plano. Finalmente se implementa el nuevo método (Niebel & Freivalds, 2009, p. 88, 89, 90).

METODOLOGIA

El ejercicio realizado es un estudio de tipo cualitativo, cuantitativo, descriptivo y deductivo que tiene como objetivo realizar un diagnóstico de las condiciones actuales de la empresa así como de su distribución en planta para el área de producción. Para lo anterior se realizaron visitas a las instalaciones de la empresa con el fin de obtener la información necesaria para los estudios de tiempos y los diagramas de recorrido, utilizando cámara de video y fotográfica. Se realizaron diagramas de recorrido, diagramas de operaciones, diagrama de causa-efecto, diagrama de Pareto, levantamiento de planos en Visio y la planeación sistemática de Muther. Posteriormente se elaboró la propuesta de rediseño para el aprovechamiento de los espacios físicos de la planta de producción, demarcación de las zonas, delimitación de los puestos de trabajo y zonas de circulación en la empresa Surtimaderas R.C. , realizando los nuevos diagramas de flujo y diagramas de recorrido, que permiten lograr el mejoramiento de la distribución en planta. Finalmente se evaluó la viabilidad de la propuesta a través un análisis de costo-beneficio. En cuanto al alcance, la investigación es de carácter mixto. En principio es de carácter cualitativo ya que se evidencian los problemas en la empresa por visita directa, posteriormente es cuantitativa porque se realizan análisis de tiempos y movimientos. La investigación es de tipo transversal porque los datos se recolectan en un solo momento en el tiempo. Finalmente todo el procedimiento termina en un tipo de investigación deductiva porque se comprobará la hipótesis de que a partir de la redistribución en planta es posible lograr el mejoramiento de la empresa. La hipótesis que se plantea es que mejorando la distribución en planta de la empresa se puede impactar el nivel de servicio y por tanto en la rentabilidad de la organización.

RESULTADOS

El primer piso de la bodega tiene aproximadamente 1.960 m2 y está dividido en 8 zonas: sierra, almacenamiento de producto terminado, oficina, productos de bajo pedido, almacén de materia prima, producción y parqueadero. El principal problema de desperdicios es el aserrín del cual se aproximadamente 8 kilos diarios. Además de producir desorden en todo el piso de la planta, permite el desarrollo de enfermedades como la neumoconiosis y accidentes profesionales. Las maquinarias usadas en la empresa tienen entre 6 y 12 años de antigüedad, no se les realiza mantenimiento preventivo sino solo correctivo. El movimiento que se realiza dentro de la planta es de distancias entre 30 y 45 metros y cargas de 45 kg transportadas por los operarios y auxiliares de la planta por lo cual el proceso vuelve dispendioso, peligroso y disminuye la calidad de vida de los operarios. Las esperas que se presentan en el proceso de producción son inevitables, dado que se refieren al proceso de secado que se demora 20 días, y que no puede ser menor, porque de ello depende la calidad del producto.

Aunque la empresa cumple con todos los elementos de seguridad necesarios para la realización de las actividades, se pudo observar que se pueden presentar algunos accidentes de trabajo, por ejemplo, se observaron algunos inconvenientes en el apilado, en los pasillos de los recorridos de los trabajadores entre

cada proceso, y el manejo de los desperdicios, los cuales pueden dar paso a un accidente de trabajo. Las principales causas de problemas en la inadecuada distribución de la planta de producción son: a) excesivos transportes con carga pesada, b) inexistencia de zona de alistamiento y delimitación por tipo de MP, c) acumulación de material de desperdicio en los pasillos, d) inadecuada ubicación de las máquinas y e) Inexistencia de una zona de almacenamiento de PT.

Para solucionar los problemas presentados se realizó la planeación sistemática de Muther, usando el método de Guerchet para calcular los requerimientos de espacio, para poder presentar tres propuestas las cuales se evaluaron por la heurística Corelap y por adyacencias con el fin de seleccionar la más eficiente. Luego de seleccionar la propuesta, se analizan los ocho factores de Muther, se diseña la propuesta por medio de diagramas de flujo, operaciones y recorrido ajustados y finalmente se analizan y presentan las mejoras conseguidas en la empresa por medio de la implementación de la propuesta.

La solución consideró la mejor opción para obtener un flujo continuo de producción, acompañada de una mejora en las políticas de manejo de desperdicios, incluir la delimitación de zonas de tipos de materia prima y almacenamiento de producto terminado con el fin de disminuir el desorden en la planta y los tiempos en la búsqueda de los pedidos, la mejora en el proceso de almacenamiento disminuyendo los tiempos de operación, la definición, delimitación y señalización de zonas para cada proceso con el fin de facilitar la búsqueda y el acceso a los materiales, la posibilidad de realizar adecuaciones a la planta física de la empresa, dado que, la ubicación de las paredes existentes se pueden generar problemas en la redistribución y disminuir las distancias recorridas en los transportes dentro de la planta, evitando en lo posible cruces entre los recorridos.

CONCLUSIONES

El análisis del diagnóstico permitió identificar las principales causas de la inadecuada distribución de la planta del almacén en: a) excesivos transportes con carga pesada, b) inexistencia de zona de alistamiento y delimitación por tipo de MP, c) acumulación de material de desperdicio en los pasillos, d) inadecuada ubicación de las máquinas y e) Inexistencia de una zona de almacenamiento de PT, mediante la aplicación del diagrama de Pareto. La propuesta de solución para la distribución de la planta de producción en Surtimaderas R.C., permite disminuir los transportes dentro de la planta de 22,8 m para los productos bajo pedido y de 286 m para los productos machimbrados para una disminución total de 308,8 m. En términos económicos la reducción se calcula en que en la actualidad le cuesta a la empresa U$32 mover el material y con la propuesta el valor por día es de $15, inferior en más de un 50%, lo que indica que al año se ahorran alrededor de U$4238. Con la no utilización de la camioneta y el aprovechamiento de espacios se obtiene un ahorro de U$2072 y U$2069 respectivamente, lo que sumado obtiene un ahorro total de U$8378. El plan de implementación y mantenimiento de la propuesta se calculó en un total de U$2487 y U$727 respectivamente lo que permite el cálculo de la relación costo beneficio evidenciando un valor positivo de 4,6 lo que indica que las utilidades de la empresa al implementar la propuesta son mayores que su costo de implementación.

BIBLIOGRAFÍA

Asociación Colombiana de Industriales del Calzado, El Cuero y sus Manufacturas - ACICAM – (2013). *¿Cómo va el sector?* (recuperado el 08 de febrero de 2014, en: http://www.acicam.org/phocadownload/comovaelsector_julio_2013.pdf)

De la Fuente, D. (2009). *Distribución en planta*. Oviedo: Universidad de Oviedo.

Departamento Nacional de Planeación –DNP-(2013). *Cuero, calzado e industria marroquinera* (recuperado el 08 de febrero de 2014, en:

https://www.dnp.gov.co/Portals/0/archivos/documentos/DDE/Cueros.pdf)

Niebel, W. B., & Freivalds, A. (2009). *Ingeniería Industrial: Métodos, estándares y diseño de trabajo*. México, D.F: Alfaomega.
Ministerio de Desarrollo (2011). *Los retos de la cadena de cuero, sus manufacturas y el calzado en el siglo XXI.* Colombia.

David Bain. (2011). *Productividad: la solución a los problemas de la empresa*. México: McGrae-Hill Interamericana.

Fernández, B. (s.f.). Repositorio E-Reading Universidad de Sevilla. Obtenido de http://bibing.us.es/proyectos/abreproy/30082/direccion/PROGRAMA%252FMANUAL%252F

Muther, R. (s.f.). *Distribución en planta*. Barcelona (España): Editorial Hispano Europea.

Niebel, W. B., & Freivalds, A. (2009). *Ingeniería Industrial: Métodos, estándares y diseño de trabajo*. México, D.F: Alfaomega.

Palacios Acero, L. C. (2009). *Ingeniería de métodos, movimientos y tiempos*. Bogotá: Ecoe Ediciones.

Palacios, C. (2.011). Tópicos generales de problemas de localización y distribución en planta. Universidad Autónoma de Colombia.

Universidad de Castilla - La Mancha. (30 de Septiembre de 2013). *Tema 5: Distribución en planta*. Obtenido de http://www.uclm.es/area/ing_rural/asignaturaproyectos/tema5.pdf

Tompkins, J. A., & White, J. A. (2009). *Planeación de Instalaciones*. Thomson

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EL ROL DE LA UNIVERSIDAD ECUATORIANA EN LA SEGUNDA FASE DEL BUEN VIVIR: UNA APROXIMACION

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RESUMEN

Dentro de la denominada Revolución Ciudadana en el Ecuador, en el periodo 2009-2013, se ejecutaron acciones tendientes a implementar el Buen Vivir. En esta fase, el gobierno intentó introducir en el imaginario de los ciudadanos el concepto del Buen Vivir. La segunda fase 2013-2017, apunta hacia la concreción práctica con la participación de los actores sociales involucrados mediante el proyecto emblemático denominado el Cambio en la Matriz Productiva. El eje fundamental en toda esta transformación socio-económica reside en el cambio del modelo educativo global, donde la universidad juega un rol decisivo. En esta investigación se muestra un breve análisis histórico-crítico del rol que ha tenido la universidad ecuatoriana en este proceso. Especial énfasis se ha puesto en la confrontación autonomía-pertinencia que reclaman para sí la academia y el estado, respectivamente. Si por un lado, el estado exige pertinencia a cambio de acreditación, por su lado la universidad defiende su autonomía como una conquista ancestral. Finalmente se propone una aproximación hacia el papel que debería jugar la universidad dentro del nuevo entramado social.

PALABRAS CLAVE: Buen Vivir, Matriz Productiva, Universidad, Acreditación, Autonomía

THE ROLE OF THE ECUADORIAN UNIVERSITY IN THE SECOND PHASE OF THE GOOD LIFE: AN APPROACH

ABSTRACT

Within the so-called Citizen Revolution in Ecuador, in the period 2009-2013, actions oriented to implement the Good Life were executed. In this phase, the government tried to introduce in the imagination of the public the concept of Good Living. The second phase 2013-2017 points to the practical realization with the participation of the social actors involved with the flagship project called the Change in the Productive Matrix. The cornerstone in this whole socio-economic transformation is changing the global educational model, where the university plays a decisive role. In this research, it is shown a brief historical-critical analysis of the role that the Ecuadorian university has had in this process. Special emphasis has been placed on confrontation autonomy-pertenence that claim for themselves both the academy and the state, respectively. If on the one hand, the government demands pertinence in exchange for accreditation, on the other hand the university defends the autonomy as an ancient conquest. Finally, an approach to the role it should play the university in the new social framework is proposed.

JEL: I2, I21, I23, P41

KEY WORDS: Good Life, Productive Matrix, University, Accreditation , Autonomy

INTRODUCCION

Al interior de la academia es frecuente formar parte de tertulias en donde, por un lado se discute sobre los problemas de la universidad, y por otro, los problemas del país. Parecería que son dos sistemas distintos, con objetivos y agendas propias., poniendo en vigencia la frase: "para los que habitamos en la universidad,

la sensación de habitar entre dos mundos, nos acompaña hace ya algunos años" (Lluch, 2013, pág. 43) . En el año 2008, el Ecuador da inicio a un proceso de transformación que se lo conoce como la Revolución Ciudadana, y que propone el Buen Vivir o *Sumak Kawsay*, como una alternativa a los modelos clásicos de desarrollo. La transformación propuesta se sustenta en la innovación del sistema educativo nacional en todos los niveles, lo que constituye un cuestionamiento frontal a la universidad ecuatoriana, su esencia y función dentro del entramado social. La metodología utilizada en esta investigación es exploratoria de corte cualitativo con enfoque documental. En principio, se aborda el concepto de autonomía universitaria desde una perspectiva histórica, a fin de exponer los antecedentes que permitan entender su adopción y utilización al interior de la academia en Ecuador. A continuación, se describe el Cambio de la Matriz Productiva como proyecto emblemático dentro del contexto del Buen Vivir. Posteriormente, se plantea una discusión conceptual sobre el constructo pertinencia, que dentro de la trama planteada por la investigación, supone una respuesta del régimen del *Buen Vivir* al discurso universitario de autonomía, como preámbulo a una propuesta que muestra una aproximación del rol que debería jugar la universidad ecuatoriana dentro del nuevo entramado social. El estudio concluye con sugerencias para futuras investigaciones en esta dirección.

REVISION DE LA LITERATURA

Autonomía

Posiblemente, uno de los conceptos más celosamente preservados en el claustro universitario ha sido la autonomía. No se ha discutido suficientemente sobre su significado, aunque el uso que se le ha dado es diverso. Distintos abordajes se han realizado respecto a la autonomía universitaria (Fernández, 2007; García, 2012; Lluch, 2013; Serrano y González, 2012, Tunnermann, 2008; Ribeiro, 2006; entre otros). En la bibliografía actual no se encuentra consenso respecto al significado del objeto de análisis, y peor aún, respuestas a los interrogantes planteados. De todas formas, bajo el amparo de esta condición sine qua non, la universidad latinoamericana ha venido actuando dentro del espectro social, especialmente desde la Reforma de Córdoba en 1918. Es más, "sobre la autonomía se han formulado planteamientos no sólo diversos, sino que su estudio se ha caracterizado por ser descriptivo y no se ha sustentado en una teoría social que dé cuenta de la concepción de estado, democracia, poder y otras categorías que clarifiquen la relación Universidad-Estado". (Serrano & González, 2012, pág. 58).

La aplicación de la autonomía universitaria en el contexto ecuatoriano, ha conducido a un divorcio entre la universidad y el entorno que lo acoge, aislamiento que de alguna forma se intentó remediar a través de los denominados programas de "extensión universitaria", matizados por el asistencialismo a sectores marginales, lo que le concedía cierto humanismo racional. En el mejor de los casos, estos programas alcanzaron a inaugurar una vía unidireccional que conecta la universidad hacia el "medio externo". No se entendió que "la función social de la universidad no se cumple plenamente, ni a través de la "extensión" ni a través de las relaciones más estrechas con el sector productivo. En el primer caso, porque la idea de extensión significa algo que se añade pero que no es sustancial de la universidad". (García C. , 1997). Esta postura, adoptada por la universidad ecuatoriana, es el reflejo de un modelo adaptado de gestión que administra de manera independiente las funciones sustantivas: investigación y docencia. División funcional que proviene de un árbol genealógico europeo.

Buen Vivir y Cambio de la Matriz Productiva

En las condiciones que se desarrollaba la universidad ecuatoriana, desde el año 2008 el Ecuador inicia su transformación social y económica, con un novedoso y controversial concepto; el Buen Vivir o *Sumak Kawsay*. Según esta propuesta se aspira a pasar de una economía de libre mercado, donde se privilegia el capital y la propiedad privada, hacia un estado que propone un accionar más protagónico en el desarrollo de su población, visibilizando el ideal de sus habitantes, sus necesidades, aspiraciones y conflictos dentro de un nuevo modelo de desarrollo como es el Buen Vivir.(Gobierno del Ecuador 2008). La propuesta del

Buen Vivir (BV), como una alternativa a los modelos desarrollistas ha provocado expectativas a nivel local y mundial, y por cierto, muchas investigaciones relacionadas (Larrea, 2011), (Barranquero, 2012), (Gudynas & Acosta, 2011), (Ramirez, 2012). (Martinez, 2015), (Mejía, 2015). Su implantación en el Ecuador lleva más de 7 años; el Primer Plan Estratégico denominado Plan Nacional del Buen Vivir 2009-2013 dedicó sus esfuerzos a introducir en el imaginario de la gente este novedoso concepto. Para el período presidencial 2013-2017, la principal estrategia orientada a concretar el BV se sustenta en el Cambio de su Matriz Productiva, que a su vez finca sus esperanzas en la innovación, en este contexto, la cadena: conocimiento-innovación-producción reclama de la universidad su aporte decisivo.

SENPLADES ha publicitado los mecanismos ya trazados para cambiar el patrón de especialización actual primario exportador y extractivista; para ello se han implementado acciones para mejorar la educación en todos los niveles, incentivar la educación, mejorar la infraestructura tecnológica y logística, así como un cambio en la matriz energética. En este nuevo contexto económico-social y productivo, la situación actual por la que atraviesa la universidad ecuatoriana está caracterizada por su desprestigio ante la sociedad. Varias universidades cerradas, otras intervenidas; el resto sometidas a un examen supletorio nacional unificado a través de un sistema de evaluación y acreditación de carreras (EL TIEMPO, 2015) (EL UNIVERSO, 2012).

Pertinencia de la Universidad

Frente a la realidad presente en la universidad ecuatoriana, la propuesta del gobierno actual se ha centrado en el cuestionamiento de la autonomía universitaria, al confrontarla con los constructos pertinencia y calidad. En efecto, la nueva ley de educación superior (LOES), declara como principios del Sistema de Educación Superior: la autonomía responsable, la calidad y la pertinencia. La idea de pertinencia en la educación superior aparece en la UNESCO en 1995, bajo esta perspectiva, la categoría de pertinencia viene a contrarrestar la tendencia al auto-encierro de las universidades debido a una comprensión unilateral de la autonomía académica (Naidorf, Giordana, & Horn, 2007). Pertinencia y calidad deben marchar siempre de la mano, pues la pertinencia no se logra con respuestas educativas mediocres o de baja calidad. A su vez, los esfuerzos encaminados a mejorar la calidad de la educación superior no pueden omitir la valoración de su pertinencia. (Túnermann, 2006, pág. 6).

METODOLOGIA

Con base en los análisis previos, en esta sección se propone una aproximación al rol que debería jugar la universidad ecuatoriana dentro del nuevo entramado social y económico. La discusión presentada sobre autonomía y pertinencia nos ha llevado en este punto a fijar nuestra atención en la razón de ser de la universidad, sus funciones sustantivas, en la vigencia de la investigación científica, la educación profesional y la transmisión de la cultura (Casanova & Lozano, 2004). La discusión se enfoca entonces sobre la permanencia de estas funciones y su articulación con el momento histórico que atraviesa la academia como ente social y actor económico. En resumen, las funciones tradicionales de docencia e investigación reclaman un eje articulador que le proporcionen pertinencia social, en el sentido que la define Malagón. Función transversal que debe guiar las actividades que se realizan en la universidad, proyectando hacia los actores sociales las capacidades y potencialidades residentes en la academia. Como se ha manifestado, desde la segunda reforma de Córdoba, la universidad intentó remediar de alguna forma su progresivo aislamiento social mediante la extensión universitaria y modernamente a través de la vinculación con la sociedad. Por su lado, la extensión universitaria parte de una visión de humanismo racional y terminó por constituirse en un conjunto de programas asistencialistas; y como lo subraya García (1997), la extensión no es consustancial a la universidad. Posteriormente, y dado el fracaso de la extensión universitaria, se empieza a utilizar el concepto de vinculación con la sociedad.

Desde su membrete, este constructo empieza reafirmando la posición egocéntrica de la universidad, al tiempo de reconocer el divorcio histórico de ésta con la sociedad que lo acoge. La vinculación con la

sociedad surge entonces como una respuesta emergente al cuestionamiento que la sociedad realiza sobre el quehacer universitario, y no compromete el accionar de la universidad con los objetivos locales y nacionales, en definitiva, no se inserta en el entramado social. La figura 1 exhibe el modelo egocéntrico universitario.

Figura 1: Modelo Egocéntrico

En esta figura se representa el modelo universitario de desarrollo presente en la mayoría de universidades latinoamericanas, luego de la Segunda Reforma de Córdoba. En esta perspectiva, el quehacer universitario intramuros dejaba permear un flujo unidireccional de conocimientos hacia la sociedad. No existe forma de retroalimentación para la universidad, consecuentemente, se produjo un aislamiento con los demás actores sociales. Para remediar estos problemas, la universidad intentó añadir una nueva función a las existentes. Primero la extensión universitaria, y luego la vinculación con la sociedad.

Ante el fracaso del modelo egocéntrico, y los remiendos sucesivos adosados a su gestión, se presenta la necesidad de concebir a la universidad ecuatoriana, cuando no latinoamericana, desde una perspectiva holística, aceptando la complejidad inherente al todo social dentro del que la universidad es una rueda más de un engranaje dinámico, diverso, complementario; incierto.

Figura 2: Modelo Holístico

En esta figura se representa el modelo universitario de desarrollo propuesto. El modelo holístico propone una universidad imbricada en el tejido social como un actor más, que incide y es excitado. Abandona la pretensión histórica de poseer un blindaje magnético que impide cualquier invasión a sus principios, métodos y procedimientos. Le obliga a moverse y empujar, a dar cuentas de su accionar; a compartir. De esta manera la universidad, sin renunciar a su autonomía responsable puede incidir en el desarrollo de entorno proyectando una imagen deseable en la sociedad.

RESULTADOS

La propuesta es incorporar una nueva función transversal a las funciones sustantivas de la universidad de docencia e investigación. La nueva función transversal denominada Proyección Social abandona la

tradicional concepción egocéntrica de la universidad, según la cual los actores sociales giran alrededor de ésta, y sitúa a la universidad como un elemento más del engranaje social, dentro de una concepción holística. Esta propuesta conlleva un cambio de orientación en la universidad, abandonando la concepción errónea de actividades de vinculación con la comunidad, pues toda acción proyecta la academia sobre su entorno, y, en consecuencia, no debería existir la diferencia entre "proyectos de vinculación social" de aquellos que no lo son. Todos son portadores de un mensaje, aporte y proyección sobre la sociedad. Según esta primera aproximación, La Proyección Social pretende ser: una función transversal de la universidad que da pertinencia social a las funciones sustantivas de docencia e investigación, para de esta forma difundir en la sociedad: conocimiento, saberes ancestrales, artes, valores y demás manifestaciones culturales que contribuyan al establecimiento de una identidad nacional al tiempo de aportar protagónicamente a su bienestar. Bajo la interpretación de que proyectar significa provocar el reflejo de una imagen ampliada en una superficie, lo que lograría esta función transversal, así concebida, es fijar una nueva imagen de la universidad en los sectores sociales, introduciendo en el imaginario colectivo una sensación de soporte a sus actividades, de socio estratégico con el que puede contar para planificar su vida. La universidad articulada a las problemáticas sociales lograría migrar de un ente autónomo a uno pertinente, de una organización aislada hacia una protagónica, de una posición asistencialista a una incluyente e inclusiva. Solo una universidad imbricada en su entorno posibilitará la innovación y emprendimiento sociales, predecesores de una mejor calidad de vida.

CONCLUSIONES

La necesidad de una reforma fue rebasada mediante una revolución educativa en el Ecuador. Contextualizada en el marco de un nuevo esquema de desarrollo denominado Buen Vivir o Sumak Kawsay, el nuevo modelo educativo reclama de sus actores pertinencia y calidad. En este escenario, la autonomía universitaria fue absorbida por la fuerza centrífuga del cambio en la matriz productiva. La universidad se encuentra atareada con un conjunto de requisitos que debe cumplir ante organismos de control, lo que ha traído consigo la distracción de su reflexión esencial frente a los vertiginosos cambios producidos en su entorno. La trama urdida por el investigador en el presente estudio, aprovecha la contradicción estatal entre autonomía y pertinencia para, en primer lugar, plantear un abordaje distinto al que se propone en la norma legal, y en segundo lugar, proporcionar una aproximación a la forma de concebir y gestionar las funciones sustantivas de la universidad como son la docencia y la investigación, articulándolas mediante una nueva función transversal denominada Proyección Social. La complejidad del tema abordado ha sido la principal limitación al presente ensayo. Investigaciones futuras podrían incluir aspectos relativos la evaluación del modelo del buen vivir en la sociedad ecuatoriana, así como el nivel de desempeño de la universidad en el contexto del cambio en la matriz productiva. También se podrían incorporar al análisis, las reformas que sobre la Ley de Educación Superior se encuentran en debate al momento.

REFERENCIAS

Asamblea Constituyente. (2008). Constitución de la República del Ecuador. Montecristi: Registro Oficial. Barranquero, A. (2012). De la comunicación para el desarrollo a la justicia. Cuadrenos de Información y Comunicación, 63-78.

Casanova, H., & Lozano, C. (2004). Educación, universidad y sociedad: el vínculo crítico. Barcelona: Universitat de Barcelona.

CES. (22 de junio de 2014). Ley Orgánica de Educación Superior - CES. Obtenido de Ley Orgánica de Educación Superior - CES.website: http://www.ces.gob.ec/descargas/ley-organica-de-educacion-superior CONESUP. (15 de Febrero de 2014). consejo nacional de universidades y escuelas politécnicas del Ecuador-UTPL. Obtenido de UTPL: http://www.utpl.edu.ec

Constitución de Ecuador- Political Database of the Americas. (16 de Junio de 2011). Obtenido de Political Database of the Americas: http://pdba.georgetown.edu/Constitutions/Ecuador/ecuador08.html
Cortés, F. (2014). Fundamentos filosóficos de una propuesta de reforma de la educación superior. Revista Co-herencia, 215-233.

de SousaSantos, B. (2007). La universidad en el siglo XXI. Para una reforma democrática y emancipatoria de la universidad. La Paz: Plural editores.

Derrida, J. (2002). Las pupilas de la universidad. El principio de razón y la idea de la universidad. Revista de Ciencias Sociales de Santiago del Estero, 1-10.

EL TIEMPO. (15 de Noviembre de 2015). 14 universidades del país cerradas por no pasar evaluación. EL TIEMPO, págs. 1-2.

EL UNIVERSO. (12 de Abril de 2012). 14 universidades categoría E fueron suspendidas. EL UNIVERSO, págs. 1-2.

Fernández, M. (2007). Autonomía y responsabilidad social de la universidad púiblica en Máxico. Preguntas básicas y pensamiento complejo. Sciences de Gestion, 177-194.

García , C. (1997). El valor de la pertinencia en las dinámicas de transformación de la educación superiro en América Latina. Caracas: UNESCO.

García, C. (2006). Complejidades de la globalización y la comercialización de la educación superior. Reflexiones para el caso de América Latina. Universidad e Investigación Científica (CLACSO), 135-168.

García, M. (2012). Algo más que educación superior. La universidad, 'comunidad ncesaria'. Bordón, 65-75.

Gobierno del Ecuador. (20 de Octubre de 2008). Registro Oficial del Ecuador - Organo del Gobierno del Ecuador. Recuperado el 4 de Enero de 2013, de http://www.registroficial.gob.ec
Gregorutti, G. (2014). BUSCANDO MODELOS ALTERNATIVOS PARA LA GESTION UNIVERSITARIA LATINOAMERICANA. Bordon, 123.136.

Gudynas, E., & Acosta, A. (2011). La renovación de la crítica al desarrollo y el buen vivir como alternativa. Utopía y Parxis Latinoamericana , 71-83.

Hermosillo, G., Hinojosa, C., Kaplan , J., González, M., & Quiróz, C. (2013). Modelos de vinculación universitaria en Latinoamérica: situación actual y sus áreas de oportunidad para el desarrollo económico. Global Conference on Business and Finance Proceedings, 889-895.

Holland, M., & Porcile, G. (2005). Brecha Tecnológica y Crecimiento en América Latina. En CEPAL, Heterogeneidad estructural, asimetrías tecnológicas y crecimiento en América Latina (pág. 162). Santiago de Chile: CEPAL.

IESALC-ONU. (10 de noviembre de 2009). La transformación del vínculo Universidad-Sociedad-Empresa: Gestión de Egresados y Transferencia de Resultados de Investigación. Obtenido de La transformación del vínculo Universidad-Sociedad-Empresa:
http://web.ocu.es/seminariointernacional/inicio/2011/Ponencias%20Seminario%20Internacional%202011
/1/12%20DE%20SEPTIEMBRE/Ernesto%20Gonz%C3%A1lez%20-%20UNESCO%20-%20IESALC.pdf

Larrea, A. (2011). El Buen Vivir como contrahegemonía en la Constitución. Utopía y Praxis Latinoamericana, 59-70.

Lluch, E. (2013). Cuando nos quedamos solos: Resistir en la incertidumbre. Prácticas de emancipación y autonomía. Athenea Digita, 43-57.

Malagón, L. (2006). La vinculación Universidad-Sociedad desde una perspectiva social. Educación y Educadores, 79-93.

Martinez, E. (2015). Buen Vivir y descolonidad al desarrollo y la racionalidad instrumentales. Revista Latinoamericana de Economía, 217-219.

Mejía, M. (2015). The Economy of Life, and the Search for Alternatives in Latin America and the Caribbean. The Ecumenical Review, 208-213.

Molina, M. (2014). La autonomía institucional y académica de las universidades nacionales. Evolución copnceptual en la legislación y jurisprudencia argentina. Revista Iberoamericana de Educación Superior, 66-89.

Morin, E. (2006). Modelo Educativo: una aproximación axiológica de transdisciplina y pensamiento complejo. Hermosillo: Multiversidad Edgar Morin.

Naidorf, J., Giordana, P., & Horn, M. (2007). La pertinencia social de la Universidad como categoría equívoca. Nómadas, 22-33.

Naishtat, F. (7 de Mayo de 2003). Universidad y Conocimiento: por un Ethos de la Impertinencia Epistémica. Buenos Aires, Buenos Aires, Argentina.

Olvera, J., Piña, H., & Mercado, A. (2009). La universidad pública: autonomía y democracia. Convergencia, 301-321.

Pavón, A., & Ramírez, C. (2010). La autonomía universitaria, una historia de siglos. Revista Iberoamericana de Educación Superior, 157-161.

Perossa, M., & Marinaro, A. (2014). Entre la Formación Racional y el Aprender a Aprender. Revista Global de Negocios, 77-97.

Ramirez, R. (2012). Socialismo del Sumak Kawsay o biosocialismo republicano. Quito: Secretaria Nacional de Educación Superior, Ciencia, Tecnología e Innovación.

Ribeiro, D. (2006). La universidad nueva: un proyecto. Caracas: Biblioteca Ayacucho.

SENPLADES. (2013). Plan Nacional del Buen Vivir 2013 - 2017. Quito: Secretaría Nacional de planificación y desarrollo. Obtenido de Secretaría Nacional de Planificación: http://www.buenvivir.gob.ec/

SENPLADES. (2013). Plan Nacional para el Buen Vivir 2013-2017. Quito: Senplades. SENPLADES. (13 de Marzo de 2014). Transformación de la Matriz Productiva./matriz_productiva_WEBtodo.pdf. Obtenido de Transformación de la Matriz Productiva: http://www.planificacion.gob.ec

Serrano, J., & González, L. (2012). Debates y perspectivas sobre la autonomía universitaria. Revista Electrónica de Investigación Educativa, 56-69.

Túnermann, C. (2006). Pertinencia y calidad de la educación superior. Importancia del tema de la pertinencia en el actual debate internacional sobre la educación superior (págs. 1-33). Guatemala: Universidad Rafael Landivar.

Tunnermann, C. (2008). Noventa Años de la Reforma Universitaria de Córdoba (1918-2008). Buenos Aires: CLACSO.

BIOGRAFIA

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RESPONSABILIDAD SOCIAL MILITAR EN EL POSCONFLICTO

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RESUMEN

El siguiente es un estudio de enfoque cualitativo y tipo exploratorio, descriptivo y deductivo, que tiene como objetivo identificar la responsabilidad social militar en el posconflicto. Para la realización de este ejercicio se realizó un análisis exploratorio de fuentes secundarias, relacionadas con la situación de finalización del conflicto en diferentes países. Posteriormente se deduce el papel que deberían tener las fuerzas armadas de un país una vez ha terminado su situación de conflicto. En este sentido se compara la responsabilidad social empresarial con la responsabilidad social militar. El método utilizado fue en principio la exploración y descripción de la forma cómo a nivel internacional se han asumido las situaciones de paz y todo lo que ha implicado volver a reconstruir el tejido social. Finalmente, considerado un país como una gran empresa, se identificaron alternativas orientadas a lograr el aporte de la responsabilidad social militar a la superación de los problemas generados por el conflicto. Este estudio confirma la necesidad de realizar programas de responsabilidad social, por parte de las fuerzas armadas, para la reconstrucción de una sociedad.

PALABRAS CLAVE: Responsabilidad Social, Posconflicto, Guerra

MILITARY SOCIAL RESPONSIBILITY IN POST-CONFLICT

ABSTRACT

The following is a study of qualitative approach and exploratory, descriptive and inferential type, which aims to identify the military in the post-conflict social responsibility. To carry out this exercise an exploratory analysis of secondary sources related to the termination of the conflict situation in different countries was held. Subsequently, the paper should have the armed forces of a country once it has completed its conflict follows. In this sense CSR compared with military social responsibility. The method used was in principle the exploration and description of the way in international situations have taken peace and everything that's involved again rebuild the social fabric. Finally, a country considered as a large company, identified alternatives aimed at achieving military contribution of social responsibility to overcome the problems caused by the conflict. This study confirms the need for social responsibility programs for the armed forces , for the reconstruction of a society.

JEL: D60, D63, D74, M14

KEYWORDS: Social Responsibility, Post – Conflict, War

INTRODUCCION

Diversos estudios coinciden en señalar la década de los años 90 como punto de inflexión en el número de conflictos armados vigentes en el mundo. Tras un aumento importante en los casos de violencia intra e inter-estatal al final de la Guerra Fría, existe una tendencia de menor recurrencia de conflictos desde finales del siglo anterior. Y simultáneamente, esta tendencia se ha acompañado de un disminución considerable de la proporción de conflictos internacionales respecto a los conflictos armados internos (Gleditsch al., 2002; Harbom & Wallensteen, 2005; Marshall & Gurr, 2003, 2005). En este documento se realizó un análisis

exploratorio de fuentes secundarias, relacionadas con la situación de finalización del conflicto en diferentes países. Posteriormente se deduce el papel que deberían tener las fuerzas armadas de un país una vez ha terminado su situación de conflicto. En este sentido se compara la responsabilidad social empresarial con la responsabilidad social militar. El método utilizado fue en principio la exploración y descripción de la forma cómo a nivel internacional se han asumido las situaciones de paz y todo lo que ha implicado volver a reconstruir el tejido social. Finalmente, considerado un país como una gran empresa, se identificaron alternativas orientadas a lograr el aporte de la responsabilidad social militar a la superación de los problemas generados por el conflicto. Este estudio confirma la necesidad de realizar programas de responsabilidad social, por parte de las fuerzas armadas, para la reconstrucción de una sociedad.

REVISIÓN DE LITERATURA

Para Darby (2001), proceso de paz es un concepto extenso que se refiere al esfuerzo de actores de un conflicto por hallar una solución, y abarca elementos como las exploraciones iniciales entre las partes, las negociaciones, los acuerdos y su implementación. Sin embargo, precisa que no se puede hablar de proceso de paz si las partes no negocian de buena fe, si no se incluyen todos los actores clave, si no se toca la agenda central del conflicto, si hay uso sistemático de la fuerza de una de las partes, y si no hay un compromiso de largo plazo. Un análisis reciente de conflictos armados terminados entre 1946 y 2005 muestra que una gran proporción de guerras internas o internacionales no terminó por la victoria militar de una de las partes o mediante una negociación de paz, sino que pareció extinguirse por otras razones menos claras (Gleditsch al., 2002; Harbom & Wallensteen, 2005; Marshall & Gurr, 2003, 2005). Según el Indice del Estado del Futuro, los actos terroristas en el mundo tienen una tendencia creciente. Se pronostica que se pasará de 11792 atentados en el 2015 a 30367 en el 2025.

Ugarriza (2012) presenta el resultado del análisis de 83 procesos de paz desarrollados entre 1989 y 2012, en el que se describen los temas técnicos y políticos discutidos entre las partes, y sus tendencias según el tiempo de negociación, la geografía, la naturaleza del conflicto y su resultado. Es importante la discusión en la mesa de negociación de temas como conversión de fuerzas ilegales en partidos políticos, o su integración a las fuerzas armadas, está relacionada con una mayor probabilidad de éxito del proceso. En las tres últimas décadas, en los cinco continentes, por acuerdo de paz negociado entre gobiernos e insurgentes, por intervención de la comunidad internacional o porque una de las partes en conflicto se impuso, se dieron o están en curso procesos de posconflicto en varios países. Algunos de ellos son: Angola, El Salvador, Fiyi, Filipinas, Guatemala, Irlanda, Nepal, Nicaragua, República de Macedonia, Ruanda, Sri Lanka y Sudáfrica (Santamaria, 2015).

Naciones como Guatemala, República del Congo y Angola experimentaron la degradación de su patrimonio ambiental en periodos de posconflicto, explicado por la siembra de minas antipersonales. Hoy, la zonas prioritarias para la implementación de acciones de construcción de paz, que resistirán presiones con el desarrollo de obras de infraestructura, apertura de mercados y capitales, proyectos agropecuarios, programas de desminado, sustitución de cultivos ilícitos y creación de un fondo de tierras, son áreas de altísimo precio natural (Silva, 2015). De acuerdo con Medina (2014), los Ingenieros Militares construyeron en el año 2014 en Colombia, 44 obras en 23 departamentos del país. Además, estaban en desarrollo 104 proyectos de construcción de varios polideportivos, escuelas, acueductos y pavimentación de vías, entre otros. El personal de las fuerzas armadas tiene como ventaja, que puede entrar a las zonas de conflicto y construir obras, acciones que para las empresas de ingeniería son más arriesgadas y beneficiosas. La ONU plantea otra decena de recomendaciones que deberían abordarse si se quiere conseguir el deseado equilibrio entre acuerdos cumplidos y cuidado a la naturaleza. Uno de ellos es avanzar en procesos de ordenamiento territorial (Silva, 2015).

Es necesario analizar la actividad minera – especialmente la ilegal que busca oro y coltan y sus implicaciones en la construcción de paz, para evitar que haya una migración de conflictos socioambientales

hacia otras zonas con potencial minero, pero donde aún no hay intentos extractivos (Silva, 2015). El récord de Uruguay como contribuyente de personal para operaciones de paz de Naciones Unidas (NNUU) ha llamado la atención de estudiosos y expertos por su volumen y persistencia. Pese a su reducido volumen demográfico y modestas capacidades militares, Uruguay acompañó la explosiva expansión experimentada por estas actividades en las últimas dos décadas y se ubicó entre 2002 y 2010 entre los principales contribuyentes de tropas para NNUU. (Guyer, 2014)

METODOLOGIA

El ejercicio realizado es un estudio de tipo exploratorio, descriptivo y deductivo, que permitirá inferir conclusiones sobre la responsabilidad social militar después del conflicto. Inicialmente se realizó una revisión bibliográfica de documentos relacionados con los conflictos en el mundo publicados durante el periodo 2010-2015. Posteriormente se describe lo que ha sucedido en algunos países después del conflicto. Finalmente se deduce la responsabilidad social militar después del conflicto. En cuanto al alcance, la investigación es de carácter cualitativo porque solo se describe y concluye el papel de las fuerzas militares en el posconflicto como agentes reconstructores del tejido social. La hipótesis que se plantea es que en un proceso de reconstrucción social después del conflicto, las fuerzas militares tienen el potencial para aportar soluciones a la sociedad.

RESULTADOS

En el posconflicto es necesario privilegiar la construcción de infraestructura, incentivar las actividades agropecuarias, la gestión ambiental y reemplazar los cultivos ilícitos. En estos temas las fuerzas armadas tienen un gran aporte por realizar. Desde muy temprano, todos los ciudadanos y sectores sociales deben entender que el posconflicto no es un proceso de años, sino de décadas. No solo que se requiere el aporte de todos, sino que en muchos casos hay que emprender reformas estructurales del Estado y cambios de actitud en la población que toman años o décadas (Santamaria, 2015). De acuerdo con Yunus (2015), hay que cambiar la vida de las personas que estuvieron en el conflicto, es gente que ha perdido mucho y que tiene que recuperarse. Ahí los negocios sociales son importantes, la clave es ayudar a las personas a que sean creativas y a que le aporten a la sociedad. Si no se les apoya para que se empoderen, habrá que traer dinero de muchas otras fuentes, del Gobierno, de las empresas y en general de la caridad, pero eso no es una solución. Como un ejemplo del impacto sobre una región se puede citar el Proyecto Marandúa 7-4-43, el cual desarrolla proyectos agropecuarios limpios y amigables con el medio ambiente, liderado por La Fuerza Aérea Colombiana en el oriente colombiano.

CONCLUSIONES

La reconstrucción de una sociedad que ha estado sometida al conflicto, requiere el doble del tiempo después de la guerra para recuperarse, una a dos generaciones. Las fuerzas armadas tienen un gran trabajo por hacer en las siguientes décadas posteriores al conflicto. Las Fuerzas Militares son ideales como agentes de consolidación; porque lo único que tiene el Estado para el posconflicto son las Fuerzas Militares: ellas son bien recibidas en los pueblos, son apoyadas por la población, pueden hacer cosas que la empresa civil no puede hacer, como carreteras, puentes y otras obras en áreas de difícil acceso, que garantizan al Estado colombiano la presencia y la ejecución de proyectos en todo el territorio nacional. De igual manera, durante el posconflicto tendremos que reforzar la Fuerza Aérea, la red de radares de vigilancia, los aviones interceptores y el espacio marítimo.

BIBLIOGRAFÍA

Abadía, m. (2014). Política criminal por medio del uso de indicadores: el caso de la violencia sexual en el conflicto armado colombiano. . International Law., 17-52.

Afanador Contreras, M. I., & Caballero Badillo, M. C. (2012). La violencia sexual contra las mujeres. Un enfoque desde la criminología, la victimología y el derecho. Reflexión Politica, 122-133.

Amellugo Catalán, J. (2012). El futuro no tan incierto de la Sanidad Militar en misiones de paz . Sanidad Militar, 129-130.

Andrade Salazar, J. A. (2015). Reconciliacion y responsabilidad: acciones de sinergia para la construcción de un pensamiento ecologizante desde la escuela. "incertidumbres semilla". El Ágora USB, 217-287.

Angulo Amaya, M. C., Ortiz Riomalo, A. M., & Pantoja Barrios, S. (2014). Análisis de las percepciones de los colombianos sobre el proceso de paz y el posconflicto desde una perspectiva de género. Colombia Internacional, 220-233.

Arias-López, B. E. (2015). Vida cotidiana y conflicto armado en Colombia: los aportes de la experiencia campesina para un cuidado creativo. Aquichan, 239-252.

Armando, I. M. (2014). El papel de la educación en situaciones de posconflicto: estrategias y recomendaciones. Hallazgos, 223-245.

Augusto Caro Garzón, o. (2012). La transición a la paz en el caso colombiano . Revista de la Facultad de Derecho y Ciencias Políticas, 19-22.

Ávila Hernández, t. P., & Briñez, y. A. (2012). La participación ciudadana del sector juvenil en la construcción de la política pública de juventud de Bogotá durante el gobierno de Luis Eduardo Garzón, 2005-2008. OPERA - Observatorio de Políticas, Ejecución y Resultados de la Administración Pública, 87-107.

Barreto Henriques, m. (2014). Preparar el post-conflicto en colombia desde los programas de desarrollo y paz: retos y lecciones aprendidas para la cooperación internacional y las empresas. Revista de Relaciones Internacionales, Estrategia y Seguridad, 179-197.

Barrientos Marín, J., Tamayo Bustamante, V., & Valencia Agudelo, G. D. (2014). Conflicto armado, paz y economía . Economía del Caribe, 61-89.

Bonett Locarno, M. J. (26 de Octubre de 2015). Política: Proceso de Paz: ¿Qué pueden hacer las Fuerzas Militares en el posconflicto? Obtenido de www.eltiempo.com: http://www.eltiempo.com/politica/proceso-de-paz/analisis-del-general-bonett-sobre-las-fuerzas-militares-en-el-posconflicto/16413995
Calderón, Jj. C., & Alarcón, A. (2014). The conversion of militants and guerrillas in armed citizens of the Republic of Colombia. Historia Caribe, 17-37.

Carranza-Franco, F. (2012). La reintegración desde el municipio: el rol de las alcaldías de Bogotá y Medellín en la atención a excombatientes. OPERA - Observatorio de Políticas, Ejecución y Resultados de la Administración Pública, 159-179.

Carrión Sánchez, C. (2014). Procesos de resistencia en la fronteracolombo-ecuatoriana. Revista de estudios Latinoamericanos, 85-111.

Castaño, C. (8 de Febrero de 2015). Opinión: Fuerzas militares y posconflicto. Obtenido de www.elespectador.com: http://www.elespectador.com/opinion/fuerzas-militares-y-posconflicto-columna-542840

Cedano, D. E. (10 de Julio de 2014). Inicio: Conózcanos: ¿Que es Marandúa 7 – 4 – 43? Obtenido de www.marandua.mil.co: https://www.marandua.mil.co/%C2%BFque-es-marand%C3%BAa-7-%E2%80%93-4-%E2%80%93-43

Conley, D., & Heerwig, J. (2011). The War at Home: Effects of Vietnam-Era Military Service on Postwar Household Stability. The American Economic Review, 350-354.

COPAL, Grupo. (2014). The participation of ethnic people in Colombian peace process. Revista de Derecho Público, 1-23.

Delgado Maldonado, s. (2013). Participación política: una condición para una paz duradera y estable en colombia. International Law, 267-318.

Diana Marcela, R. (2013). Las Relaciones Colombia-Estados Unidos En El Gobierno Santos: ¿Llego La Hora Del Post Conflicto? . Análisis Político, 121-138.

Doctrina Fuerza Aérea Colombiana. (10 de Julio de 2014). Biblioteca de Doctrina: Manual de Doctrina Básica Aérea y Espacial FAC 0-E Cuarta Edición. Obtenido de www.doctrinafac.mil.co: https://www.doctrinafac.mil.co/manual-de-doctrina-b%C3%A1sica-a%C3%A9rea-y-espacial-fac-0-e-cuarta-edici%C3%B3n

Doctrina Fuerza Aérea Colombiana. (Cuarta Edición 2013). Biblioteca de Doctrina: Adjunto PDF MANUAL DE DOCTRINA BÁSICA AÉREA Y ESPACIAL (MADBA). Obtenido de www.doctrinafac.mil.co: https://www.doctrinafac.mil.co/sites/default/files/MADBA%20FAC%200-E%20Cuarta%20edici%C3%B3n%2010%20enero%202013%20.pdf

Echeverría Rodríguez, A. M. (2013). Construcción Social Y Política De Los Derechos A La Justicia Y La Paz En El Marco De La Justicia Transicional En Colombia, A Partir Del Análisis De La Experiencia De Otros Países. Saber, Ciencia y Libertas, 33-44.

Escobar, A. (2013). Desarme, desmovilización y reintegración en Camboya . Colombia Internacional, 73-104.

Fuerza Aérea Colombiana. (2 de Septiembre de 2013). Inicio: Noticias Marandua: Proyecto Marandua 7-4-43 en Colombia Responsable. Obtenido de www.fac.mil.co: https://www.fac.mil.co/proyecto-marandua-7-4-43-en-colombia-responsable

Fuerza Aérea Colombiana Marandua. (30 de Octubre de 2013). Inicio: Noticias: Marandua Marandua y el Posconflicto. Obtenido de www.fac.mil.co: https://www.fac.mil.co/marandua-y-el-posconflicto

Gantiva Díaz, C., Hewitt Ramírez, N., Vera Maldonado, A., Angarita Varela, A., Parado Baños, A., & Guillén Puerto, A. (2012). Consumo de sustancias psicoactivas (SPA) en jóvenes de una región en posconflicto armado. Revista Colombiana de Psiquiatria, 299-308.

Germán Darío, V. A., Alderid, G. L., & Sandra, J. (2012). Negociar la paz: una síntesis de los estudios sobre la resolución negociada de conflictos armados internos. Estudios Políticos, 149-174.

Glück, T. M., Tran, U. S., & Lueger-Schuster, B. (2012). PTSD and trauma in Austria's elderly: influence of wartime experiences, postwar zone of occupation, and life time traumatization on today's mental health status an interdisciplinary approach. European Journal of Psychotraumatolog, 1-9.

Gómez Agudelo, N. (2012). Estrategias De Adaptación En Contextos De Soberanías Múltiples Producidas Por El Conflicto Político-Militar En Un Municipio De Caldas. Revista Eleuthera, 48-67.

Gómez Méndez, A. (29 de Septiembre de 2015). Opinión: Columnistas: Fuerza Pública para el posconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/opinion/columnistas/fuerza-publica-para-el-posconflicto-alfonso-gomez-mendez-columna-el-tiempo/16390637

Guerrero Sanchez, E., Rojas Peña, A. A., Torres, M. Y., & Bourdon Rojas, N. A. (2014). Plan Prospectivo Para El Desarrollo Agrario En Las Regiones Colombianas A Partir Del Posconflictoal Año 2025. El Ágora USB, 397-417.

Guyer, J. G. (2014). La contribución de Uruguay para operaciones de paz de naciones unidas: acerca de la motivaciones y la interpretación de su record. Revista Uruguaya de Ciencias Políticas, 41 - 72.

Hardy, B. (2015). AN INOFFENSIVE REARMAMENT: The Making of the Postwar Japanese Army . Military Review, 142-143.

Henao, L. G. (2011). Víctimas, derechos y transición a ia Paz: Precedentes Jurisprudenciales en Colombia. Revista Jurídica PIELAGUS, 59-76.

Hernández Delgado, E. (2013). Mediaciones en el confl icto armado colombiano. Hallazgos desde la investigación para la paz. Confines de relaciones internacionales y ciencia política, 31-57.

Herrera, P., & Taylor, S. (2012). El Sistema Nacional de Derechos Humanos y Derecho Internacional Humanitario: ¿una nueva etapa en la actuación en materia de derechos humanos en Colombia? OPERA - Observatorio de Políticas, Ejecución y Resultados de la Administración Pública, 65-86.

Jefferson, J. M. (2015). Perspectivas comparadas de la presencia de la policía durante el conflicto y el postconflicto: los casos de guatemala, el salvador, irlanda del norte, afganistán y republica del sur de sudán. Revista de Relaciones Internacionales, Estrategia y Seguridad, 181-200.

Juan E., U., Andrés, C., & Natalia, S. (2013). ¿Qué se negocia en los procesos de paz? Agendas y factores de éxito 1989-2012. Análisis Político, 153-173.

Lina M., C.-B., Nina, C. G., & Soraya, E. V. (2014). Metodologías en el estudio de la violencia sexual en el marco del conflicto armado colombiano. Colombia Internacional., 19-56.

Liuba, P. G., José Rogelio, M. L., René Esteban, V. V., & Ludmila, C. R. (2014). La formación del psiquiatra militar en el contexto de la guerra contemporánea. Revista Cubana de Medicina Militar, 134-137.

Luis Miguel, G. R. (2014). La obligación internacional de investigar, juzgar y sancionar graves violaciones a los derechos humanos en contextos de justicia transicional. Estudios Socio-Jurídicos, 23-60.

Makram, H. (2014). La tecnología aviónica militar en los conflictos asimétricos: problemáticas implicaciones del uso de los drones letales. Cuadernos del Cendes, 23-67.

Malarino, E. (2013). Transición, derecho penal y amnistía. Reflexiones sobre la utilización del derecho penal en procesos de transición. Revista de Derecho Penal y Criminologia, 205-222.

MANES, R. (2012). La Ciudadanía Y La Vivienda Digna . Revista Eleuthera, 221-229.

Marco Antonio, M., & Andrés Mauricio, V. (2014). El rol de Alemania en el marco de la cooperación binacional sobre el proceso de justicia y Paz en Colombia. Papel Político, 149-178.

Medina, L. (17 de Octubre de 2014). Política: Justicia: Temas del día: Ingenieros Militares ya construyen el posconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/politica/justicia/ingenieros-militares-y-posconflicto/14703996

Muñoz, J. M. (30 de Marzo de 2015). Temas del día: Bosques, acuerdo de paz y posconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/opinion/columnistas/bosques-acuerdo-de-paz-y-posconflicto-jose-miguel-orozco-munoz-columnista-el-tiempo/15493015

Niño Pérez, J. J., & Devia Garzón, C. A. (2015). Inversión En El Posconflicto: Fortalecimiento Institucional Y Reconstrucción Del Capital Social. Revista de Relaciones Internacionales, Estrategia y Seguridad, 203-224.

Nussio, E. (2013). Desarme, desmovilización y reintegración de excombatientes: políticas y actores del postconflicto . Colombia Internacional, 9-16.

Olga Roció, B. B., & Germán Darío, V. A. (2013). El proceso de paz con las Farc y la cuestión rural en Antioquia. Perfil de Coyuntura Económica, 113-140.

Omar Alejandro, A. B. (2014). El conflicto fronterizo entre Colombia y Nicaragua: Recuento histórico de una lucha por el territorio. Historia Caribe, 241-271.

Pedraza, J. A. (2012). Gobernabilidad municipal en medio del conflicto armado en Colombia . OPERA - Observatorio de Políticas, Ejecución y Resultados de la Administración Pública, 137-158.

Prieto, C. A. (2012). Bandas criminales en Colombia: ¿amenaza a la seguridad regional? OPERA - Observatorio de Políticas, Ejecución y Resultados de la Administración Pública., 181-204.

Read, J. H., & Shapiro, I. (2014). El poder de la esperanza: el liderazgo estratégico y los arreglos democráticos de paz . Revista Española de Ciencia Política, 57-89.

Riquelme Rivera, J. (2012). Las relaciones civiles-militares en el marco de la participación chilena en operaciones de paz. Reflexión Politica, 86 - 104.

Rúa Delgado, C. F. (2015). Los momentos de la justicia transicional en Colombia . Revista de Derecho, 71-109.

Sabogal, R. (17 de Mayo de 2015). Política: Proceso de Paz: Restitución de tierras, primera cuota para el posconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/politica/proceso-de-paz/restitucion-de-tierras-primera-cuota-para-el-posconflicto/15773388

Sánchez Cardona, M. (2012). Problemáticas socioculturales en la realización de la paz en colombia. Revista Eleuthera, 11-30.

Santamaría, R. (29 de Abril de 2015). Política: Proceso de Paz: Once lecciones para el posconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/politica/proceso-de-paz/posconflicto-en-colombia/15659117

Sedgwick, J. B. (2011). A People's Court: Emotion, Participant Experiences, and the Shaping of Postwar Justice at the International Military Tribunal for the Far East, 1946–1948. Diplomacy & Statecraf, 480-499.

Silva Herrera, J. (7 de Febrero de 2015). Vida: Ciencia: Temas del día: ¿Qué le espera al medioambiente en el escenario del posconflicto? Obtenido de www.eltiempo.com: http://www.eltiempo.com/estilo-de-vida/ciencia/medioambiente-en-el-posconflicto/15210177

Sistema de Las Naciones Unidas en Colombia y Ministerio de Ambiente y Desarrollo Sostenible. (Septiembre de 2014). Consideraciones ambientales para la construcción de una paz territorial estable, duradera y. Obtenido de http://reliefweb.int/sites/reliefweb.int/files/resources/Consideraciones%20ambientales%20para%20la%20construccion%20de%20una%20paz%20territorial%20estable%20duradera%20y%20sostenible%20en%20Colombia.pdf

Tarazona Herrer, J. (16 de Diciembre de 2014). Desafíos de las Fuerzas Militares colombianas ante un eventual escenario de posconflicto. Obtenido de www.unimilitar.edu.co: http://repository.unimilitar.edu.co/bitstream/10654/13477/1/Articulo%20posconflicto.pdf

Trujillo Currea, A. M. (2012). La Internacionalización del conflicto colombiano hacia Ecuador en l a primera década del siglo XXI. Una lectura a partir de las estrategias del Estado y de las FARC. Papel Político, 577-620.

Ugarriza, J. E. (2013). La dimensión política del postconflicto: discusiones conceptuales y avances empíricos. . Colombia Internacional, 141-176.

Valdez Zepeda, A. (2012). El miedo y la ira como estrategia en las campañas electorales. Reflexión Politica, 134-140.

Valdivieso Collazos, A. M. (2012). La justicia transicional en Colombia. Los estándares internacionales de derechos humanos y derecho internacional humanitario en la política de Santos. Papel Politico, 621-653.

Valencia Londoño, P. A. (2014). Retos del manejo de información sobre violencia basada en género (VBG) en el marco del conflicto armado. El caso de Medellín. Revista Opinión Jurídica, 49-68.

Vargas, A. (19 de Enero de 2003). Archivo: Temas del día: Los Militares En El Postconflicto. Obtenido de www.eltiempo.com: http://www.eltiempo.com/archivo/documento/MAM-968820

Vásquez, T. (2014). El Papel Del Conflicto Armado En La Construcción Y Diferenciación Territorial De La Región De "El Caguán", Amazonía Occidental Colombiana. El Ágora U.S.B, 147-175.

Vélez, J. E. (15 de Julio de 2015). Economía: Gobierno creará ente único que maneje las tierras del país. Obtenido de www.portafolio.co: http://www.portafolio.co/economia/gobierno-creara-ente-que-maneje-las-tierras-del-pais

Villa Gómez, J. D. (2013). Consecuencias psicosociales de la participación en escenarios de justicia transicional en un contexto de conflicto, impunidad y no-transición. El Ágora USB, 307-338.

Villa Gómez, J. D. (2013). Horizontalidad, Expresión Y Saberes Compartidos Enfoque Psicosocial En Procesos De Acompañamiento A Víctimas De Violencia Política En Colombia. El Ágora U.S.B, 61-89.

Villa Gómez, J. D., & Insuasty Rodriguez, A. (2015). Significados en torno a la reparación, la ayuda humanitaria, la indemnización y la restitución en víctimas del conflicto armado en el municipio de san carlos. El Ágora USB, 419-445.

Villa Gómez, J. D., & Insuasty Rodriguez, A. (2015). Significados En Torno A La Reparación, La Ayuda Humanitaria, La Indemnización Y La Restitución En Víctimas Del Conflicto Armado En El Municipio De San Carlos. El Ágora USB, 419-445.

Villa Holguín, E., & Insuasty Rodriguez, A. (2014). Conflictos sociales y coyuntura de paz en colombia. Decadencia occidental y potencialidad del latinoamericanismo. El Ágora U.S.B., 419-435.

Villa, J. D., Londoño Díaz, D., & Barrera Machado, D. (2014). Reparación a las víctimas de dictaduras, conflictos armados y violencia política . Parte I. El Ágora USB, 339-395.

Villa, J. D., Londoño Díaz, D., & Barrera Machado, D. (2015). Reparación a las víctimas de dictaduras, conflictos armados y violencia política en sus componente de compensación, satisfacción, rehabilitación y no repetición. El Ágora USB, 217-240.

Williams, M. J. (2011). (Un)Sustainable Peacebuilding: NATO's Suitability for Postconflict Reconstruction in Multiactor Environments . Global Governance, 115-134.

Younes, P. (2011). Circling the Earth: United States Plans for a Postwar Overseas Military Base System, 1942–1948. Air & Space Power Journal, 122-124.

Yunus, M. (1 de Mayo de 2015). Economía: Entrevista Negocios sociales son claves para el posconflicto Yunus. Obtenido de www.portafolio.co: http://www.portafolio.co/economia/entrevista-premio-nobel-paz-muhammad-yunus

ZARAGOZA, F. M. (2011). Cultura de paz: de la fuerza a la palabra, la gran transición. Tiempo de Paz, 33-39.

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ENDOMARKETING, ESTRATEGIA DE FORTALECIMIENTO DE LAS EMPRESAS

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RESUMEN

Este estudio pretende identificar las prácticas de endomarketing en las empresas de la región; en la actualidad uno de los factores fundamentales para consolidar a las empresas, es que éstas posean una identidad corporativa fortalecida y obtengan con ello una ventaja competitiva. En este contexto, el endomarketing se convierte en una herramienta que fortalece las capacidades competitivas de las empresas ya que no debe considerarse a éste como una simple estrategia de mercadeo, sino como una estrategia que permite construir una cultura organizacional e imagen corporativa uniforme para los clientes externos como para los internos. El recurso humano es una de las fuentes más importantes para la obtención de una ventaja competitiva dinámica, de ahí la importancia del análisis de la gestión de este recurso y el estudio de su mejora a través del endomarketing como estrategia para fortalecer la cultura e identidad corporativa.

PALABRAS CLAVES: Endomarketing, Mercadeo Relacional, Clima Laboral, Recurso Humano

ENDOMARKETING, STRATEGY TO STRENGTHEN BUSINESS

ABSTRACT

This study aims to identify endomarketing practices in companies in the region; currently one of the key factors to consolidate companies is that they possess a stronger corporate identity and thereby gain a competitive advantage in this context, the endomarketing becomes a tool that strengthens the competitive capabilities of companies and that it should not be considered as a simple marketing strategy, but as a strategy for building an organizational culture and even to external customers and internal corporate image.The human resource is one of the most important for obtaining a dynamic competitive advantage sources, hence the importance of analyzing the management of this resource and study its improvement through endomarketing as a strategy to strengthen the corporate culture and identity.

JEL: MOO, M14, M30, M31

KEYWORDS: Endomarketing, Relationship Marketing, Work Environment, Human Resource

INTRODUCCIÓN

Lo que hoy en día se conoce como endomarketing o marketing interno, es una estrategia de impulso a las empresas para generar sentimientos de pertenencia y motivación en sus empleados; consecuencia de una adecuada implementación, a esto le sumamos un conjunto de tareas administrativas. Generalmente las empresas se enfocan en las necesidades de los consumidores, mostrando un comportamiento de poca importancia hacia las necesidades de los empleados; recientemente algunas organizaciones e investigadores han mostrado interés y dado más importancia al endomarketing como una alternativa para generar compromiso en los trabajadores, sintiéndose éstos parte de la empresa, lo que se traducirá como una ventaja competitiva. Esta investigación se organiza de la siguiente manera. Sección literaria donde se encuentran planteados los argumentos de la necesidad del endomarketing en las empresas. Posteriormente se describe

la transformación aplicada según Inkotte (2000) para el análisis del marketing interno, las 4 P´s de la mezcla de marketing (producto, plaza, precio y promoción), se transforman en las 4 C´s (compañía, coordinación, costo y comunicación). Consecutivamente se presenta el modelo de endomarketing detectado en los resultados de la investigación. Y finalmente, las conclusiones y recomendaciones.

REVISIÓN DE LITERATURA

Después de una revisión de la literatura de los principales artículos publicados de endomarketing y sus líneas de pensamiento, esta investigación se sustenta en algunos modelos de gestión propuestos, entendiendo que en la concepción de endomarketing, los empleados de una compañía son sus clientes internos y, como tales, la empresa necesita crear estrategias para generar lealtad y una mejor respuesta de ellos (Martínez, 2005). De acuerdo a Berry, Hensen y Burke (1994) el marketing Interno se ocupa de viabilizar los productos internos (trabajo) que satisfaga las necesidades de un Mercado interno vital (empleados) al mismo tiempo de satisfacer los objetivos de la organización. Berry (1981) fue el primero que llamó a los empleados clientes internos "La gente que compra bienes y servicios como consumidores y la gente que compra empleo como empleados son la misma gente". Posteriormente, Christian Grönroos definió los objetivos del marketing interno como "motivar y concienciar a los empleados sobre la importancia del cliente externo" (Dunmore, 2003). No siendo el único que hizo grandes aportaciones, destaca también el estudio realizado por Flipo (1986) al resaltar el papel de los empleados como herramientas para llevar a cabo las estrategias de marketing.

Autores como Lings y Brooks (1998) proponen modelos de endomarketing apoyado en la relación entre proveedor y cliente interno para obtener satisfacción del cliente externo. Los planteamientos citados reflejan una de las principales concordancias que se basa en la idea de que un empleado insatisfecho no puede dejar un cliente satisfecho. Según Inkontte (2000) para análisis del marketing interno, las 4 P´s de marketing, definiciones ampliamente conocidas en medios académicos y empresariales, se transforman en los 4 C´s [compañía, coordinación, costo y comunicación] (Figura 1).

Figura 1: Transformación de los Elementos de la Mezcla Marketing

Mezcla de Marketing	Mezcla de Endomarketing
Producto	→ Compañía
Precio	→ Costo o inversiones
Plaza o distribución	→ Coordinación
Promoción	→ Comunicación

Fuente: Inkotte (2000)

METODOLOGÍA

Para el desarrollo de esta investigación se recopiló información documental sobre las empresas de Ciudad Constitución, Baja California Sur, en el DENUE (Directorio Estadístico Nacional de Unidades Económicas) del INEGI (Instituto Nacional de Estadística y Geografía), para seleccionar las empresas que tuvieran un número mayor a diez empleados, considerando siete empresas de la región que cumplen con esta variable. Esta investigación tiene un enfoque exploratorio y descriptivo. De acuerdo con Hernández (2006), es descriptivo ya que selecciona una serie de cuestiones para las cuales recolectamos información sobre cada una de ellas, para la descripción de lo que se investiga. Asimismo Rojas (2007) , indica que el objetivo central de un estudio descriptivo es obtener un panorama más preciso de la magnitud del problema

o situación, jerarquizar los problemas, derivar elementos de juicio para estrategias operativas. En la fase exploratoria, se utilizó un análisis de corte transversal a través de un instrumento estructurado basado en las dimensiones de Inkotte (2000) que analiza las dimensiones del endomarketing, éste se compone de 39 cuestionamientos, las cuales se estructuran en cuatro dimensiones: compañía, costo o inversiones, coordinación y comunicación. El instrumento fue elaborado con la técnica de Likert, donde se especifica el 5 como nivel de acuerdo y el 1 desacuerdo.

Los resultados obtenidos se reforzaron mediante guías de observación. Se tomó como población 254 integrantes que componen el número total de empleados que conforman las empresas seleccionadas, con base al reducido número y la variabilidad de empleados que integran a las empresas seleccionadas la aplicación del instrumento fue porcentualmente, de acuerdo al número total de empleados y los integrantes de cada una de las instituciones y empresas participantes. Se aplicaron 153 instrumentos en instituciones educativas y empresas privadas. Este estudio también tiene un alcance correlacional según Hernández(2006), ya que tiene como propósito conocer la relación que existe entre dos o más variables o categorías en un contexto en particular.

RESULTADOS

Las causas para que una empresa registre bajos niveles de calidad y competitividad pueden ser diversas, pero en lo que respecta al endomarketing se puede hablar de incoherencia entre los ideales de la compañía y los intereses de los trabajadores, falta de comunicación, ambiente generalizado de desconfianza y discordancia interna en el estilo de liderazgo, entre otras. Para Kotler (1998) el marketing interno (endomarketing) debe preceder el marketing externo, pues según él no tiene sentido prometer servicio excelente antes de que las personas estén listas para suministrarlo y comprometidos para con la organización. El instrumento aplicado agrupa cuatro dimensiones, las cuales coinciden con las dimensiones de la mezcla de endomarketing, sugeridas por Inkotte (2000), el cual hace énfasis en ver a los trabajadores como un cliente interno. Estas son: coordinación, compañía, costo y comunicación y pretende hacer una descripción de la percepción de los trabajadores en relación variables como relación con el trabajo y el ambiente laboral.

Coordinación

Tabla 1: Análisis Descriptivo de la Dimensión Coordinación

Coordinación	Medida Modal
Me siento completamente motivado en mi trabajo.	5,4
La relación de las personas de mi equipo al ejecutar una actividad es buena.	4
En periodos de descanso, existe una integración entre colegas.	4
Considero buena la relación entre directores, superiores inmediatos y subordinados.	4
Me siento en confianza para pedir u ofrecer ayuda a mis compañeros.	4
En mi área, existe una adecuada cooperación para lograr los objetivos.	4
En la empresa existe un clima de cooperación entre las distintas áreas de la empresa.	4
Me siento libre de desarrollar mis actividades en presencia del gerente o responsable de área.	4
Considero mi superior inmediato una referencia en nivel profesional, de forma a confiar libremente en las decisiones por él tomadas.	4
Mis ideas y sugerencias son oídas por mis superiores.	4
Se me brinda completo reconocimiento por el trabajo que ejecuto.	4

La coordinación, es el ambiente de la empresa; de acuerdo con la Tabla 1, que evalúa esta dimensión, se observa que los participantes poseen una mayor concordancia en el Ítem Me siento completamente motivado en mi trabajo con una medida bimodal 5, 4, lo que equivale a 90% de motivación, y en el resto de los Ítems expresan un 80% de satisfacción.

Compañía

Tabla 2: Análisis Descriptivo de la Dimensión Compañía

Compañía	Medida Modal
Me siento identificado con mi puesto de trabajo.	5
Tengo autonomía y libertad para proponer mejorías en el desarrollo de mi trabajo.	4
Siempre cumplo con mis deberes sin realizar esfuerzos adicionales.	4
Me siento realizado profesionalmente con el trabajo que ejecuto.	5
Estoy completamente satisfecho con los criterios utilizados para promociones internas.	4
En general, tenemos estabilidad de empleo ya que mis compañeros y yo nos sentimos seguros.	4
Mi sentimiento de lealtad, responsabilidad y comodidad me impide abandonar la empresa en la que actualmente laboro.	4
La cantidad de capacitación que recibo es suficiente.	3
Considero satisfactorios los beneficios que me brinda mi empresa.	4
Comparado con otras empresas, considero que el sistema de remuneración es bueno.	4
La imagen que mis familiares y amigos poseen de la empresa es positiva.	4
Se preocupa por establecer una positiva relación de proximidad con sus colaboradores.	4
Nuestra empresa establece una buena relación con la comunidad donde actúa.	4

El producto es la propia Compañía, destinada al cliente interno, donde se incluyen variables como identificación con el puesto, autorrealización, promociones internas, capacitación, imagen, entre otros. En la Tabla 2, que representa la dimensión Compañía, los ítems que obtuvieron la mayor concordancia fueron la identificación con el puesto de trabajo y la realización profesional con el trabajo ejecutado con una valoración de 5. Se observa que el ítem de suficiencia de capacitación refleja un 3, esto estima que los trabajadores perciben que la capacitación ofrecida por la empresa no es suficiente.

Comunicación

Tabla 3: Análisis Descriptivo de la Dimensión Comunicación

Comunicación	Medida Modal
Alguien en mi trabajo me ha hablado sobre mi progreso.	4,3
Conozco claramente los objetivos y metas de la empresa.	4
Soy informado constantemente sobre lo que sucede en la empresa.	3
Considero a mi superior inmediato un buen canal de información sobre las decisiones de la directiva.	4
En mi área existe libertad para hablar, opinar, contribuir y sugerir.	4
Recibo información sobre los beneficios a los que tengo derecho como colaborador de la empresa.	4
Los instrumentos de comunicación interna utilizados, cumplen con su papel de comunicar a buen nivel la información dentro de la empresa.	4
Considero suficiente la información sobre la empresa para desarrollar mis actividades.	4

En la Tabla 3, referente a la dimensión Comunicación, la moda en el ítem Alguien en mi trabajo me ha hablado sobre mi progreso refleja un 75% de satisfacción sobre el reconocimiento; y un 60% de satisfacción sobre la constancia de información recibida, y al resto de los ítems le confieren un 80% de conformidad.

Costo

El precio corresponde al elemento Costo o inversiones, incluye la política de remuneración de la empresa, inversiones en entrenamientos y desarrollo de las personas. Se observa que en la dimensión Costo (Tabla 4), los ítems Considero claro el sistema de remuneración adoptado por la empresa y la empresa reconoce y recompensa el esfuerzo de sus colaboradores tuvieron una concordancia de 4, mientras que el resto de los ítems solo alcanzan un 60% de satisfacción con una consideración baja, lo que permite constatar que la dimensión costos o inversión es la que obtuvo una percepción deficiente por la mayoría de los trabajadores respecto a las inversiones que hace la empresa en programas de capacitación y entrenamiento, donde las

oportunidades de actualización a través de programas de entrenamiento como cursos, exposiciones y seminarios son bajos, por lo que no consideran la capacitación como suficiente, además, de que se considera que el salario no es tan compatible con las responsabilidades.

Tabla 4: Análisis Descriptivo de la Dimensión Costo

Costo	Medida Modal
Considero que la terminación de mi contrato, supondría un costo adicional a las operaciones de esta empresa.	3
La empresa invierte en programas de capacitación y entrenamiento para colaboradores.	3
He tenido la oportunidad de actualizarme y perfeccionarme a través de programas de entrenamiento como cursos, exposiciones y seminarios.	3
Considero suficientes los programas de capacitación que la empresa me ofrece.	3
Considero claro el sistema de remuneración adoptado por la empresa.	4
Mi salario es compatible con las responsabilidades y trabajo que realizo en la empresa.	3
La empresa sabe reconocer y recompensar el esfuerzo de todos sus colaboradores.	4

CONCLUSIONES

Generalmente el desconocimiento que tienen los empleados de la empresa hacia adentro, de sus procesos, de sus políticas, de sus normas, de sus proyectos, de sus valores sumado a la falta de información, a problemas internos de comunicación, a la falta de motivación y de capacitación, pueden ser en gran parte causantes de las situaciones de indiferencia e ineficiencia por parte de los empleados en el desarrollo de sus labores. (Hoyos Villa, 2009) Analizando los resultados obtenidos en una escala de 1 a 100%, donde 100% se apega más a la satisfacción de los empleados, se concluye que respecto al ambiente laboral se percibe en un nivel de 85% de satisfacción, respecto a la empresa 81% satisfactorio, en relación a la dimensión de comunicación interna refleja una satisfacción de 76%, y por último, referente al costo que la empresa invierte en capacitaciones, según la percepción de los colaboradores es la dimensión con ponderación menor, ésta con un 66%. Esto refleja las razones del estancamiento de las empresas, el nivel de la salud financiera, la capacidad y el rendimiento del capital humano.

Una empresa cuyo modelo de marketing interno no es claro, es débil o en su caso, inexistente, no produce iniciativa ni pasión por la marca; una empresa puede conocer si su trabajador está realmente fidelizado con la marca si se encuentra convencido realmente de que el lugar donde labora es el mejor lugar para trabajar. Una de las principales limitaciones a las que se enfrentan los colaboradores, es la falta de capacitación, y se considera a ésta como un área de oportunidad de mejora para las empresas, pues a través de la capacitación los colaboradores tienen la oportunidad de aprender y actualizar sus conocimientos, es decir, es un elemento fundamental para satisfacer las necesidades de sus empleados mediante técnicas y métodos que ayuden a aumentar sus competencias para desempeñarse con éxito en su puesto, la capacitación trae beneficios tanto al colaborador como a la organización, hay que resaltar la falta de cultura en algunas empresas por invertir tiempo y dinero en capacitación en el personal que labora en ellas, restando importancia a sus necesidades e impidiendo su desarrollo y crecimiento.

BIBLIOGRAFÍA

Berry, L. H. (1994). Improving retailer capability foreffective consumerism response. Journal of retailing , Vol 52, n 3 p 3-14.

Berry, L. (1981). The employee as customer. Journal of retailing banking , Vol 3, n1 p 33-40.

Dunmore, M. (2003). Inside out marketing: how to create and internal marketing strategy, . Hardcover .

Flipo, J. (1986). Service firms: interdependence of external and internal marketingo strategies. European Journal of marketing , vol 20 n 8 p 5-15.

Hernández Sampieri, R. F.-C. (2006). Metodología de la Investigación (Cuarta Edición. ed.). Editorial McGraw-Hill Interamericana.

Hoyos Villa, Ó. A. (2009). Biblioteca Digital Universidad Nacional. Recuperado el 01 de Noviembre de 2015, de bdigital.unal.edu.co: http://www.bdigital.unal.edu.co/1962/

Inkontte, A. (2000). Endomarketing: elementos para a construção de um referencial teórico. Florianópolis SC, 2000. Dissertação de Mestrado em Engenharia da produção. Universidade Federal de Santa Catarina.

Kotler, P. (1998). Administração de marketing: análise, planejamento, implementação e Controle. 2 ed. São Paulo: Atlas.

Lings, I. y. (1998). Implementing and measuring the efectiveness of internal marketing. Journal of marketing management , Vol 14 p 325-51.

M., N. (2003). Metodología de la Investigación (2° ed. ed.). México: Limusa. Noriega Editores. Martínez, S. y. (2005). El papel estratégico de la comunicación en los programas organizacionales de marketing interno. Fisecestrategias , Año 1 Vol 2.

Mishra, S. (2010). Marketing interno, una herramienta para aprovechar la energía de los empleados en organizaciones de servicio enla India. Revista Internacional de Negocios y Administración , Vol 5, n 1, p 185-193.

Rojas Soriano, R. (2007). El proceso de investigación científica. México: Trillas.

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ANÁLISIS DE LA INFLUENCIA DE LAS METODOLOGÍAS, TÉCNICAS Y HERRAMIENTAS DE LA CALIDAD EN LA PRODUCTIVIDAD DE EMPRESAS AUTOMOTRICES DE LA REGIÓN

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RESUMEN

En el presente artículo investigamos a la industria automotriz que es uno de los ejes principales para lograr el crecimiento y el desarrollo económico del país y además una de las vías hacia las actividades de mayor valor agregado, pero principalmente es una de la áreas más factibles y redituable para la implementación de metodologías y técnicas de calidad, las cuales a su vez contribuyen a aumentar la productividad de la empresas y optimizar sus proceso. En esta investigación analizaremos las industrias automotrices de la región centro de Coahuila, para conocer los beneficios que estas técnicas les ha traído. El objetivo de estudio fue analizar el impacto productivo que han tenido las empresas que implementan técnicas, herramientas y metodologías de calidad, así mismo para conocer cuáles fueron las metodologías que mayormente redituaron en dichas empresas.

PALABRAS CLAVE: Metodología, Productividad, Calidad

ANALYSIS OF IMPACT OF USING METHODOLOGIES, QUALITY TOOLS AND TECHNIQUES IN PRODUCTIVITY OF THE AUTOMOTIVE COMPANIES IN THE REGION

ABSTRACT

This paper investigates the automotive industry which is one of the main pillars for growth and economic development of the country and also one of the ways towards higher value-added activities, but mainly is one of the most feasible and profitable areas for implementing quality methods and techniques, which in turn help to increase productivity and optimize their business process. This research will analyze the automotive industries in the central region of Coahuila, to know the benefits that these techniques have brought them. The aim of the study was to analyze the impact in productivity, that companies implementing techniques, tools and methodologies for quality, have had; as well as to know which were the methodologies that benefitted the most those companies.

JEL: L15, L23, L62, O14

KEYWORDS: Methodology, Productivity, Quality

INTRODUCCIÓN

La industria en Coahuila está en continuo crecimiento, en cuanto al sector automotriz se refiere, es uno de los estados con más influencia en este sector porque su PIB depende de más del 30%. Coahuila cuenta con ensambladoras, proveedoras y oficinas. La industria automotriz de Coahuila es un

puntal en México, pues tiene valores agregados como la experiencia de décadas en mano de obra especializada, infraestructura, logística y ubicación geográfica. Coahuila es uno de los estados más representativos en la industria automotriz. Más de 300 empresas conforman la industria de autopartes de Estado, la inversión productiva que han traído estas empresas es una fuente generadora de empleos y oportunidades de desarrollo individual para los Coahuilenses. La presencia de estas empresas en la entidad se traduce en poco más de 7 mil empleos directos y en más de 10 mil indirectos. La inversión que atrajo la Industria Automotriz para el estado le permitió registrar el segundo mayor crecimiento de formación bruta de capital en el país, con ello se potencializa la capacidad productiva del estado. Coahuila es protagonista en la producción y exportación de vehículos así como el desarrollo de esta industria, es el estado con mayor producción de vehículos en el país. Coahuila representa alrededor de 9.5% del total de la fabricación de vehículos en México. México es el 8° productor mundial de vehículos y el 4° exportador de unidades nuevas. "Es un estado fuerte en el sector automotriz y seguirá siendo uno de los líderes en esta región del país" (INFONOR, 2015). La red nacional de distribuidores automotrices está conformada por 1,346 distribuidores, Coahuila cuenta con 54. En Coahuila posee una extensa frontera con el mercado más grande del mundo, y su participación en el cómo proveedor sigue incrementándose. Los factores de competitividad más sobresalientes que apoyan al clúster automotriz son: Localización estratégica y significativo acceso a mercados globales; fácil acceso a los principales mercados: al Norte con EEUU y Canadá, al este con Europa, al oeste con Asia y al sur con Sudamérica. Recursos humanos altamente calificados; Primer lugar Nacional en productividad manufacturera.

REVISIÓN DE LITERATURA

La industria automotriz se encarga del diseño, desarrollo, fabricación, ensamblaje, comercialización, reparación y venta de automóviles. Es una gran generadora de empleos ya que además de la mano de obra directa que requiere, genera toda una industria paralela de componentes, por lo que la mano de obra indirecta creada es sumamente grande también. El Sector de la Industria Automotriz acoge a todas las áreas de la Industria Automotriz en cuanto a fabricación se trata, según la naturaleza de los productos que son fabricados este Sector está integrado por cinco diferentes ramas industriales (CANACINTRA, 2015)
Para estados como Coahuila, Guanajuato y Puebla, la Industria Automotriz es la columna vertebral de sus economías, donde su participación en el PIB estatal va del 21% para Coahuila hasta el 30% y 40% para Guanajuato y Puebla respectivamente. La productividad del estado en la rama automotriz es la más alta en el país, siendo el estado de Coahuila donde se concentra el 24% de la producción nacional de automóviles, es decir, 1 de cada 4 automóviles hechos en México se ensamblan en Coahuila. Durante el 2010 México produjo 2.26 millones de autos de los cuales 524 mil se ensamblaron en Coahuila, 25 de cada 100 automóviles en el país se producen en Coahuila. Coahuila cuenta con 2 plantas armadoras d vehículos y 1dedicada a la fabricación de tracto camiones.

El 52% de la inversión automotriz en el estado, proviene de Estados Unidos, el 60% de la inversión total en el estado corresponde a este sector, 48 empresas de proveeduría automotriz, ampliación de plantas y una armadora de tracto camiones han invertido en el estado en los últimos cuatro años. La presencia de la Industria Automotriz es un detonador de crecimiento e industrialización para el estado de Coahuila, la productividad del trabajo en esta industria se ha incrementado durante los últimos años, alcanzando niveles similares a los de Estados Unidos.Coahuila cuenta con mano de obra calificada y con una larga experiencia en la rama automotriz, el estado cuenta con una amplia infraestructura que permite eficientar los procesos logísticos y de comercio. Se han desarrollado clúster que hacen más eficiente la producción y permiten cumplir con los procesos de justo a tiempo, reduciendo costos.

METODOLOGÍA

Los métodos utilizados para la investigación fueron: la investigación documental y el trabajo de campo como medio de verificación, se llevo a cabo una compilación de información correspondiente a medios

electrónicos y bibliografía referente al tema. El área automotriz es una de las principales atracciones para Coahuila, pues esta ha tenido un movimiento impresionante en cuanto al impulso de nuevas inversiones en el rubro automotriz. En la región centro de Coahuila se presentan una gran cantidad de empresas automotrices, de las cuales para el desarrollo de esta investigación se trabajó con el 70% de estas empresas a cuales se les aplico un instrumento , elaborado para la evolución del impacto cuantitativo. Se realizó una entrevista a estas empresas para conocer el impacto porcentual de productividad que han tenido después de la aplicación de técnicas y herramientas de calidad. La entrevista consta de una serie de preguntas que fueron elegidas de acuerdo con las cuestiones que se consideran importantes para realizar el análisis. La formulación de las preguntas se realizó de acuerdo con la información recabada de revistas, libros y sitios oficiales en el ramo industrial. La aplicación del instrumento se realizó en el segundo periodo del mes de Junio (del 15 al 30) y el primer periodo del mes de Julio (del 1 al 17) del 2015.

RESULTADOS

Los resultados obtenidos con la información recopilada a través del instrumento aplicado a la muestra seleccionada indica el impacto que han tenido las metodologías, herramientas y técnicas de calidad al ser implementadas en las industrias de la región, específicamente en las industrias automotrices. Siendo la reducción de costos, el beneficio más relevante posterior a la implementación de algunas de las herramientas de calidad consideradas para esta investigación. Esta investigación deja expuesto que el involucramiento de las empresas industrias automotrices en las herramientas y técnicas de calidad ha traído grandes beneficios, por lo que se sugiere que las empresas sigan con la implementación de estas metodologías, herramientas y técnicas de calidad, y las empresas que aun no las han implementado se sugiere que inicien con el involucramiento de estas a su proceso.

CONCLUSIONES

Dado la importancia que tiene el sector automotriz en el estado de Coahuila es necesario que las empresas de la región centro de Coahuila centren su atención a las herramientas de calidad, pues estas representan una parte fundamental para el desarrollo y crecimiento de las empresas, pues se comprobó gracias a esta investigación, que el aplicar metodologías y herramientas de calidad trae muchos beneficios, pero principalmente el aumento en la productividad; que es lo que principalmente buscan las empresas al implementar las metodologías de calidad. El sector automotriz es también relevante debido a su integración con las herramientas de calidad, pues el cien por ciento de estas empresas usan y aplican técnicas de calidad, por lo que es necesario que las instituciones educativas pongan mayor énfasis en este tema, al innovar el aprendizaje y la enseñanza de las metodologías y herramientas de calidad, pues algunas herramientas y técnicas que se enseñan en estas instituciones han quedado obsoletas por las empresas. Herramientas como diagramas de Pareto, Ishikawa, de dispersión son algunos ejemplos de técnicas que empresas del ramo industrial han dejado de aplicar, las cuales han sido renovadas por otras metodologías como QRQC y Word Class Manufacturing, entre otras, pues estas integran de una manera amplia aquellas herramientas que han quedado en el pasado. Es necesario que las instituciones educativas investiguen cuales son las metodologías y técnicas de calidad que actualmente usan las empresas para estar al corriente en cuanto al fortalecimiento de estos temas, pues son empresas regionales mismas para las cuales las instituciones educativas están preparando a sus futuros profesionistas.

REFERENCIAS BIBLIOGRÁFICAS

HALBWACHS, M. (2004). Los marcos sociales de la memoria, Barcelona: Anthropos Editorial
JUAN JOSÉ TARI GUILLO. La calidad total: fuente de ventaja competitiva. Publicaciones de la universidad de Alicante.

Norbert Lloyd Enrick. "Quality, Reliability, and Process Improvement". Industrial Press Inc., 1985

Walter A. Shewhart. "Statistical Method from the Viewpoint of Quality Control". Editorial Assistance of W. Edwards Deming

Masaaki Imai, "Kaizen: La clave de la ventaja competitiva japonesa". Grupo editorial patria 1995.

Genichi Taguchi, Subir Chowdhury, Yuin Wu. "Taguchi's Quality Engineering Handbook". Wiley, 2005 VIÑAO, A. (2002). "Relatos y relaciones autobiográficas de profesores y maestros" en Escolano A. y Hernández, J. (coords.) La memoria y el deseo. Cultura de la escuela y educación deseada, Valencia: Tirant lo Blanch, [pp. 134-175].

RAMOS, N. (2010). "Niñez y vida escolar en Nuevo León, 1910-1940" en Humanitas, Núm. 37, Vol. VI, Enero-Diciembre, [pp. 315-343].

Ingeniería: Investigación y software. (UNAM) http://www.ingenieria.unam.mx/~revistafi/
AEC, 2015 "Asociación Española para la Calidad" Recuperado de: http://www.aec.es/web/guest/centro-conocimiento/herramientas.

Consejo Nacional de Población (CONAPO) 2009. La población de México en el nuevo siglo, Consejo Nacional de Población (CONAPO)

Dávila Flores, Alejandro. 2002. "Matriz de insumo-producto de la economía de Coahuila e identifácación de sus flujos intersectoriales más importantes", Economía mexicana. Nueva época, volumen XI, número 1.

BIOGRAFÍA

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PROPUESTA DE REDISTRIBUCIÓN DE LA PLANTA DE PRODUCCIÓN DE LA EMPRESA AS ELASTÓMEROS

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RESUMEN

El siguiente es un estudio de caso de tipo cualitativo, cuantitativo, descriptivo y deductivo, que tiene como objetivo evaluar el mejoramiento del servicio al cliente en la empresa AS Elastómeros, a partir de una propuesta de redistribución de los espacios de su planta de producción. La unidad de análisis se limita a la empresa. Para la realización de este ejercicio se realizó un diagnóstico donde se evidenciaron principalmente problemas como desorden en la planta de producción, acumulación de materiales, insuficiente personal y demoras en recolección y alistamiento de los pedidos, que trae como consecuencia retrasos en las entregas. Las herramientas de análisis fueron básicamente el diagrama de Ishikawa, el diagrama de Pareto y la Planeación de Muther. Posteriormente se realizó una propuesta de mejoramiento para disminuir los tiempos de desplazamiento interno obteniendo ahorros anuales cercanos a los cinco mil dólares. El método utilizado fue en principio la exploración y descripción de la forma cómo funcionaban los procesos en la empresa. Durante el desarrollo del estudio se identificaron alternativas orientadas a lograr un mejoramiento en los tiempos de desplazamiento. Finalmente se realizó el análisis de resultados, contrastando la información final con la medición inicial. Este estudio confirma la utilidad de realizar mejoras en los procesos relacionados con la logística de distribución, afectando positivamente el servicio que actualmente presta la empresa a sus clientes.

PALABRAS CLAVE: Distribución En Planta, Mejoramiento Continuo

LOGISTICS OPERATIONS INNOVATION IN THE COMPANY REINDUSTRIAS

ABSTRACT

The following case study is a qualitative and quantitative study aims to evaluate the improvement of the investment company Artunduga Reindustrias from implementing …. To perform this exercise was measured a baseline that considered indicators of …. Diagnosis was subsequently performed which showed … The method used was in principle the exploration and description of the way the process worked and provisioning storage in the enterprise. During the course of the study were implemented improvement tools for this area and then evaluated whether improvement was achieved in the production process. Subsequently performed the analysis of results, contrasting the final information with the initial measurement. This study confirms the usefulness of improvements such as planning optimal order quantities along with the development of inventory analysis with the ABC model, the design of redistribution in plant palletizing line of lubricants, all for the taking decisions and achieve enterprise-wide improvement.

JEL: L6, L7, M1

KEYWORDS: Lay Out, Continuous Improvement

INTRODUCCION

AS Elastómeros es una empresa dedicada a la fabricación de piezas de plástico y caucho, tales como pisos flexibles, accesorios para baño, asientos sanitarios, además posee marcas registradas como easydesk® y aquablue ®, las cuales ofrecen en el mercado una amplia gama de productos y de colores, lo cual se convierte en su diferenciación y recordación en el mercado de estos productos. En la actualidad la fabricación de los productos se realiza en cinco líneas de producción, las cuales tienen aproximadamente 80 productos cada una y debido al creciente número de pedidos y la elaboración de nuevos productos, se presenta un considerable incremento de la producción en planta y de clientes interesados en adquirir los productos, lo que ha ocasionado el incremento de pedidos y por supuesto de inventario de producto en proceso y producto terminado. Ésta situación genera, por un lado, desorden en la planta de producción, acumulación de materiales, mayor tiempo en el alistamiento de los pedidos, lo que a su vez ocasiona retrasos en las entregas, por lo que es necesario un rediseño de la distribución en planta de producción de la empresa. En la actualidad la planta ha comenzado a tener problemas que desmejoran el nivel de servicio a los clientes; situación que se evidencia en el aumento del tiempo de alistamiento de los pedidos, dado que pasaron de alistar un promedio de 15 a 20 pedidos a solamente poder realizar la entrega de 10 a 12 pedidos al día. De otro lado el aumento del volumen de mercancía existente en el área de despacho, ya que el área tiene capacidad para almacenar alrededor de 120 cajas con productos de la empresa y en la actualidad en promedio se almacenan 230 cajas lo que genera otras problemáticas tales como: desorganización en el área lo que no permite una identificación del tipo de producto, controles que garanticen la efectividad de los procesos; lo que ocasiona daño y confusiones en las mercancías. Bajo esta situación, se propone una redistribución de la planta de producción de la empresa As Elastómeros que permita mejorar el nivel de servicio que les prestan en la actualidad a sus clientes.

El objetivo de este trabajo e diseñar una propuesta de redistribución de la planta de producción de la empresa AS Elastómeros, que permita mejorar el nivel de servicio a los clientes. Para llevar a cabo este desarrollo, se debe realizar un diagnóstico de la distribución actual de la planta de producción de la empresa, diseñar las acciones necesarias para asignar las áreas de la planta y mejorar el nivel de servicio y realizar el análisis costo beneficio que evidencie la viabilidad de la propuesta presentada.

REVISIÓN DE LITERATURA

En los últimos veinte años, la logística ha tomado un papel muy importante en "la elaboración de mejoras competitivas y sostenibles fundamentadas en la construcción de valor agregado para el cliente" (Chopra & Meindl, 2008). Ssegún Juan Pablo Antún (2007), el concepto de logística nació después de la II Guerra Mundial cuando se comenzaron a realizar estudios para aplicar la logística militar a empresas comunes. El desarrollo de la logística de aquel momento se debió a diversos factores como: el estudio del costo de movimiento de materiales e información desde el proveedor hasta el cliente mediante la empresa, a la alta competitividad relacionada con el buen manejo de flujo de información y materiales, así como la incorporación de las nuevas tecnologías que surgieron y la cobertura de un mercado global extenso (Antún, 2007). En la actualidad, "La Logística Empresarial se enfoca en la búsqueda y el alcance de la satisfacción presente y futura del cliente y abarca la planificación, organización y control de todas las actividades relacionadas con la obtención, flujo, unión y mantenimiento de materiales, productos y servicios"…, según sea el caso "… desde la fuente de materia prima, incluyendo clientes a través de la logística inversa, hasta el punto de venta del producto final, siendo este a nivel local o internacional, masivo o empresarial, en forma tanto eficiente como efectiva, minimizando costos y a su vez haciendo uso de la tecnología de información moderna" (Hernández & García, 2006).

La logística de distribución es el proceso de la cadena de suministros que planea, lleva a cabo y controla el flujo y almacenamiento eficientes y efectivos de bienes y servicios, así como de la información relacionada,

desde el punto de origen hasta el punto de consumo, con el fin de satisfacer los requerimientos de los clientes (Dupuit, 2004). Los modelos logísticos son definidos como una fórmula que contribuye al éxito empresarial por medio de pautas en la gestión administrativa de la empresa. Cabe mencionar el modelo logístico desarrollado por Kenichi Ohmae, académico y consultor de la Wharton Business School de la Universidad de Pensilvania, conocido como el Modelo de las 3c's (Corporation, Customer and Competitors). Según el modelo propuesto por el estratega japonés "en la construcción de cualquier estrategia de negocio exitosa se deben tener en cuenta tres factores dominantes: La corporación (entidad/empresa), el cliente y la competencia". Consecuentemente, el autor establece que "para crear una ventaja competitiva sostenible, se debe integrar este "triángulo estratégico". "Transversal y dinámico, el modelo propuesto por Ohmae es asimilable por diversas industrias en distintos niveles, entre ellas la industria logística. No obstante, antes de realizar una comparativa entre el modelo y la praxis logística es importante conocer los aspectos básicos de la propuesta de Ohmae" (Revistalogistec, 2013). En lo teórico, según lo descrito por Ohmae, "las estrategias ligadas a la Corporación deben apuntar a maximizar las fuerzas de la misma, respecto a su competitividad en las áreas funcionales que son críticas para lograr el éxito de su operación" (Ohmae, 2004).

Las empresas que pretendan usar este modelo, deben adoptar las estrategias "De selectividad y secuenciamiento, para ganar posiciones expectantes en una función dominante, mejorando eventualmente aquellas funciones en las que el desempeño es mediocre, sin centrarse en liderar cada proceso para ganar (Revistalogistec, 2013). De subcontratación de las operaciones de ensamblaje, cuando el factor salarial sea una decisión critica para la empresa, además de los costos involucrados en el aumento de la capacidad instalada, especialmente con una demanda fluctuante, esta posibilidad genera ventajas frente a una competencia lenta con una estructura de costos rígida, con implicaciones estratégicas muy importantes (Ohmae, 2004). De mejora en la rentabilidad, utilizando tres estrategias básicas: reducir costos básicos con mayor eficacia que la competencia; implementar una mayor selectividad a las órdenes que se acepten, a los productos que se ofrecen y las funciones que se realicen; y compartir ciertos procesos con otros negocios de la corporación e incluso con otras compañías.

La experiencia indica que hay muchas situaciones en las cuales compartir recursos, en unos o más procesos básicos de la comercialización, puede ser ventajoso" (Ohmae, 2004). Respecto del segundo factor: El Cliente, el modelo de Ohmae establece que éstos "son la base de cualquier estrategia. No hay duda de que la primera preocupación de una corporación debe ser velar por los intereses de éstos más que por la de sus accionistas o de otros terceros relacionados. A largo plazo, la corporación que está genuinamente interesada en sus clientes, será a su vez interesante para sus accionistas" (Ohmae, 2004). Enfocado al factor 'Cliente', Ohmae propone: "La segmentación por grupo de clientes objetivos de consumo". Aquí la segmentación se realiza teniendo en cuenta las diversas formas en las que diversos clientes utilizan un producto y/o servicio. (Revistalogistec, 2013). Acto seguido, el Modelo 3C's establece que: "en un mercado ferozmente competitivo, la corporación y sus competidores más cercanos probablemente lo atacaran de maneras similares, por lo tanto, en el largo plazo, la eficacia de la segmentación estratégica inicial tenderá a declinar. En tal situación es útil escoger a un grupo pequeño de clientes claves (objetivos) y reexaminar cuál es el que realmente se está buscando" (Ohmae, 2004). De acuerdo con Albrecht y Zemke (2000), el servicio al cliente tiene las siguientes características:

Un servicio se produce en el instante de prestarlo, no se pude crear de antemano o mantener en preparación.

Un servicio no se puede producir, inspeccionar, apilar o almacenar; generalmente se presta, donde quiera que esté el cliente, gente que está más allá de la influencia inmediata de la gerencia.

El producto no se puede demostrar, ni se puede mandar por anticipado una muestra del servicio para la aprobación del cliente.

La persona que recibe el servicio no tiene nada tangible, el valor del servicio depende de su experiencia personal.

La experiencia no se puede vender o pasar a un tercero.

Si se prestó inadecuadamente, un servicio no se puede revocar.

La seguridad de la calidad debe ocurrir antes de la producción, y no después de la producción.

La prestación del servicio generalmente requiere interacción humana en algún grado.

Las expectativas del receptor del servicio son parte integral de su satisfacción con el resultado. La calidad del servicio en gran parte es algo subjetivo.

Mientras más gente tenga que encontrar el cliente durante la prestación del servicio, menos probabilidades hay de quedar satisfecho con ese servicio.

Estas características se constituyen como pilares para la prestación de un servicio ideal, sin embargo, no se está afirmando que cada servicio pueda o deba poseer cada una de las mismas (Albrecht y Zemke, 2000). Mauleon (2003), define el picking como el conjunto de operaciones destinadas a extraer y acondicionar los productos demandados por los clientes y que se manifiestan a través de los pedidos. El picking es la recogida y combinación de cargas no unitarias que conforman el pedido de un cliente. Es en este sentido que, la preparación de pedidos trata de lograr:

La coordinación de las estanterías, carretillas, los métodos organizativos, la informática y las nuevas tecnologías para mejorar la productividad.

Realizar la tarea sin errores, con la calidad requerida por el cliente.

El estudio de métodos es el registro sistemático y examen crítico de los métodos existentes y propuestos para realizar un trabajo, como medio para desarrollar y aplicar métodos más sencillos y eficientes y para reducir costos (Niebel y Freivalds, 2009). Este estudio sigue 5 pasos en forma sistemática:

Selección del trabajo a estudiar: Se deben seleccionar para estudio los trabajos que darán mayor rendimiento sobre la inversión de tiempo que se gasta en el estudio, es decir, que los trabajos que deben tener prioridad de estudio son aquellos que pueden ofrecer la mayor oportunidad de mejoramiento, o los que causan cuellos de botella, retrasos o problemas en la operación. Registro del método actual: La técnica que más se usa en el estudio de métodos es la gráfica de flujo de proceso y el diagrama de flujo, el cual se usa para identificar los principales elementos de un proceso, incluyen símbolos que identifican las decisiones clave y las consecuencias de cada una de ellas. Examen de los hechos: Esta es la etapa más importante en el estudio de métodos, la idea es examinar el método actual exhaustivamente con sentido crítico, utilizando la técnica de cuestionamiento en donde se deben hacer preguntas como: qué se hace, por qué, qué otra cosa podría hacerse, entre otras.

Desarrollo de un nuevo método: El examen crítico de los métodos actuales puede que haya indicado algunos cambios y mejora por tanto se toman esas ideas para eliminar partes de la actividad, combinar elementos, cambiar la secuencia de eventos para mejorar la eficiencia del trabajo, simplificar la actividad, etc. Instalar el nuevo método y mantenerlo con regularidad: para lograrlo se debe realizar una supervisión periódica de la efectividad del diseño del trabajo una vez implantado. La distribución en planta es una herramienta estratégica, que nos permite organizar los espacios con que cuenta la empresa de una manera secuencial y práctica, en relación a la disposición de las máquinas, estaciones de trabajo, departamentos,

almacenamiento, pasillos y espacios comunes con el fin de alcanzar la eficiencia en los procesos productivos, logrando altos estándares de rentabilidad en la producción en relación a la disminución de tiempos. (Fuente, 2009)

METODOLOGIA

El ejercicio realizado es un estudio de tipo cualitativo, cuantitativo, descriptivo y deductivo que tiene como objetivo realizar un diagnóstico de las condiciones actuales de la empresa así como de su distribución en planta para el área de producción. Para lo anterior se realizaron visitas a las instalaciones de la empresa con el fin de obtener la información necesaria para los estudios de tiempos y los diagramas de recorrido para obtener una descripción gráfica de la distribución de pisos y espacios donde se encuentran ubicadas cada área del proceso productivo, utilizando cámara de video y fotográfica. Se realizaron diagramas de recorrido, diagramas de operaciones, diagrama de causa-efecto o Ishikawa para identificar las causas de los problemas, diagrama de flujo del proceso para determinar las relaciones e interrelaciones entre los recursos humanos, físicos y tecnológicos el cual permita evidenciar un flujo de las decisiones y los reprocesos que se generen y la planeación sistemática de Muther el cual pretende determinar dos áreas con alta frecuencia de interrelaciones lógicas cercanas, mediante seis pasos (Niebel & Freivalds, 2009). Posteriormente se elaboró la propuesta de rediseño para el aprovechamiento de los espacios físicos de la planta de producción, demarcación de las zonas, delimitación de los puestos de trabajo y zonas de circulación en la empresa AS Elastómeros , realizando los nuevos diagramas de flujo y diagramas de recorrido, que permiten lograr el mejoramiento de la distribución en planta. Finalmente se evaluó la viabilidad de la propuesta a través un análisis de costo-beneficio.

En cuanto al alcance, la investigación es de carácter mixto. En principio es de carácter cualitativo ya que se evidencian los problemas en la empresa por visita directa, posteriormente es cuantitativa porque se realizan análisis de tiempos y movimientos. La investigación es de tipo transversal porque los datos se recolectan en un solo momento en el tiempo. Finalmente todo el procedimiento termina en un tipo de investigación deductiva porque se comprobará la hipótesis de que a partir de la redistribución en planta es posible lograr el mejoramiento del nivel de servicio.

RESULTADOS

La propuesta de solución planteada permite mejoras en los procesos relacionados con la logística de distribución, afectando positivamente el servicio que actualmente les presta la empresa a sus clientes. La separación de tipos de pedidos en clientes grandes y clientes pequeños y la ubicación de una zona para cada uno de ellos, permite mejorar el flujo de materiales y personas por la planta, ya que despeja las zonas de circulación, permite tener un área para el alistamiento de los pedidos, y las adecuaciones a la estantería de almacenamiento, disminuye la manipulación de los productos, así como el tiempo y la distancia recorrida, lo que afecta directamente el servicio al cliente. La alternativa seleccionada ofrece una eficiencia de 89,2% con la redistribución de la planta del almacén, al igual que la distancia total recorrida pasó de 2.148 metros a 1.947 metros con la propuesta de solución, es decir, disminuyó en 201 metros, aun cuando el número de áreas aumentó con respecto a la distribución actual. Se delimitaron áreas en la planta y se crearon nuevas áreas como el área de almacenamiento de pedidos grandes y el área para el alistamiento de pedidos, mejorando el servicio al cliente.

La delimitación y demarcación de las áreas permite un adecuado flujo de personal, materiales y productos por la planta de producción, evitando desorden y obstrucción de los pasillos. Además, la implementación de escaleras y pasillos para el acceso a los pisos superiores de la estantería, disminuye el riesgo de accidente para los ayudantes del almacén, así como un mejor y más rápido acceso a los productos. El cambio en la forma de almacenamiento de los productos, de cajas y bolsas, a unidades en el sistema de archivador y de cajas pequeñas, permite un aprovechamiento de los espacios existentes, así como la disminución en los

tiempos de alistamiento de pedidos. La inclusión de un nuevo ayudante y la redefinición de las funciones, permite implementar mayores controles en el empaque, disminuyendo el riesgo de errores en la entrega de los pedidos.

CONCLUSIONES

Se encontró que el 76% de los errores en los pedidos provienen del área de almacén, por lo que, al redistribuir éstas zonas y mejorar los procesos de picking se mejorar el servicio al cliente de la empresa. Las principales razones del deficiente servicio al cliente en la empresa AS Elastómeros se centran en: a) excesivos transportes por la planta, b) obstrucción de los pasillos con material, c) insuficiente personal en almacén, d) excesos de esfuerzo físico y e) demora en la recolección y alistamiento de pedidos. La alternativa seleccionada tiene una eficiencia del 89,2% y representa la mejor opción para redistribuir la planta de producción de la empresa y permite mejoras en los procesos relacionados con la logística de distribución, afectando positivamente el servicio que actualmente les presta la empresa a sus clientes. La separación de tipos de pedidos en clientes grandes y clientes pequeños, y la ubicación de una zona para cada uno de ellos, permite mejorar el flujo de materiales y personas por la planta, en tanto que, despeja las zonas de circulación, permite tener un área para el alistamiento de los pedidos, y las adecuaciones a la estantería de almacenamiento, disminuye la manipulación de los productos, así como el tiempo y la distancia recorrida, lo que afecta directamente el servicio al cliente.

La implementación de escaleras y pasillos para el acceso a los pisos superiores de la estantería, disminuye el riesgo de accidente para los ayudantes del almacén, así como un mejor y más rápido acceso a los productos. El cambio en la forma de almacenamiento de los productos, de cajas y bolsas, a unidades en el sistema de archivador y de cajas pequeñas, permite un aprovechamiento de los espacios existentes, así como la disminución en los tiempos de alistamiento de pedidos. La inclusión de un nuevo ayudante y la redefinición de las funciones, permite implementar mayores controles en el empaque, disminuyendo el riesgo de errores en la entrega de los pedidos. El análisis costo beneficio indica que la propuesta es viable ya que su implementación tiene un costo de U$7209 y los ahorros suman un total de U$6855, por lo cual la relación costo beneficio es de 1,92 lo que hace viable la implementación de la propuesta. Se recomienda el mantenimiento de las zonas de almacenamiento, así como su constante reorganización y limpieza son fundamentales para mantener el almacén en buenas condiciones de salubridad y seguridad, por tanto, se recomienda implementar un plan de mantenimiento preventivo y correctivo de las máquinas de la empresa. Es importante realizar un estudio detallado de puntos de reorden y análisis de inventarios y rotación de pedidos con el fin de organizar las estanterías de acuerdo con métodos como el ABC, así como llevar estadísticas exactas de la devolución de pedidos y demoras en la entrega de los mismos con el fin de satisfacer de mejor manera las necesidades de los clientes de la empresa.

BIBLIOGRAFÍA

Albrecht, Kart y Zemke, Ron. (2000). Gerencia del servicio. Bogotá: 3R Editores.

Albrecht, Karl. (1990). La Revolución del servicio. Bogotá: Fondo Editorial Legis.
Alyail. (2012). El abastecimiento o aprovisionamiento. Tomado de:
http://www.monografias.com/trabajos17/abastecimiento/abastecimiento.shtml.

Anaya Tejero Julio Juan y Polanco Martin, Sonia. (2005). Innovación y mejora de procesos logísticos: Análisis, diagnóstico e implantación de sistemas logísticos. ESIC Editorial.

Antún, J. P. (2007). Administración de la Cadena de Suministros. Obtenido de http://segmento.itam.mx: http://segmento.itam.mx/Administrador/Uploader/material/Administacion%20de%20la%20Cadena %20de%20Suministros.

Canchilla, Ivette. (2010). Diagnóstico y propuesta del servicio al cliente para el agenciamiento aduanero en Almaviva S.A. Sucursal Cartagena. Facultad de Administración. Universidad Del Rosario Bogotá D.C.

Chopra & Meindl, P. (2008). Administración de la cadena de suministro: Estrategia, Planeación y Operación. Naucalpan de Juárez, México: Pearson Prentice Hall.

Dupuit, Jules. (2004). "On the Measurement of the Utility of Public Works". En: Ballou, Ronald H. Logística, Administración de la cadena de suministros. México: Pearson Educación.

Fernández, B. (s/f). Repositorio E-Reading Universidad de Sevilla. Obtenido de http://bibing.us.es/proyectos/abreproy/30082/direccion/PROGRAMA%252FMANUAL%252F. Fecha de Consulta: 20 de Febrero de 2015.

Fuente, D. d. (2009). Distribución en Planta. Oviedo.

Hernández R., José G. & García G., María J. (2006). The Importance of the Procurement Function in Logistics in Proceedings ICIL'2006, Kaunas University of Technology, Lithuania.

Hernández, Ludy. (2008). Análisis y mejora del proceso de gestión de pedidos y distribución de la cooperativa de hospitales y organismos de salud de Santander –COHOSAN- para aumentar el nivel de servicio logístico al cliente asociado y particular. Universidad Pontificia Bolivariana. Bucaramanga.

Jimdo. (s.f.). Recuperado el 26 de Abril de 2014, de Logística y Cadena de Almacenamiento: http://logisticayabastecimiento.jimdo.com/almacenamiento/.

Mauleon Torres, Mikel. (2003). Sistemas de almacenaje y picking. Díaz de Santos.

Mendoza, A. (2013). Despacho de Mercancías. Recuperado el 11 de Junio de 2014, de http://despdemer.blogspot.com/

Niebel, W. B., & Freivalds, A. (2009). Ingeniería Industrial: Métodos, estándares y diseño de trabajo. México, D.F: Alfaomega.

Ohmae, K. (2004). La mente del estratega (2ª Ed.). Madrid. España: Mcgraw-Hill Interamericana De España.

Palacios Acero, L. C. (2009). Ingeniería de métodos, movimientos y tiempos. Bogotá: Ecoe Ediciones. Palacios, C. (2.011). Tópicos generales de problemas de localización y distribución en planta. Universidad Autónoma de Colombia.

Pau i Cos, R. d. Navascués y Gasca, & M. Yubero Esteban, Manual de logística integral (págs. 378, 379). Madrid: Ediciones Díaz de Santos.

Revista logistec. (28 de Octubre de 2013). http://www.revistalogistec.com. Obtenido de http://www.revistalogistec.com/index.php/supply-chain-management/380-estrategia-logistica/1388-el-modelo-de-las-3cs-de-la-teoria-a-la-logistica.

Saldarriaga, D. L. (2012). Diseño, Optimización y Gerencia de Centros de Distribución. Bogotá: Zona Logística.

Silva, A. (Agosto de 2006). Logistica de Almacenamiento. Recuperado el 12 de Agosto de 20014, de http://www.google.com.co/url?sa=t&rct=j&q=&esrc=s&source=web&cd=2&ved=0CCAQFjAB&url=http%3A%2F%2Fwww.tauniversity.org%2Ftesis%2FTesis_Alvaro_Silva_2.doc&ei=FpXqU7DyFZPgsATPr4D4Cw&usg=AFQjCNF5_st2yiIviEX_u49bTd2rxd1dhg&bvm=bv.72938740,d.cWc

Tompkins, J. A. (2006). Planeación de instalaciones (3a ed.). México: Cengage Learning.

Tompkins, J. A., & White, J. A. (2009). Planeación de Instalaciones. Thomson.

Universidad de Castilla - La Mancha. (30 de Septiembre de 2013). Tema 5: Distribución en planta. Obtenido de http://www.uclm.es/area/ing_rural/asignaturaproyectos/tema5.pdf.

Universidad Politécnica de Valencia (2012). http://personales.upv.es/jpgarcia/LinkedDocuments/7%20Almacenes.pdf. Consultado Febrero de 2015.

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LIMITACIONES DE LA CAPACIDAD TECNOLOGICA DE PRODUCCIÓN EN LA PYME SECTOR ELECTRÓNICO DE TIJUANA, B.C., MÉXICO

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RESUMEN

En esta investigación se propone identificar cual es la capacidad tecnológica de producción de las Pymes sector electrónico. Como parte de la metodología se utiliza el modelo de Bell y Pavitt, por ser el más completo y adecuado al estudio de las pymes en México. Además se revisa el progreso que han tenido las Pymes en la industria electrónica, su integración vertical y estrategias que se han implementado para su desarrollo. Así como la revisión de trabajos empíricos discutidos en ponencias a nivel nacional e internacional, presentando el nivel de capacidad tecnológica así como los principales problemas que enfrentan para mejorar su competitividad. Por último se pretende identificar y analizar la capacidad tecnológica de producción de las Pymes sector electrónico en Tijuana, B.C., México, para proponer los indicadores clave que inciden en su competitividad.

PALABRAS CLAVES: *Pymes, capacidad tecnológica de producción, sector electrónico.*

LIMITATIONS OF TECHNOLOGIC PRODUCTION CAPACITY IN THE PYME IN ELECTRONIC SECTOR IN TIJUANA, BC, MEXICO

ABSTRACT

This research aims to identify which is the technological capacity of Pymes electronics sector. As part of the methodology, the model used is Bell and Pavitt, for being the most complete and appropriate to the study of Pymes in Mexico. Besides the progress that Pymes have made in the electronics industry, vertical integration and strategies that have been implemented for their development is reviewed. And the review of empirical studies discussed in presentations at national and international level, presenting the level of technological capabilities and the main problems they face in improving their competitiveness. Finally it seeks to identify and analyze the technological capacity of Pymes electronics sector in Tijuana, Mexico, to propose key indicators that affect their competitiveness.

JEL: L63, O14

KEYWORDS: Pymes, Technological Production Capacity, Electronic Sector

INTRODUCCIÓN

La Secretaria de Economía ha impulsado estrategias de promoción para identificar y elevar la competitividad de las pequeñas y medianas empresas (Pymes), con la finalidad que se integren a las cadenas de valor de las empresas tractoras (Las empresas tractoras son todas aquellas grandes empresas que fomentan el crecimiento y desarrollo económico a nivel Macro, ya que la mayoría de ellas son grandes firmas a nivel nacional o internacional. Las empresas tractoras de México representan un mercado

fundamental para el crecimiento y apuntalamiento de las pequeñas y medianas empresas (Pymes)), las cuales son las grandes compradoras que en su operación jalan a este tipo de empresas. Al elevar la competitividad de la pequeña y mediana empresa tiene como consecuencia grandes beneficios para el país, pues de esta forma se conservan y crean empleos, se fortalece el mercado interno y se logra una más equitativa distribución de la riqueza.

De acuerdo a Bracamontes y Contreras (2008), los empresarios tradicionales no han estado en condiciones de tener un papel relevante en el nuevo esquema productivo tejido alrededor de la industria maquiladora y sus grandes proveedores. Las capacidades tecnológicas necesarias para participar son muy bajas y representa una línea de análisis importante.

A pesar de que se han hecho múltiples estudios para identificar los factores que inciden en esta problemática, aún se carece de información precisa, sobre los requerimientos reales que deben cumplir los insumos, para satisfacer las expectativas del sector y cubrir la demanda eficientemente en términos de capacidad, tipo y clase de aprovisionamiento. Por lo que es importante identificar la capacidad tecnológica de producción con la que cuenta actualmente la Pyme local mexicana, ya que los estudios son escasos, y se desconoce el impacto real que ésta tiene en la integración como proveedor de las grandes empresas. Por otro lado, la Industria Maquiladora de exportación sector electrónico representa uno de los impulsores económicos y una gran oportunidad para las Pymes, debido a que cada vez hay una mayor apertura por mostrar lo que requieren

REVISIÓN DE LITERATURA

Los encadenamientos hacia atrás están representados por las decisiones de inversión y cooperación orientadas a fortalecer la producción de materias primas y bienes necesarios para la elaboración de productos terminados. Entretanto, los encadenamientos hacia adelante implica la incorporación de nueva tecnología e investigación y desarrollo que mejora o crea nuevos productos. Los tipos de encadenamiento pueden ser: desarrollo de productos, materias primas, bienes secundarios, infraestructura, capital humano, manufactura y logística (Hirschman, 1981).

En México los encadenamientos productivos, generalmente se han desarrollado a la luz de las políticas industriales y de iniciativas privadas. Como consecuencia de la llegada de firmas trasnacionales, en sectores como el automotriz, la electrónica y el textil, comenzaron a asentarse empresas proveedoras extranjeras de insumos y componentes, con diferentes capacidades tecnológicas muy superiores en términos competitivos a las compañías mexicanas (Carrillo, 2001a)

La integración vertical se caracteriza por una dirección de integración, la cual puede ser hacia atrás o hacia adelante. De acuerdo a las características de la empresa, la integración vertical hacia atrás consiste en que una empresa se acerca hacia sus proveedores incorporándolos a su cadena de valor, controlando las empresas proveedoras de sus insumos. La integración hacia adelante implica una mayor aproximación a sus clientes, la empresa misma se encarga de proporcionar al cliente el producto final; prescindiendo de empresas externas para realizar dicha labor (Schmalensee y Willig, 1989).

La relaciones de cooperación vertical permiten tanto la especialización de las empresas, dando lugar a la conformación de una cadena productiva altamente fragmentada (desde proveedores de insumos básicos hasta los agentes de comercialización), y al mismo tiempo fuertemente integrada y cohesionada dentro de la aglomeración (Carrillo y Novick, 2006).

Modelo de Bell y Pavitt (1995). Basados en el trabajo de Lall (1992) construyeron una taxonomía representada mediante una matriz, que permite clasificar las capacidades tecnológicas, en relación con las

funciones técnicas más importantes que realiza una empresa. Dichas funciones variarán o adquirirán mayor relevancia unas sobre otras dependiendo del sector en el que se inserte la empresa.

La matriz incluye cuatro niveles de acumulación: uno de capacidades tecnológicas de producción rutinaria y tres de capacidades tecnológicas innovadoras: básicas, intermedias y avanzadas. Las capacidades tecnológicas de producción rutinarias son las que usan y operan la tecnología existente. Las innovadoras son capacidades para generar y administrar el cambio técnico. Las capacidades innovadoras básicas permiten sólo una contribución al cambio relativamente pequeño e incremental; pero en los niveles intermedios y avanzados las capacidades tecnológicas pueden tener una contribución al cambio más considerable, novedoso y ambicioso.

Las capacidades de producción: se pueden jerarquizar en básicas, intermedias y avanzadas. Las básicas incluyen habilidades para atender el control de calidad, la operación de los equipos y el mantenimiento. Las intermedias dan cuenta de capacidades in-house para hacer adaptación de equipos, mejoramiento de productos y procesos o su uso en otras aplicaciones, así como habilidades para asimilar tecnologías importadas. Las avanzadas implican capacidades innovadoras de alto riesgo basadas en investigación y desarrollo que permite el mejoramiento de procesos y productos caseros, así como la habilidad para establecer vinculaciones con instituciones de investigación y desarrollo fuera de la empresa.

Para efectos de esta investigación se escogió este modelo, por ser el más completo y adecuado al estudio. Cabe aclarar que el marco propuesto por Bell y Pavitt fue creado con base en las características del sector manufacturero y no contempla otro tipo de capacidades como las organizacionales, sin embargo han sido sugerentes en algunos estudios de caso. Otra de las razones al seleccionar este modelo, fue porque es el más ampliamente adoptado como marco de referencia para analizar a los países en desarrollo. México ha utilizado este modelo para abordar estudios empíricos en empresas manufactureras, ya que distingue de forma más clara el análisis de las dimensiones de capacidad tecnológica, que suelen ser muy variadas, pueden ir desde actividades muy rutinarias y operativas hasta las más avanzadas.

Después de haber aplicado las mejores prácticas para eficientar e incrementar la productividad de diversas cadenas productivas, se decide a partir del año 2002, adoptar la Metodología de Desarrollo de Proveedores como parte del abanico de herramientas de asistencia técnica que el Gobierno Federal ofrece al sector privado como instrumentos de apoyo. La metodología desarrollada, está orientada a implantar sistemas de desarrollo de proveedores en cadenas productivas, caracterizadas por la coexistencia de grandes empresas con Pymes en relaciones de proveedurías. La motivación principal de éstas es mejorar la competitividad del conjunto, a través de la generación de relaciones de carácter estratégico que se traduzcan en procesos de mejora continua, el proyecto busca incorporar alrededor de 180 empresas Pymes a la cadena de abastecimiento de empresas globales utilizando como base el modelo de intervención que ha sido aplicado a más de 54 cadenas y 450 atendidas en los últimos 8 años. (Programa de las Naciones Unidas para el desarrollo 2010).

El propósito del Desarrollo de Proveedores en México, es poner a disposición de las Pymes los diferentes programas y herramientas de apoyo, que le permitirán incrementar su productividad y competir en mejores condiciones en los mercados globales. Promover los contactos de negocio entre las grandes empresas y las Pymes proveedoras nacionales en nichos de mercado específicos, en donde sean competitivas y exitosas mediante la integración económica, creando alianzas entre grandes empresas y Pymes, para consolidar la cadena productiva, desde la producción primaria hasta la venta final y contemplando como un objetivo fundamental la sustitución eficiente de importaciones. (Instituto Pyme, 2012)

A pesar de estos programas, aún existen características y obstáculos que limitan su capacidad tecnológica, de acuerdo a investigaciones realizadas por diferentes estudiosos en el tema (Ollivier, 2007; Carrillo, 2002; Mungaray y Benítez, 2000; Bracamontes y Contreras, 2008) (ver tabla 1)

Tabla 1 Obstáculos de la Pyme ante las grandes empresas sector electrónico

Año	Autor	Investigación	Obstáculos
2008	Bracamontes y Contreras	"Redes globales de producción y proveedores locales"	Baja capacidad tecnológica, baja calidad y tiempos de entrega requeridos.
2007	Ollivier	"Proveeduría nacional a la industria maquiladora en México, un reto tecnológico"	Baja tecnología, volumen insuficiente, problemas de calidad, precio elevado, incumplimiento de entregas y falta de certificación.
2002	Carrillo	" La industria de los televisores en México: integración y proveedores locales en Tijuana"	Baja capacidad tecnológica, precios, tiempos de entrega y tecnología.
2000	Mungaray y Benítez	"Expansión global y desarrollo local de proveedores en Tijuana"	Capacidad de producción, la estructura administrativa, calidad y logística.

En esta tabla se presentan los principales obstáculos que presentan las Pymes en Tijuana, Baja California, México, cuando tienen interés de integrarse como proveedores de las grandes empresas. Fuente. Elaboración propia

METODOLOGÍA

Con la finalidad de lograr el objetivo de la investigación se llevaron a cabo las siguientes actividades:
Analizar la capacidad tecnológica de producción que actualmente tiene la Pyme local sector electrónico
Proponer un esquema de los indicadores clave de la capacidad tecnológica de producción que inciden en su limitación como posibles proveedores de las grandes empresas.

OBJETIVO DE LA INVESTIGACIÓN.

El interés de la presente investigación es identificar información relacionada con la capacidad tecnológica de producción que actualmente tienen las PYMES sector electrónico en Tijuana, B.C., México

Universo de Estudio: Se consideró como universo a todas aquellas empresas proveedoras locales clasificadas como pequeña y mediana empresa (Pyme) del sector electrónico y que están registradas en el Sistema de Información Empresarial Mexicano (SIEM). Así como también en los directorios de la Cámara Nacional de la Industria de la Transformación (CANACINTRA), la Cámara Nacional de la Industria electrónica de telecomunicaciones y tecnologías de la información (CANIETI), el Directorio Estadístico Nacional de Unidades Económicas (DENUE) INEGI 2012 y el Directorio de la Industria Maquiladora de Baja California 2012.

Tamaño de la Muestra: Después de depurar los listados de los diferentes directorios que se definieron en el punto anterior (Universo de Estudio), el tamaño de la población es muy pequeña; de esta manera el criterio utilizado es aplicar el instrumento a 9 empresas, que representa el 100%.

RESULTADOS

Aplicando el modelo de Bell y Pavitt anteriormente descrito a las Pymes analizadas, se muestran los resultados que tienen una incidencia más baja en cada una de las etapas de las capacidades tecnológicas de producción (básicas, intermedias y avanzadas); mismos que pueden servir como indicadores claves que inciden en la competitividad de la Pymes sector electrónico para poder incursionar en las grandes empresas.

Los resultados de baja incidencia en las capacidades tecnológicas de producción en el nivel operativo básico se presentan en las tablas 2, 3, 4 y 5.

Tabla 2. Actividades   para asegurar la calidad en sus productos/procesos/recomendación del cliente (programa de calidad)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	2	22.2	22.2	22.2
	regularmente	4	44.4	44.4	66.7
	siempre	3	33.3	33.3	100.0
	Total	9	100.0	100.0	

En esta tabla se describe el interés de las Pymes sector electrónico en Tijuana, B.C. México por involucrar programas de calidad para garantizar la calidad en sus productos, la cual es muy baja, solo el 33% siempre lo lleva a cabo.

Tabla 3. Actividades para asegurar la calidad en sus productos/procesos/recomendación del cliente (mantenimiento maquinaria y equipo)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	3	33.3	33.3	33.3
	regularmente	2	22.2	22.2	55.6
	siempre	4	44.4	44.4	100.0
	Total	9	100.0	100.0	

Los resultados en esta tabla presentan un bajo índice del 44% de las Pymes sector electrónico en Tijuana, B.C. México, que siempre se interesan en actividades de mantenimiento en su maquinaria y equipo para asegurar la calidad de sus productos.

Tabla 4. Actividades para asegurar la calidad en sus productos/procesos/recomendación del cliente (introducción nuevas materias primas)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	5	55.6	55.6	55.6
	regularmente	2	22.2	22.2	77.8
	siempre	2	22.2	22.2	100.0
	Total	9	100.0	100.0	

Como se aprecia en esta tabla solo el 22% de las Pymes sector electrónico en Tijuana, B.C. México, se preocupa por la introducción de nuevas materias primas para garantizar la calidad en sus productos y procesos.

Tabla 5. Actividades para asegurar la calidad en sus productos/procesos/recomendación del cliente (documentación de los procesos)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	6	66.7	66.7	66.7
	regularmente	1	11.1	11.1	77.8
	siempre	2	22.2	22.2	100.0
	Total	9	100.0	100.0	

El interés de las Pymes sector electrónico en Tijuana, B.C. México por documentar sus procesos de forma continua, para asegurar la calidad en sus productos y procesos, es de apenas un 22%.

En relación a los resultados de baja incidencia en las capacidades tecnológicas de producción en el nivel innovativas intermedias se presentan en las tablas 6, 7 y 8.

Tabla 6. Innovaciones organizacionales (Implemento de técnicas avanzadas de gestión)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	3	33.3	33.3	33.3
	eventualmente	2	22.2	22.2	55.6
	regularmente	4	44.4	44.4	100.0
	Total	9	100.0	100.0	

Los resultados que se muestran en esta tabla indican que solo el 44% de las Pymes sector electrónico en Tijuana, B.C. México, se preocupan regularmente por implementar técnicas avanzadas de gestión para lograr innovaciones organizacionales

Tabla 7. Innovaciones organizacionales (Implemento de nuevas formas de organización para atender prácticas de organización)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	4	44.4	44.4	44.4
	regularmente	5	55.6	55.6	100.0
	Total	9	100.0	100.0	

En esta tabla se observa que solo el 55% de las Pymes sector electrónico en Tijuana, B.C. México, regularmente buscan innovaciones organizacionales a través de la implementación de nuevas formas de organización.

Tabla 8. Motivación para el desarrollo de nuevos proyectos/procesos (por iniciativa propia)

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	1	11.1	11.1	11.1
	eventualmente	2	22.2	22.2	33.3
	regularmente	5	55.6	55.6	88.9
	siempre	1	11.1	11.1	100.0
	Total	9	100.0	100.0	

Como se indica en la presente tabla, solamente el 11% de las Pymes sector electrónico en Tijuana, B.C. México, siempre por iniciativa propia se muestran motivados para el desarrollo de nuevos proyectos o procesos.

Respecto a los resultados de baja incidencia en las capacidades tecnológicas de producción en el nivel innovativas avanzadas se presentan en las tablas 9, 10, 11, 12, 13 y 14.

Tabla 9.Frecuencia con la que realizo actividades de innovación en investigación y desarrollo

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	2	22.2	22.2	22.2
	eventualmente	6	66.7	66.7	88.9
	regularmente	1	11.1	11.1	100.0
	Total	9	100.0	100.0	

De acuerdo a los resultados, regularmente el 11% de las Pymes sector electrónico en Tijuana, B.C. México, realiza actividades de innovación en investigación y desarrollo.

Tabla 10. Frecuencia con la que realizo actividades de innovación en adquisición maquinaria y equipo

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	5	55.6	55.6	55.6
	regularmente	2	22.2	22.2	77.8
	siempre	2	22.2	22.2	100.0
	Total	9	100.0	100.0	

Los datos en esta tabla, muestran que el 22% de las Pymes sector electrónico en Tijuana, B.C. México, siempre realizan actividades de innovación relacionadas con adquisición de maquinaria y equipo.

Tabla 11. Frecuencia con la que realizo actividades de innovación en adquisición otras tecnologías

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	3	33.3	33.3	33.3
	eventualmente	2	22.2	22.2	55.6
	regularmente	3	33.3	33.3	88.9
	siempre	1	11.1	11.1	100.0
	Total	9	100.0	100.0	

Los resultados indican la frecuencia con la que siempre las Pymes sector electrónico en Tijuana, B.C. México, se preocupan en llevar a cabo su innovación a través de la adquisición de otras tecnologías.

Tabla 12. Frecuencia con la que realizo actividades de innovación en proyectos industrial o diseño industrial

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	2	22.2	22.2	22.2
	eventualmente	5	55.6	55.6	77.8
	regularmente	2	22.2	22.2	100.0
	Total	9	100.0	100.0	

La presente tabla muestra la tendencia que mantienen las Pymes sector electrónico en Tijuana, B.C. México, en relación a la frecuencia en que llevan a cabo actividades de innovación relacionadas con proyectos o diseños industriales.

Tabla 13. Frecuencia con la que realizo actividades de innovación en programas de entrenamiento

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	eventualmente	3	33.3	33.3	33.3
	regularmente	5	55.6	55.6	88.9
	siempre	1	11.1	11.1	100.0
	Total	9	100.0	100.0	

Como se muestran en los resultados de la presente tabla, la frecuencia con la que siempre las Pymes sector electrónico en Tijuana, B.C. México realizan actividades de innovación en sus programas de entrenamiento, es de solamente un 11%

Tabla 14. Frecuencia con la que realizo actividades de innovación en programas de gestión de calidad o modernización organizacional

		Frecuencia	Porcentaje	Porcentaje válido	Porcentaje acumulado
Válidos	nunca	1	11.1	11.1	11.1
	eventualmente	2	22.2	22.2	33.3
	regularmente	2	22.2	22.2	55.6
	siempre	4	44.4	44.4	100.0
	Total	9	100.0	100.0	

La frecuencia con que las Pymes sector electrónico en Tijuana, B.C. México realizan actividades de innovación en sus programas de gestión de calidad se observa en la presente tabla.

Después de analizar los diferentes indicadores propuestos en el modelo de Bell y Pavitt, se proponen los indicadores clave que pueden incidir directamente en los diferentes niveles de capacidad tecnológica de producción de las Pymes sector electrónico en Tijuana, B.C., México, y que por consecuencia afectan en su competitividad para integrarse a las grandes empresas (ver tabla 15).

Tabla 15. Matriz de capacidades tecnológicas de producción

Matriz de capacidades tecnológicas de producción		
Niveles de capacidades	Centrada en los procesos y organización de la producción	Centrada en el producto
Capacidades de producción rutinarias: capacidades para usar y operar la tecnología existente		
Capacidades operativas básicas	Programas de calibración y metrología, mantenimiento de maquinaria y equipo, documentación de los procesos, elaborar set-up para cada pieza, procedimientos para el control de inventarios	Programas de calidad
Capacidades tecnológicas innovativas: capacidades para generar y administrar el cambio técnico		
Capacidades innovativas básicas.	Programas de entrenamiento asociados a procesos mejorados, documentación de los procesos.	Programas de entrenamiento asociados a productos mejorados, utilización de técnicas productivas, insumos, productos y componentes.
Capacidades innovativas intermedias	Habilidades para hacer modificaciones a los procesos, habilidades para técnicas avanzadas de gestión, implemento de nuevas formas de organización.	Habilidades en la adquisición de otras tecnologías, actividades de innovación en el producto.
Capacidades innovativas avanzadas	Actividades de innovación en: proyectos industriales, adquisición de maquinaria y equipo; y programas de entrenamiento	Actividades de innovación en el producto.

En esta tabla se presenta las capacidades tecnológicas de producción de las Pymes sector electrónico en Tijuana, B.C., México, que son necesarias para poder incursionar en las grandes empresas, de acuerdo al análisis que se llevó a cabo. Fuente: Elaboración propia.

CONCLUSIONES

Para el análisis de la capacidad tecnológica de producción se jerarquizó dicha capacidad en actividades básicas, intermedias y avanzadas. Los resultados permitieron concluir que dentro de los indicadores estudiados en las actividades básicas, fueron los programas de calidad; la utilización de técnicas productivas, los equipos, insumos y componentes y la documentación de los procesos, por ser los que alcanzaron una frecuencia más baja. Para las actividades intermedias, los indicadores que mostraron una fuerte preocupación por su bajo índice fueron las habilidades para el implemento de técnicas avanzadas de gestión; innovaciones organizacionales (implemento de nuevas formas de organización para atender prácticas de organización), las habilidades para realizar modificaciones y las mejoras en productos y procesos. En lo referente a las actividades avanzadas los indicadores que presentan resultados para trabajar

en ellos fueron: actividades de innovación en proyectos industriales o diseño industrial; actividades de innovación en adquisición de otras tecnologías, actividades de innovación en adquisición de maquinaria y equipo, actividades de innovación en investigación y desarrollo; y actividades de innovación en programas de entrenamiento.

El análisis de la capacidad tecnológica de producción que actualmente tiene la Pyme sector electrónico, permite generar conclusiones importantes para éstas. En primer lugar, se tiene una precisión en términos de insumos y logística operacional, así como el tipo de capacidades tecnológicas que deben reunir para tener mayor acercamiento con las grandes empresas. Y en segundo lugar, se presentan los indicadores claves de la capacidad tecnológica de produccion aplicables a este tipo de Pymes, con fundamento en el modelo de capacidades tecnológicas de Bell y Pavitt.

Como resultado de la investigación se propone, que el modelo de capacidad tecnológica de Bell y Pavitt que involucra las dimensiones de capacidad tecnológica de producción y el cual fue utilizado en este trabajo, sirva como un medio para que la Pyme sector electrónico pueda medir sus capacidades tecnológicas.

LIMITACIONES DE LA INVESTIGACIÓN

Los bancos de datos incompletos y no actualizados.

La poca disponibilidad de tiempo para contestar los cuestionarios por parte de los entrevistados, ya que son personas muy ocupadas, por lo que las citas se tenían en ocasiones que reagendar.

La información recopilada fue confiable pero fueron pocas empresas encuestadas de la pyme mexicana sector electrónico, de acuerdo a los bancos de datos revisados, por lo que se sugiere continuar con esta investigación en los demás municipios de Baja California.

La investigación se suscribe únicamente al sector electrónico en la ciudad de Tijuana, en un futuro sería interesante revisar otros sectores.

BIBLIOGRAFÍA

Bell, M. y Pavitt, K. (1995), "The Development of Technological Capabilities", in Haque, I.U. (Ed.), Trade, Technology and International Competitiveness, World Bank, Washington, 69-101.

Carrillo, J. (2001a) Aprendizaje tecnológico en las maquiladoras del norte de México. *Frontera Norte, vol. 14, núm. 27*, 16-19.

--- (2002). La industria de los televisores en México: Integración y proveedores locales en Tijuana. En Asian Journal of Latin American Studies, Assotiation of Korea, Vol. 15, Núm. 1, Seul, 5-42

--- y Novick, M. (2006). Eslabonamientos productivos globales y actores locales. Debates y experiencias en América Latina. En De la Garza, E. (coord.) Teorías Sociales y Estudios del Trabajo: Nuevos Enfoques, Anthropos-UAM, México, 243-267.

Hirschman, A. (1981): *La estrategia del desarrollo económico*. Márquez de Silva Herzog Ma. Teresa (traductora). Fondo de Cultura Económica.

Instituto Pyme (2012) Programas para empresas tractoras. Recuperado el 06 de mayo 2013 de: http://mexico.smetoolkit.org/mexico/es/content/es/5148/Programas-para-Empresas-Tractoras

Lall, S. (1992).Technological Capabilities and Industrialization. World Development, Vol. 20, Núm. 2, 165-186.

Ollivier (2007) Proveeduría nacional a la Industria maquiladora en México un reto tecnológico, *Frontera Norte, vol.19*, núm. 38.

Programa de las naciones unidas para el desarrollo (PNUD 2010). Programa desarrollo de proveedores. Recuperado el 02 de junio 2011 de: http://www.mx.undp.org/content/mexico/es/home.html

Schmalensee, R. y Willig, R. (1989) Vertical Integración, Handbook of Industrial Organization. Ed. North Holland, pp.183-190.

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VALIDATION OF AN INSTRUMENT OF MEASUREMENT OF COMPETITIVENESS OF COMPANIES OLD WINE WINE ROUTE IN ENSENADA, BAJA CALIFORNIA

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RESUMEN

En el presente documento se presenta un examen empírico que muestra la validez de contenido de un instrumento de medición que permita describir y caracterizar la competitividad aplicado en 17 empresas vitivinícolas ubicadas en la antigua ruta del vino en Ensenada Baja California, utilizando el modelo propuesto por Lawshe (1975) y modificado posteriormente por Tristán (2008), a través de una serie de 152 ítems, mismos que fueron evaluados de forma separada por 7 expertos, utilizando una escala donde 1= Esencial, 2= Útil pero no esencial, y 3 = No importante, buscando una Razón de Validez de Contenido (CVR´) mayor a 0.5823. En conclusión el instrumento quedó integrado por 13 ítems socio demográficos más 40 ítems relacionados con las variables establecidas, con un Alfa de Cronbach de 0.967

PALABRAS CLAVE: Competitividad, Vitivinícola, Instrumento, Validez

PSYCHOMETRIC STUDY OF AN INSTRUMENT OF MEASUREMENT OF COMPETITIVENESS

ABSTRACT

In this paper an empirical test that shows the content validity of a measuring instrument to describe and characterize the competitiveness of wine companies located in the old wine route in Ensenada, Baja California, using the proposed model it is presented Lawshe (1975) and later modified by Tristan (2008), through a series of 152 items , all of which were evaluated separately for 7 experts using a scale where 1 = essential, 2 = useful but not essential , and 3 = No important , seeking a Content Validity Ratio (CVR') greater than 0.5823 . In conclusion, the instrument was composed by 13 sociodemographic ítems and 40 items related with variables. This instrument has a Cronbach's alpha of 0.967

JEL: C18, O14, L66, Z21

KEYWORDS: Competitiveness, Wine, Instrument, Validity

INTRODUCCIÓN

Lerma y Márquez (2010) explican que la globalización es la posibilidad real de producir, vender, comprar e invertir en aquel o aquellos lugares del mundo donde resulte más conveniente hacerlo, independientemente de la región o país en los que se localicen, y es un proceso que contempla varias etapas

y niveles, desde los acuerdos de preferencias arancelarias, pasando por las uniones aduaneras, zonas de libre comercio, hasta el mercado común y la comunidad regional; es por ello que las empresas en nuestros días, se encuentran obligadas a interactuar en un ambiente de agresiva competencia, situación que se ejemplifica con el caso de la industria vitivinícola. En México, la industria vitivinícola se ha desarrollado a través del tiempo, creciendo en aspectos como producción en litros, presencia en mercados internacionales y claramente aumentando el número de empresas dedicadas a la fabricación de vino. En el año 2012, Ramón Vélez, director del Consejo Mexicano Vitivinícola (CMV) declaró que en México existían alrededor de 500 bodegas productoras de vino, de las cuales aproximadamente 100 eran de origen mexicano, y el 80% estaban como micro, pequeñas y medianas empresas (Mipymes). De igual forma, comentó que la industria en el país del 2000 al 2010, creció alrededor de 95% en volumen y 157% en valor (Moreno, 2012). Mientras tanto, en Baja California, la extensión de terreno sembrado con vid asciende a 4,500 hectáreas, con un volumen de producción de más de 30 mil toneladas y continúa en constante crecimiento. En esta zona se produce 90% de los vinos que se elaboran en el país, con alrededor de 20 millones de litros anuales. El valor del producto nacional anual de la uva está cotizado en 152 millones de dólares y constituye una fuente muy importante de empleos. (Martínez R. H., 2014) Es importante por lo anterior analizar los factores de habilidad gerencial, comercialización y vinculación, así como su relación con el nivel de competitividad que existe en la industria vitivinicultora en el municipio de Ensenada Baja California.

REVISIÓN LITERARIA

La competitividad ha sido estudiada y tratada por diversos autores, pues simplemente en el año 1996 ya se había revelado mediante estudio que existían más de 156 definiciones diferentes. (Sepúlveda, 1997). Una de las primeras definiciones de competitividad la dio dentro del Foro Económico Mundial en 1980 el Instituto para la gestión del Desarrollo (IMD) de la Universidad de Lausana en Suiza, esta definió la competitividad como: "la capacidad de un país o compañía para generar posicionalmente, más riqueza que sus competidores en el mercado mundial". Posteriormente en 1983, la Comisión Presidencial de Competitividad Industrial de los Estados Unidos, estuvo presidida por Michael Porter, Profesor de la Universidad de Harvard y sirvió de base para la publicación de su libro "La ventaja Competitiva de las Naciones" definió la competitividad como: "El grado que una nación en condiciones de mercado libre y justo, produce bienes y servicios que satisfacen la prueba de los mercados internacionales en tanto que, simultáneamente, mantiene y expande el ingreso real de los ciudadanos". (Ruiz, 2004)

En un estudio de mercado realizado por la Oficina Económica y Comercial de la Embajada de España en México D.F: con datos del Servicio de Información Agroalimentaria y Pesquera de la Sagarpa, comenta que el estado de Sonora es el que cuenta con mayor número de viñedos (70%), seguido de Baja California (13%) y Zacatecas (12%). No obstante, la mayor producción de vino se concentra en los Estados de Baja California, donde el mismo estudio hace referencia a Ensenada como ubicación específica, seguida por la ciudad de Parras en Coahuila. (Girón, 2014). Estos datos, nos indican la importancia del sector en el negocio de vino, pero vale la pena revisar a que se debe este aumento, y teniendo como base que la Organización Internacional de la viña y el vino presentó un informe, en el que menciona lo siguiente: el consumo del vino en países de Sudamérica, como Argentina, Chile y Brasil en 2013 registraron un aumento entre 1 y 3% con respecto al 2012. Entre los principales mercados vinícolas del mundo se encuentran: Estados Unidos, Alemania, Canadá y China; entre ellos alcanzaron una cifra total de 12.9 miles de millones de Euros. (Organizacion Internacional de la viña y el vino, 2014). Como vemos, el consumo de vino a nivel mundial ha tenido un crecimiento, y como aplicaría cualquier sistema mercadológico, se ve directamente impactado por la oferta y demanda. Es importante por lo anterior analizar que está sucediendo con las empresas vitivinícolas ubicadas en el Valle de Guadalupe en Ensenada, Baja California, pues es donde se concentra la mayor cantidad de casas productoras en México, sobre todo estudiar como impactan de los factores: habilidad gerencial, mercadeo y vinculación en el nivel de competitividad de las mismas.

Con respecto al estado de Baja California, en el año 2010, Sánchez y Mungaray, realizan una investigación sobre vino de calidad como base de desarrollo endógeno en el Valle de Guadalupe, Baja California en donde analizan como periodo de estudio de 1999 a 2004, dado que, "durante esos años se dio un resurgimiento de la actividad en los bodegueros del Valle de Guadalupe con una actitud más moderna, dinámica y competitiva, basada en la idea de diferenciar sus caldos, mejorar su calidad y aumentar su penetración y presencia en mercados de los ámbitos nacional e internacional" este estudio es de los más completos en esta región, puesto que logró entrevistar a nueve bodegas, mismas que correspondían al 90% de las existentes en ese momento. Sánchez y Mungaray, de igual forma aseveran que existe una estrecha relación entre precio y calidad, puesto que "las reducciones en el precio impactarán negativamente en la reputación de calidad del vino y también en los márgenes de beneficio, puesto que la competencia vía precios llevaría a reducir la calidad… dadas las preferencias reveladas de los consumidores a considerar dicha relación en sus decisiones de consumo de vino y el precio como medida directa de calidad" (Sánchez, 2010). Para el presente trabajo es imprescindible explicar claramente la diferencia entre los conceptos vinícola y vitivinícola, como ejemplo encontramos que en el diccionario Oxxford, vinícola se refiere "Del vino, de su elaboración o de su comercio", y vitivinícola se encuentra definida por: "De la vitivinicultura o relacionado con ella", por lo que buscando el término vitivinicultura, la misma fuente lo describe como: "Arte o técnica de cultivar la vid y elaborar el vino" (Diccionario Oxford, 2014).

En lo que respecta al real diccionario de la lengua española, Vinícola como adjetivo es: "Perteneciente o relativo a la fabricación del vino", y como nombre común en cuanto a género se refiere a: "Persona que tiene hacienda de viñas y es práctico en su cultivo", mientras que vitivinicultura se encuentra en la misma fuente como: "Arte de cultivar las vides y elaborar el vino" (Diccionario de la Real Academia de la Lengua Española, 2014). Por lo anterior para la presente investigación se considerará a la empresa vitivinícola como aquellas empresas que cultivan vides y elaboran vino. La Ruta del Vino de Baja California es un corredor discontinuo que va de norte a sur y atraviesa los municipios de Tecate, Tijuana y Ensenada. Esta ruta se compone de ocho valles: Tijuana, Tecate, Guadalupe, El Tule, Ojos Negros, Uruapan, Santo Tomás y San Vicente. A través de la Secretaría de Desarrollo Económico (SEDECO), la Secretaría de Fomento Agropecuario (SEFOA) y la Secretaría del Turismo el Estado (SECTURE) se consolidó el "Clúster del Vino" para impulsar la región buscando generar ventajas competitivas para tratar de involucrar a los principales actores del desarrollo económico del estado. A través de este clúster se impulsaron organismos dedicados a la promoción e inversión vitivinícola de la región, tales como el Sistema Producto Vid, Provino, Asociación de Vitivinicultores y Amigos del Valle. Específicamente, la Secretaría de Turismo del estado ha implementado diferentes estrategias de promoción de la ruta e implementado la impartición de cursos a personal de contacto y guías para fomentar la capacitación y profesionalización de los servicios otorgados. (Quiñonez, 2011). Las economías funcionan siguiendo normas e instituciones específicas, formales e informales, que se han ido creando a medida que el sistema productivo, la cultura y la propia sociedad se desarrollaban, Dado que las empresas toman decisiones en ese entorno organizativo e institucional, el tipo de instituciones existentes facilitará o dificultará la actividad económica. (Vázquez A. 2007)

En el caso de la uva, que puede tener distintos finales entre los que se encuentra la producción de vino, "tiene en común el ser consumidos por pueblos que, por razones históricas, geográficas y culturales, son también productores. En consecuencia, el destino principal es el mercado interno con todas sus alteraciones y limitaciones, siendo el mercado externo difícil y sumamente competitivo". (Díaz E. , 2006) La competitividad empresarial se establece a partir de factores relacionados con los campos de acción de las organizaciones, la toma de decisiones y ejecución de éstas, como la gestión, la innovación, la producción y el recurso humano. La competitividad en una empresa está asociada con conceptos como la rentabilidad, la productividad, los costos, el valor agregado, el porcentaje de participación en el mercado, el nivel de exportaciones, la innovación tecnológica, la calidad de los productos, entre otros. También se pueden encontrar indicadores como productividad de la mano de obra, productividad del capital, etc. (Castellanos

O., 2013) En el 2010 Martínez, Charterina y Araujo, realizaron un análisis de las causas de la competitividad, y desarrollaron un modelo explicativo causal de competitividad empresarial planteado desde la VBR (Visión de la empresa Basada en Recursos), en el mismo toman como conceptos de análisis los siguientes: capacidades directivas, de innovación, marketing y calidad, y utilizan una metodología de tipo exploratorio y cualitativo. La visión de la empresa Basada en Recursos es un planteamiento teórico sobre la heterogeneidad de las empresas, y aporta evidencias de la importancia de los elementos internos de la empresa para encontrar las verdaderas justificaciones en las diferencias de resultados, convirtiendo a la empresa en la unidad de análisis. (Martinez R. & Charterina J. Araujo A., 2010)

Con referencia al Plan Estatal de Desarrollo para el periodo 2014- 2019, se tiene previsto en relación a las Vocaciones Regionales y Diversificación de la economía fronteriza, Diversificar las actividades productivas fronterizas y fortalecer la producción de bienes y servicios tradicionales y representativos de la región, fortalecer y consolidar a los productores y desarrolladores de actividades características y tradicionales de la región, detonar la creación de nuevas actividades económicas en la entidad con potencialidad de largo plazo, y por ultimo disponer de la infraestructura y equipamiento de calidad y competitivo para la producción, transformación, acopio y comercialización de los productos tradicionales y nuevos en la región. (Gobierno del Estado de Baja California., 2014) En lo que se refiere a la gerencia, se entiende como las personas que tienen responsabilidad sobre los empleados y los recursos organizacionales entre los que menciona: maquinaria, sistemas de información, capital, materias primas, productos y servicios, de igual forma la autora, menciona que entre sus objetivos se encuentra la obtención de resultados organizacionales siendo estos relacionados generalmente con los siguientes: generar utilidades, la eficiencia organizacional, alta productividad y/o cuidado del desempeño social organizacional. (Rodríguez, 2005)

MÉTODO

El presente trabajo consta de un estudio descriptivo utilizando un diseño no experimental cuya delimitación espacial corresponde a empresas vitivinícolas establecidas en la Antigua Ruta del Vino, ubicadas en Ensenada, Baja California en la República Mexicana, con empresas distribuidas en los valles de La Grulla, Uruapan, Ajusco, Santo Tomás, San Vicente. Para determinar la cantidad de empresas analizadas, se utilizó el Muestreo por juicio (Scribano, 2008). En esta investigación, es relevante mencionar que hará uso de la inferencia estadística, definida por Gómez (2013), como aquella que permite obtener conclusiones en función de los resultados obtenidos, aquí es importante mencionar que al mencionar inferencia, se considera una aseveración partiendo de resultados numéricos, de números obtenidos mediante un proceso científico. (Gómez, 2013) Para la recolección de datos se realizó el siguiente procedimiento: Fase I. Construcción del instrumento de medición, Fase II. Validación de expertos, Fase III.   Construcción de la base de datos, Fase IV. Validez de contenido, Fase V. Análisis de ítems, Fase VI. Determinación de la confiabilidad, y Fase VI. Validez del constructo.

DISCUSIÓN Y CONCLUSIONES

En la fase I, el instrumento resultante quedó integrado por 139 ítems, de los cuales 13 eran sociodemográficos, y se sumaban a 126 ítems relacionados con las variables independientes establecidas, cuya técnica de escalamiento utilizada es Likert con cinco categorías de respuesta, donde 1= Siempre, 2= La mayoría de las veces si, 3= Algunas veces sí, algunas veces no, 4= La mayoría de las veces no, y 5= Nunca. Durante la Fase II. Validación de expertos, se llevó a cabo una validación de contenido por cada ítem, a través de la evaluación de 7 expertos, y utilizando el modelo propuesto por Lawshe y modificado posteriormente por Tristán, donde la Razón de Validez de Contenido (CVR´) debía ser igual o superior a 0.5823. Las fórmulas utilizadas para esta fase fueron las siguientes:

Formula 1 (utilizada para obtener la razón de validez de contenido para cada ítem)

$$CVR = \frac{n_e - N/2}{N/2}$$

Donde:

n_e = Número de expertos que tiene acuerdo en la categoría
esencial N = Número total de expertos

Formula 2 (utilizada para obtener la razón de validez de contenido para cada ítem (Modelo Lawshe modificado por Tristán)

$$CVR' = \frac{CVR + 1}{2}$$

Donde:

n_e = Número de expertos que tiene acuerdo en la categoría esencial

N = Número total de expertos

Formula 3 (utilizada para el obtener la validez global del instrumento):

$$CVI = \frac{\sum_{i=1}^{M} CVRi}{M}$$

Donde:

CVI = Razón de Validez de Contenido de los ítems aceptables de acuerdo con el criterio de Lawshe M = Total de ítems aceptables en la prueba Una vez aplicadas las fórmulas anteriores, se calculó un índice de validez global de contenido (CVI) de 0.61 siendo superior al 0.5823, considerándolo aceptable de acuerdo a la modificación propuesta por Tristán, se eliminaron 64 ítems, quedando de los 139 iniciales un total de 75 ítems para la siguiente fase, donde el menor CVR´ obtenido fue de 0.7143 y el máximo fue de 1 como se muestra en la tabla 2.

Tabla 2: Razón de Validez de Contenido (Modelo Lawshe, modificado por Tristán)   1/2

Variables	Indicadores	Item	Esencial	Util/ No esencial	No importante	CVR	CVR´
	Pensamiento estratégico gerencial	14	7	0	0	1.00	1.00
	Pensamiento estratégico gerencial	16	5	0	2	0.43	0.71
	Pensamiento estratégico gerencial	18	6	0	1	0.71	0.86
	Pensamiento estratégico gerencial	19	5	0	2	0.43	0.71
	Pensamiento estratégico gerencial	22	5	1	1	0.43	0.71
	Pensamiento estratégico gerencial	23	5	0	2	0.43	0.71
	Pensamiento estratégico gerencial	25	7	0	0	1.00	1.00
	Pensamiento estratégico gerencial	26	5	2	0	0.43	0.71
	Pensamiento estratégico gerencial	27	7	0	0	1.00	1.00
	Pensamiento estratégico gerencial	28	6	1	0	0.71	0.86
	Pensamiento estratégico gerencial	29	6	1	0	0.71	0.86
	Pensamiento estratégico gerencial	30	5	2	0	0.43	0.71
	Pensamiento estratégico gerencial	33	6	1	0	0.71	0.86
Habilidad gerencial	Pensamiento estratégico gerencial	34	6	1	0	0.71	0.86
	Pensamiento estratégico gerencial	35	5	2	0	0.43	0.71
	Pensamiento estratégico gerencial	36	6	0	1	0.71	0.86
	Pensamiento estratégico gerencial	37	5	1	1	0.43	0.71
	Uso de TIC´s para informar y comunicar	38	5	0	2	0.43	0.71
	Uso de TIC´s para informar y comunicar	39	5	1	1	0.43	0.71
	Uso de TIC´s para informar y comunicar	40	5	1	1	0.43	0.71
	Uso de TIC´s para informar y comunicar	41	5	1	1	0.43	0.71
	Uso de TIC´s para informar y comunicar	42	5	0	2	0.43	0.71
	Formación gerencial	66	5	1	1	0.43	0.71
	Formación gerencial	67	6	1	0	0.71	0.86
	Formación gerencial	69	6	1	0	0.71	0.86
	Formación gerencial	72	5	2	0	0.43	0.71
	Formación gerencial	73	5	2	0	0.43	0.71
	Plan de ventas	80	5	1	1	0.43	0.71
	Plan de ventas	81	5	1	1	0.43	0.71
Comercialización	Plan de ventas	84	7	0	0	1.00	1.00
	Plan de ventas	85	5	1	1	0.43	0.71
	Plan de ventas	86	5	2	0	0.43	0.71

Fuente: Elaboración propia   (Continua en página siguiente)

Tabla 2: Razón de Validez de Contenido (Modelo Lawshe, modificado por Tristán)   2/2

Variables	Indicadores	Item	Esencial	Util/ No esencial	No importante	CVR	CVR´
	Uso de TIC´s para contacto con clientes	88	6	0	1	0.71	0.86
	Uso de TIC´s para contacto con clientes	89	5	1	1	0.43	0.71
	Uso de TIC´s para contacto con clientes	90	7	0	0	1.00	1.00
	Uso de TIC´s para contacto con clientes	91	7	0	0	1.00	1.00
	Uso de TIC´s para contacto con clientes	92	6	0	1	0.71	0.86
	Uso de TIC´s para contacto con clientes	93	6	0	1	0.71	0.86
	Uso de TIC´s para contacto con clientes	94	6	0	1	0.71	0.86
	Participación en concursos	96	7	0	0	1.00	1.00
Comercialización	Participación en concursos	98	5	0	2	0.43	0.71
	Participación en concursos	99	5	1	1	0.43	0.71
	Participación en concursos	100	5	1	1	0.43	0.71
	Participación en concursos	106	6	1	0	0.71	0.86
	Implementación de comercio electrónico	107	7	0	0	1.00	1.00
	Implementación de comercio electrónico	108	5	0	2	0.43	0.71
	Implementación de comercio electrónico	109	6	1	0	0.71	0.86
	Implementación de comercio electrónico	110	5	1	1	0.43	0.71
	Implementación de comercio electrónico	111	6	1	0	0.71	0.86
	Implementación de comercio electrónico	112	6	1	0	0.71	0.86
	Implementación de comercio electrónico	113	6	0	1	0.71	0.86
	Vinculación con el gremio	117	5	0	2	0.43	0.71
	Vinculación con el gremio	118	5	0	2	0.43	0.71
	Vinculación con el gremio	119	6	0	1	0.71	0.86
	Vinculación con el gremio	121	6	0	1	0.71	0.86
	Vinculación con el gremio	122	6	0	1	0.71	0.86
	Vinculación con el gremio	123	6	0	1	0.71	0.86
	Vinculación con el gremio	125	6	0	1	0.71	0.86
	Vinculación con gobierno	126	6	1	0	0.71	0.86
Vinculación	Vinculación con gobierno	130	6	0	1	0.71	0.86
	Vinculación con gobierno	131	5	1	1	0.43	0.71
	Vinculación con gobierno	133	6	0	1	0.71	0.86
	Vinculación con estudiantes	135	7	0	0	1.00	1.00
	Vinculación con estudiantes	136	5	1	1	0.43	0.71
	Vinculación con estudiantes	137	6	1	0	0.71	0.86
	Vinculación con estudiantes	138	6	1	0	0.71	0.86
	Vinculación con estudiantes	140	6	0	1	0.71	0.86
	Vinculación con estudiantes	141	5	1	1	0.43	0.71
		145	6	1	0	0.71	0.86
		146	7	0	0	1.00	1.00
		147	5	1	1	0.43	0.71
Competitividad		148	5	1	1	0.43	0.71
		149	5	1	1	0.43	0.71
		150	7	0	0	1.00	1.00
		151	7	0	0	1.00	1.00
		11537	593	189	164	30.4	84.7
					Todos:	0.22	
				Solo ítems aceptables:		2.54	0.61

Fuente: Elaboración propia

Analizando el perfil socio demográfico de los encuestados y en lo que corresponde al género de las personas que respondieron el instrumento, el 88.2% eran hombres y el 11.8% mujeres, en cuanto a la edad, la mayoría que correspondió al 52.9% se encontraron en un rango de edad de 51 años o más. Aunado a lo anterior, la mayoría de los encuestados pertenecen al género masculino como lo muestra la tabla 3.

Tabla 3: Perfil Demográfico de los Encuestados

Característica		Frecuencia	Porcentaje (%)
Género	Femenino	2	11.76
	Masculino	15	88.24
Edad	De 21 a 30 años	1	5.88
	De 31 a 40 años	1	5.88
	De 41 a 50 años	6	35.29
	De 51 años o más	9	52.94

Fuente: Elaboración propia con datos de trabajo de campo

Características Empresariales

En lo que respecta al origen del capital con que las empresas iniciaron operaciones, el 94.1% fueron fundadas con capital únicamente familiar, entre las mismas empresas analizadas, se encontró de igual forma que el 94.1% de ellas produjo vinos con uvas únicamente cosechadas en terrenos propios de la empresa, mientras que el 5.9% además de las uvas cosechadas en terrenos propios adquiría uvas cosechadas en terrenos ajenos, situación que muestra la necesidad de adquirir uva a otros agricultores. Analizando las respuestas obtenidas, acerca de la extensión de terreno factible para siembra de vid el 35.3% de las empresas es propietaria de un rango entre 11 a 20 hectáreas, no obstante el 35.3% solo tenía siembra de vid en un rango de 1 a 5 hectáreas, lo que muestra una posibilidad de aumentar su plantación de vid. Acerca de la producción de vino registrada el año anterior del estudio, el 64.7% de las empresas produjo más de 2001 litros de vino. Otro dato analizado fue el tiempo que tienen establecidas las vitivinícolas encontrando que el 82.4% contaban con una antigüedad mayor a 10 años. Conforme al tamaño de empresas de acuerdo al número de empleados el estudio arrojó que el 64.7% contaban con un rango menor a 10 empleados permanentes lo que las clasifica como Microempresas, sin embargo el 47.1% de las empresas declaró haber contratado el año anterior de forma temporal a empleados en un rango menor a 10 empleados, mientras que el 41.2% contrató empleados temporales en un rango de 11 a 50 personas.

Para el Análisis de ítems, se utilizó el software: *Statistical Package for the Social Siences* (SPSS), con el que se calculó usando el coeficiente de correlación corregido entre la puntuación en el ítem y el total que se obtiene de la dimensión a la que pertenece (índice de homogeneidad), es importante mencionar que aun cuando existen correlaciones bajas, el eliminar el ítem no modifica sustancialmente el Alfa de Cronbach. Dando continuidad a los valores de la razón de validez de contenido de los ítems planteados en el instrumento creado, en su mayoría obtuvo un puntaje alto, incluso se obtuvo el puntaje máximo que corresponde a 1.00 en los ítems: 14, 25, 27, 84, 90, 91, 96, 107, 135, 146, 150 y 151.

Para determinar la confiabilidad, se utilizó de igual forma el software SPSS, para esta fase, y se decidió eliminar aquellos ítems que obtuvieron una puntuación menor a 0.3 en el índice de homogeneidad al realizar el análisis de los ítems (los ítems eliminados fueron: 14, 25, 26, 27, 28, 29, 30, 33, 34, 35, 36, 37, 38, 39, 40, 69,81, 85,86, 88, 89, 92, 111, 112, 118, 130, 137, 138, 145, 146, 147, 148, 149, 150, 151), quedando así, de los 139 iniciales un total de 75 ítems, correspondiendo a información sociodemográfica 9 ítems y 66 relacionados con las variables independientes (Tabla 3).

Tabla 4: Operacionalización Final de Variables

Variable	Dimensión	Indicador	Ítems	Total de Ítems
Habilidad Gerencial	Pensamiento estratégico gerencial	Establecimiento de metas y objetivos	41, 49, 51	26 Ítems
		Establecimiento de misión y visión	48, 52	
		División del trabajo	50, 53, 67, 68	
	Uso de TIC´s para informar y comunicar	Medios de comunicación utilizados por la gerencia	54, 61	
		Uso de redes sociales en comunicación	43, 55	
		Uso del correo electrónico para comunicarse con empleados	47, 56	
	Formación gerencial	Características sociodemográficas del gerente	1, 2, 72, 73, 74	
		Experiencia laboral	42, 44, 46,	
		Existencia de programas de formación a empleados	45, 57, 69	
Comercialización	Plan de Ventas	Revisión periódica de niveles de ventas	23, 58	23 Ítems
		Conocimiento de mercado potencial	39, 59, 70	
	Uso de TIC´s para contacto con clientes	Uso de redes sociales para dar a conocer el producto	25, 26,	
		Uso de redes sociales para vender productos	24, 27	
		Uso de página web propia	30, 31,	
	Participación en concursos	Participación en concursos	29, 33, 34, 36	
		Percepción de concursos	37, 60	
	Comercio Electrónico	Uso de correo electrónico para estar en contacto con clientes	35, 63	
		Uso de carrito de compras por clientes	32, 62	
		Medios de pago utilizados en el comercio electrónico	38, 64	
Vinculación	Vinculación con el gremio	Participación en asociaciones	12, 15, 28, 71, 75	17 Ítems
		Fuerza del gremio	20, 21, 22	
	Vinculación con el gobierno	Obtención de apoyos gubernamentales	16, 65	
		Participación en programas de capacitación empresarial	18, 19,	
	Vinculación con estudiantes	Participación en programas de formación a estudiantes	13, 17, 66	
		Participación en programadas de capacitación con instituciones educativas	14, 40,	

Fuente: Elaboración propia

CONCLUSIÓN

Una vez, procesados los cuestionarios y obtenidos los resultados de la validación del mismo, podemos observar, pequeñas diferencias en la evaluación de los expertos con base en su experiencia individual, en la asignación de valores a cada uno de los ítems, así como a las variables e indicadores del mismo cuestionario. Así pues, de manera general, se encontró una CVR' positiva y favorable para todas las variables e indicadores del cuestionario con una máxima valoración de 1.00 y una mínima de 0.71. Concluyendo, el valor correspondiente a la validez global (CVR´) del instrumento evaluado, utilizando la formula numero 3 descrita anteriormente, arrojó un valor de 0.61, es decir, del 61%, mismo que supera a 0.5823, por lo tanto se habla de un instrumento aceptable en su conjunto. (Tristán, 2008)

REFERENCIAS

Díaz, E. (2006). *Vitivinicultura y Derecho.* Buenos Aires: Dunken.

Diccionario Oxford. (18 de 3 de 2014). *Diccionario Oxford,.* Obtenido de Diccionario Oxford,: http://www.oxforddictionaries.com/es/

Girón, P. (2014). *El mercado del vino en México.* México: Oficina Económica y Comercial de la Embajada de España en México.

Gómez, M. (2013). Como seleccionar una prueba estadística. *Revista Mexicana de Pediatría*, 81- 85.

Instituto Mexicano para Competitividad, A. (2014). *Índice de Competitividad Urbana 2014*. México: IMCO.

Lerma & Márquez. (2010). *Comercio y Marketing Internacional*. México: Cengage learning.

Martínez, R. H. (22 de Marzo de 2014). *Conacyt*. Obtenido de Conacyt: http://www.conacyt.gob.mx/agencia/index.php/ciencias/64-estudios-realizados-en- cicese-apoyan-a-la-industria-vinicola-mexicana

Moreno, A. (18 de Enero de 2012). *Las pymes vitivinícolas se abren al mercado*. Obtenido de El economista: http://eleconomista.com.mx/industrias/2012/01/17/las-pymes-vitivinicolas- se-abren-mercado

Organización Internacional de la viña y el vino. (2014). *El mercado del vino: evolución y tendencias*. Francia: Organizacion Internacional de la viña y el vino.

Quiñonez, B. B. (2011). La ruta del vino de Baja California. *Cuaderno Patrimonio Cultural y Turismo*, 133-149.

Ruiz, C. (2004). *La dimensión territorial del desarrollo económico de México*. México: UNAM. Sánchez, L. y Mungaray,A. (2010). Vino de calidad: Base de desarrollo endógeno en el Valle de Guadalupe,Baja California. *Frontera Norte*, 109-132.

Scribano, A. (2008). *El proceso de investigación social cualitativo*. Buenos Aires: Prometeo.

Sepúlveda, R. &. (1997). *La competitividad en la agricultura: cadenas agroalimentarias y el impacto del factor localización*. Venezuela: IICA.

Tristán, A. (2008). Modificación al modelo de Lawshe para el dictamen cuantitativo de la validez de contenido de un instrumento objetivo. *Avances en medición, Vol. 6, Núm. 1*, 37-48.

Vázquez, A. (2007). *Desarrollo endógeno y políticas de desarrollo territorial*. Barcelona: Investigaciones regionales, 196-196.

VALOR ACTUAL DEL FLUJO DE CAJA LIBRE DIFUSO

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ABSTRACT

El propósito de este trabajo es presentar el valor presente del flujo de caja libre a través de metodologías fuzzy. Partiendo de una breve reseña del nacimiento de la lógica difusa, su definición y sus usos. Posteriormente, se presenta la modelación de la incertidumbre latente en la elaboración del presupuesto de ventas, los estados financieros proyectados y del flujo de caja libre a través de la lógica difusa, para así obtener el valor presente de lo flujo utilizando métodos difusos. Finalmente se concluye con la importancia de la lógica difusa en la elaboración del presupuesto de ventas, estados financieros proyectados y flujo de caja libre.

PALABRAS CLAVE: Valor Presente, Flujo de Caja Libre, Lógica Difusa, Incertidumbre

PRESENT VALUE OF FREE CASH FLOW FUZZY

ABSTRACT

The purpose of this paper is to present the present value of free cash flow through fuzzy methodologies. Starting with a brief overview of the birth of fuzzy logic, its definition and its uses. Subsequently, the modeling of latent uncertainty comes in the sales budgeting, financial statements and projected free cash flow through fuzzy logic, to obtain the present value of the flow using fuzzy methods. Finally we conclude with the importance of fuzzy logic in budgeting sales, projected financial statements and free cash flow.

KEYWORDS: Present Value of Free Cash Flow, Fuzzy Logic, Uncertainty

INTRODUCCIÓN

El flujo de caja descontado es uno de los métodos más utilizado en el proceso de valoración de empresas, definido como "conceptualmente correctos" (Fernández, 2008, pág. 1) debido al encontrarse en ambientes de proyección y estimación del desarrollo y crecimiento de la empresa, en el cual se contemplan posibles hechos de ocurrencia, no solo considerando información histórica, si no adicionando información de la visión organizacional realizando pronósticos de las partidas financieras de la organización como son: los costos de ventas, la cartera, los pagos, el manejo de materias primas, los gastos administrativos, entre otros. La precisión de este método se ve afecta por variables cargadas de incertidumbre, aspecto latente desde la elaboración de los presupuestos financieros dada la información fluctuante e incierta debido desconocimiento de su ocurrencia. Para dicho presupuesto se debe considerar la incertidumbre inherente en su estimación, como Castiblanco lo confirma a través de Duran-Vargas "un presupuesto se prepara con valores futuros estimados y por tanto, debe tener en cuenta la incertidumbre, que es consecuencia de la limitada información disponible para la toma de decisiones". (Castiblanco, 2014, pág. 205).

Posteriormente, las estimaciones planteadas en las políticas de la organización para la proyección de estados financieros presentan elementos cargados de incertidumbre; la existencia de información incierta debido a la constante evolución y fluctuación económica, información que no es obtenida con claridad y el desconocimiento de la ocurrencia de un hecho o dato en su valor para eventos futuros. Según lo anterior, para el método por descuento de flujo de efectivo, se deben realizar estimaciones financieras, estratégicas y competitivas, en las cuales se debe contemplar la mayor cantidad de posibilidades y eventualidades a las que se puede llegar a enfrentar la organización. Para estos ambientes de incertidumbre se propone la teoría

de los subconjuntos difusos o borrosos la cual permite modelar la incertidumbre de los hechos futuros, aportando información expresada a través de números borrosos triangulares, mejorando la elaboración de los presupuestos, aportando herramientas al proceso de toma de decisiones y accediendo al control de la información a futuro.

La Lógica Difusa: Nacimiento, definición y uso. Desde hace siglos las ciencias han surgido a partir de una investigación e implementación filosófica de la ciencia ortodoxa. El conocimiento se basó fundamentalmente en corrientes filosóficas como el mecanicismo y el dualismo, las cuales surgen y tienen su mayor fuente de inspiración en el cartesianismo; una forma particular en el tratamiento del conocimiento y que ha permitido el avance de la ciencia a través de unas doctrinas particulares. Durante el siglo XX surgió la duda en investigadores al ver que las teorías con las que desarrollaban sus trabajos no reflejaban fielmente lo que estaba ocurriendo en su alrededor, que el mundo no se regía solo bajo estas leyes ortodoxas, evidenciaron que las leyes planteadas debían modificarse e irse acomodando a la evolución constante del mundo. Esta nueva visión del conocimiento, lograba reconocer una amplia forma de cuestionamientos y respuestas, aumentaba el estudio de los fenómenos dependiendo de los ambientes bajo los cuales se desarrollan. Esto abrió paso al estudio de los fenómenos a través de la consideración de diferentes ambientes, ambientes de certeza, riesgo e incertidumbre.

Sin embargo, en un principio aun cuando la forma de abordar los sucesos se ampliaban, los estudios continuaban siendo limitados por el dualismo y los aspectos bivalentes y solo se era capaz de abordar con total tranquilidad aquellos ambientes delimitados por la certeza, campos donde solo era posible lo falso o lo verdadero, en el cual predominaba el principio del tercio excluido. Pero se debía de emerger de ese callejón sin salida; por ello se dio inicio al nacimiento de nuevo paradigma científico entorno a lógica, como lo hizo Russell quien afirmo: La lógica tradicional es una simbología precisa que no era aplicable en la vida terrenal. La ley de la exclusión (Uno o NO UNO), es utilizable cuando se emplea dicha simbología precisa, pero no es verdadera cuando los símbolos son vagos, como de hecho todos los símbolos son. (Reig & Sansalvador, 2000) De igual forma, se destaca al científico Lucasiewicz quien desarrolló los fundamentos de la lógica multivalente, donde una afirmación puede adquirir valores de verdad entre cero y uno, tomando como opciones lo verdadero, lo falso y lo indefinido. Posteriormente el profesor Iraní Lofti Zadeh en 1965 dio inicio a una nueva teoría a través de su artículo titulado "Fuzzy Sets", (conjuntos borrosos), en el cual se platearía un nuevo instrumento que permite el estudio de aquellos hechos que eran inciertos, que se generaban en ambientes de incertidumbre, para ser aplicados, en gran medida a las ciencias sociales, en las ciencias económica y en general, en todos las manifestaciones del ser humano en sociedad.

Dicha teoría llamada Lógica Difusa, definida como: "La lógica difusa es una lógica precisa de la imprecisión y el razonamiento aproximado. Más específicamente, la lógica difusa puede ser vista como un intento de formalización/mecanización de dos notables capacidades humanas. Primero, la capacidad de conversar, razonar y tomar decisiones racionales en un ambiente de imprecisión, incertidumbre, información incompleta, información contradictoria, parcialidad de la verdad y parcialidad de la posibilidad. […] y segundo, la capacidad para llevar a cabo una amplia variedad de tareas físicas y mentales sin medición ni cálculos". (Zadeh, 2008, pág. 2751). A través de la implementación de los subconjuntos difusos y de los correspondientes números difusos, se fue determinando la capacidad de realizar mayores aplicaciones en operaciones, dichos números se incorporaron en modelos y algoritmos reemplazando el numero cierto por el numero incierto, permitiendo interpretar de manera amplia las problemáticas de hechos imprecisos, inciertos y difusos a las que nos enfrentamos, como lo son en aspectos particulares de las ciencias económicas, administrativas y contables. A continuación el propósito es definir los elementos constitutivos de la teoría de los conjuntos borrosos (o difusos). Conjunto Borroso: sea × un conjunto no vacio, un conjunto borroso *A* esta caracterizado por:

$$\mu_{\underline{A}}(x): X \rightarrow [0, 1]$$

Donde $\mu_A(x)$ representa el grado de pertenencia del elemento x sobre el conjunto borroso A para cada $x \in X$. A está completamente determinado por el conjunto de pares:
$\underline{A} = \{(x, \mu_A(x)), x \in X\}$

Los conjuntos borrosos se encuentran conformados por números borrosos definido en $\mathbb{R}$ (Conjunto de números reales), normal y convexo, cuya función de pertenencia es continua y su soporte limitado. Un número borroso se halla formado por una secuencia finita o infinita de intervalos de confianza con las siguientes propiedades ((Kaufmann & Gil Aluja, 1987):

Se afecta a cada intervalo de confianza un valor $\alpha \in [0, 1]$. De tal manera que dos intervalos de confianza diferentes no puedan tener el mismo valor α. Este valor se llama "nivel de presunción".
Se designa por $A\alpha = [a1^{(\alpha)}, a2^{(a)}]$ el intervalo de confianza de nivel α. Se debe cumplir:

$$(\alpha^` < \alpha) \Rightarrow (A_\alpha \supset A_{\alpha^`}), \alpha, \alpha^` \in [0,1].$$

Dicho de otra manera, los intervalos de confianza deben encajarse, estrictamente o no, los unos con los otros.

El intervalo de confianza de nivel α será designado por A_α y lo llamaremos "$\alpha - corte\ de\underline{A}$"

Existen diferentes clases de números borrosos dependiendo de su función de pertenencia, se explica a continuación la función bajo la cual se desarrolla el ejercicio planteado en este documento: la función de pertenencia triangular:

Función de pertenencia triangular: la función de pertenencia triangular, $Tri_{c\alpha\beta}[c, \alpha, \beta](x)$ se define según la siguiente expresión, siendo c su centro, $\alpha \geq 0$ su ancho izquierdo, y $\beta \geq 0$ su ancho derecho ((Barragán, 2009, pág. 24). Para esta función los números borrosos adoptan el nombre de Números Borrosos Triangulares (N.B.T), estos los más utilizados en la práctica, debido a la linealidad de sus funciones μ. Como su nombre lo indica cuenta con una forma triangular, este se reconoce a través de una terna: $(a_1, a_{2,} a_3)$

$$\underline{A} = (a^{(1)}, a^{(2)}, a^{(3)}) \qquad \in \mathbb{R}$$

$$\mu_{Tri_{c\alpha\beta}}[c, \alpha, \beta](x) = \begin{cases} \dfrac{1 - (c - x)}{\alpha} & si\ (c - \alpha) \leq \text{x} < c \\ \dfrac{1 - (x - c)}{\beta} & si\ c \leq \text{x} \leq \text{c} + \beta \\ 0\ en\ otro\ caso \end{cases}$$

Otra forma más común de definir la función de pertenencia triangular, es mediante la identificación de los tres puntos del triángulo $Tri\ [a, b, c]\ (x)$, con $a \leq b \leq c$. En este caso la función de pertenencia vendrá dada por la expresión:

$$\mu_A(x) = \begin{cases} 0, & si\ x < \text{a} \\ \dfrac{(x - a)}{b - a} & si\ a \leq x \leq b \\ \dfrac{c - x}{c - b} & si\ b \leq x \leq c \\ 0, & x > c \end{cases}$$

Para este trabajo se utilizaran los números borrosos triangulares, a través de estos se realizan las siguientes operaciones, operaciones tomadas de (Kaufmann & Gil Aluja, 1987):

Suma de Números Borrosos Triangulares:

$$\underline{A} + \underline{B}$$

Sean $A = (a_1, a_2, a_3)$ y $B = (b_1, b_2, b_3)$ la suma se daría:

$=(a_1 + b_1, a_2 + b_2, a_3 + b_3)$

$$A = (-3,2,4) \ y \ B = (-1,0,5)$$

$$A + B = (-4,2,9)$$

Para sumar numerosos borrosos por niveles de presunción α seria:

$$A\alpha = [5\alpha - 3, 4 - 2\alpha]$$

$$B\alpha = [\alpha - 1, 5 - 5\alpha]$$

$$A\alpha + B\alpha = [(5\alpha - 3) + (\alpha - 1), (4 - 2\alpha) + (5 - 5\alpha)] =$$

$$[6\alpha - 4, 9 - 7\alpha]$$

Como comprobación se reemplaza para $\alpha = 0$ y $\alpha = 1$, es decir, $A_0 + B_0 = [-4,9]$ y $A_1 + B_1 = [2,2] = 2$ y como resultado se obtiene $[-4,2,9]$

1. Resta de Números Borrosos Triangulares:

$$\underline{A} - \underline{B} = (a_1, a_2, a_3) - (b_1, b_2, b_3) = (a_1 - b_3, a_2 - b_2, a_3 - b_1)$$

Con los mismos datos anteriores se obtiene:

$$A - B = (-8,2,5)$$

Por niveles de presunción se obtendría:

$$A\alpha - B\alpha = [(5\alpha - 3) - (5 - 5\alpha), (4 - 2\alpha) - (\alpha - 1)] =$$

$$[10\alpha - 8, 5 - 3\alpha]$$

Comprobando $\alpha = 0$ se obtiene $A_0 - B_0 = [-8,5]$ y para $\alpha = 1$ $A_1 - B_1 = [2,2] = 2$ obteniendo $[-8,2,5]$.

2. Multiplicación por escalar: Si $A = (a_1, a_2, a_3)$ tendremos que $K.A = (Ka_1, Ka_2, Ka_3)$, K siendo positivo.

De igual forma, para el caso de trabajar con niveles de confianza, se obtendría:

$K.A_\alpha = [K\{a_1 + (a_2 - a_1)\alpha\}, K\{a_3 - (a_3 - a_2)\alpha\}]$

Quedaría así: Sea $A = (-3,2,4)$ y se multiplica por K=2

$K.A = (-6, 4, 8)$

Por niveles de confianza quedaría:

$$K.A_\alpha = [2\{-3 + (2 + 3)\alpha\}, 2\{4 - (4 - 2)\alpha\}] = (10\alpha - 6, 8 - 4\alpha)$$

Comprobando $\alpha = 0$ se obtiene $K.A_0 = [-6,8]$ y para $\alpha = 1$ $K.A_1 = [4,4] = 4$

Multiplicación entre dos números borrosos Triangulares: La multiplicación de números borrosos en $\mathbb{R}$ se opera bajo los intervalos de confianza en $\mathbb{R}$

$$\forall\, \alpha \in [0,1]$$

$$A_\alpha\, (.)\, B_\alpha = \begin{bmatrix} MIN\, (a_1\,(\alpha).\,b_1(\alpha), a_1\,(\alpha).\,b_2(\alpha), \\ a_2\,(\alpha).\,b_1(\alpha), a_2\,(\alpha).\,b_2(\alpha)), \\ MAX\, a_1\,(\alpha).\,b_1(\alpha), a_1\,(\alpha).\,b_2(\alpha), \\ a_2(\alpha).\,b_1(\alpha), a_2\,(\alpha).\,b_2(\alpha) \end{bmatrix}$$

Si ambos números borrosos son continuos $\mathbb{R}^+$ la fórmula de la multiplicación estaría dada:

$$\underline{A}\,.\,\underline{B} = (a_1(a).\,a_2(a)\, (.)b_1(a).\,b_2(a))$$

3. División: la división entre números borrosos $\mathbb{R}$

$$\forall\, \alpha \in [0,1]$$

$$A_\alpha\, (:)\, B_\alpha = [a_1\,(\alpha).\,a_2(\alpha)]\, (:)[b_1\,(\alpha).\,b_2(\alpha)]$$

$$= \begin{bmatrix} MIN\, \left(\dfrac{a_1\,(\alpha)}{b_1\,(\alpha)}, \dfrac{a_1\,(\alpha)}{b_2\,(\alpha)}, \dfrac{a_2\,(\alpha)}{b_1\,(\alpha)}, \dfrac{a_2\,(\alpha)}{b_2\,(\alpha)}\right), \\ MAX\, \left(\dfrac{a_1\,(\alpha)}{b_1\,(\alpha)}, \dfrac{a_1\,(\alpha)}{b_2\,(\alpha)}, \dfrac{a_2\,(\alpha)}{b_1\,(\alpha)}, \dfrac{a_2\,(\alpha)}{b_2\,(\alpha)}\right) \end{bmatrix}$$

La división en los $\mathbb{R}^+$: $\forall\, \alpha \in [0,1]$

$$A_\alpha\, (:)\, B_\alpha = \left(\dfrac{a_1\,(\alpha)}{b_2\,(\alpha)}, \dfrac{a_2\,(\alpha)}{b_1\,(\alpha)}\right)$$

Valor Presente y Lógica Difusa

Para determinar el flujo de caja libre de la organización y obtener su valor presente se inicia con la elaboración presupuestal[1] bajo lógica difusa, para el cual se tiene la siguiente información:

$$PV = (V \pm a).\,E.\,A + b + c$$

En donde V= ventas del año anterior, a =factores de ajuste, b =factores de cambio, c =factores corrientes crecimiento, E= fuerzas económicas generales y A= factores de influencia administrativa. Estas variables tomadas bajo la opinión de expertos, políticas gerenciales y administrativas de la organización, se trabajan como números borrosos triangulares, estableciendo valores comprendidos entre mínimo, un máximo y un más posible de ocurrencia.

V=	**1,302,000,000**		
a=	-		
b=	[6,510,000	26,040,000	28,644,000]
c=	[143,220,000	169,260,000	195,300,000]

[1] Se elabora el presupuesto de ventas bajo "la fórmula de presupuesto planteada por Rautenstrauch y Villers, y modificada por Márceles" (Castiblanco, 2014, pág. 217), dado el objetivo de documento no se hace énfasis a la elaboración del presupuesto de ventas con lógica difusa.

E=	[9%		12%	18%]
A=	[-8%		-4%	0%]

Dados los números triangulares borrosos se procede a establecer su representación mediante $\alpha - cortes$ y se sustituye en la ecuación PV, obteniendo:

$Pv_{\alpha=0} = $ [1.444.093.510, 1.760.434.200] y $Pv_{\alpha=1} = $ [1.592.210.592, 1.592.210.592]
Tomando como valor mínimo del ventas para el siguiente año de 1.444.093.510, un valor máximo de 1.760.434.200 y un valor más posible 1.592.210.592.

Una vez obtenido el presupuesto de ventas para el año siguiente (2015) con un valor mínimo y máximo de (1.444.093.510 y 1.760.434.200) y un valor más posible 1.592.210.592, y las diferentes políticas administrativas, expectativas de la organización, se procede a la elaboración de los estados financieros proyectados con lógica difusa:

Estado de Resultados Proyectado Con Lógica Difusa 2015 Compañía Hotelera ABC Expresado en Pesos Colombianos

	2015			
Utilidad Operacional	Mínimo		Más posible	Máximo
Ventas	$ 1,444,093,510	$ 1,592,210,592	$ 1,760,434,200
Costo de venta	$ 469,164,020	$ 592,806,601	$ 877,849,652
Utilidad Bruta	$ 974,929,489	$ 999,403,991	$ 882,584,548
Gastos de Administración	$ 230,713,164	$ 302,577,321	$ 435,376,200
Gastos de Ventas	$ 480,069,817	$ 548,754,572	$ 667,750,903
Utilidad Operacional	$ (128,197,614)	$ 148,072,099	$ 171,801,567
Total Ingresos No Operacionales	$ 814,492	$ 128,144,582	$ 371,827,500
Gastos Financieros	$ 80,966,840	$ 107,943,162	$ 139,992,304
Otros Gastos No Operacionales	$ 29,946,640	$ 36,677,844	$ 44,599,318
Total Gastos No Operacionales	$ 110,913,480	$ 144,621,006	$ 184,591,623
Utilidad Antes de Impuestos	$ (414,408,876)	$ 29,161,544	$ 330,281,457
Impuesto de Renta	$ 0	$ 3,207,770	$ 36,330,960
Utilidad Neta	$ (414,408,876)	$ 25,953,774	$ 293,950,496
Depreciación y Amortización	$ 102,434,130	$ 102,434,130	$ 102,434,130

Flujo de Caja Libre Con Lógica Difusa 2015 Compañía Hotelera Expresado en Pesos

	Mínimo	**Más posible**	**Máximo**
Ventas	$ 1,444,093,510	1,592,210,592	$ 1,760,434,200
Costos y Gastos Desembolsables	$ (1,572,291,124)	$ (1,444,138,493)	$ (1,588,632,633)
BRUTO	$ (128,197,614)	$ 148,072,099	$ 171,801,567
Otros Ingresos	$ 814,492	$ 128,144,582	$ 371,827,500
Menos Depreciaciones	$ (102,434,130)	$ (102,434,130)	$ (102,434,130)
EBIT	$ (229,817,253)	173,782,550	441,194,937
Impuestos Aplicados (11%)		$ 3,207,770	$ 36,330,960
NOPAT	$ (229,817,253)	$ 170,574,780	$ 404,863,976
Mas depreciaciones	$ 102,434,130	$ 102,434,130	$ 102,434,130
F. CAJA BRUTO	$ (127,383,123)	$ 273,008,911	$ 507,298,107
Inversión en capital de trabajo			
Inversión en Activos Fijos	$ 42,360,000	$ 56,480,000	$ 70,600,000
FLUJO DE CAJA LIBRE	$ (169,743,123)	$ 216,528,911	$ 436,698,107
WACC	0%	9%	11%

Una vez obtenido el numero posible comprendido entre el mínimo $-169,743,123, el más posible $216,528,911 y el máximo $436,698,107 para el flujo de caja del año 2015 se calcula el valor actual de los flujos a través de la lógica difusa. El valor presente se emplea bajo el trabajo desarrollado por Buckley,

Eslami y Feuring en (2002). Para hallar el valor presente S de una cantidad futura A, bajo una tasa de interés r se tiene. Para hallar el valor presente (Buckley, Eslami, & Feuring, 2002, pág. 52) presentan tres alternativas: solución clásica, solución de principio de extensión, y α-cortes y solución aritmética de intervalos. Dado el desarrollo empleado con el método clásico de ser existente se acepta su valor, de no existir se procede a operar con los otros métodos, según los autores el método más apropiado es la solución clásica es decir, "since_(S_1c) satisfies the present value equation our solution strategy is: (1) choose _(S_1c)when it exists, and (2) use _(S_1e)=_(S_2e)when _(S_1c)does not exist)

$$A = S_1(1 + r)^n$$

[(169,743,123) 216,528,911 436,698,107]= S_1 (1+ [0,0 0,9 0,11]).
Expresando en $\alpha - Cortes$ tenenemos:

[(169,743,123) + 386,272,033 α, 436,698,107-220,169,196 α]= S_1 (1+ [0,0+0,9 α, 0,11-0,2 α])
Es decir, el valor presente del flujo de caja libre del año 2015 se encuentra representado por los valores: como mínimo 169,743, 123, un más posible 113,962,585 y el valor máximo del flujo 393,421,717; los cuales se pueden aproximar a un número borroso triangular así:

$$S_1 = [\text{-}169,743, 123 \quad 113,962,585 \quad 393,421,717]$$

CONCLUSIONES

Al proyectar estados financieros con lógica difusa se presenta la organización una perspectiva a futuro de la misma, teniendo en cuenta ambientes tanto pesimistas como optimistas, lo cual permite visualizar todo un conjunto de posibles eventos a los cuales podría enfrentarse la organización. Las diferentes proyecciones realizadas con lógica difusa permiten abarcar mayores posibilidades de combinaciones y alternativas de las variables, operándolas de forma transversal, la lógica difusa combina tanto las posibles variables como los posibles escenarios. A pesar de estar el futuro cargado de incertidumbre, este puede modelarse a través la teoría de los subconjuntos borrosos elemento constitutivo de la lógica difusa y que permite un abanico de posibilidades en torno a la incertidumbre. La teoría difusa genera un campo abierto de posibilidades, un representante del pensamiento humano, un operador de la incertidumbre hacia un acercamiento más próximo a la realidad y a los requerimientos futuros y como un gran soporte en la toma de decisiones económicas. Al elaborar el flujo de caja bajo metodologías difusas no se obtiene un único valor como resultado, bajo esta metodología se obtiene un abanico de posibilidades a través de un intervalo de infinitas posibilidades.

BIBLIOGRAFIA

Barragán, J. (2009). Introducción a la lógica borrosa y sus aplicaciones. En J. Barragán, Síntesis de Sistemas de Control Borroso Estables por Diseño: Tésis Doctoral.

Buckley, J., Eslami, E., & Feuring, T. (2002). Chapter 4 Fuzzy Mathematics in Finance. En J. Buckley, E. Eslami, & T. Feuring, Fuzzy Mathematics in Economics and Engineering (págs. 47-67).

Castiblanco, F. (2014). Una mirada al presupuesto anual de ventas de Rautenstrauch & Villers. Criterio libre, 199-222.

Fernández, P. (Noviembre de 2008). IESE business School. Obtenido de www.iese.edu/research/pdfs/di-0771.pdf

Kaufmann, A., & Gil Aluja, J. (1987). Técnicas operativas de gestión para el tratamiento de la incertidumbre. Bacerlona, España: Hispano Europea.

Lazzari, L., Machado, E., & Pérez, R. (s.f.). Dialnet-LosConjuntosBorrosos-2469891.pdf. Recuperado el 1 de 11 de 2015

Reig, J., & Sansalvador, M. (2000). Lógica borrosa y su aplicación a la contabilidad. Revista Española de financiación y contabilidad, XXIX(103), 83-106.

Zadeh, L. (2008). Is there a need for fuzzy logic? Information Sciences, 2751-2779.

BIOGRAFIA

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UNA MIRADA A LA CIENCIA CONTABLE DESDE SU ENTORNO CAÓTICO

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RESUMEN

La contabilidad en su desarrollo práctico en el día a día de las organizaciones y en el paso a paso de los procedimientos administrativos, se encuentra sujeta a situaciones frente a las cuales ella misma no puede controlar, dichos elementos son su medio externo de acción, su entorno y su ambiente. Los entornos cambiantes y dinámicos en los cuales de desarrolla la ciencia contable se caracterizan por ser desordenados e inestables, esto debido principalmente a una globalización desmesurada en su afán por crecer y expandirse, permitiendo así, que la contabilidad se desarrolle en entornos caóticos.

PALABRAS CLAVES: Contabilidad, Entornos Caóticos, Inestabilidades, Orden

A LOOK AT THE ACCOUNTING FROM YOUR ENVIRONMENT SCIENCE CHAOTIC

ABSTRACT

Accounting in its practical development in everyday organizations and the step of administrative procedures, is subject to conditions against which she can not control, these elements are its external environment of action, environment and atmosphere. The changing and dynamic environment which develops accounting of science are characterized by disordered and unstable, this mainly due to an excessive globalization in its quest to grow and expand, thus allowing the accounting takes place in chaotic environments.

KEYWORDS: accounting, chaotic environments, instabilities, order

JEL: M40, M41, O30

INTRODUCCIÓN

Dados los cambios de paradigma, las revoluciones científicas y los avances en la ciencia en entornos cambiantes y dinámicos, el estudio del caos se fortalece en campos de la física y las matemáticas. Sin embargo, su fundamentación teórica permite lograr nuevas relaciones interdisciplinares con otras ciencias del conocimiento, tales como la economía, las finanzas y la contabilidad. En este sentido, el objetivo de este documento es exponer las principales razones por las cuales la contabilidad se encuentra sumergida en un entorno caótico, lleno de inestabilidades y desorden. Dicho entorno presentará diferentes consecuencias en el desarrollo práctico de la ciencia contable, logrando así un desarrollo organizacional de la contabilidad en términos inestables, variables y dinámicos. En este orden de ideas, en primer lugar se presenta la sustentación teórica del documento, haciendo alusión al desarrollo conceptual del caos y del entorno caótico, posteriormente se presenta la contabilidad desde el ambiente caótico, abordando los elementos y las herramientas contables que se ven afectadas por este entorno. Finalmente se presentan las conclusiones de este trabajo, las cuales están orientadas a nuevas rutas de acción en relación al desarrollo interdisciplinar de la ciencia contable.

Un Primer Acercamiento al Estudio del Caos

Hacer referencia al caos, es hablar de relaciones entre el orden y el desorden, entre la estabilidad y la inestabilidad, entre la aleatoriedad y al azar; de esta manera, los sistemas caóticos serán sistemas organizados en condiciones de desorden, inestabilidad y aleatoriedad. En primer lugar, se entiende por caos la mezcla del orden y del desorden en igualdad de condiciones y tiempos, un ejemplo de ello son los atractores extraños, los cuales son estructuras que se presentan en forma ordenada, pero que reflejan movimientos aleatorios desorganizados (Navarro Cid, 2001). Entre los autores más destacados en el estudio del caos, se encuentran personajes como Prigogine, Edward Lorenz, Mandelbrot, solo por mencionar los más representativos. Bajo los estudios de (Hayles, 1990), se distinguen dos tipos de enfoques en el estudio del caos, el primero de ellos guiado hacia la ruta **del orden al caos**, encontrando allí, el desarrollo de los sistemas caóticos, la aleatoriedad, el azar, los atractores extraños y los mapas de retardo, enfocándose en el estudio del caos propiamente, y no en el orden que emerge de dicho caos. El segundo enfoque esta guiado en la ruta **del caos al orden**, donde se abordan fenómenos no lineales tales como la autoorganización, los sistemas alejados del equilibrio y el estudio de la entropía. En este sentido, se pretende profundizar en el segundo enfoque del caos, para lograr el objetivo de este documento, logrando relacionar así la ciencia contable y los entornos caóticos.

Sin embargo, estos dos enfoques se caracterizan porque ambos buscan dar desarrollo a los sistemas con dinámicas caóticas, los cuales se caracterizan por ser sistemas no lineales, sistemas dinámicos y sistemas complejos. Es decir, los sistemas caóticos son sistemas que se encuentran en condiciones alejadas del equilibrio presentando en su estructura estabilidad e inestabilidad y orden y desorden en iguales condiciones y tiempos. Dichos sistemas no lineales, dinámicos y complejos son estudiados por las ciencias de la complejidad, las cuales se caracterizan por el estudio de fenómenos no lineales a través del tratamiento de herramientas matemáticas. Por otro lado, y bajo los postulados de (Navarro Cid, 2001), se pretende hacer un recorrido en las características del caos, que el mismo plantea. En primer lugar, el establece cinco características o aspectos básicos en el desarrollo del caos, a saber: la no linealidad, el carácter dinámico, la sensibilidad a las condiciones iniciales (efecto mariposa), las ecuaciones deterministas sencillas y la mezcla entre orden y desorden. Dichas características serán abordadas a continuación:

La no linealidad: En primer lugar, Navarro establece que todo sistema caótico es no lineal, porque el caos es un tipo de comportamiento no lineal, ya que como el afirma: "Para obtener caos se hace necesario unas tasas de no linealidad que abran las puertas al inicio de la cascada de bifurcaciones" (Navarro Cid, 2001, pág. 77).

El carácter dinámico: El caos posee aspectos dinámico porque en su estructura presenta interacción, inestabilidad y realimentación, las cuales surgen a partir de la no linealidad de los fenómenos (Navarro Cid, 2001).

La sensibilidad a las condiciones iniciales: Las dinámicas caóticas han demostrado a lo largo de su estudio que presentan sensibilidad a las condiciones de las cuales parten, lo cual se conoce como el efecto mariposa, estableciendo que fenómenos muy pequeños puedan originar otros muy grandes. Para lo cual, usan como ejemplo la metáfora de la mariposa que cuando aletea sus alas en Brasil, causa inmediatamente un tornado en Estados Unidos (Navarro Cid, 2001).

*Ecuaciones deterministas sencillas***:** Esta característica hace relación a un aspecto epistemológico del caos, haciendo alusión a que la complejidad no tiene nada que ver con el número de variables que se usen en una ecuación, o el tipo de relación que presenten las variables en la misma.

Mezcla de orden y desorden: El caos se caracteriza por presentar un orden emergente producto de la inestabilidad y la impredecibilidad, y que en las dinámicas caóticas sus componentes individuales se caracterizan por presentan rasgos de desorden, permitiendo así un orden en la dinámica caótica. Es decir es el caos es una mezcla de orden y desorden en igualdad de tiempos y condiciones.

Los Entornos Caóticos

Los entornos caóticos, como su nombre lo dice, son ambientes que se caracterizan por presentan caos, es decir, son entornos cargados de inestabilidades y estabilidades, cargados de orden y desorden simultáneamente. Son entornos donde perfectamente se pueden desarrollar fenómenos ordenados con base en elementos desordenados. Desde este punto de vista, se puede considerar que las organizaciones se desarrollan en entornos caóticos, y que por ello tenderán a ser caóticas, con un sin fin de inestabilidades en su desarrollo practico. Y no solo las organizaciones, sino también la sociedad, todos y cada uno de los elementos que componen a la sociedad y que permiten su buen funcionamiento están cargados de azar, de aleatoriedad y de inestabilidad. En este orden de ideas, se pretende abordar la contabilidad, como una ciencia que se encuentra en un entorno y ambiente caótico, cargado de desorden, orden e inestabilidad en su práctica real en el diario vivir de las organizaciones y en el paso a paso de los procedimientos administrativos y contables que llevan las empresas.

Desarrollo de la Ciencia Contable Desde los Entornos Caoticos

La contabilidad se encuentra enmarcada en un entorno caótico, principalmente porque se encuentra sujeta a las inestabilidades de su medio exterior, es decir, la contabilidad se desarrolla en el sector empresarial donde las organizaciones se encuentran sujetas a una gran serie de cambios productos de una globalización desenfrenada, causando cambios en las organizaciones y en el mercado mismo. De esta manera, la contabilidad se desarrolla en entornos caóticos, por la estabilidad y la inestabilidad de su medio externo, un ejemplo de ello es la inestabilidad de los precios del mercado de los productos que se demanden, es decir, la contabilidad e incluso el área de compras de la organización siempre estará sujeta a todos los cambios que el mercado establezca, en cuanto a cualquier variación real de los productos, ya sea por un incremento en el alza del dólar, o por diferentes variaciones en la manufactura para la elaboración del producto. Lo anterior, nos permite establecer que efectivamente la contabilidad se desarrolla en un entorno caótico, y que dicho entorno será el mercado.

Si bien es cierto, el mercado es un sistema caótico que difícilmente se logra controlar, caracterizado por presentar variabilidad de precios, de ventajas competitivas, de estrategias de ventas, de innovación, de creatividad y de muchas otras herramientas organizacionales. En este sentido, este entorno caótico en el cual se encuentra la contabilidad logra tener grandes repercusiones en su desarrollo; en primer lugar, que el mercado no logre tener una estabilidad de precios produce una variación de costos en la contabilidad de la empresas, ya sean costos directos o indirectos, al comprar principalmente materia prima para el producto que se esté elaborando y se vaya a ofertar. Esta variación de costos de insumos y materias primeras, no permite que exista un costo de venta estable para el producto que se está manufacturando y que se espera vender, teniendo así, un costo de venta inestable y desordenado. Por lo anterior, si el costo de venta es variable de un periodo a otro, la utilidad del ejercicio será bastante variable e inestable, porque se seguirá vendiendo a un precio estable con costos inestables. Del mismo modo, esta inestabilidad en el mercado genera para la contabilidad y para los agentes o sujetos de la organización, cierto grado de incertidumbre, en relación a que es lo que pasara con el precio de los productos en un tiempo determinado, es decir, si hay un incremento o una disminución de los precios a un periodo futuro. Ahora bien, se establece que la contabilidad se encuentra sumergida en un entorno caótico, por la entropía que este presenta en su estructura. Se conoce como entropía, a la constante entrada y salida de la información; en este sentido, el mercado se ve saturado de información de los diferentes medios organizacionales, medios publicitarios, entidades financieras y bancarias, entre otras, causando que cada vez sea más la información que debe

manejar la contabilidad en las empresas. Se han expuesto hasta aquí las principales razones por las cuales la contabilidad se encuentra sumergida en un entorno caótico, sin embargo, queda abierta la posibilidad de seguir profundizando ampliando los campos de interés en el saber contable con relación al estudio del caos y los entornos caóticos.

CONCLUSIONES

La contabilidad es una ciencia social que con el transcurrir de los días abarca más campos de acción en la práctica de las empresas, ubicándose así en todos y en cada uno de los departamentos de las organizaciones. Sin embargo, existen situaciones frente a las cuales la contabilidad se presenta como una ciencia vulnerable y frágil, pese a que existen factores que ni ella misma puede controlar. Dicho de otro modo, la contabilidad siempre se verá afectada por las situaciones del medio externo, ya sean normas contables, regulación financiera, regulación de entidades distritales y nacionales, nueva normatividad tributaria, cambios bruscos en el mercado en relación a precios, entre otros. En este orden de ideas, este documento permitió establecer que la contabilidad efectivamente no podrá controlar todos los aspectos de la organización y que en cierto grado, se verá afectara por las inestabilidades y el desorden del mercado, el cual se determinó anteriormente como su entorno caótico. Dicho ambiente cargado de inestabilidades, desorden, orden y estabilidad en igualdad de condiciones conlleva a un desorden propio en los costos de la empresa, al no tener precios fijos de compra, costos de venta fijos ni utilidades fijas determinadas.

Como se observó cada procedimiento en contabilidad conllevara a otro evento, de igual o mayor importancia quizá, permitiendo que todos y cada uno de los elementos en la contabilidad se encuentren interrelacionados, así, existirá un orden de procesos en un desorden de precios, valores y variables. Lo anterior hace alusión al caos, una mezcla entre orden y desorden en igualdad de condiciones. De esta forma, no existirá una formula, una idea o una solución determinada para hacer que el entorno de la contabilidad sea estático y fijo, ya que el mercado siempre se caracterizara por ser inestable y desordenado, presentando una gama de variabilidad en cuestión de precios y servicios a los diferentes consumidores. Finalmente, cabe señalar que la inestabilidad del mercado siempre tendera a organizarse, quizás no en precios y valores, ni en formas concretas de percibirlas para describirlas, sino en formas mucho más novedosas; si bien es cierto, todos los fenómenos caracterizados por ser caóticos, tendrán la característica de autoorganizarse en situaciones de caos y desorden, de ordenarse en situaciones alejadas del equilibrio.

REFENCIAS BIBLIOGRAFICAS

Carbal, A. (2011). Una redefinicion de la contabilidad socioambiental a partir del paradigma de la compliejidad: consideraciones teóricas básicas. Lumina 12, 280-299.

Garcia, R. (2008). Sistemas Complejos: Conceptos, metodo y fundamentación epistemologica de la investigación interdisciplinaria. Barcelona: gedisa.

Hayles, K. (1990). La evolución del caos. El orden dentro del desorden en las ciencias contemporáneas. Barcelona: Gedisa.

Maldonado, C. (2007). El problema de una teoría general de la complejidad. En C. Maldonado, Complejidad: ciencia, pensamiento y aplicaciones (págs. 101-132). Bogotá: Universidad Externado de Colombia.

Maldonado, C. (2009). Complejidad de los Sistemas Sociales: Un reto para las Ciencias Sociales. Cinta Moebio(36), 146-157.

Maldonado, C., & Gómez, N. (2011). El Mundo de las Ciencias de la Complejidad. Bogotá: Universidad el Rosario.

Morgan, G. (1990). Imagenes de la Organización. Madrid, España: RA-MA Editorial.

Navarro Cid, J. (2001). Las organizaciones como sistemas abiertos alejados del equilibrio. Barcelona: Universidad de Barcelona .

Pardo, S., & Peña, A. (2002). Contabilidad y complejidad: la posibilidad de evolución y expansión de fronteras de la disciplina contable. XIII asamblea general asociación latinoamericana de facultades y escuelas de contaduría y administración (págs. 3-27). Buenos Aires: ALAFEC.

BIOGRAFIA

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ACTIVIDAD EMPRENDEDORA Y COMPETITIVIDAD EN EL ECUADOR

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RESUMEN

El comportamiento de la actividad emprendedora en el Ecuador ha mantenido en los últimos años los niveles más altos de toda la Región, no obstante, los emprendimientos que caracterizan al país, basados en necesidad con ligeros cambios hacia la oportunidad; las empresas establecidas son pequeñas, están orientados al comercio y servicios poco especializados, con un enfoque al mercado local. En cuanto al índice de competitividad, el Ecuador ha ido escalando posiciones rápidamente, sin embargo, se puede observar que el país se mantiene como una economía basada en la eficiencia y no como una economía de innovación a nivel mundial. En el presente trabajo se realizó un análisis descriptivo y de correlación de la actividad emprendedora temprana y el índice de competitividad en el Ecuador, durante el período 2009-2014, con el fin de identificar el nivel de aporte de esta actividad en los factores que sustentan el índice de competitividad global. La relación entre la actividad emprendedora y la competitividad es directa y su correlación es alta, sin embargo, este comportamiento suele ser característico en economías poco competitivas. Ecuador deberá hacer esfuerzos intensivos para mantener y mejorar los factores de innovación que contribuyan a la competitividad, propiciando la transferencia de tecnología que permita lograr una mayor sofisticación en los negocios.

PALABRAS CLAVE: Emprendimiento, Competitividad, Innovación

ENTREPRENEURIAL ACTIVITY AND COMPETITIVENESS IN ECUADOR

ABSTRACT

The behavior of entrepreneurial activity in Ecuador has maintained in recent years the highest levels across the region, however, the new business have been motivated on need with slight changes to opportunity; the established businesses are small, most of them are in sectors of trade and unskilled services, with a focus on the local market. At the same time, the index of competitiveness, Ecuador has been climbing quickly; however, the country remains as an economy based on efficiency rather than a global innovation economy. This paper is a descriptive research and correlation analysis of early entrepreneurial activity and the competitiveness index in Ecuador conducted during the period 2009-2014, in order to identify the level of contribution of this activity into the factors that support the Global Competitiveness Index. The relationship between entrepreneurial activity and competitive is straightforward and its correlation is high, however, this behavior is usually characteristic in less competitive economies. Ecuador should make intensive efforts to maintain and enhance innovation factors that contribute to competitiveness, promote the transfer of technology to enable greater sophistication in business.

JEL: L2, L26, M1, M13, O32.

KEYWORDS: Entrepreneurship, Competitiveness, Innovation

INTRODUCCIÓN

La actividad emprendedora tiene incidencia directa en la competitividad de un país en la medida que aporte a lograr mayores niveles de progreso y bienestar económico (Larroulet y Ramírez, 2008). Por lo tanto, para lograr mayores niveles de competitividad se requiere una sociedad más emprendedora y para ello es necesario activar el potencial de las personas, de las empresas y del entorno en el que se desarrollan. En este sentido, las últimas décadas se han caracterizado por la preocupación de los países en desarrollar ecosistemas que impulsen la capacidad emprendedora y de innovación, y de esta forma lograr mayores niveles de empleo, crecimiento económico y competitividad.

En el Ecuador, a partir del año 2010 se redefinió la política que rige el sector productivo, a través del Código Orgánico de la Producción, Comercio e Inversiones, el mismo que se orienta a: generar un sistema integral para la innovación y el emprendimiento, para que la ciencia y tecnología potencie en cambio de la matriz productiva; y para contribuir a la construcción de una sociedad de propietarios, productores y emprendedores. (Código Orgánico de la Producción, Comercio e Inversiones, 2010). El Código regula el rol del estado en el desarrollo productivo y crea un marco legal que busca general las condiciones para mejorar la competitividad del sector privado. Los epígrafes de esta artículo contemplan la sección de revisión literaria, donde se revisan diferentes enfoques alrededor del término emprendedor, resaltando la noción del emprendimiento innovador, así también se describen los subíndices y pilares del Global Entrepreneur Index y los factores que influyen en el índice de competitividad de un país. Posteriormente, se describe la metodología aplicada en el presente trabajo, seguidamente se presentan los resultados de la investigación y finalmente las conclusiones y futuras líneas de investigación.

REVISIÓN DE LITERATURA

Emprendimiento, Actividad Emprendedora e Innovación

La actividad emprendedora fue definida por Timmons (1994) como un proceso de aprovechamiento de una oportunidad, a pesar de que los recursos estén controlados, sugiriendo con ello la predominancia de la oportunidad sobre los recursos. (Timmons, 1994). Reynolds (1999) de una manera más amplia se refiere a ella como cualquier intento de crear un nuevo negocio, incluyendo el autoempleo, una nueva empresa o la expansión de una empresa ya existente, proceso que puede ser puesto en marcha por una o varias personas, de forma independiente o dentro de una empresa en funcionamiento. (Reynolds, Hay, & Camp, 1999). Por otro lado, es importante diferenciar qué tipo de emprendimiento aporta verdaderamente a la competitividad de un país, por lo tanto se hace necesario introducir el término innovación desde la perspectiva que está asociado al desarrollo del espíritu emprendedor de los individuos. En este contexto, estudios denotan que en las últimas décadas se ha transitado de una economía basada en el capitalismo administrativo al emprendedor (Baumol, Litan, & Scharamm, Good Capitalism, Bad Capitalism, 2008)

Según el Global Entrepreneurship Monitor GEM existen varios factores que inciden sobre el proceso emprendedor: las condiciones del contexto nacional que generan las oportunidades para emprender; y, las condiciones de contexto político, social y cultural (Lasio, Caicedo, Ordeñana, & Villa, Global Entrepreneurship Minitor Ecuador , 2013); ambos se conjugan para configurar un ambiente que propicia la actividad emprendedora con la capacidad para aprovechar las oportunidades, esta dinámica finalmente es la que contribuye al crecimiento económico y competitividad. (Banco Interamericano de Desarrollo, 2004). Otro de los indicadores que permite jerarquizar los países y las regiones en una medida global de la cantidad y calidad del proceso de formación empresarial es el Global Entrepreneur Index GEI anteriormente denominado Global Entrepreneurship and Development Index GEDI. Este Índice se construye en base a datos obtenidos del Global Entrepreneurship Monitor GEM, complementados por datos de fuentes secundarias tales como el Banco Mundial, UNESCO, Foro Económico Mundial entre otras. (Acz, Autio,

& Szerb, 2015). En la Tabla 1, se refleja los subíndices y pilares en los cuáles se sustenta la investigación del GEI.

Tabla 1: Subíndices y Pilares GEI

Subíndice	Pilares	Componentes Que Integrar El Pilar
Actitudes Emprendedora	Percepción de Oportunidades	Oportunidad (GEM) y Tamaño de Mercado (Nivel de Urbanización)
	Habilidades para inicio de Empresas	Habilidades (GEM) y Educación Universitaria país
	Aceptación del Riesgo	Miedo al Fracaso (GEM) y Riesgo Empresarial
	Networking	Conocimiento de Emprendedores (GEM y Uso de Internet
	Apoyo Cultural	Reconocimiento Emprendedor (GEM) y Corrupción (GEM) – Trasparencia Internacional.
Habilidades Emprendedoras	Emprendimiento por Oportunidad	Tasa de Motivación por Oportunidad (GEM) e Índice de Libertad Foro Económico Mundial y Heritage Foundation
	Absorción tecnológica	Actividad Emprendedora sector tecnológico (GEM) y Absorción de Tecnología (GEM)
	Capital Humano	Nivel de Educación (GEM) y Capacitación de Recursos Humanos.
	Competencia	Emprendedores en sectores con poca competencia (GEM) y Medida de Dominancia del Mercado (Concentración Empresarial).
Aspiraciones Emprendedoras	Innovación de Productos	Emprendedores con nuevos productos (GEM) y Transferencia de Tecnología
	Innovación de Procesos	Emprendedores con nuevas tecnologías (GEM) y Gasto doméstico en I+D
	Alto Crecimiento	Emprendedores con potencial de crecimiento (GEM) y Estrategia de Negocios Foro Económico Mundial
	Internacionalización	Capacidad de Exportación (GEM) y Nivel de Internacionalización o globalización del KOF Siwss Economic Institute
	Capital de Riesgo	Inversionistas Ángeles (GEM) y Acceso a Capital de Riesgo (GEM)

En esta tabla se describe los subíndices y pilares que integran el Global Entrepreneur Index GEI que lo presenta anualmente The Global Entrepreneurship and Development Institute, Este Índice se construye en base a datos obtenidos del Global Entrepreneurship Monitor GEM, complementados por datos de fuentes secundarias tales como el Banco Mundial, UNESCO, Foro Económico Mundial entre otras. Fuente: Elaboración propia

Competitividad

La competitividad según Porter (1990) es la capacidad para sostener e incrementar la participación en los mercados internacionales, elevando el nivel de vida de la población siendo el único camino seguro para esto el lograr un aumento en la productividad. (Porter, 1990). El Foro Económico Mundial se basó en esta definición para expresarla como el conjunto de instituciones, políticas y factores que determinan la productividad de un país (World Economic Forum, 2014). Para medir la competitividad de un país, el WEF utiliza el Índice de Competitividad Global (ICG), que analiza aspectos microeconómicos y macroeconómicos, que se sustentan en 12 pilares, agrupados en tres factores: El Factor de Requerimientos Básicos incluye las instituciones, infraestructura, estabilidad macroeconómica, salud y educación primaria. El Factor de Eficiencia comprende la educación superior y entrenamiento, eficiencia en el mercado de bienes, eficiencia en el mercado laboral, sofisticación en el mercado financiero, disponibilidad en aceptación y uso de nuevas tecnologías y tamaño de mercado. El Factor de Innovación lo componen los pilares de sofisticación de negocios e innovación. Los pilares influyen de diferente manera dependiendo de la etapa de desarrollo económico en la que se encuentra el país. En una primera etapa, en las economías impulsadas por requerimientos básicos, los países dependen de su dotación de recursos naturales y mano de obra no calificada. La competencia ocurre sobre la base de precios, los productos que se venden son poco diferenciados y la baja productividad se refleja en los bajos salarios.

En la etapa de economías impulsadas por eficiencia, los países empiezan a competir con base en procesos productivos más eficientes y productos más diferenciados; por lo que los pilares como la educación superior y capacitación; mercados de bienes, financieros y laborales eficientes; el acceso a amplios mercados domésticos o internacionales y la posibilidad de tomar ventaja de las tecnologías existentes; se vuelven más críticos. En esta economía se ubica actualmente al Ecuador. Finalmente, en la etapa de economías impulsadas por Innovación, los países se convierten en economías donde la diferenciación, nivel de calidad y sofisticación en su oferta de productos y servicios es crítica, las empresas compiten con base en sus niveles de innovación y sofisticación empresarial. (World Economic Forum, 2014)

METODOLOGÍA

En la presente investigación se efectuó un análisis descriptivo y de correlación de Pearson entre los índices de la Actividad Emprendedora Temprana (TEA) y de Competitividad en el período 2009 a 2014, para establecer si existe relación o dependencia entre las variables que intervienen en esta distribución bidimensional. La información de la actividad emprendedora se obtiene del Global Entrepreneurship Monitor (GEM), cabe indicar que el Ecuador no reportó datos del año 2011 por lo que para ese año se realizó una media aritmética de los valores existentes. Los datos del GEI se obtienen The Global Entrepreneurship and Development Institute, investigación que se realiza anualmente sustentado en tres subíndices y 14 pilares. La información de las variables que integran el Índice de Competitividad Global (ICG) son los registrados en los reportes generados por el Foro Económico Mundial (WEF por sus siglas en inglés), el Ecuador no reporta datos para el año 2014, y de la misma manera realizó una media aritmética para estimar el valor faltante.

RESULTADOS

En los últimos 5 años en el Ecuador los resultados de la actividad emprendedora temprana (TEA), se ha ubicado dentro de las diez primeras posiciones entre más de 70 países investigados, conforme los datos del Global Entrepreneurship Monitor (GEM). Como se observa en la Figura 1, la TEA, ha mantenido un crecimiento sostenido, uno de los factores a los que se puede atribuir estos resultados, es a los distintos programas y políticas impulsadas por instituciones de apoyo al emprendimiento y la productividad, tanto públicos como privados, pese a este boom de iniciativas, estas han sido aisladas y no han logrado sostenibilidad, lo que no permitido la consolidación y sostenibilidad de los emprendimientos. La actividad emprendedora en el Ecuador se caracteriza principalmente por negocios nacientes es decir emprendedores que tienen la intención de crear un negocio pero aún no ha logrado concreción del mismo. En esta fase de incubación de la idea los emprendedores desisten, por falta de incentivos financieros, falta de continuidad a las acciones derivadas de las políticas públicas implementadas, competencia en los negocios o por que encontraron nuevas oportunidades de trabajo. Cuando los negocios logran establecerse, como negocios nuevos con un funcionamiento de hasta 42 meses y los negocios establecidos que superan los 42 meses de funcionamiento, su enfoque está orientado a brindar servicios y comercializar bienes de consumo, sin mayor influencia en negocios con procesos de transformación sustentada en innovación tecnológica.

Un elemento importante dentro del proceso de generación de nuevos emprendimientos es el tipo de motivación, siendo esta por necesidad, por oportunidad de mejorar su nivel de ingresos o incrementar su independencia, o por ambas. (Lasio, Caicedo, Ordeñana, & Villa, 2013). En el Ecuador, la motivación para emprender, se caracteriza por ser de necesidad alcanzado un 10.4% en el 2012 y 13.2% en el 2013, comportamiento que cambió para el año 2014 hacia la oportunidad de mejora (11.4%) y de motivación mixta (11.6%), esta última implica el aprovechamiento de una oportunidad de mercado y necesidad de mantener los ingresos. Aun cuando se presenta un cambio en los tipos de motivación, se mantienen los emprendimientos de subsistencia que generan únicamente autoempleo y no tiene perspectivas de generar

nuevas fuentes en el mediano plazo, se orientan a los consumidores, es decir ventas al detalle y servicios poco especializados que alcanzan un promedio de 67.5% en el periodo de análisis.

Figura 1: Comportamiento Índice de Actividad Emprendedora Temprana Periodo 2009-2014

En esta figura se muestra el comportamiento de la actividad emprendedora TEA en el Ecuador en los últimos años, notándose un incremento representativo de este indicador en el 2013, dato que se debe a la implementación de programas de fomento al emprendimiento. Para el año 2014 el índice disminuye, manteniendo su característica de un mayor porcentage de negocios nacientes que de negocios nuevos. Fuente: Elaboración propia a partir de los datos del Global Entrepreneurship Monitor Ecuador 2009-2014

Cuando se analiza los datos del Global Entrepreneur Index GEI se obtuvo los siguientes resultados: el subíndice de Actitudes Emprendedoras se ubica en puesto 63 de 130 países con un puntaje de 37.4 (Lasio, Caicedo , Xavier, & Izquierdo, 2014). En la Figura 2 se refleja dos pilares que se destacan, la Percepción de Oportunidades que combina el emprendimiento por oportunidad y el tamaño de mercado donde se evalúa la existencia de clientes para nuevos emprendimiento, es uno de los factores donde el país ha tenido el pilar con mayor crecimiento; y las Habilidades para iniciar empresas que combina la percepción de tener habilidades necesarias para emprender y el nivel de educación universitaria de cada país, en el Ecuador la inversión en educación superior ha pasado de una asignación del Producto Interno Bruto del 0.72% en el 2006 al 2.12% en el 2014. (Secretaria Nacional de Ciencia, Tecnología e Innovación, 2014).

Figura 2: Subíndice de Actitudes Emprendedoras

En esta figura se muestra el comportamiento de los pilares que integran las actitudes emprendedoras, los cuales tienen un resultado mínimo de 0 y un valor máximo de 1. La percepción de oportunidades y las habilidades para iniciar empresas son las que mantienen una puntuación con mayor aproximación a 1, es decir la relación que generan estos pilares permite evidenciar el comportamiento de las actitudes emprendedoras en los ecuatorianos, Fuente: Elaboración propia a partir de los datos del Global Entrepreneur Index Ecuador 2013-2015

El Subíndice de Habilidad Emprendedora, tiene una valoración de 27, ubicándose en el puesto 103 de 130 países (Lasio, Caicedo , Xavier, & Izquierdo, 2014). En la Figura 3 se observa el comportamiento de los pilares que lo integran, la competencia combina la percepción del emprendedor de tener pocos competidores y el nivel de concentración o dominancia del mercado, es uno de los pilares mejor situados, se lo puede atribuir a la Ley de Control del Poder de Mercado. El emprendimiento por oportunidad al combinar la motivación por emprender y la libertad económica, la primera variable ha tenido un ligero cambio hacia la oportunidad en el año 2014, a pesar de ello los emprendimientos aún siguen siendo de subsistencia y no de innovación, a este pilar también se le puede atribuir los datos que arroja el Informe Doing Business (2015),

el Ecuador se ubica en el puesto 115 entre 189 países; tomando en cuenta solo el indicador de apertura de negocios, refleja que en el país se requiere 13 procedimientos y 55.5 días para la legalización de una nueva empresa, mientras que el promedio en América Latina y el Caribe es de 8.3 procedimientos y 30.1 días. (Grupo Banco Mundial, 2015).

Figura 3: Subíndice Habilidad Emprendedora

En esta figura se muestra el comportamiento de los pilares que integran las habilidades emprendedoras, los cuales tienen un resultado mínimo de 0 y un valor máximo de 1. La competencia que relaciona la percepción del emprendedor de tener pocos competidores y la concentración o dominancia del mercado es el que ha despuntado en este subíndice, atribuyendo este resultado a la Ley de Poder del Mercado; otro de los pilares con mayor incidencia es el emprendimiento por oportunidad integrado por la motivación por emprender y la libertad económica. Fuente: Elaboración propia a partir de los datos del Global Entrepreneur Index Ecuador 2013-2015.

El Subíndice de Aspiraciones Emprendedoras representa uno de los principales desafíos a los que se enfrenta el Ecuador, el valor obtenido fue de 20.1 ubicándolo en el puesto 117 de 130 investigados, (Lasio, Caicedo , Xavier, & Izquierdo, 2014) siendo este el de menor resultado entre los subíndices. En la Figura 4 se observa los pilares que integran, estos resultados, se destaca la Innovación de los Productos, la cual combina la declaración de los emprendedores de crear novedad en los productos que realizan y la transferencia de tecnología, para el análisis este comportamiento es característico en economías de eficiencia, donde se busca replicar productos ya existentes a menor precio y combinarlo con variables de transferencia de tecnología. La Innovación de Procesos cuando se combina la declaración de los emprendedores del uso de tecnología reciente y el gasto doméstico de I+D, los resultados de este pilar no llega ni al 0.2 lo que evidencia que así el gobierno invierta en I+D es aun insipiente el aporte de los resultados de investigación y el desarrollo tecnológico integrados al sector productivo.

La internacionalización es un pilar que combina la declaración de la capacidad de exportación y el nivel de internacionalización, este resultado en lugar de tener un mayor crecimiento en los últimos años disminuyo siendo el peor situado lo que afirma que los emprendimiento y las empresas en Ecuador se enfocan al mercado local por desconocimiento o falta de capacitación. El capital de riesgo por su parte tiene un resultado bajo ya que no existen suficientes fuentes de financiamiento para emprendedores y pocos inversionistas ángeles que apuesten a la generación de emprendimientos competitivos.

Índice de Competitividad Global ICG

Según los resultados obtenidos de los Reportes de Competitividad Global (RCG), durante el período 2009 a 2013, el Ecuador escaló rápidamente 34 posiciones, es así que en el 2009 se ubicó en la posición 105 entre 133 países y para el 2013 se ubicó en la posición 71 entre 148 países. El "Gran Salto en Competitividad", como lo denomina Wong (2013), empezó en el año 2012 cuando el Ecuador saltó de la posición 101 a la 86, es decir, subió 15 posiciones en relación con el año anterior. Este salto se explica en gran medida a la mejora en factores de eficiencia y en factores de innovación. (Wong, 2013). En el año 2013, el Ecuador vuelve a "saltar" otros 15 puestos en el ranking del ICG para ubicarse del puesto 86 al 71. Esta vez, aunque todos los factores y pilares que lo componen se incrementaron, el que más se destacó fue el factor de innovación. (Alemán, 2014) En la Figura 5 se observa el aporte de los factores al ICG durante el período 2009 a 2013. Si bien, existe un crecimiento sostenido, aún el Ecuador no ha pasado de ser considerado una

economía basada en factores de eficiencia a ser una economía basada en factores de innovación. Para dar ese "salto cuantitativo y cualitativo" aún se requiere mantener y mejorar algunos de los factores y pilares que componen el ICG.

Figura 4: Subíndice Aspiraciones Emprendedoras

En esta figura se muestra el comportamiento de los pilares que integran las aspiraciones emprendedoras, los cuales tienen un resultado mínimo de 0 y un valor máximo de 1. La innovación en los productos es la percepción que tiene el emprendedor de hacer productos novedosos y transferencia tecnológica, en economías de eficiencia se tiende a replicar productos existentes a menor precio, el capital de riesgo, la internacionalización, el alto crecimiento y la innovación en procesos no son factores favorables debido a la poca innovación tecnológica implementada para mejorar las competitividad de las empresas. Fuente: Elaboración propia a partir de los datos del Global Entrepreneur Index Ecuador 2013-2015

Figura 5: Índice de Competitividad Global ICG por factores

En esta figura se observa el comportamiento y aporte de cada uno de los factores del ICG durante el período 2009 al 2014. Fuente: Elaboración propia con datos de los Reportes de Competitividad Global Ecuador 2009-2014

En el factor de requerimientos básicos, el ICG pasó de 4,0 en 2009 a 4,60 en el 2013 ubicándose en el Ranking 62, aun cuando todos los pilares de este factor se incrementaron, el pilar que más influyó fue el de Salud y Educación Primaria con 5.90. Según indica en el Informe del OEI, el Ecuador y Guatemala se destacaron por haber disminuido notablemente su tasa de analfabetismo en alrededor de un 11,5% y por otra parte, el porcentaje de culminación de la educación primaria supera el 90% (Organización de Estados Iberoamericanos, para la educación, Ciencia y Cultura OEI, 2014). En este factor, se deberá mejorar el pilar de instituciones, y mantener los pilares de Infraestructura y Estabilidad Macroeconómica. Según Alemán (2014), son necesarias mejoras en algunas condiciones macroeconómicas, especialmente en las políticas relacionadas con la dinamización del Sector Externo e Inversión Extranjera.

En cuanto al factor de eficiencia, el ICG pasó de 3,34 en el 2009 a 3,90 en el 2014, ubicándose en la posición 81, el pilar fundamental dentro de este factor es el Educación Superior que ha tenido un crecimiento significativo, durante el período. En este punto cabe indicar que el gasto en educación como porcentaje del PIB que ha realizado el Ecuador en los últimos años se ha incrementado considerablemente, siendo superior

al de toda la Región y equiparable a países desarrollados como Corea. Dicho gasto se ve reflejado en el número de becas para estudios en el exterior que en el año 1996 era de apenas 237 pasando a cerca de 14.000 en el 2013, eso US578 millones, que es 50 veces superior. (GUAPATIN & SCHWARTZ, 2014) Finalmente, el ICG en cuanto al Factor de Innovación pasó del 2,88 en el 2009 a 3,60 en el 2014, ubicándose en el puesto 63.

Los pilares que sostienen este factor son Sofisticación de los Negocios e Innovación, siendo el primero el que más le aportó, este pilar analiza la calidad de las redes de negocios del país, así como las estrategias de las firmas individuales. Respecto a la innovación, cabe mencionar que en el 2011 el gasto total en actividades de Ciencia, Tecnología e Innovación (ACTI) alcanzó los US$1.210 millones, cifra que representa el 1,58% del producto interno bruto (PIB). El 58% de las empresas ecuatorianas se auto clasifican como innovadoras, las cuales en su mayoría pertenecen a los sectores de manufactura y servicios. El 36,8% hace innovación en procesos, el 36,2% innova en sus productos, el 21,35% innova en su comercialización, y finalmente el 20,9% utiliza métodos de innovación organizacional. (Secretaria de Educacion Superior, Ciencia, Tecnologia e Innovación SENECyT- Instituto Nacional de Estadisticas y Censos INEN, 2014)

Actividad Emprendedora Temprana y Competitividad

En la Figura 6, se observa una alta correlación (0.95) entre la TEA e ICG, adicionalmente la relación entre éstas variables es directa, cuando el ICG crece también la TEA se incrementa, sin embargo, este aparente resultado favorable, debe ser analizado más detalladamente ya que el Reporte GEM-WEF (2015) señala que la TEA es más alta en economías menos competitivas, y ubica al Ecuador en este tipo de economías. En Ecuador, si bien la TEA es alta, los negocios que se generan como se indicó anteriormente son pequeños, poco innovadores, con orientación al mercado interno y por ende poco competitivos. La competitividad ha mejorado, sin embargo, el país se mantiene dentro de las economías emergentes fuertemente dependientes de factores de eficiencia.

Figura 6: Correlación Entre Tasa de Actividad Emprendedora Temprana TEA e Índice de Competitividad Global ICG

En esta figura se observa la correlación de Pearson, entre la Tasa de Emprendimiento Temprana TEA y el Índice de competitividad Global ICG, donde se refleja una alta correlación además su relación es directa entre las variables de manera directa. Fuente: Elaboración propia

Los pilares que obtuvieron mayor crecimiento en GEI guardan baja relación con el ICG: la percepción de oportunidades, que combina el emprendimiento por oportunidad con el tamaño de mercado, la competencia, que integra la percepción del emprendedor de tener pocos competidores y el potencial del mercado; y, el de innovación de Producto, el mismo que se refiere a la declaración de los emprendedores de crear novedad en sus productos y la transferencia de tecnología. Los pilares que conforman el subíndice de Aspiraciones Emprendedoras del GEI tienen una alta relación con el ICG son: Innovación de productos, innovación de procesos, alto crecimiento, internacionalización y capital de riesgo. Los pilares que obtuvieron mayor crecimiento en GEI guardan baja relación con el ICG: la percepción de oportunidades, que combina el emprendimiento por oportunidad con el tamaño de mercado, la competencia, que integra la percepción del

emprendedor de tener pocos competidores y el potencial del mercado; y, el de innovación de Producto, el mismo que se refiere a la declaración de los emprendedores de crear novedad en sus productos y la transferencia de tecnología. Los pilares que conforman el subíndice de Aspiraciones Emprendedoras del GEI tienen una alta relación con el ICG son: Innovación de productos, innovación de procesos, alto crecimiento, internacionalización y capital de riesgo. Es decir, las acciones que se realicen para mejorar estos pilares tendrán una mayor influencia en el indicador de competitividad, siendo una de las estrategias fundamentales la inversión en Educación Superior, la sofisticación de los mercados e innovación.

CONCLUSIONES

En el Ecuador existe una alta predisposición por iniciar un nuevo negocio, motivada por necesidad, notándose un cambio hacia la oportunidad en los últimos dos años. Las iniciativas que surgen no logran consolidarse en nuevas empresas y aquellas que logran establecerse, pertenecen en su mayoría al sector de comercio al detalle y a servicios poco especializados, con enfoque a un mercado local. Se requiere de mayores incentivos y capacitación para la internacionalización de nuevos emprendimientos y empresas existentes, la falta de garantías como políticas públicas y riesgo empresarial no generan un entorno atractivo para inversionistas; la innovación tecnológica en su contexto general es un factor que no se ha potenciado, la inversión de I+D no ha generado los resultados de crecimiento, competitividad e innovación en el sector empresarial ecuatoriano. La relación entre la TEA y el ICG es directa y su correlación es alta, sin embargo, este comportamiento suele ser característico en economías poco competitivas, para que esta relación mejore, el tipo de emprendimiento debe ser motivado preponderantemente hacia la oportunidad, las empresas que se creen deben ser innovadoras, de alto valor agregado y estar en capacidad de participar en mercados externos altamente competitivos. La TEA en Ecuador no tiene esas características como se ha indicado anteriormente y el Ecuador deberá hacer esfuerzos intensivos para mantener y mejorar los factores de innovación que contribuyan a la competitividad, propiciando la transferencia de tecnología que permita lograr una mayor sofisticación en los negocios. El Ecosistema de Innovación requiere de la integración de los distintos actores públicos y privados para mejorar niveles de competitividad, integrando conocimiento y tecnología a la generación de nuevos emprendimientos; y, la consolidación y sostenibilidad de empresas existentes

REFERENCIAS

Alemán, F. (2014). Perspectiva Económica 2014: Un enfoque gerencial. E+E ESPAE Y EMPRESA 2014 | AÑO 4 - Nº 1, Guayaquil.

Acz, Z., Autio, E., & Szerb, L. (2015). Global Entrepreneurship Index. The Global Entrepreneurship and Development Institute, Washington D.C.

Banco Interamericado de Desarrollo (2015). Desarrollo emprendedor: América Latina y la experiencia internacional. Retraído 20 de abril 2015, de Banco Interamericado de Desarrollo: Web site: www.iadb.org/pub

Código Orgánico de Producción, Comercio e Inversiones (2010). Registro Oficial República del Ecuador N.351. Quito, Ecuador, Diciembre, p.7
Guapatin, C., Schwartz, L. (2014). Análisis del Sistema Nacional de Innovación, Banco Interamericano de Desarrollo, Washington D.C.

Grupo Banco Mundial (2015). Doing Business, Obtenido 15 Junio 2015, Banco Mundial Web site: www.espanol.doingbusiness.org/data/exploreeconomies/ecuador/#starting-a-business

Baumol, W. (1990). Entrepreneurship: Productive, Unproductive and Destructive. Jornal of political Economy, p. 893-921.

Larroulet y Ramírez, C. M. (2008). Emprendimiento: factor clave para la nueva etapa de Chile. En P. C. Durán (Ed.), Emprendimiento e Innovación en Chile, Una Tarea Pendiente. Santiago de Chile, Chile: Universidad del Desarrollo. Obtenido de http://www.cepchile.cl

Lasio, V., Caicedo, G., Ordeñana, X., & Villa, R. (2013). Global Entrepreurship Monitor. Guayaquil, Ecuador: ESPAE ESPOL.

Lasio, V., Caicedo, G., Ordeñana, X., & Izquierdo, E. (2014). Global Entrepreurship Monitor. Guayaquil, Ecuador: ESPAE ESPOL.

Organización de Estados Iberoamericanos para la Educación (OEI), (2014), Miradas sobre la Educación Superior en Iberoamérica, Liagrafic S.L., Madrid.
Reynolds, P., Hay, M., & Camp, R. (1999). Global Entrepreneurship Monitor. Executive Report. London: London Business School, Babson College.

Secretaria Nacional de Ciencia, Tecnología e Innovación (2014). Obtenido 30 de Diciembre 2014. de Educación Superior del Ecuador Web site: www.educacionsuperior.gob.ec/logros-2014-la-base-que-sostendra-el-proyecto-de-innovacion-social-en-2015/

Instituto Nacional de Estadísitca y Censos - Secretaría Nacional de Planificación y Desarrollo,(2013). Encuesta Nacional de Actividades de Ciencia Tecnología e Innovación 2013, SENESCYT, Ecuador.
Timmons, J. (1994). New Venture Creation: Entreperneurship for the 21st century. Chicago: Irwin.

Wong, S.(2013).,Perspectivas sobre el Gran Salto en Competitividad, E+E ESPAE Y EMPRESA 2014 | AÑO 3 - Nº 1, Guayaquil.

World Economic Forum. (2014). Global Competitiveness Report. p. 4

BIOGRAFÍA

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ECO-EFICIENCIA DEL TRANSPORTE DE CARGA TERRESTRE DE LA REGIÓN NORTEAMÉRICA EN EL COMERCIO INTERNACIONAL

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RESUMEN

Esta investigación tiene por objetivo la cuantificación y análisis de la huella de carbono como indicador para determinar la eficiencia ecológica (eco-eficiencia) en el autotransporte de carga internacional mexicano, en relación con los principales destinos de importación y exportación mexicanos, es decir, Estados Unidos y Canadá. Lo anterior mediante la utilización del evaluador de emisiones GEI (Gas de Efecto Invernadero) de Quantis en su versión Scope 3 con series de datos correspondientes al período 2003-2011. Una vez calculada la huella de carbono de México, Estados Unidos y Canadá se realiza una comparación de las emisiones generadas durante el periodo por los tres países, concluyendo con alternativas de solución para la mitigación de emisiones.

PALABRAS CLAVES: Autotransporte carga, huella de carbono y comercio internacional.

ECO-EFFICIENCY OF THE ROAD FREIGHT TRANSPORT OF THE REGION NORTH AMERICA IN THE INTERNATIONAL TRADE

ABSTRACT

This investigation has for an object the quantification and analysis of the carbon footprint like indicator to determine the ecological efficiency (echo - efficiency) in the Mexican road freight transport, as regards the main Mexican destinations of import and exportation, that is to say, the United States and Canada. The calculation of the footprint was realized by the help of the Scope 3 evaluator, developed by The Greenhouse Gas Protocol and Quantis, which can be used to report emissions, and measure the footprint. The calculation was realized by information corresponding to the period 2003-2011. Calculated the trace of carbon of Mexico, the United States and Canada realized a comparison of the emission generated during the period for three countries, concluding with solution alternatives for the emission decrease.

JEL: C88, F18, L99, 057, Q01, Q27

KEYWORDS: Road Freight Transport, Carbon Footprint, International Trade.

INTRODUCCIÓN

El comercio de bienes y servicios a nivel mundial se maneja de acuerdo a diferentes variables en cada país, de manera general existen algunos aspectos influyentes en el comercio internacional tales como el desarrollo económico, la cultura y la situación geográfica.

En México, como en la mayoría de los países se utilizan 4 tipos de transporte, marítimo, aéreo, férreo y terrestre. Debido a la cercanía geográfica con Estados Unidos y Canadá, México ha consolidado ambos países como sus principales destinos de operación, situación por la cual el transporte mayormente utilizado en el comercio internacional es el transporte terrestre.

El autotransporte se encuentra conformado por más de 147 unidades económicas de las cuales 128 mil se encuentran en la modalidad Hombre-Camión y 19 mil como empresas. (Ramirez, 2015)

La modalidad Hombre-Camión, se refiere a las empresas del sector transporte de capacidad pequeña, encargadas de cubrir distancias cortas, es decir, operadores que manejan sus propias unidades. Por otra parte, se encuentran las grandes empresas propietarias de un número mayor de unidades, cuyo servicio especializado permite el uso de contenedores refrigerados, unidades especiales para traslado de materiales y residuos peligrosos, entre otros. Siendo claro el estilo de mercado oligopólico en el sector del autotransporte, en donde según Mendoza Cota & Díaz (2003), son únicamente algunos participantes de mercado los que restringen y excluyen la operación de las empresas pequeñas, impidiendo la entrada de nuevos competidores. Dicha estructura de mercado no es exclusiva de México, ya que presenta grandes similitudes en EE.UU.

Sin embargo, al realizar una comparación entre ambos mercados se aprecia una gran brecha ya que mientras las empresas más importantes en EE.UU cuentan con 10 mil unidades, desde la perspectiva del sector del transporte de carga mexicano, son 10 las empresas de mayor importancia, mismas que manejan una flota más pequeña y no comparable con la estadounidense. De acuerdo a las Estadísticas de Transporte de América del Norte (2011) en EE.UU, se encontraban registradas 10.9 millones de unidades mientras México contaba con 689 000 unidades registradas. (Estadísticas de Transporte de América del Norte, 2011) En relación a los combustibles, EE.UU combina combustibles fósiles con biocombustibles en los vehículos utilizados para transporte de carga. Sin embargo, México no cuenta con ese tipo de vehículos para el autotransporte de carga a nivel federal. Por lo que de acuerdo con Carmona (2009), la diferencia tecnológica es una clara imposición como barrera a la libre circulación.

REVISIÓN DE LITERATURA

Hasta hace algunos años el tema medioambiental era considerado poco importante por los gobiernos a nivel mundial, sin embargo, la realidad actual es que varios países en todo el mundo cuentan con leyes regulatorias de temas medioambientales.En países de Europa y Latinoamérica se ha convertido en obligatoria la realización y publicación de la huella de carbono en algunos productos y servicios. El gobierno francés, mediante la creación del proyecto de ley el Granelle Environnement, estableció la aprobación de un decreto relativo a la información sobre las emisiones de los GEI en la prestación de servicios de transporte, por lo que a partir del 1 de octubre del 2013 las empresas relativas al sector transporte se encuentran obligadas a informar a los usuarios de la huella de carbono generadas por el transporte utilizado ya sea de manera personal o corporativa. (Ministère de l'Écologie, du Développement durable et de l'Énergie, 2012) En España, la Oficina española de cambio climático, anunció en 2014 que las empresas que trabajen para las administraciones gubernamentales tendrán que estar inscritas en el Registro de Huella de Carbono. (Comunicación ETRES Consultores, 2014)

Debido a la cercanía con EE.UU, México maniobra más del 60% de su comercio exterior por vía terrestre, sin embargo, en gran parte de América Latina y el Caribe la tendencia es hacia el transporte marítimo. En éste tema destaca Brasil que maneja el 75% de su comercio por vía marítima. (J. Sánchez & Ulloa, 2007) De acuerdo a la SCT (2014), el autotransporte mexicano opera el 80% de la carga por medio de unidades motrices, donde las más utilizadas son: tractocamiones de tres ejes, tractocamiones de dos ejes, camiones de dos y tres ejes, entre otros. De los cuales no todos se encuentran registrados actualmente ante la SCT, sin mencionar las unidades de arrastre y las grúas industriales.Aunque existen estudios en relación al sector transporte en México, de acuerdo a Dussel Peters (2008), es necesaria la realización de un estudio de mediano y largo plazo del transporte terrestre de carga, tanto a nivel regional comos sectorial, en torno a los costos del transporte y el vínculo de éste con el comercio internacional. En México existen actualmente varias formas de calcular el costo de transporte de carga terrestre de acuerdo a la empresa.

De acuerdo a la Encuesta Anual de Transportes generada por el Instituto Nacional de Estadística y Geografía (2014), el combustible constituyó el mayor costo de operación para las empresas que brindan el servicio de carga general y carga especializada, mismo que fue de 42.95% y 42.58% respectivamente, seguido del rubro referente a las refacciones donde el autotransporte de carga general destinó el 13% de sus costos, mientras el de carga especializada el 15%. El pago por servicios por peaje y uso de infraestructura representa el 3er rubro en el cual las empresas que brinda el servicio de carga general y especializada representaron el 10% y 9%. (Ramirez, 2015).

Es importante hacer mención del programa piloto de autotransporte transfronterizo entre México y Estados Unidos, cuya finalidad fue que los transportistas mexicanos obtuvieran la autorización de ingresar con sus unidades a territorio estadounidense, mismo que se llevó a cabo entre el 14 de octubre de 2011 y el 10 de octubre de 2014. (SCT, Secretaría de Comunicaciones y Transportes, 2015). El permiso obtenido como resultado del programa piloto es el permiso para prestar servicios internacionales de autotransporte de carga de largo recorrido, dicho permiso se refiere a la prestación de Servicios Internacionales de Autotransporte de Carga de Largo Recorrido, autoriza el traslado de mercancías desde EUA y Canadá hacia México y viceversa. (SCT, Secretaría de Comunicaciones y Transportes, 2015).

La declaración del DOT que permite el ingreso a los camiones mexicanos, debido al programa piloto comentado, se llevó a cabo con una muestra de 15 empresas mexicanas mismas que fueron las únicas que participaron en dicho programa, lo anterior de acuerdo a la muestra del informe desarrollado por la Administración Federal Seguridad en el Autotransporte (FMCSA, por sus siglas en inglés). En relación a los procedimientos logísticos entre México y Estados unidos, la diferencia en tiempos entre ambos se agudiza, al observar que mientras en EE.UU el tiempo promedio de estadía de los contenedores en Recinto Fiscal es de 7 días en México es de 10 días, tomando en cuenta que de acuerdo el promedio de mejores prácticas mundiales es de 5 días. (Instituto Mexicano para la Competitividad, 2006).

Actualmente existen diversas teorías referentes al medio ambiente, una de ellas es la Curva de Kuznets Ambiental (CKA) ha tenido un creciente auge, sosteniendo que entre el producto y cualquier medida de contaminación plausible de ser utilizada como indicador de degradación ambiental, se verifica en el largo plazo una relación funcional con forma de U invertida, por lo que el daño ambiental es una función creciente del nivel de actividad económica hasta un determinado nivel crítico de renta a partir del cual mayores niveles de renta se asocian a niveles progresivamente mayores de calidad ambiental. (Zilio, 2012). Zilio (2012), afirma que la pendiente de la CKA puede ser un resultado de la especialización internacional: a medida que los controles y la regulación ambiental se refuerzan en los países desarrollados, en los países en desarrollo proliferan las industrias contaminación-intensivas.

Por otra parte, Kim & Van Wee (2009), realizaron una evaluación de las emisiones de CO_2 para los sistemas intermodales de mercancías mediante la utilización del ferrocarril y del transporte terrestre en Europa, afirmando que es el sistema de ferroviario el que se ha considerado respetuoso del medio ambiente vs el transporte terrestre, utilizado particularmente para largas distancias. El resultado de su investigación indica que de manera general, los sistemas intermodales de mercancías basados en el ferrocarril emiten menos CO_2 que los sistemas terrestres europeos. Kobayashi & Kahn Ribeiro (2007), realizan una investigación inherente al transporte y la infraestructura, donde uno de los puntos importantes de su investigación es la sostenibilidad de los tipos de transporte utilizados para el comercio exterior, a través de la misma proponen algunas medidas para la reducción de gases de efecto invernadero (GEI) entre ellas, la reducción de las cargas, aumento de la conversión de energía del combustible para trabajar, así como, cambio a un combustible menos intensivo en carbono.

Cabe señalar que según datos de la Agencia Internacional de Energía, (IEA/OECD, 2009), el 19% del consumo mundial de energía es resultado, de la utilización del transporte, generando el 23% de las

emisiones de CO2 relacionadas con la energía. El pronóstico, en caso de continuar con la misma tendencia sería del 50% para el año 2030 y del 80% para el año 2050.

METODOLOGÍA

En la presente investigación se tiene como objetivo identificar las variables que determinan la eficiencia ecológica (eco-eficiencia) en el autotransporte internacional mexicano de carga, en el marco de los negocios internacionales. La investigación propuesta se propone para el período 2003 – 2011, misma que se llevará a cabo mediante la utilización del evaluador de emisiones GEI (Gas de Efecto Invernadero) de Quantis en su versión Scope 3.

Respecto al espacio geográfico de estudio, se consideran los datos del sector del autotransporte mexicano de carga respecto a sus principales mercados de operación, es decir, EE.UU y Canadá.

Las bases de datos utilizadas fueron: INEGI, Banco Mundial, Estadísticas del Transporte de Norte América, Sistema de Información Energética (SENER) y la Encuesta sobre el Consumo de Energía en el Sector Industrial, así como la Secretaría de Comunicaciones y Transportes.

Huella de Carbono

En la actualidad existen, varios métodos internacionales reconocidos para el cálculo de la huella de carbono como son las ISO 14040/14044, la PAS 2050 y la futura ISO 14067. Así mismo para calcular la huella de carbono corporativa se aplican los estándares de la ISO 14064-1/2/3. (ITENE, 2015). La huella de carbono puede ser calculada a diferentes niveles, es decir, puede ser personal, en el proceso de producción de algún producto o servicio, en todos los procesos productivos y laborales de una unidad empresarial, en un grupo de empresas o inclusive en un sector.

Existen diferentes calculadoras disponibles de manera gratuita y otras tantas proporcionadas por diferentes consultorías en todo el mundo que apoyan a realizar el cálculo de acuerdo al ente que pretenda ser analizado. Así mismo, cada persona, empresa o sector tendrá diferente objetivo al realizar dicho cálculo.

La norma internacional ISO 14064 se refiere a la verificación voluntaria de las emisiones de gases de efecto invernadero en combinación con esquemas obligatorios relativos al seguimiento, notificación y verificación de Gases de Efecto Invernadero (GEI), dentro de una corporación. (LR, 2015). A nivel mundial existen diversos tipos de consultorías para el cálculo de la huella de carbono corporativa, en México alguna de las empresas que se dedican a emitir certificaciones de éste tipo son: TÜV RHEINLAND DE MÉXICO, Green Plus, Instituto Verde, entre otras.

La Huella de Carbono corporativa propia del transporte contribuye a conocer el nivel de aprovechamiento energético de la flota y tomar decisiones en base al consumo de combustible, por lo tanto disminuir el gasto operativo de la empresa. La finalidad de una empresa o sector que plantea estrategias mediante el cálculo de la Huella de Carbono es llegar a ser carbono neutro, es decir, remover de la atmósfera tanto bióxido de carbono como el que se ha agregado debido a la operación del sector o proceso productivo. (Universidad Austral de Chile, 2015)

De acuerdo al Protocolo de Kioto en 1997 y al Cuarto Informe de Evaluación del Panel Intergubernamental Climático (IPCC por sus siglas en inglés) en 2007, existen 7 tipos de los gases de efecto inventario (GEI): 1. Dióxido de carbono (CO_2), 2. Metano (CH_4), 3. Óxido nitroso (N_2O), 4. Hidrofluorocarbonos (HFC), 5. Perfluorocarbonos (PFC), 6. Hexafluoruro de azufre (SF_6), 7. Trifluoruro de nitrógeno (NF_3) (Secretaría de Medio Ambiente y Recursos Naturales, 2014)

En la Estrategia Nacional de Cambio Climático Visión 10-20-40, publicada por la Secretaría de Medio Ambiente y Recursos Naturales (2013), se destaca también el carbono negro, conocido en México como "hollín".

Cada GEI tiene un efecto diferente en la atmósfera, lo anterior se establece mediante el poder de calentamiento global (PCG), por ejemplo: una unidad de metano tiene un PCG 25 veces mayor al de una unidad de dióxido de carbono. (Frohmann & Olmos, 2013). La huella de carbono se mide en toneladas equivalentes de dióxido de carbono (tCO_2e). La medida CO_2e se calcula multiplicando las emisiones de cada uno de los 6 GEI por su respectivo potencial de calentamiento global (PCG) al cabo de 100 años. (Frohmann & Olmos, 2013). Las emisiones utilizadas para el cálculo de la huella de carbono pueden ser directas o indirectas, las emisiones directas son las que provienen de fuentes que son propiedad de la entidad sobre la que se está realizando el cálculo, siendo empresa, institución o sector y que son controladas por ésta, como puede ser el consumo eléctrico, combustibles fósiles, embalajes, entre otras. Mientras que las emisiones indirectas se refieren a las son resultado de las actividades de la entidad o sector que reporta, aunque éstas provienen de fuentes que no son propiedad de la entidad y por lo tanto no son controladas por ésta. El mejor ejemplo en una empresa productiva de emisiones indirectas a su actividad es el transporte así como las emisiones que se generen en la utilización del producto en manos del consumidor final. (Frohmann & Olmos, 2013)

Existen diferentes metodologías para el cálculo de la huella de carbono a nivel internacional. Para definir las fuentes de emisiones a considerar se debe considerar el nivel de alcance necesario. Existen 3 tipos de alcances, el alcance 1, incluye las emisiones directas; el alcance 2, las emisiones indirectas en relación con la energía consumida por parte de la empresa y el alcance 3, incluye tanto emisiones directas como indirectas, es decir incorpora las emisiones derivadas de los insumos utilizados en las actividades de la empresa y las emisiones generadas por sus productos una vez salidos de la empresa. Es decir, el ciclo de vida del producto y su cadena productiva. (Frohmann & Olmos, 2013)

Tabla 1: Metodologías del cálculo de la huella de carbono a nivel internacional

Principales metodologías de cálculo de la huella de carbono a nivel internacional						
	UNE-EN ISO 14064	**GHG Protocol Alcance 1 y 2**	**GHG Protocol Alcance 3**	**Estandar de producto del GHG Protocol**	**PAS 2050**	**PAS 2060-2010**
Desarrollado por	International Organization for Standarization	World Business Council for Sustainable Development - World Resources Institute	World Business Council for Sustainable Development - World Resources Institute	World Business Council for Sustainable Development - World Resources Institute	British Standard Institute	British Standard Institute
Uso	Inventario de emisiones que puede ser mejorado a huella de carbono	Inventario de emisiones que puede ser mejorado a huella de carbono	Huella de carbono	Cuantificación y Reporte de huella de carbono	Huella de Carbono	Huella de carbono y compensación de emisiones
Límites	Organización	Organización	Organización-Sector	Producto	Producto	Organización

Fuente: Elaboración propia con base en Frohmann & Olmos, 2013
La metodología elegida para el cálculo de la Huella de Carbono se derivó de los límites de cada metodología, siendo la metodología del GHG Protocol, la única que es capaz de medir un sector.

En base a lo anterior, es importante considerar que la complejidad en el cálculo de la huella de carbono va aumentando desde el cálculo para un producto y una organización hasta llegar a un sector, ya que de acuerdo a Frohmann & Olmos (2013), el cálculo de la misma puede ser desde "de la cuna a la tumba " realizando

el cálculo más completo posible en donde se incluyen las emisiones originadas en todas las fases de vida del producto o "de la cuna a la puerta", es decir hasta un determinado proceso productivo.

Algunas ventajas del cálculo de la huella de carbono detectadas por Frohmann & Olmos (2013), independientes al riesgo vinculado con el cambio climático son la rentabilidad financiera y de imagen que proporciona a las empresas así como la utilización del indicador como un identificador de ineficiencias productivas.

Cabe señalar que dentro de la familia de la norma ISO 14000, se encuentra la norma 14045, que de acuerdo a la Secretaría de Economía, el titulo de proyecto de norma mexicana es: Gestión ambiental-evaluación de la ecoeficiencia del sistema producto cuya clave o código es: PROY-NMX-SAA-14045-IMNC-2014. Dicha norma tiene el objetivo de: la definición de los objetivos y del alcance de la evaluación de la ecoeficiencia, evaluación ambiental, cuantificación e interpretación de la ecoeficiencia, comunicación de los resultados y revisión crítica de la evaluación de la ecoeficiencia, lo anterior por producto o servicio en una unidad empresarial.

Debido a que la presente investigación se encuentra enfocada en la totalidad del sector del autotransporte de carga, se ha decidido realizar el cálculo de ecoeficiencia en el sector por medio de la huella del carbono del autotransporte mexicano, para lo cual se utilizará la herramienta proporcionada por el GHG Protocol y Quantis, en su versión *The scope 3 evaluator (The Scope 3 Evaluator es una herramienta para el cálculo de la Huella de Carbono proporcionada por el Greenhouse Gas Protocol en alianza con el WRI/WBSCD. http://www.ghgprotocol.org/node/453)*.

RESULTADOS

El cambio climático y las nuevas generaciones que impulsan la creación de nuevos mercados, ha dado paso a la creación de nuevas herramientas que ayuden a fomentar la educación de los consumidores y de las industrias. Así mismo, ha contribuido a individualizar el problema del cambio climático para conocer la verdadera responsabilidad las acciones diarias de cada sujeto.

Una de las unidades de medición que ayudan al acercamiento en un primer plano del tema ambiental es la huella de carbono, medida a través de diferentes herramientas tanto gratuitas como privadas, teniendo como objetivo primordial la mitigación de las emisiones generadas de manera personal, industrial, empresarial sectorial, con la ayuda del número de las emisiones de CO_2 en toneladas o kilogramos equivalentes generadas por dichas acciones.

Huella de carbono del autotransporte de carga mexicano comparada con EE.UU y Canadá.

En un panorama ortodoxo se persigue que las acciones que anteriormente generaban un determinado número de emisiones ahora no generen ninguna o que se acompañen de tareas mitigantes de manera directa a las emisiones, para poder llegar a ser carbono neutro. Con la finalidad de conocer las emisiones generadas por el autotransporte de carga mexicano, se utilizó la versión *The scope 3 evaluator*. En dicha herramienta se pueden obtener resultados para los 3 tipos de alcances, es decir, emisiones directas (alcance 1), emisiones indirectas (alcance 2) y emisiones directas e indirectas (alcance 3). El *scope 3* incluye la evaluación de 15 categorías identificadas como significativas por el GHG Protocol:

Tabla 2: Categorías de análisis – *The Scope* 3

Categorías - *The Scope* 3	
1	Compra de bienes y servicios
2	Bienes de capital
3	Combustible y energía
4	Transporte y distribución interno
5	Residuos generados en las operaciones
6	Viajes de negocios
7	Desplazamiento de los empleados
8	Activos arrendados - internos
9	Transporte y distribución externo
10	Procesos posteriores a los productos vendidos
11	Utilización de los productos vendidos
12	Tratamiento de los productos vendidos al final de su vida útil
13	Activos arrendados - externos
14	Franquicias
15	Inversiones

Fuente: Elaboración propia
Para el cálculo de la Huella de Carbono se utilizaron las categorías 3, 6 y 7 relativas al combustible y energía, viajes de negocios y desplazamientos de los empleados.

Las categorías utilizadas, para el cálculo de la huella de carbono fueron la 3,6 y 7, debido a que el cálculo realizado es para un sector específico, razón por la cual, los datos requeridos para el cálculo de la huella de carbono del sector fueron el periodo de tiempo, mismo que fue determinado con base en la disponibilidad de los datos requeridos, 2003-2011. También se utilizaron los datos correspondientes a la utilización del combustible, diferenciada entre gasolina y diésel, de los cuales las unidades de medida son MJ, es decir Megajoules. Así mismo, se han incluido en el cálculo las emisiones de CO_2 generadas por el autotransporte de carga de manera anual, para el periodo señalado, especificándose en unidades de toneladas métricas de CO_2 equivalente. Los datos utilizados se obtuvieron mayormente de las estadísticas del Sistema de clasificación de la industria norteamericana, por sus siglas en inglés NAICS (*North American Industry Classification System)*, así como del Sistema de información energética. Las series de datos utilizadas se pueden consultar en el apartado de Anexos.

Tabla 3: Huella de carbono calculada para el autotransporte de carga mexicano, 2003-2011

México	**Scope 1, 2 y 3**	**Scope 1**	**Scope 3**
kg CO2-eq	295,091,852,160.39	128,311,318,128.36	166,780,534,032.02
Porcentaje de HC	100%	43,48%	56,52%

Fuente: Elaboración propia. El Scope 1 representa las emisiones directas y el Scope 3 las emisiones indirectas.

La huella del autotransporte de carga mexicano de acuerdo a la herramienta Scope 3 es de 295,091,852,160.39 kg de CO2 equivalente, lo que indica el número de emisiones generadas de manera directa e indirecta del 2003 al 2011, donde el 43.48% fueran emisiones indirectas y el 56.52% fueron emisiones directas Se realizó el cálculo de la huella de carbono para EE.UU del mismo sector y bajo el mismo esquema de datos, donde las emisiones indirectas son mucho mayores, es decir, del 80.62%, lo anterior como resultado de una menor utilización del transporte terrestre de carga, ya que EE.UU. utiliza para su comercio exterior mayormente el transporte marítimo.

Tabla 4: Huella de carbono calculada para el autotransporte de carga estadounidense, 2003-2011

EE.UU	**Scope 1, 2 y 3**	**Scope 1**	**Scope 3**
kg CO2-eq	147,760,806,958,813,000	119,126,599,656,302,000	28,634,207,302,509,700

| Porcentaje de HC | 100% | 80.62% | 19.38% |

Fuente: Elaboración propia. El Scope 1 representa las emisiones directas y el Scope 3 las emisiones indirectas.

Sin embargo, las emisiones generadas por EE.UU no son comparables con las generadas por México que en comparación con las estadounidenses son mucho menores. En relación las emisiones generadas por Canadá, se puede observar que en porcentaje se tienen emisiones directas muy similares, 46.20% y 43.48% para Canadá y México respectivamente, tanto en porcentaje como en las emisiones de CO2. Si bien por razones de disponibilidad de datos en la investigación se dejaron fuera algunas de las categorías identificadas por el Scope 3, cabe resaltar que los datos generados se dividen en Scope 1 y Scope 3, donde el Scope 1 se refiere a las emisiones directas y el Scope 3 a las emisiones indirectas. Las emisiones indirectas cobran importancia ya que la mayor parte de las empresas y/o sectores no las reporta. Sin embargo tanto en México como en Canadá el porcentaje de la huella de carbono es mayor en las emisiones que se generan de manera indirecta, en ambos casos por los empleados del sector que por la industria del autotransporte de carga en sí misma.

Tabla 5: Huella de carbono calculada para el autotransporte de carga canadiense, 2003-2011.

Canadá	Scope 1, 2 y 3	Scope 1	Scope 3
kg CO2-eq	286,539,863,249.08	132,392,495,010.90	154,147,368,238.18
Porcentaje de HC	100%	46.20%	53.80%

Fuente: Elaboración propia. El Scope 1 representa las emisiones directas y el Scope 3 las emisiones indirectas.

CONCLUSIONES

Para mitigar las emisiones generadas en cualquier industria se pueden realizar diferentes acciones, entre ellas la utilización de fuentes de energía consideradas más limpias a las que se estén utilizando en el proceso actual, sin embargo, el autotransporte de carga se maneja mayormente a base de gasolinas y diesel, por lo que dichas acciones para ésta industria no parecen posibles en un futuro inmediato, aun cuando México tiene ante la ONU, un compromiso de reducción del 22% de GEI, razón por la cual la SEMARNAT pretende incrementar la flota vehicular a gas natural así como el proyecto de homologación de la normatividad ambiental con el TLCAN. Lo anterior debido a que el autotransporte de carga, como ya se ha mencionado, se dirige a los países del norte (de acuerdo a cifras del INEGI, en el 2013 el 82% del comercio exterior se llevó a cabo con EE.UU y Canadá). Por otra parte, la reducción de viajes internacionales de México hacia EE. UU, no parece ser una verdadera opción, tomando en cuenta la relación comercial entre ambos países y las figuras empresariales que en el sector operan, resaltando la importancia del hombre-camión abarcando el 81.7% de la estructura empresarial del sector, para el cual el cálculo de la huella de carbono requeriría de capacitación y sobre todo para la mitigación de las emisiones, para lo cual aparte de proyectos verdes, la opción para el sector del autotransporte de carga mexicano parece ser la compra de bonos de carbono, disponible en el mercado actual por varias empresas denominadas *"brokers"* que ofrecen la venta de éste producto, donde un bono de carbono equivale a mitigar una tonelada de CO_2. La medida anterior se propone tomando en cuenta el compromiso mencionado de México ante la ONU de descarbonizar su economía, mediante una reducción de las emisiones directas de bióxido de carbono, metano, óxido nitroso y gases fluorocarbonados. Con el conocimiento de que para el autotransporte de carga mexicano, la mayor parte de sus emisiones son generadas por bióxido de carbono, cuya huella de carbono genera al ambiente 295,091,852,160.39 kg de CO2 equivalente, de acuerdo a los cálculos en el *Scope 3*. Otra alternativa a la reducción de emisiones es el transporte multimodal, contribuyendo también a la reducción de tiempos de entrega, así como incentivar el consumo local, sin cerrar las fronteras a la gran variedad de productos globales, simplemente crear una cultura que fortalezca el consumo de lo producido en cada zona geográfica.

ANEXOS

Anexo 1: Datos utilizados en el cálculo de la Huella de Carbono para el autotransporte de carga canadiense durante el período 2003-2011 en el Scope 3

Canadá

Categorías	Cantidad	Proceso	Unidades procesadas	Cambio climático (kg CO2-eq)
Plan B: Instalación de combustible y las emisiones de vehículos	126168224299.065	Diesel	kg	44748761678
Plan B: Instalación de combustible y las emisiones de vehículos	276188235294.118	Gasolina	kg	87643733333
3 -Combustibles y actividades relacionados con la energía	126168224299.065	Diesel en refinería	kg	6890577105
3 -Combustibles y actividades relacionados con la energía	276188235294.118	Gasolina, Gasolina sin plomo en refinería	kg	21065635577
6 - Viajes de negocios	1135700000	Dióxido de Carbono	kg	126188888888.889
7 -Desplazamientos de los empleados	20400000	Dióxido de Carbono	kg	2266666.667

Los resultados de la tabla se encuentran integrados por 3 de las 15 categorías del Scope 3, indicando que la categoría 6 es la que mayor afección tiene en el cálculo de la Huella de Carbono.

Anexo 2: Datos utilizados en el cálculo de la Huella de Carbono para el autotransporte de carga de Estados Unidos durante el período 2003-2011 en el Scope 3

Estados Unidos

Categorías	Cantidad	Proceso	Unidades procesadas	Cambio climático (kg CO2-eq)
Plan B: Instalación de combustible y las emisiones de vehículos	3.75398E+17	Diesel	kg	1.19126E+17
Plan B: Instalación de combustible y las emisiones de vehículos	1.16442E+12	Gasolina	kg	4.1299E+11
3 -Combustibles y actividades relacionados con la energía	3.75398E+17	Diesel en refinería	kg	2.86326E+16
3 -Combustibles y actividades relacionados con la energía	1.16442E+12	Gasolina, Gasolina sin plomo en refinería	kg	63593646516
6 - Viajes de negocios	13803300000	Dióxido de Carbono	kg	1.5337E+12
7 -Desplazamientos de los empleados	20400000	Dióxido de Carbono	kg	2266666.667

Los resultados de la tabla se encuentran integrados por 3 de las 15 categorías del Scope 3, indicando que para Estados Unidos, la categoría 3 mediante la utilización de Diesel es la que mayor afección tiene en el cálculo de la Huella de Carbono.

Anexo 3: Datos utilizados en el cálculo de la Huella de Carbono para el autotransporte de carga mexicano durante el período 2003-2011 en el Scope 3

México

Categorías	Cantidad	Proceso	Unidades procesadas	Cambio climático (kg CO2-eq)
Plan B: Instalación de combustible y las emisiones de vehículos	288,002,862,823.53	Diesel	kg	91,392,908,469.33
Plan B: Instalación de combustible y las emisiones de vehículos	104,090,705,887.85	Gasolina	kg	36,918,409,659.03
3 -Combustibles y actividades relacionados con la energía	288,002,862,823.53	Diesel en refinería	kg	21,966,769,681.74
3 -Combustibles y actividades relacionados con la energía	104,090,705,887.85	Gasolina, Gasolina sin plomo en refinería	kg	5,684,831,016.95
6 - Viajes de negocios	1,252,140,000.00	Dióxido de Carbono	kg	139,126,666,666.67
7 -Desplazamientos de los empleados	20,400,000.00	Dióxido de Carbono	kg	2,266,666.67

Los resultados de la tabla se encuentran integrados por 3 de las 15 categorías del Scope 3, indicando que para México, la categoría 6 mediante la utilización de Diesel es la que mayor afección tiene en el cálculo de la Huella de Carbono.

REFERENCIAS

Carmona, E. (2009). "Retos y oportunidades para el transporte transfronterizo México-Estados Unidos". *NORTEAMERICA*, 181-194.

Comunicación ETRES Consultores. (2014). *Registro de Huella de Carbono. Será obligatorio para las empresas*. Obtenido de http://renovarte.es/registro-de-huella-de-carbono-sera-obligatorio-para-las-empresas/2014/09

Dussel Peters, E. (2008). "Los costos de Transporte en las exportaciones mexicanas". *Universidad Autónoma de México.,Banco Interamericano de Desarrollo (BID) y Centro de Estudios Latinoamericanos David Rockefeller, Harvard University*.
Estadísticas de Transporte de América del Norte. (2011). Obtenido de http://nats.sct.gob.mx

Frohmann, A., & Olmos, X. (2013). *Huella de carbono, exportaciones y estrategias empresariales frente al cambio climático*. Santiago de Chile: Comisión Económica para América Latina y el Caribe.

IEA/OECD. (2009). *Transport, Energy and CO2. Moving Toward Sustainability*. Paris: IEA/OECD.
Instituto Mexicano para la Competitividad. (2006). *Elementos para Mejorar la Competitividad del Transporte de Carga*. México, D.F.: IMCO

ITENE. (2015). *Institito Tecnológico del embalaje transporte y logística*. Obtenido de http://www.oficinahuelladecarbono.com/index.php/experiencia
Instituto Nacional de Estadística y Geografía. (2014). *Encuesta Anual de Transportes*. México: INEGI.

J. Sánchez, R., & Ulloa, M. (2007). "Facilitación del Comercio y el Transporte en América Latina y el Caribe" . *ECLAC - United Nations*, Boletín FAL 250.

Kim, N., & Van Wee, B. (2009). "Assessment of CO2 emissions for truck-only and rail-based intermodal freight systems in Europe". *Transportation Planning and Technology, 32*(4), 313-333.

Kobayashi, S., & Kahn Ribeiro, S. (2007). "Transport and Infrastructure, Assessment report of the Intergovernmental Panel in Climate Change". *Cambridge University Press*.

LR. (2015). *Lloyd's Register LRQA*. Obtenido de http://www.lrqa.es/certificaciones/iso-14064-norma-cambio-climatico/

Mendoza Cota , J. E., & Díaz, E. (2003). "Obstáculos al comercio en el TLCAN: El caso de transporte de carga". *Comercio Exterior, Vol 53. Núm. 12.*, 1112-1120.

Ministère de l'Écologie, du Développement durable et de l'Énergie. (2012). *Information CO2 des prestations de transport - Application de l'article L.1431-3 du code des transports*. MEDDE et ADEME

Ramirez, D. (2015). "Autotransporte debe optar por la especialización". *Directorio de Transporte, Logística y Carga T21*.

Secretaría de Comunicaciones y Transportes. (Abril de 2014). *Secretaría de Comunicaciones y Transportes* . Obtenido de Título de Concesión que en Materia Ferroviaria, ha otorgado el Gobierno Federal, por Conducto de la Secretaría de Comunicaciones y Transportes: http://gaceta.diputados.gob.mx/Gaceta/62/2014/feb/ConseFerr-20140218.pdfComunicación ETRES Consultores. (26 de sept de 2014). *Registro de Huella de Carbono. Será obligatorio para las empresas*. Obtenido de http://renovarte.es/registro-de-huella-de-carbono-sera-obligatorio-para-las-empresas/2014/09

Department of Transportation. (30 de Abril de 2015). *Federal Motor Carrier Safety Administration.* Obtenido de FMCSA: http://www.fmcsa.dot.gov/registration/form-op-1mx

Djankov, Simeon, Freund, Caroline, L., Pham, & Cong, S. (Abril 2007). "Trading on Time". *World Bank Policy*, Papel de trabajo No. 3909.

Estadísticas de Transporte de América del Norte. (Noviembre de 2011). Obtenido de http://nats.sct.gob.mx

Frohmann, A., & Olmos, X. (2013). *Huella de carbono, exportaciones y estrategias empresariales frente al cambio climático.* Santiago de Chile: Comisión Económica para América Latina y el Caribe.

IMT. (2015). Cómo calcular tarifas de autotransporte de carga. *Transporte. MX*.

Instituto Mexicano para la Competitividad. (2006). *Elementos para Mejorar la Competitividad del Transporte de Carga.* México, D.F.: IMCO.

Instituto Nacional de Estadística y Geografía. (2014). *Encuesta Anual de Transportes.* México: INEGI.

ITENE. (30 de Abril de 2015). *Institito Tecnológico del embalaje transporte y logística*. Obtenido de http://www.oficinahuelladecarbono.com/index.php/experiencia

J. Sánchez, R., & Ulloa, M. (2007). Facilitación del Comercio y el Transporte en América Latina y el Caribe . *ECLAC - United Nations*, Boletín FAL 250.

LR. (28 de Abril de 2015). *Lloyd's Register LRQA*. Obtenido de http://www.lrqa.es/certificaciones/iso-14064-norma-cambio-climatico/

Medina Ramírez, S. (2011). Apertura fronteriza al transporte de carga mexicano: ¿Fin del problema? *Comercio Exterior*.
Mendoza Cota , J. E., & Díaz, E. (2003). Obstáculos al comercio en el TLCAN: El caso de transporte de carga. *Comercio Exterior, Vol 53. Núm. 12.*, 1112-1120.

Ministère de l'Écologie, du Développement durable et de l'Énergie. (2012). *Information CO2 des prestations de transport - Application de l'article L.1431-3 du code des transports.* MEDDE et ADEME.

Ramirez, D. (2015). Autotransporte, actividad con el mayor costo operativo de combustible. *Directorio de Transporte, Logística y Carga T21*.

SCT. (11 de Enero de 2015). *Secretaría de Comunicaciones y Transportes*. Obtenido de El Departamento de Transporte de los Estados Unidos anuncia su voluntad de recibir solicitudes de transportistas mexicanos para operaciones de largo recorrido: http://www.sct.gob.mx/despliega-noticias/article/el-departamento-de-transporte-de-los-estados-unidos-anuncia-su-voluntad-de-recibir-solicitudes-de-tr/

SCT. (24 de Marzo de 2015). *Secretaría de Comunicaciones y Transportes*. Obtenido de Autotransporte Transfronterizo México - Estados Unidos: http://www.sct.gob.mx/transporte-y-medicina-preventiva/autotransporte-federal/autotransporte-transfronterizo-mexico-estados-unidos/

Secretaría de Comunicaciones y Transportes. (1 de Mayo de 2015). *Secretaría de Comunicaciones y Transportes*. Obtenido de SCT: http://www.sct.gob.mx/fileadmin/DireccionesGrales/DGAF/Documentos/03_carga.pdf

Secretaría de Medio Ambiente y Recursos Naturales. (2014). *Teoría y conceptos generales para elaborar inventarios verificables*. México, D.F.: Subsecretaría de Fomento y Normatividad Ambiental. Coordinación de Asesores.

Universidad Austral de Chile. (19 de Mayo de 2015). *Bosques Procarbono UACh*. Obtenido de http://www.uach.cl/procarbono/huella_de_carbono.html

Universidad Austral de Chile. (2015). *Bosques Procarbono UACh*. Obtenido de http://www.uach.cl/procarbono/huella_de_carbono.html

Zilio, M. I. (2012). "Curva de Kuznets ambiental, la validez de sus fundamentos en países en desarrollo". *Departamento de Economia, Universidad Nacional del Sur (UNS); Consejo Nacional de Investigaciones Científicas y Tecnológicas (CONICET); Instituto de Investigaciones Económicas y Sociales del Sur (IIESS)-UNS-CONICET*.

RECONOCIMIENTO

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INTEGRACIÓN DE LA GESTIÓN DE PERSONAL AL PLAN DE DESARROLLO EN LA MICRO Y PEQUEÑA EMPRESA EN MÉXICO

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RESUMEN

La presente investigación tiene por objeto analizar la situación actual de los planes de desarrollo en la micro y pequeña empresa mexicana, en particular la inclusión de la operación del proceso de selección, retención y mantenimiento de su personal, se distingue que el planteamiento estratégico impacta en el crecimiento de los niveles de competitividad promedio en el país, y a nivel internacional. Asimismo, se pretende identificar los factores que afectan directamente a la organización, entorpeciendo la implementación adecuada de la administración de personal en el plan de desarrollo empresarial. Los autores concluyen, que el micro y pequeño empresario carece de una visión clara y precisa que conduzca a lograr sus objetivos ya que la gestión del personal no es considerada e integrada en el plan para la mejora de las estrategias competitivas.

PALABRAS CLAVE: Desarrollo Empresarial, Gestión De Personal, Plan Estratégico

INTEGRATION OF PERSONNEL MANAGEMENT TO THE DEVELOPMENT PLAN IN THE MICRO AND SMALL ENTERPRISE IN MEXICO

ABSTRACT

This research aims to analyze the current situation of the development plans in the micro and small Mexican business, in particular the inclusion of the operation of the process of selection, retention and maintenance of its staff, distinguished that the strategic approach impact on the growth of average competitiveness at the country and internationally competitive levels. Also seeks to identify the factors that directly affect the Organization, hindering proper implementation of personnel administration in the business development plan. The authors conclude that the micro and small businessman does not have a clear and precise vision that will lead to achieving their objectives since the personnel management is not considered and integrated in the plan for the improvement of the competitive strategies.

JEL: M12, M38, M52, M54

KEY WORDS: Business Development, Management of Personnel, Strategic Plan

INTRODUCCIÓN

En México existe una alta concentración de micro y pequeños negocios interviniendo en todos los sectores productivos, manufacturero, comercial y de servicios, contribuyendo al desarrollo económico y social del país, tales empresas representan un importante eslabón en la cadena de producción nacional por su relevante participación en la generación de bienes y servicios, así como ofertando la mayoría de empleos. Sector que presenta limitaciones y carencia de recursos para alcanzar los niveles de productividad que le permitan ser competitivas; en promedio, fracasan más del 80% antes de los primeros 5 años de vida; existen algunos

factores que lo provoca: inadaptabilidad a los cambios, falta de innovación, complejidad de financiamiento, escasa penetración en mercados internacionales, y la ausencia de planeación, donde sea considerada de manera eficiente e integral la gestión del elemento humano, tornándose en la gran desventaja para afrontar las barreras de crecimiento si se considera que el factor humano es el que posee las capacidades que permiten a las empresas alcanzar sus objetivos.

Cabe destacar que en su mayoría los micro y pequeños empresarios no ostentan el perfil para gestionar capital humano, generando un panorama de inestabilidad laboral, escasez de oportunidades, disminución en compensaciones, minimización de prestaciones, baja motivación y poco interés en la formación y desarrollo del personal, provocando un alto índice de rotación además de problemas laborales, por lo que resulta imprescindible como parte de las estrategias de recursos humanos, su integración formal en el plan de desarrollo de la empresa, debido a que los cambios exigen adoptar nuevos enfoques en el campo del capital humano, como área vital de la organización.

En la primera parte de este trabajo de investigación se presentan las consideraciones sobre el fenómeno estudiado, y las prácticas de gestión del recurso humano en las MiPyMe mexicanas, posteriormente se analiza la importancia del manejo integral de los procesos de personal en el Plan de Desarrollo Empresarial bajo un enfoque estratégico y finalmente se exponen las conclusiones.

REVISIÓN LITERARIA

Importancia de la Micro, Pequeña y Mediana Empresa en México

En un mundo dinámico, no solo las grandes empresas, sino también la micro, pequeña y mediana empresa (MiPyMes) contribuyen de manera importante al desarrollo de la región y del país, las que a su vez se encuentran influenciadas por las fuerzas externas que afectan sus decisiones: nuevos competidores, fluctuación del mercado, nuevas tecnologías, factores sociales, económicos, políticos, etc.; de la misma manera sufren el golpe de los factores internos que son originados por las propias funciones de la empresa o por los impactos del entorno que pueden estimular la necesidad del cambio, convirtiéndolas en el sector más vulnerable para emprender su transformación.

En México operan 5.6 millones de empresas, de las cuales el 95.4% son micro, el 3.6% son negocios pequeños (Más del 65% son negocios familiares), el punto 8% son negocios medianos y punto 2% de los negocios son grandes, así mismo, el 49.5% corresponde a los servicios, 24.3% al sector comercio, el 18.1% a las manufacturas y 8.1% a otras actividades.. El 38.9 del personal ocupado corresponde a la micro, el 18.5 a los pequeños negocios, el 16.6 a la mediana empresa y el 26% a la gran empresa. En cuanto a la aportación a la producción la micro empresa solo genera el 9.8%, mientras que la pequeña el 9,5%, la mediana el 16.6% y la gran empresa el 64.1% (INEGI, 2014). La Secretaría de Economía (2014) estima que el 99.8% de las MiPyMe en conjunto generan el 74 por ciento de los empleos formales y el 52 por ciento del Producto Interno Bruto (PIB).

Se establece la estratificación de las micro, pequeñas y medianas empresas, de conformidad con los criterios (DOF, 2009) en los que define a las micro empresas del sector comercio como entidades que cuentan con menos de diez trabajadores, y las pequeñas empresas del sector comercial de hasta 30 trabajadores y del sector industria y servicios de hasta 50 trabajadores.

La mayor parte de las MiPyMe no planean de forma estratégica y operan siguiendo la inercia del sector o copiando las acciones de otros negocios que fueron rentables en un momento determinado que no garantiza la rentabilidad, es decir, las acciones de las MiPyMe se dan por reacción, en ocasiones de improvisación. Lo anterior da como resultado que la mayoría de las estrategias sean defensivas y por consiguiente, no puedan sostenerse en el largo plazo (Cleri, 2007).

Proceso De Administración De Personal

Desde la creación de las primeras empresas en México, la función de Recursos Humanos (RRHH) se ha venido desarrollando bajo el enfoque administrativo de los clásicos: Taylor (1903), Fayol (1916), entre otros, destacándose los aspectos operativos y rutinarios como prioridad, sin concebir al RRHH como área estratégica del negocio quedando fuera del plan de desarrollo de la organización, principalmente en la micro y pequeña empresa.

Todas las organizaciones requieren de personal competente para la ejecución de las diversas tareas a fin de ser mas productivas, de tal manera que el proceso de planeación del factor humano en las MiPyMe es la herramienta valiosa que permitirá identificar, y desarrollar las potencialidades de los individuos . La gestión de RRHH se inicia con la tarea de reclutar y seleccionar al personal, por tanto el proceso de reclutamiento y selección es parte importante de la planeación estratégica de la empresa (Bretones, Rodríguez, 2008).

Para mayor eficacia del reclutamiento, es determinante la anticipación con que se hayan previsto las necesidades. La necesidad de captar nuevo recurso humano en las empresas tiene diferentes causas y razones como son la expansión de la empresa, creación de nuevos puestos, jubilaciones, promociones internas, incapacidades laborales, despidos, maternidad, implantación de nuevas tecnologías, nuevos departamentos, etc., (Chiavenato, 2011).

La selección de personal constituye una de las funciones principales para atraer los nuevos talentos a la organización, área que también se ve afectada por los cambios que inciden en su aplicación.
Llevar a cabo un proceso de selección en una empresa la beneficia a tener menor rotación de personal y menor ausentismo, el trabajador debe sentirse identificado con la organización, con sus valores, y su filosofía, adaptarse al clima laboral y preservar la cultura organizacional, lo cual se logra a través de la socialización o inducción del nuevo integrante de la organización. La empresa debe implantar los instrumentos eficaces para lograr la integración inmediata del personal, a fin de formalizar el sentimiento de identidad y pertenencia (Werther, Davis, 2008).

Una de las grandes tareas para los responsables de los recursos humanos es la función de capacitación y el desarrollo, que tiene la finalidad de incrementar las capacidades del trabajador a propósito de aumentar la eficiencia organizacional, por lo que las empresas deben formular los planes de inversión requerida para tal efecto.

Es necesario establecer sistemas de promoción, ascensos y transferencias, para evitar en lo posible, la rotación de personal que repercute de diferentes maneras en la organización. Para la empresa, representa una verdadera ventaja contar con personal cada vez más competente y comprometido porque se asegura de lograr sus objetivos. La movilidad interna es parte del dinamismo que conlleva el propio desarrollo del capital humano para el mejoramiento de su calidad de vida (Mondy, 2005).

En 2007 la Asamblea Mundial de la Salud, de la Organización Mundial de la Salud (OMS), lanzó el plan global de acciones para la salud de los trabajadores (GPA), 2008-2017, con los siguientes objetivos: 1. Diseñar e implementar políticas para normar la salud de los trabajadores. 2. Proteger y promover la salud en el lugar de trabajo. 3. Promover la implementación y el acceso a los servicios de salud ocupacional. 4. Proporcionar y comunicar las evidencias de acción y práctica. 5. Incorporar la salud de los trabajadores en otras políticas.

Algunas de las tareas críticas que han tenido que enfrentar los directivos es y ha sido la motivación, la comunicación, el trabajo en equipo y la toma de decisiones.

La seguridad social es la protección que una sociedad proporciona a los individuos y los hogares para asegurar el acceso a la asistencia médica y garantizar la seguridad del ingreso, en particular en caso de vejez, desempleo, enfermedad, invalidez, accidentes del trabajo, maternidad o pérdida del sostén de familia. Sólo el 20 por ciento de la población mundial tiene una cobertura adecuada en materia de seguridad social mientras que más de la mitad no dispone de ninguna forma de protección social (OIT, 2001).

Según la Ley del Seguro Social en México, "La seguridad social tiene por finalidad garantizar el derecho a la salud, la asistencia médica, la protección de los medios de subsistencia y los servicios sociales necesarios para el bienestar individual y colectivo, así como el otorgamiento de una pensión que, en su caso y previo cumplimiento de los requisitos legales, será garantizada por el Estado".

Actualmente en nuestro país es el derecho social más rezagado, más del 61.2% de la población carece de éste, principalmente afecta a los de menor ingreso y de mayor vulnerabilidad (CONEVAL, 2015).

Otra variable determinantes en la gestión de RH es la responsabilidad social interna. Una empresa socialmente responsable genera confianza entre sus clientes y proveedores y fomenta la fidelidad de los trabajadores hacia la compañía, con empleados comprometidos con la organización se ahorran costos y logran mejoras en rendimiento, lo que se refleja en productividad, en aumento de ventas y satisfacción del cliente, aunque estas prácticas aún están lejos de ser parte de los esquemas de trabajo de las MiPyMe (COMPITE, 2013).

Otra de las acciones valiosas para el área de RRHH es el proceso del sistema de remuneraciones que se enfoca a establecer y mantener estructuras salariales justas y equitativas a través de las técnicas provistas para lograr atraer y retener al personal apto para el desempeño eficaz de las tareas y cumplir con su compromiso social.

Perfil Actual del Micro y Pequeño Empresario en México

En México, la mayoría de los emprendedores posee solamente estudios de licenciatura, y en algunos casos los empresarios no alcanzaron a terminar el nivel preparatoria o bachillerato; el perfil actual del micro empresario mexicano reúne ciertas características, como lo señala el estudio realizado por ITESM-FIU-COPARMEX (citado en Rodríguez Valencia 2010) en el que se aprecia como el micro y pequeño empresario promedio reviste los siguientes factores en su perfil:

Tabla 1 Perfil del emprendedor en México

ES PROPIETARIO	ANTIGÜEDAD COMO EMPRESARIO		ALTERNA CON EMPLEO	PERTENECE A ORGANISMO EMPRESARIAL	DISPOCISIÓN A ASOCIARSE CON OTROS PEQUEÑOS
80%	< 3 AÑOS	20.5 %	10 %	35 %	49 %
	÷ 3 Y 5 AÑOS	15.4 %			
	> 5 AÑOS	64.2 %			

Elaboración propia con datos de Rodríguez Valencia 2010, con los cuales se perfila la identidad de un empresario promedio, considerando el tiempo que tiene en este ámbito, si es propietario o pertenece a algún organismo empresarial o asociación.

En un estudio de la Universidad del Valle de México, los empresarios en México reconocen que deben actualizar sus técnicas de organización, adoptar estrategias que vayan al ritmo de los acontecimientos a nivel mundial y adaptarse al entorno global competitivo actual.
Navas (2006) apunta que el papel que juegan actualmente las micro y pequeñas empresas es vital, ya que son quienes inyectan capacidad innovadora y con esto se mejora la competitividad de las economías regionales y nacionales. Sin embargo, su relación productividad – empleo aun sigue siendo un inconveniente para su crecimiento y mantenimiento.

Es una realidad que las otrora familiares micro y pequeñas empresas en México, han comenzado a cambiar de visión y abrir su panorama más allá de los sistemas tradicionales, contando para ello con el Plan de Desarrollo Empresarial.

Plan de Desarrollo Empresarial para MiPyMe

La importancia de la micro y pequeña empresa radica en que se han convertido una de las mejores alternativas para la independencia financiera de muchas personas en los sectores en desventaja económica. La razón de realizar un Plan de Desarrollo Empresarial enfocado a las MiPyMe, es, según lo indican Aguirre y Hernández et.al. (2010) "… que las microempresas no soportarían el plan estratégico debido a su pequeña estructura y en las grandes el enfoque sería al perfeccionamiento de los planes ya establecidos."
El Plan de Desarrollo Empresarial radica en la asesoría o asistencia técnica a las MiPyMe, con lo que se despliega un diagnóstico con miras a la planeación de las actividades, la organización, e implementación de estrategias de gestión de personal; se deben además establecer y ejecutar algunos componentes adicionales, como la sensibilización de las empresas y el servicio de desarrollo empresarial, según algunos estudios del BID en Paraguay, (de Groote, Roberto; 2011)

Aguirre y Hernández et.al. en su propuesta, diseñaron un modelo en el que se destaca la forma en que los empresarios MiPyMe deben desarrollar su plan, a través de tres etapas:

I   Preparación del entorno
II   Desarrollo del plan estratégico de la empresa
III   Sistema de control.

Siguiendo este modelo, los dueños de las micro y pequeñas empresas, pueden conocer las fases de un plan de acción basado en los objetivos primarios (etapa I), madurar la misión, la visión y los valores de la empresa, con los que se van a direccionar los objetivos estratégicos (etapa II), y una vez consolidados estos, establecer un sistema de control que le permita analizar resultados y tomar decisiones estratégicas (etapa III). Los beneficios que atrae el Plan de Desarrollo Empresarial permean a toda la organización debido a que se trabaja con los colaboradores de la empresa, y se toman en cuenta sus experiencias, opiniones, puntos de vista e incluso las sugerencias, logrando así la participación de todo el personal

METODOLOGÍA

La investigación realizada es de tipo mixto, ya que se consideraron variables tanto cualitativas como cuantitativas, exploratoria, cuya unidad de análisis son micro y pequeños empresarios dedicados al comercio, tomando una muestra decidida por los investigadores, de 44 empresas, 26 micro, 14 pequeñas y 4 medianas se tuvo como instrumento una encuesta aplicada entre el 2 y el 5 de septiembre de 2015, que consiste en la encuesta de ocho preguntas relativas a las variables empleo y formación de capital humano.

RESULTADOS Y CONCLUSIONES

La revisión de la literatura y los resultados de la investigación coinciden en que los propietarios de este tipo de empresas no están preparados en el tema de la selección, contratación, integración y mantenimiento de personal, debido en buena parte al establecimiento de políticas y principios de administración basadas en las prácticas tradicionales.

También se confirma que en este sector, los empresarios en México no están preparados para cooperar empresarialmente, y trabajan con un profundo nivel de improvisación, y con un bajo grado o nula innovación

El llevar a cabo la integración de la gestión de administración de personal de manera específica a las necesidades de las Mi Pymes en un Plan de Desarrollo Empresarial, representa una enorme oportunidad de mejoramiento al interior de las empresas de este sector, con lo que tienen la posibilidad de emparejar la relación productividad – empleo, y con ello crecer en los componentes financieros, tecnológicos, de comercialización y en su estructura regulatoria en su organización y por supuesto en todos los aspectos relacionado con los recursos humanos.

El tránsito oportuno del esquema tradicional que las Mi Pymes tienen actualmente, al proyecto innovador de adoptar estas medidas, que se podrían incluir en políticas del Plan de Desarrollo de este segmento de empresas, vislumbra un cambio positivo hacia un nuevo espacio que les lleve a ser más rentables en lo particular y en lo general a una mayor contribución al producto interno bruto del país.

REFERENCIAS BIBLIOGRÁFICAS

Aguirre y Hernández, F., Rivera González, O., & Ruiz Contreras, G. (2010). Desarrollo e Implementación de un Modelo de Planeación Estratégica Dinámica Enfocado a las MiPyMe de la Región Córdoba-Orizaba, para consolidar su permanencia y Crecimiento. Recuperado Octubre 10, 2015 disponible en [http://congreso.investiga.fca.unam.mx/docs/xv/docs/36.pdf]

Bárcena, A., & Prado, A. (2013). Como mejorar la competitividad de las MiPyMe en la Unión Europea y América Latina y el Caribe. CEPAL. Recuperado Septiembre 22, 2015, disponible en [http://repositorio.cepal.org/bitstream/handle/11362/3094/S2013021_es.pdf?sequence=1]

Bretones, F. D. & Rodríguez, A. (2008). [Recruitment, Personnel Selection and Induction]. "Reclutamiento y selección de personal y acogida." In M. A. Mañas y A. Delgado, Recursos Humanos. Madrid: Pirámide. ISBN 978-84-368-2234-2.

Chiavenato, I. (2014). "Administración de recursos humanos: El capital humano de las organizaciones" (8va Edición.) McGraw Hill.

Cleri, C. (2010). Carloscleri. Recuperado Septiembre 25, 2015, disponible en [http://carloscleri.blogspot.mx/2010/06/2000-estrategias-pymes-y-cooperacion.html]

Consejo Nacional de Evaluación de la Política de Desarrollo Social. Informe de Evaluación de la Política de Desarrollo Social en México 2014 México, DF: CONEVAL, 2015. Disponible en [http://www.coneval.gob.mx/Informes/Evaluacion/IEPDS_2014/IEPDS_2014.pdf [Octubre 12, 2015]

Daude, C. (2013). PERSPECTIVAS ECONOMICAS DE AMERICA LATINA Políticas de MiPyMe para el cambio estructural. OCDE. Recuperado Octubre 12, 2015, disponible en [http://www.oecd.org/dev/americas/PPT_ LEO 2013 Presentation Maison de l Amerique_ES.pdf]

De Groote, R. (2011). Programa de Desarrollo Empresarial para las Pequeñas y Medianas Empresas (MiPyMe) (Pr-0100). Recuperado Octubre 15, 2015. disponible en [http://www.mercosur.int/msweb/.../Reglamento Operativo PR100.DOC]

Diario Oficial de la Federación, (2009). Acuerdo por el que se establece la estratificación de las micro, pequeñas y medianas empresas. Recuperado Octubre 05, 2015, Disponible en [http://dof.gob.mx/nota_detalle.php?codigo=5096849&fecha=30/06/2009]

Fayol, H. "General and Industrial Management." Agris 2013, Recuperado Septiembre 25, 2015, disponible [en http://agris.fao.org/agris-search/search.do?recordID=US201300248434]

Instituto Nacional de Estadística y Geografía. Censos Económicos 2014. Resultados Definitivos. (2015). Recuperado Septiembre 27, 2015, disponible en [http://www.inegi.org.mx/est/contenidos/proyectos/ce/ce2014/]

Maslow, Abraham H. "Motivación y personalidad". Ediciones Díaz de Santos; España, 1991

Navas, D. (2006). "Las medianas y pequeñas empresas, clave del mundo globalizado". En The Anahuac Journal. Vol. 6, No. 1, (First semester 2006).

Organización Internacional del Trabajo. (2001). Hechos Concretos Sobre La Seguridad Social. Recuperado Octubre 11, 2015, disponible en [http://www.ilo.org/wcmsp5/groups/public/---dgreports/---dcomm/documents/publication/wcms_067592.pdf]

Organización Mundial de la Salud, (2010). Entornos saludables Favorables, Fundamentos y modelos de la OMS. Recuperado Septiembre 20, 2015, disponible en [http://www.who.int/occupational_health/evelyn_hwp_spanish.pdf]

Organización Mundial de la Salud. (2013). Plan de acción sobre salud mental 2013-2020. Recuperado Octubre 18, 2015, disponible en [https://consaludmental.org/publicaciones/Planaccionsaludmental20132020.pdf]

R. Wayne Mondy, Robert M. Noe "Administración de recursos humanos." Pearson Educación 2005 Secretaría de Economía. (2013). Programa de Desarrollo Innovador 2013 - 2018. Recuperado Octubre 16, 2015. Disponible en]http://www.economia.gob.mx/conoce-la-se/programas-se/programa-de-desarrollo-innovador-2013-2018/]

Werther, Jr ;William B; Davis ,Keith (2008) "Administración de recursos humanos El capital humano de las empresas." McGraw Hill. Sexta Edición.

AGUA PRIETA, SONORA: SU COMPETITIVIDAD, DIAGNOSTICO Y ALTERNATIVAS PARA SU CRECIMIENTO

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RESUMEN

La competitividad es un factor determinante en el desarrollo económico de los países, México no es la excepción, por lo que el presente trabajo realiza un estudio en este ámbito tomando el diamante de Porter (Porter 1990) como base el crecimiento presentado para el estado de Sonora, donde el municipio de Agua Prieta no se encontraba evaluado, se han detectado en el estudio una gran oportunidad para el crecimiento económico de las empresas que se encuentran establecidas en la región, es de importancia mencionar que el desarrollo local permite la integración de grid empresariales que dan certeza en el crecimiento económico del municipio, generando ventajas competitivas. El estudio toma en cuenta todos los factores a evaluar que el Foro Económico Mundial(WEF), publica para identificar la competitividad internacional de los países, tomando esto como referencia en nuestro trabajo ya que evalúa la competitividad regional de empresas de bienes y servicios así como las industrias del aérea de maquila del municipio de Agua Prieta, permitiendo tener un parámetro de análisis para el mejoramiento de las condiciones empresariales tanto de parte del Gobierno Estatal, Municipal y el sector de las cámaras de comercio de Agua Prieta y la iniciativa privada.

PALABRAS CLAVE: crecimiento económico, desarrollo local, competitividad, mejoramiento de las condiciones empresariales.

AGUA PRIETA, SONORA: COMPETITIVE, DIAGNOSIS AND ALTERNATIVES FOR GROWTH

ABSTRACT

Competitiveness is a key factor in the economic development of countries, Mexico is no exception, so this paper makes a study in this area taking the diamond of Porter (Porter 1990) as a basis for growth presented status Sonora, where the municipality of Agua Prieta was not evaluated were detected in the study a great opportunity for economic growth of companies that are established in the region, it is important to mention that local development enables the integration of grid giving business certainty in the economic growth of the municipality, generating competitive advantages. The study takes into account all the factors to assess the World Economic Forum (WEF), published to identify the international competitiveness of countries, taking this as a reference in our work and evaluating the regional competitiveness of companies as well as goods and services the air of maquila industries in the municipality of Agua Prieta, allowing to have a parameter of analysis for the improvement of business conditions from both the State and Municipal Government and industry chambers of commerce of Agua Prieta and private initiative.

JEL: M2-Business Economics

KEYWORDS: Economic Growth, Local Development, Competitiveness, Improving Business Conditions.

INTRODUCCION

Michel Porter define la competitividad como la producción de bienes y servicios de mayor calidad y de menor precio que los competidores domésticos e internacionales, manifestándose en crecientes beneficios para los habitantes de una nación al mantener y aumentar los ingresos reales (Porter, 1990); partiendo de esta definición, resulta interesante establecer la relación que existe entre el nivel de competitividad de una región (para el caso de este estudio un Municipio) y la manera en que estos factores o indicadores impactan en el nivel de bienestar de la comunidad. El Foro Económico Mundial (WEF) publica anualmente el *Global Competitiveness Report,* el cual jerarquiza a más de 139 países por su nivel de competitividad internacional. En el caso de México cabe resaltar que después de haber ocupado la posición 31 en 1999, en el año 2005 ocupó el lugar 55 y en el último reporte (2010) se ubicó en la posición 66, seis posiciones menos que en el año anterior (ver figura 1).

Figura 1: Competitividad de México a nivel internacional.

Fuente: Elaborada con datos del Foro Económico Mundial. En esta figura se muestra como a través de la historia la competitividad de México a nivel Internacional, la gráfica presenta en la parte inferior el año que se evalúa de 1991 a 2010 y en la columna de la izquierda las posiciones que fueron ocupadas por nuestro país a nivel mundial, donde las posiciones variaron de la 31 en 1991, en el año 2005 la posición 55 y en el reporte del año 2010 se ubica en la posición 66. Todas estas posiciones se toman de 139 países que se evalúan, de esta manera México busca mediante este tipo de estudios mejorar la competitividad regional y local.

El WEF utiliza 12 variables que denomina "Pilares" para evaluar la competitividad de los países, y las posiciones que ocupó México en la evaluación de cada uno de estos pilares para el año 2010 fue:
Instituciones: 106
Infraestructura: 75
Ambiente Macroeconómico: 27
Salud y Educación Básica: 70
Educación Superior y Capacitación: 79
Eficiencia de mercado: 96
Eficiencia en el mercado laboral: 120
Eficiencia en el mercado financiero: 96
Preparación Tecnológica: 71
Sofisticación en los negocios: 67
Innovación: 79

Como el ranking va del 1 al 139, siendo el 1 el mejor y 139 el peor evaluado, se puede observar en la información anterior, que la mejor calificación para México fue en su Ambiente Macroeconómico y la peor en la Eficiencia de su mercado laboral.

Como se puede apreciar en la figura 1, México ha ido perdiendo sistemáticamente su nivel de competitividad desde el año 2000 sin poderse recuperar, sino que por el contrario, se ha visto rebasado por países como Chile (30), Puerto Rico (41), Panamá (53), Costa Rica (56) y Brasil (58). En este punto se retoma el interés de la investigación por conocer el impacto o relación de estos resultados con el nivel de desarrollo del país y sus diferentes regiones.

Entrando al tema de la competitividad en el estado de Sonora, el ITESM en su estudio: "La Competitividad de los Estados Mexicanos" realiza un análisis en cuatro puntos básicos para la competitividad estatal y compara a las 32 entidades en base a información cuantitativa y cualitativa. La tabla 1 presenta un resumen del nivel competitivo del estado de Sonora en los últimos años, y ahí se puede observar que aunque en el año 2003 se obtuvo una mejoría en la posición del nivel de competitividad, en el 2006 el estado vuelve a rezagarse a la posición 17. Afortunadamente para el año 2010 cambia de nuevo el panorama competitivo de la entidad al ubicarse en la posición siete a nivel nacional (Campos, et.al. 2010).

Tabla 1: Posición competitiva de Sonora entre los 32 estados (1 el mejor, 32 el peor)

Factores Considerados / año	1999	2001	2003	2006	2010
1. Desempeño Económico	11	6	6	14	6
2. Eficiencia Gubernamental	29	28	13	23	18
3. Eficiencia de Negocios	16	20	15	20	6
4. Infraestructura	6	2	12	8	8
Índice General	**13**	**12**	**9**	**17**	**7**

Fuente: Competitividad de los Estados Mexicanos (ITESM).

Quijano (2007) en su estudio *Competitividad y Desarrollo en los Municipios Sonorenses,* analizó la relación que existe entre el nivel de competitividad y el nivel de desarrollo en 16 municipios representativos de todos los sectores económicos del estado de Sonora, para los años 1990 y 2000. En la medición del índice de Competitividad Municipal el autor consideró aquellas dimensiones que pudieran de manera directa e indirecta favorecer la actividad empresarial de los municipios. Para ello se basó en datos cuantitativos clasificados en los siguientes factores: *Indicadores económicos* (instituciones, infraestructura, finanzas públicas y privadas, inversión, empleo e ingresos); S*ociales* (estadísticas socio demográficas, de seguridad, educación, tecnología, investigación, recursos humanos; *Globales* (participación en mercados, formación de redes e inversión extranjera); *Ambientales* (recursos naturales, patrimonio histórico, cuidado ambiental). Con el fin de elaborar una tipología de la competitividad para el estado de Sonora, los resultados se clasificaron en cinco tipos: Baja, Muy Baja, Media, Alta y Muy Alta. La figura 2 presenta los resultados por municipio para el año 2000, donde se puede observar que los municipios con mayor competitividad son Hermosillo, Nogales y Cajeme; y por otra parte, es posible apreciar que los municipios con menos competitividad son el de Alamos y Sahuaripa. Al final se aceptó la hipótesis que afirmaba que el nivel de competitividad de los municipios tiene un efecto directo en su nivel de desarrollo, de tal forma que mientras más competitivo sea un municipio, mayor será su nivel de desarrollo; y viceversa, a un bajo nivel de competitividad corresponderá un bajo nivel de desarrollo.

El Instituto Mexicano para la Competitividad (IMCO) proporciona una referencia muy interesante en la medición de la competitividad a nivel ciudades en nuestro país. Para el caso del estado de Sonora, el IMCO incluye en su estudio a Hermosillo, Ciudad Obregón, Nogales y Navojoa, que si bien son ciudades que se ubican en todo lo largo del estado, no pueden representar por si solas el desempeño de la economía regional. Entre los principales aspectos que inciden en la economía de Agua Prieta, están su cercanía con los Estados Unidos de Norteamérica y con ello, su importancia en el contexto internacional. La globalización de la economía ha ocasionado un importante tránsito de mercancías y personas con la economía más poderosa

del mundo. Esta debe ser una de las principales motivaciones para hacer de Agua Prieta, una ciudad fronteriza moderna, conectada y comunicada. Se cuenta con tres carreteras que dan acceso a la ciudad con el resto del estado, se cue

Figura 2: Competitividad de los Municipios Sonorenses 2000

Fuente: Quijano (2007). Competitividad y Desarrollo en los Municipios Sonorenses
En la presente figura se identifican los niveles de competitividad de los municipios del estado de Sonora, estos niveles se relacionan con la tabla de colores que se muestra en la parte inferior de la figura, en el estado de Sonora encontramos una diversidad de estos niveles por ejemplo: El municipio de Hermosillo presenta un nivel muy alto, Huatabampo nivel bajo, y así en diversos municipios, el municipio de Agua Prieta presenta un desarrollo competitivo medio por lo que se hace necesario un mejoramiento en las políticas públicas y en las cámaras de la industria y el comercio.

nta también con transporte ferroviario de carga y una pista local para la aviación menor, principalmente. El presente trabajo de investigación pretende obtener los indicadores de la competitividad económica de Agua Prieta, Sonora, esto con el fin de integrar un diagnóstico más detallado acerca de la situación competitiva de la entidad y contribuir en otra investigación a nivel estatal con el Instituto Tecnólogo de Hermosillo. Dicho análisis se desarrollará tomando como referencia la propuesta metodológica de Michael Porter (Diamante de la Competitividad), y que a partir del año 2009 se utiliza para realizar el Reporte Global de la Competitividad del Foro Económico Mundial, además de otros modelos que ya se aplican en el país (IMCO, ITESM, CIDE, entre otros).

Al final se espera identificar los factores más importantes para elevar la competitividad de los municipios y regiones del Estado de Sonora, y al mismo tiempo proponer las estrategias que las lleven a mejorar su situación competitiva, o cuando menos que les permitan hacer frente a las exigencias actuales del entorno económico internacional. Lo anterior se verá reflejado en un mayor nivel de competitividad económica para el Estado y un más alto y equitativo nivel de bienestar.

REVISION LITERARIA

De acuerdo al Banco Mundial, la competitividad es uno de los aspectos que deben tener las regiones y ciudades para promover el bienestar de sus residentes, ya que refiere la competitividad a la presencia de bases sostenibles para el crecimiento del empleo, de los ingresos y de la inversión y el comercio en respuesta a las oportunidades del mercado (Martínez, 2000). Por su parte Michael Porter, uno de los más destacados intelectuales en el debate sobre este tema, define a la competitividad como la producción de bienes y servicios de mayor calidad y de menor precio que los competidores domésticos e internacionales, manifestándose en crecientes beneficios para los habitantes de una nación al mantener y aumentar los ingresos reales (Porter, 1990). Ambas definiciones enfatizan que el realizar actividades encaminadas a mejorar la competitividad de regiones o ciudades, redundará en beneficios diversos para los habitantes de dicha región, especialmente en su nivel de ingresos.

A nivel empresa es posible definir a la competitividad como la capacidad de una empresa o sector de diseñar, producir y comercializar sus bienes o servicios en un mercado globalizado. A nivel regional se puede decir que competitividad es la capacidad de las regiones para alcanzar niveles de crecimiento sustentables en el tiempo (Subdere, 2002).

En la actualidad la mayoría de los autores relacionan a la competitividad regional con la competitividad de las empresas que se encuentran en ella. Porter (1990) menciona: "la competitividad de una nación depende de la capacidad de su industria a innovar y actualizarse acorde al paradigma de pensamiento predominante. Los costos laborales, las tasas de interés, las tasas de intercambio y las economías de escala son los más importantes determinantes de la competitividad. De lo anterior se desprende que el éxito de una región o país dependerá de la competitividad de sus empresas". Paralelo a esto Porter sugiere que el único concepto significativo para la competitividad en el ámbito nacional parece ser la productividad.

En la actualidad la mayoría de los autores relacionan a la competitividad regional con la competitividad de las empresas que se encuentran en ella. Porter (1990) menciona: "la competitividad de una nación depende de la capacidad de su industria a innovar y actualizarse acorde al paradigma de pensamiento predominante. Los costos laborales, las tasas de interés, las tasas de intercambio y las economías de escala son los más importantes determinantes de la competitividad. De lo anterior se desprende que el éxito de una región o país dependerá de la competitividad de sus empresas". Paralelo a esto Porter sugiere que el único concepto significativo para la competitividad en el ámbito nacional parece ser la productividad.

Existen cinco razones por las cuales las ciudades hacen la diferencia para el éxito de los emprendedores mexicanos y sus empresas: a) Los clusters, la concentración geográfica de empresas de un mismo sector, son una fuerza económica y social que puede impulsar a tu negocio. b) La gente, no los productos o la tecnología, son la fuerza motriz de tu empresa, y los trabajadores talentosos van a donde están las oportunidades: las ciudades. Los residentes urbanos son más jóvenes y más diversos que el resto de la población mexicana. El abundante acervo de talento en las ciudades, cada vez más especializado y concentrado, ofrece a los empresarios la oportunidad de encontrar la inteligencia y habilidades específicas que necesitan para sus negocios. c) Las instituciones ancla de las ciudades impulsan la innovación y el desarrollo de las empresas, en las zonas urbanas las instituciones ancla, como las universidades y los hospitales, generan investigación y tecnologías y tienen un enorme impacto en los mercados de muchas industrias. d) El capital sigue a los emprendedores, y los emprendedores siguen al capital, Los emprendedores deben ir a donde pueden conseguir financiamiento, y los capitalistas de riesgo prefieren estar cerca de los negocios en los que invierten. e) El trabajo es importante, pero la calidad de vida también lo es, as ciudades cuentan con distintos activos, culturas, valores, estructuras demográficas, apariencias y oportunidades. Encontrar una ciudad compatible con tus valores, los de tu empresa y los de tu marca es fundamental para tu competitividad.

Al identificar oportunidades para generar ventaja competitiva en el municipio de Agua Prieta, Sonora, nos brindaría beneficios que repercuten directamente en su población y por ende en su calidad de vida y además de reactivar loa economía en sus diferentes sectores productivos.

METODOLOGÍA

Para el desarrollo de la presente investigación se tomará como guía la propuesta metodológica de Michael Porter (1990), retomada en los últimos reportes del Foro Económico Mundial (WEF 2010, 2011). El diamante es un sistema en el que el papel de sus componentes puede contemplarse por separado, porque se encuentran todos interrelacionados entre sí, y el desarrollo o actuación de uno siempre va a beneficiar o a afectar a los otros. El marco en el que se gestan las ventajas competitivas consta de cuatro atributos: Condiciones de los factores: Condiciones de la demanda: Empresas relacionadas horizontal y verticalmente y la Estructura y rivalidad de las industrias. Todos estos atributos conforman un sistema, al cual Porter denominó "Diamante". Dos variables auxiliares complementan el marco del análisis: el gobierno y los

hechos fortuitos o causales. Las características de los determinantes o componentes del diamante determinan las industrias o los segmentos industriales en los que una nación tiene las mejores oportunidades para alcanzar el éxito internacional. El diamante de Porter genera un entorno fértil para la creación de empresas competitivas y promueve la agrupación en cluster de empresas globalmente competitivas. Adicionalmente, se genera un efecto en cascada hacia industrias relacionadas ya sea vertical u horizontalmente, con una tendencia a concentrarse geográficamente. Esto hace que el nivel de la competencia se incremente, se agilicen los flujos de información y acelere la dinámica del sistema. Otros dos elementos afectan también la configuración del Diamante a Nivel Nacional y el nivel de ventaja competitiva: la intervención del gobierno y los fenómenos fortuitos. Una nación generalmente alcanza el éxito en un sector en particular gracias a los cuatro componentes que conforman el Diamante de Michael Porter los cuales determinan el entorno en que han de competir las empresas locales que fomentan o entorpecen la creación de la ventaja competitiva. Las ventajas, en todos los determinantes o componentes del diamante, son necesarias para alcanzar y mantener dicho éxito. Sin embargo, gozar de condiciones favorables en cada atributo no es algo indispensable para poder conseguir ventajas competitivas en una industria. La definición sobre competitividad del autor servirá como pauta principal para la selección de los indicadores que integraran a la variable competitividad, partiendo de los seis componentes del diamante de la competitividad que se observan en la figura 3. Para ello se consideraran aquellos recursos o infraestructura de que disponen los municipios para fomentar las actividades empresariales.

Figura 3: El Diamante de la Competitividad

Fuente: Porter (1990)

Esta figura muestra en diamante de la competitividad diseñado por Porter en 1990, donde se puede apreciar los cuatro vértices del "diamante" incluyen los factores más importantes para medir el desempeño microeconómico, y una vez que se complementan con los factores Gobierno y Azar, constituyen una evaluación sistémica a la economía nacional o regional. Un resumen de la definición y caracterización de los cuatro componentes del diamante se presenta en la tabla 2, que se utilizan como factores determinantes en las evaluaciones de las ventajas competitivas tanto a nivel nacional, estatal y local.

Se efectuó un desplegué para realizar entrevistas y aplicación de cuestionarios diseñados específicamente para determinar el nivel de competitividad en la localidad, considerando variables como: recursos humanos, recursos naturales, ciencia y tecnología, infraestructura, población, empresas, instituciones y gobierno, cada una de ellas con sus correspondientes indicadores para su evaluación. Las entrevistas y aplicación de cuestionarios se desarrollaron en 30 días, con alumnas colaboradoras en la investigación. Se aplicaron 70 encuestas a diferentes empresas e instituciones y la información proporcionada fue capturada en un programa diseñado con la finalidad de poder identificar claramente lo relacionado a los aspectos del diamante de competitividad.

Tabla 2: Determinantes de la Ventaja Competitiva.

Condiciones de los factores:	Condiciones de la demanda:
Posición de la nación en lo que concierne a mano de obra especializada o infraestructura necesaria para competir en un sector dado.	La naturaleza de la demanda interior de los productos o servicios del sector.
1.- Cantidad, habilidades y costos de personal.	1.- La composición de la demanda en el mercado del país de origen, las exigencias de los compradores.
2.- Abundancia, calidad, accesibilidad y costos de los recursos físicos del país como tierra, agua, depósitos de minerales, bosques, energía hidroeléctrica y banco de peces.	2.- Tamaño y tasa de crecimiento de la demanda en el país de origen.
3.- Nivel de conocimientos que abarca los de tipo científico, técnico y de mercado que inciden en la cantidad y calidad de los bienes y servicios.	3.- Forma en que la demanda interna se internacionaliza e impulsa los productos y servicios en el extranjero.
4.- La cantidad y el costo de los recursos de capital disponible para financiar la industria.	
5.- Los factores que repercuten directamente en la calidad de vida de la población como tipo, calidad y costo de la infraestructura para los usuarios como el sistema de comunicaciones, transporte, atención médica, etc.	
Sectores afines y auxiliares:	**Estrategia, estructura y rivalidad de las empresas:**
La presencia o ausencia en la nación de sectores proveedores y sectores afines que sean internacionalmente competitivos.	Las condiciones vigentes en la nación respecto a cómo se crean, organizan y gestionan las compañías, así como la naturaleza de la rivalidad doméstica.
1.- Industrias proveedoras competitivos a nivel mundial que generen ventajas en las industrias secundarias mediante el acceso eficiente, oportuno y rápido a insumos rentables.	1.- Las formas en que son administradas y eligen competir.
2.- Industrias conexas competitivas en el ámbito internacional capaces de coordinar y compartir actividades en la cadena de valor cuando compiten o las que generan productos complementarios.	2.- Las metas que desean alcanzar y también la motivación de sus empleados y directivos. 3.- El grado de rivalidad interna, la obtención y conservación de la ventaja competitiva de la industria respectiva.

Fuente: *Ibid.*

Como ya se mencionó, el Gobierno y el Azar son variables que influyen de manera muy importante en el sistema nacional y que son necesarias para completar esta teoría. En primer lugar, el Azar, se refiere a los acontecimientos casuales que suceden fuera del control de las empresas (y normalmente fuera también del Gobierno de la nación), tales como nuevos inventos, perfeccionamientos en las tecnologías básicas, guerras, acontecimientos políticos externos y cambios sustanciales en la demanda de los mercados extranjeros. Por otra parte, el Gobierno, a todos los niveles, puede mejorar o deteriorar la ventaja nacional; a manera de ejemplo, basta con examinar la forma en que las políticas públicas influyen en cada uno de los determinantes (Porter, 1990). Para cerrar el estudio y tomar como pauta otros referentes teóricos muy importantes, se considerara la propuesta del Foro Económico Mundial en sus ediciones 2008, 2009 y 2010, los estudios de Competitividad en los Estados Mexicanos del ITESM, la propuesta del IMCO, así como el estudio de Cabrero et. al. para las ciudades mexicanas.

RESULTADOS

Como resultados de esta investigación, podemos resaltar que el diamante de Porter genera un entorno fértil para la creación de empresas competitivas y promueve la agrupación en cluster de empresas globalmente competitivas. Otros elementos que afectan también la configuración del Diamante a Nivel Nacional y el nivel de ventaja competitiva es la intervención del gobierno y los fenómenos fortuitos. Una nación generalmente alcanza el éxito en un sector en particular gracias a los cuatro componentes que conforman el Diamante de Michael Porter los cuales determinan el entorno en que han de competir las empresas locales que fomentan o entorpecen la creación de la ventaja competitiva. Las ventajas, en todos los determinantes o componentes del diamante, son necesarias para alcanzar y mantener dicho éxito. Sin embargo, gozar de condiciones favorables en cada atributo no es algo indispensable para poder conseguir

ventajas competitivas en una industria. Los resultados en el municipio de Agua Prieta, Sonora, fueron los siguientes: en recursos humanos, actitud es adecuada y es la que la empresa necesita (participación y colaboración), no existen problemas laborales fuertes en el municipio que tengan como causa la mano de obra (huelgas y conflictos), en cuanto a recursos naturales, el municipio dispone de recursos naturales aprovechables y productivos y promueve el aprovechamiento de estos recursos. En ciencia y tecnología, las universidades locales apoyan la innovación y desarrollo de las empresas instaladas en el municipio, existe buen nivel (calidad y disponibilidad) de egresados de universidades locales. En infraestructura, el municipio dispone de servicios de agua potable y drenaje de calidad y el suministro de energía eléctrica es adecuado. En cuanto a población, el cliente local es exigente y de buen gusto en el consumo de sus productos y sus habitantes consumen mayormente lo que se produce en la región. En lo relacionado a empresas, la iniciativa privada se identifica ampliamente con el municipio (sentido de identidad) y las empresas ubicadas en el municipio se encuentran integradas a cadenas nacionales e internacionales en su mayoría. En Instituciones de apoyo, se cuenta con organismos de protección civil para atender siniestros (bomberos, cruz roja y otras asociaciones), existe un efectivo sistema bancario y además el sistema educativo en general satisface las necesidades para mantener un municipio competitivo y por último en lo relacionado a gobierno, cumplir con los requisitos administrativos que impone el gobierno es fácil, los funcionarios del gobierno municipal se conducen con propiedad en el trato con las empresas fomentando la vinculación.

CONCLUSIONES

La competitividad se puede entender como la capacidad de una región para atraer y retener inversiones. En el caso de los municipios, este reto significa aprovechar la vocación propia de cada comunidad para vincularla adecuadamente con un contexto regional o intermunicipal más adecuado. En el ámbito municipal las diferentes estrategias para mejorar o fortalecer la competitividad, en relación a esta investigación son: impulsar el sistema de apertura rápida de empresas (SARE) así como homologar criterios y reglamentos en las administraciones municipales; brindar más incentivos a la planta laboral, contar con un efectivo programa de tratamiento de aguas residuales, dar pronta solución a os problemas de contaminación de aguas en ríos y canales. Las empresas locales deben de invertir en la innovación de sus productos, servicios o procesos y además la tecnología que utilizan las empresas locales debe ser actualizada y novedosa. Como no se cuenta con un aeropuerto local en el municipio, dificulta los vuelos nacionales e internacionales de negocios o trabajo, además Agua Prieta, cuenta con la infraestructura carretera suficiente pero no la adecuada. Un aspecto muy importante a considerar es que existe emigración de personas talentosas a otros municipios en busca de mejores oportunidades (fuga de talentos), aparentemente las empresas no se retroalimentan y apoyan entre sí y en su mayoría no cuentan con un buen nivel (calidad y cantidad) de proveedores locales. Los servicios de salud del municipio son deficientes y solo cubren las necesidades básicas de la población, no es fácil para un emprendedor local conseguir financiamiento para nuevos proyectos o creación de empresas, además el gobierno local no ha demostrado su capacidad, para enfrentar las contingencias climatológicas que ocurren en la región y en el ámbito económico el municipio no tiene perspectivas claras de crecimiento que aborden las problemáticas anteriormente mencionadas.

Todo lo anterior representa un área de oportunidad y se debe considerar lo siguiente: 1. **Contar con una Estrategia de Desarrollo Local** y definir, en consulta con los principales actores públicos y privados, las líneas de acción para incentivar el desarrollo empresarial y generar empleo. 2. **Gobiernos Municipales fiscalmente responsables e inclusivos contar con** Programas que apoyan la transparencia, la gestión tributaria, administración financiera y la formulación de presupuestos participativos. 3. **Optimizar el acceso municipal a los recursos de programas nacionales para mejorar la cobertura y calidad de servicios e infraestructura urbana.** 4. **Alinear la formación técnico-profesional y de investigación a los objetivos de la Estrategia de Desarrollo Local. 5. Facilitar el acceso a financiamiento y servicios de apoyo empresarial a las PyMES locales. 6. Reducir los costos y tiempos de trámites requeridos por las PYMES.** Esto es esencial para mejorar el ambiente de negocios a nivel local; el municipio puede

redefinir procesos a fin de reducir los tiempos de trámites requeridos las licencias, los permisos de funcionamiento o el pago de los impuestos municipales. 7. **Contribuir a la eficiencia de los productores locales, facilitando su acceso a nuevas tecnologías y mercados.** Los Gobiernos Municipales también pueden contribuir a mejorar la eficiencia de las principales empresas locales, facilitando la conformación de asociaciones de productores, el intercambio de experiencias sobre tecnologías de producción, y el mejor conocimiento sobre nuevos mercados.

BIBLIOGRAFÍA

Cabrero, Enrique; ZICCARDI, Alicia y ORIHUELA, Isela. 2003. *Ciudades Competitivas – Ciudades Cooperativas: Conceptos clave y Construcción de un Índice para Ciudades Mexicanas.* Comisión Federal de Mejora Regulatoria (COFEMER).

Echeverri, Rafael; Rodríguez, Adrián y Sepúlveda, Sergio. 2003. *Competitividad Territorial, Elementos para la Discusión.* Instituto Interamericano de Cooperación para la Agricultura (IICA). Sinopsis No 7. San José, Costa Rica. Julio, 2003.

Farrell, Gilda (Coordinadora). 1999. *La Competitividad Territorial, una Estrategia de Desarrollo Territorial con Base en la Experiencia de LEADER. Fascículo 1.* Observatorio Europeo.

López, Armando, 2002. V Informe de Gobierno del Estado de Sonora. Hermosillo, Son. México. Martinez, Nora, 2000. *Elementos de la competitividad económica en regiones desarrolladas de México.* depto. Economía. itesm campus Ciudad de México.

Miguel, Andrés y Heredia, Armando, 2001. *La competitividad regional en México: su impacto en el sur-sureste en el contexto del plan Puebla – Panamá.* Unidad y Diversidad. Instituto tecnológico de Oaxaca. Año 3 No 4. Agosto – diciembre. México.

Porter, Michael, 1990. *The competitive advantage for nations.* Ed. Harrod Business Review, en Miguel y Heredia, 2002. *La competitividad regional en México: su impacto en el sur- sureste en el contexto del plan Puebla – Panamá.* Unidad y Diversidad. Instituto tecnológico de Oaxaca. Año 3 No 4. Agosto – diciembre 2001.

César Augusto Ródríguez Gómez L, *Documento de Trabajo núm. 55, La competitividad en los municipios de México, Centro de Estudios Sociales y de Opinión Pública 2012.*

BIOGRAFÍA

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NECESIDADES DE CAPACITACIÓN DE LOS EMPRESARIOS-EMPRENDEDORES

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RESUMEN

La Cámara Nacional de Comercio y servicios Turísticos de Veracruz (CANACO), y el Instituto Tecnológico de Veracruz a través del Centro de Incubación e innovación empresarial(CIIE), preocupados por el desarrollo de las PYME (pequeña y mediana empresa) identificaron las necesidades de capacitación de los emprendedores empresarios para contar con empresas exitosas El presente artículo hace un análisis de la aplicación de un test " Evaluación de las características del emprendedor" a 90 gerentes de pequeñas empresas afiliadas a CANACO, una vez identificadas las características emprendedoras se registraron los factores de éxito de sus empresas en base a NBIA (National Business Incubation association).Las necesidades de capacitación de las PYME con respecto a las competencias a desarrollar son:En la planeación estratégica liderazgo, elaboración de planes de negocio, conocimiento de herramientas de calidad, productividad y desarrollar habilidades para gestionar recursos para las PYME.

PALABRAS CLAVE: PyMES, Emprendedor, Liderazgo, Planes De Negocio

TRAINING NEEDS ENTREPRENEURS-ENTREPRENEURS

ABSTRACT

The National Chamber of Commerce and Tourism services Veracruz (CANACO), and the Technological Institute of Veracruz through the Incubation Centre and business innovation (CIIE), concerned about the development of SMEs (small and medium enterprises) identified needs training of entrepreneurs to have successful companies This article analyzes the application of a test "Evaluation of the characteristics of the entrepreneur" to 90 managers of small companies affiliated CANACO, once identified the entrepreneurial characteristics were recorded factors success of their businesses based on NBIA (National Business Incubation Association).The training needs of SMEs with regard to competencies to be developed are:Leadership in strategic planning, business plan development, knowledge of quality tools, productivity and develop skills to manage resources for SMEs.

JEL: M00

KEYWORDS: SMEs, Entrepreneurship, Leadership, Business Plans

INTRODUCCIÓN

En base a un estudio realizado en el centro de incubación e innovación empresarial del Instituto Tecnológico de Veracruz, se sabe que es necesario agilizar los procesos capacitación de la PYME. Este estudio sugiere que es necesario conocer los requerimientos específicos del Emprendedor. Para formalizar el continuar con las investigaciones se solicita la autorización de la línea de investigación de emprendedurismo ante Dirección General del Tecnológico Nacional de México la cual es autorizada en 21 de Octubre del 2013 con la clave registro VER-LGAC-01-13 con el oficio No. 513.2.2/3970/2013

La pequeña y mediana empresa (Pyme) ha sido en los últimos años el centro de atención de numerosos trabajos, debido fundamentalmente a su gran capacidad de generación de empleo, así como al papel primordial que juegan como generadoras de riqueza. Esto ha permitido un mayor conocimiento sobre sus características y sus relaciones con el entorno económico. No obstante, las Pyme siguen necesitadas de capacitación para garantizar su posicionamiento en el mercado.

Los objetivos son: Analizar la situación de las 90 Pyme que son socias CANACO, considerando las características emprendedoras de los gerentes de sus principales factores competitivos y determinar las necesidades de capacitación la Pyme para su desarrollo.
Para llevar a cabo este trabajo se ha realizado un estudio empírico a partir de la información proveniente de 90 encuestas a Pymes que son socias de la Cámara Nacional de Comercio de Veracruz dirigidas al gerente de la empresa.

La técnica de recolección de información fue a través de entrevistas a los gerentes dueños PYME, el trabajo de campo se realizó durante los meses de febrero a septiembre 2014.
En esta investigación colaboraron 2 alumnos de Residencia profesional, 6 alumnos de servicio social y 2 alumnas de la materia de taller de investigación II y 2 tesistas, una de la carrera de ingeniería industrial y la otra de la carrera de administración.

Naturaleza Del Proyecto: En el último trimestre de 2014 Directivos del Instituto Tecnológico de Veracruz se presentaron con el cuerpo directivo de CANACO- Veracruz-México con la finalidad de realizar un "ANÁLISIS DE

Necesidades De Capacitación De Los Empresarios-Emprendedores: que son socios, para desarrollar a las pymes. Se integró un equipo de trabajo para el desarrollo de la investigación "Emprendedurismo" registro VER-LGAC-01-13. Con el siguiente programa de trabajo,

REVISIÓN LITERARIA

Una vez revisada la literatura sobre las características de los emprendedores y los factores de éxito de las competencias de los gerentes de las PYME se selecciona aplicar un test de evaluación que de acuerdo a Alcaraz (2011) al contestar cada frase en una escala del 1 al 5 y siendo 25 ítem si se alcanza más de 80 puntos tiene un nivel elevado en cuanto a las características evaluadas del perfil del emprendedor. Ver test en anexo 1. Así mismo en base a NBIA de los factores de éxito de las pyme se eligieron 8items de los cuales los gerentes entrevistados eligen 5 que identifican que están presentes en sus empresas. Una vez elegidos los 5 factores se les asigna de acuerdo al grado de importancia del 1 al 5, siendo 5 el más importante. Los 8 factores son:

1. La empresa tiene capacidad de innovación.
2. La empresa cuenta con la satisfacción de los empleados.
3. Cuenta con clientes satisfechos.
4. La contribución de la empresa es socioeconómica
5. Estoy satisfecho como propietario de la empresa con los resultados
6. Estoy satisfecho como propietario de la empresa con la gestión.
7. Capacidad de Planear Estratégicamente (Plan de Negocios)
8. La Posición de la empresa es competitiva.

La literatura muestra que las competencias que deben desarrollar los emprendedores-empresarios son liderazgo, orientación al cliente, capacidad para conseguir recursos, gerencia/administración de recursos, factores de producción, exige calidad, dirección y gestión, capacidad de red de contactos y comunicación.

Cada competencia debe desarrollarse en las características intelectuales, físicas, personales y motivacionales. Ver tabla 2.En base a lo anterior el Modelo Talento Emprendedor del Sistema Tecnológico Nacional de México desarrolla a los recursos necesarios para desarrollar a los emprendedores en el aspecto personal, intelectual, físico y motivacional. Ver Figura 1.

Figura 1: Modelo Talento Emprendedor

Figura 2. Zona conurbada Veracruz-Boca del Rio

La Mision De Canaco: Representar, promover, y defender los intereses del comercio organizado, los servicios y el turismo, como actividades importantes para la economía, anteponiendo el interés público sobre privado, fomentando la participación de sus agremiados, tanto comerciantes como prestadores de servicios.

Visión: Hacer de CANACO Servytur Veracruz, un organismo reconocido en el mundo por su trabajo a favor del comercio y del empresariado veracruzano, al ser organización líder en el Estado de Veracruz.

Tabla 2: Competencia de los emprendedores

Competencias Emprendedores	Caracteristicas De Los Empresarios-Emprendedores			
	Intelectuales	**Fisicas**	**Personales**	**Motivacionales**
Liderazgo	Creatividad/imaginación/Innovación Planificación con seguimiento sistemático de resultados Capacidad para solucionar problemas 　　Planificación con límites de tiempo	Energía Trabaja con ahínco	Iniciativa personal Capacidad de decisión Orientación hacia la oportunidad Honestidad/integridad/confianza Perseverancia/constancia Responsabilidad personal Es optimista	Necesidad de logro Necesidad de afiliación o ayuda a los demás.
Orientación Al Cliente	Creatividad/imaginación/Innovación Planificación con seguimiento sistemático de resultados Capacidad para analizar el ambiente 　　Capacidad para solucionar problemas	Energía Trabaja con ahínco	Orientación hacia la oportunidad Es receptivo en sus relaciones sociales Honestidad/integridad/confianza Responsabilidad personal	Percepción del beneficio económico Necesidad de afiliación o ayuda a los demás
Capacidad Para Conseguir Recursos	Creatividad/imaginación/Innovación Planificación con seguimiento sistemático de resultados Capacidad para analizar el ambiente Capacidad para solucionar problemas	Energía Trabaja con ahínco	Iniciativa personal Aceptación de riesgos moderados Orientación hacia la oportunidad Orientación hacia metas especificas Es receptivo en sus relaciones sociales Perseverancia/constancia Es optimista	Necesidad de logro Percepción del beneficio económico Necesidad de subsistencia
Gerencia/Administrar Recursos	Versatilidad/Flexibilidad Creatividad/imaginación/Innovación Búsqueda de la verdad e información Planificación con seguimiento sistemático de resultados 　　Capacidad para analizar el ambiente	Energía Trabaja con ahínco	Iniciativa personal Aceptación de riesgos moderados Orientación hacia la oportunidad Orientación hacia metas especificas Es receptivo en sus relaciones sociales Perseverancia/constancia Es optimista	Necesidad de logro Percepción del beneficio económico Necesidad de subsistencia
Factores De Producciòn	Versatilidad/Flexibilidad Creatividad/imaginación/Innovación Búsqueda de la verdad e información Planificación con seguimiento sistemático de resultados	Energía Trabaja con ahínco	Iniciativa personal Aceptación de riesgos moderados Orientación hacia la oportunidad Orientación hacia metas especificas Posee sentido de urgencia/tiempo valioso Es optimista	Necesidad de logro Percepción del beneficio económico Necesidad de subsistencia
Exige Eficiencia Y Calidad	Creatividad/imaginación/Innovación Planificación con seguimiento sistemático de resultados Capacidad para solucionar problemas	Energía Trabaja con ahínco	Iniciativa personal Capacidad de decisión Orientación hacia la oportunidad Orientación hacia metas especificas Posee un sentido de urgencia/tiempo valioso Perseverancia/constancia Es optimista	Necesidad de logro Necesidad de reconocimiento Necesidad de desarrollo personal Percepción del beneficio económico

direccion y gestion de la empresa	**Versatilidad/Flexibilidad Creatividad/imaginación/Innovación Búsqueda de la verdad e información Planificación con seguimiento sistemático de resultados Capacidad para analizar el ambiente capacidad para solucionar problemas**	**Energía Trabaja con ahínco**	**Iniciativa personal Aceptación de riesgos moderados Orientación hacia la oportunidad Orientación hacia metas especificas Posee sentido de urgencia/tiempo valioso Es optimista**	**Necesidad de logro Necesidad de reconocimiento Percepción del beneficio económico Necesidad de subsistencia**
capacidad de red de contactos	**Versatilidad/Flexibilidad Creatividad/imaginación/Innovación Búsqueda de la verdad e información**	**Energía Trabaja con ahínco**	**Iniciativa personal Estabilidad emocional/autocontrol Es receptivo en sus relaciones sociales Es optimista**	**Necesidad de desarrollo personal Necesidad de afiliación o ayuda a los demás**
comunicación	**Versatilidad/Flexibilidad Creatividad/imaginación/Innovación Búsqueda de la verdad e información Visión comprensiva de los problemas**		**Energía Trabaja con ahínco**	**Iniciativa personal Capacidad de decisión Estabilidad emocional/autocontrol Es receptivo en sus relaciones sociales Honestidad/integridad/confianza Es optimista**

Tabla2. Competencia de los emprendedores. Elaboración propia

Area De Estudio: El área de estudio es en la zona conurbada Veracruz- Boca del Rio a las PYME que son socios de la Cámara Nacional de Comercio de Veracruz. Según registro de enero 2015 los socios son 1960. Ver figura2.

METODOLOGÍA

La recolección de los datos se realizó a través de un cuestionario, diseñado en base a las características de los emprendedores que según Sánchez Almargo (2003) distinguen a las personas y también en base a los factores de éxito de las PYME que refiere la NBIA (National Business Incubation association) , con los socios CANACO que en registro de enero 2014 son un total de 1980. En la primera parte del referido cuestionario se tomaron en cuenta los ítem 1,3,4,5,6,7,10,11,12,15,18,21,22,24 que corresponden a la variable de emprendimiento interna.

Estos ítems midieron la variable en una escala de Likert. La escala fue usada del 1 al 5 para describir con exactitud la personalidad del emprendedor, donde 1 es "definitivamente no", 2 "probablemente no", 3 "indeciso", 4 "probablemente sí", 5 "definitivamente sí".

La segunda parte del referido cuestionario se identifica la presencia de los factores de éxito de las PYME según NBIA donde se toman en cuenta los ítems 1, 4,5, 8, 11,12, 14,18. De estos 8 ítems se les pidió al entrevistado escogiera 5 que identificara como presentes en su empresa, y que los priorizara en base a la importancia para el beneficio de su PYME.
La población seleccionada está formada por las PYME registradas en enero 2015 como socios CANACO –VERACRUZ y cuyo domicilio fiscal esta en la zona conurbada Veracruz-Boca del Rio, cuyo número de trabajadores no excede a 10 trabajadores.

Dicha población para efectos del diseño muestral, ha sido segmentada de acuerdo con los siguientes criterios, a) que los gerentes sean dueños de los negocios, b) que cuenten con al menos 5 años de antigüedad.

El número de empresas se obtuvo cruzando las diversas bases de datos disponibles trabajando con una población total de 600 PYMES asociadas a CANACO:

La recopilación de la información se ha llevado a cabo mediante la realización de una entrevista personal a los gerentes dueños de la PYME. El trabajo de campo se realizó en los meses de febrero a septiembre de 2015; una vez depurada la base de datos se trabajó con una muestra de 90 PYME. Cabe destacar la colaboración de residentes y alumnos de servicio social en las entrevistas que se llevaron a cabo.

RESULTADOS

Se entrevistaron a 90 gerentes dueños de la PYME SOCIOS CANACO (ver Figura 3)

Figura 3: Número de gerentes por rango de puntuación

Figura 3 datos

PUNTOS OBTENIDOS test	GERENTES PYME	PORCENTAJE
80-85	30	33%
86-90	18	20%
91-95	15	17%
96-100	12	13%
101-110	10	11%
111-120	3	3%
121-125	2	2%
	90	100%

Tabla. 3. Asignación de priorización por factor

	1 Innovación	2 Satisf. Empl.	3 Clientes Satisfechos	4 Contribución Socioeconómica.	5 Resultados	6 gestión	7 Planeación Estratégica	8 Empresa Competitiva	sumas
%	4%	3%	21%	1%	24%	13%	30%	3%	100%
Prioridad	6	7	3	8	2	4	1	5	
5			50		100	25	250	25	450
4			80		120		160		360
3			120		90	60			270
2	40	40	20	20	20	40			180
1	15	0	10	0	0	45	0	20	90
Total	55	40	280	20	330	170	410	45	1350

Tabla 4. Identificación de los factores

	1 Innovación	2 Satisf. Empl.	3 Clientes Satisfechos	4 Contrib. Socioeconóm.	5 Resultados	6 Ventas	7 Planeación Estratégica	8 Empresa Competitiva	sumas
%	8%	4%	20%	2%	20%	20%	20%	6%	100%
Prioridad	6	7	3	8	2	4	1	5	
5			10		20	5	50	5	90
4			20		30		40		90
3			40		30	20			90
2	20	20	10	10	10	20			90
1	15	0	10	0	0	45	0	20	90
Total	35	20	90	10	90	90	90	25	450

Tabla 4. Identificación de los factores

Factores De Éxito De Las Pymes	Priorización
1. La empresa tiene capacidad de innovación.	6
2. La empresa cuenta con la satisfacción de los empleados	7
3. Cuenta con clientes satisfechos.	3
4. La contribución de la empresa es socioeconómica	8
5. Estoy satisfecho como propietario de la empresa con los resultados	2
6. Estoy satisfecho como propietario de la empresa con la gestión	4
7. Capacidad de Planear Estratégicamente (Plan de Negocios)	1
8. La Posición de la empresa es competitiva.	5

Figura 4. Priorización de factores de éxito según los gerentes de estudio

ANÁLISIS DE LOS RESULTADOS

Al aplicar los cuestionarios a los 90 dueños de PYME que tienen al menos una antigüedad de 5 años, en el apartado test de características del emprendedor el 30 (33%) obtuvieron un puntaje entre 80-85 puntos, 18 (20%) obtuvieron 86-90, 15(17%) obtuvieron 91-100, 12 (13%) obtuvieron 96-100, 10 (11%) obtuvieron 101-110, 3 (3%) obtuvieron 111-120, 2 (2%) obtuvieron121-125.

Lo anterior permite observar que todos tienen arriba de 80 puntos y por lo tanto poseen características de empresarios emprendedores.

Con respecto a los factores de éxito d las PYME los gerentes identificaron los 5 ítem con los siguientes resultados. El puntaje más alto se le asignó a planeación estratégica 410 (30%), 330(24%) resultado, 280(21%) clientes satisfechos, 170 (13%) gestión, 55 (4%) innovación, 45 (3%) competitiva, 40 (3%) empleados satisfechos, 20 (1%) contribución socioeconómica.

CONCLUSIONES

Las necesidades de capacitación de las PYME con respecto a las competencias a desarrollar son:
Planeación estratégica: elaboración de planes de negocio,
Herramientas de calidad y productividad
Liderazgo
Gestión para aprovechar los programas de apoyo a las pymes.

La literatura consultada y la investigación de campo coinciden en que las necesidades de capacitación van orientadas al desarrollo de competencias en la elaboración de planes de negocio, de liderazgo, orientación al cliente y de gestión de recursos.

A través del modelo Talento emprendedor del Sistema Tecnológico Nacional de México se cuenta con la guía del facilitador, la guía del alumno y el material de apoyo que incluye 20 sesiones de 2 horas cada uno (se anexa bibliografía). Este estudio contribuyó a la formación de alumnos en sus proyectos integradores, así como a la concientización de la importancia de las pymes en México.

La Cámara Nacional de Comercio y servicios turísticos de Veracruz y el Instituto Tecnológico de Veracruz elaboraron el programa de capacitación 2016 en base a los resultados de esta investigación ya que se tiene que redoblar esfuerzos en el apoyo a de la micro, pequeña y mediana empresa ya que son la pieza clave para la generación de empleos y por tanto el desarrollo del país.

BIBLIOGRAFIA

Alcaraz Rodríguez Rafael. (2011). "El emprendedor de éxito". México, D.F. . McGraw HILL.

Anzola Rojas Servulo. (1993). "Administración de pequeñas empresas". México. McGraw Hill.

Boyd, Kathleen. (2006). "Developing a business program. Insights and advice for communities". U.S. . NBIA Publication.

Christensen Clayton M. (1999). "El dilema de los innovadores". México D.F.: Granica México S.A. de C.V.

Erlewinw, M. y Gerl, Ellen. (2004). "A comprenhensive guide to business incubation". U.S. NBIA

Gerber Michael E. (1995). "El mito del emprendedor". España. Paidós.

Grabinsky Salo. (2002) . "Ideas para pequeñas empresas". México. Edición especial del gobierno del estado.

Tecnológico Nacional de México (2015) "Modelo Talento Emprendedor". México. D.F.
www.tnm.gob.mx

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Test. Evaluación De Las Características Del Emprendedor

En cada una de las frases indique del 1 al 5 según sea su caso. 5. Definitivamente si. 4. Probablemente si 3.Indeciso 2. Probablemente no 1. Definitivamente no					
1. A menudo tengo ideas originales y las pongo en práctica	5	4	3	2	1
2. Cometo errores y me equivoco, pero sé que puedo hacer las cosas bien.					
3. Cuando quiero algo, insisto hasta que lo consigo.					
4. Cuando invierto mi dinero, prefiero arriesgarlo en algo que pueda darme más ganancia que en un deposito a plazo fijo.					
5. No me resulta difícil encontrar varias soluciones a un mismo problema.					
6. Puedo resolver problemas con rapidez, incluso bajo presión.					
7. Veo posibilidades creativas (innovaciones) en cada cosa que hago.					
8. Creo con firmeza que tendré éxito en todo lo que me propongo hacer.					
9. Creo con firmeza que si la primera vez no lo logro, debo intentarlo una y otra vez más.					
10. Cuando pienso en emprender, no me asusta lo desconocido.					
11. Cuando enfrento un problema, me gusta encontrar nuevas maneras de resolverlo.					
12. Me considero una persona ingeniosa, en especial cuando se presentan situaciones difíciles.					
13. Disfruto buscando nuevas formas de ver las cosas, en lugar de guiarme por las ideas ya conocidas.					
14. No me desaliento si encuentro obstáculos para alcanzar mis metas.					
15. Considero que a veces el riesgo es estimulante.					
16. Estoy convencido de mis capacidades y sé muy bien como explotarlas.					

17. Creo en el refrán " quien no arriesga no gana".

18. Estoy seguro de mis propias ideas y posibilidades.

19. Aunque no alcance mis objetivos en poco tiempo, no pierdo el interés.

20. Me entusiasma realizar cosas nuevas e inusuales.

21. Creo que en la vida hay que tomar riesgos para ganar más o alcanzar metas más altas.

22. Con frecuencia encuentro soluciones rápidas y eficaces a los problemas

23. Soy bueno para enfrentar una gran cantidad de problemas al mismo tiempo.

24. Considero que la perseverancia es importante para llegar al éxito.

25. Me siento seguro, incluso cuando me critican lo hecho.

Fuente. Emprendedor de éxito. Rafael Alcaraz Rodríguez paguina6

FACTORES DE ATRACCIÓN COMERCIAL DE LOS CENTROS COMERCIALES: DESDE EL VALOR PERCIBIDO DE LOS USUARIOS DE CALI-COLOMBIA

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RESUMEN

En esta investigación que tiene por objetivo identificar los factores de atracción comercial desde el valor percibido de los usuarios de los cinco principales centros comerciales de Cali- Colombia, se realizó a 530 usuarios de los centros comerciales mediante la aplicación de encestas personales en sus hogares. Los resultados se organizaron desde dos enfoques. Primero, a partir de un análisis descriptivo se presenta el perfil de los usuarios desde las variables sociodemográficas y conductuales, identificando que las personas que más visitan un centro comercial son personas jóvenes, de estrato tres, soltero con un nivel de estudio bachiller y universitario, y en su mayoría mujeres. Seguidamente, mediante un análisis descriptivo y multivariado se identificaron los factores determinantes de la atracción comercial resaltando que entre los cuatro factores, el más importante es el ambiente interno, seguido del ambiente externo, el surtido y por último el entretenimiento. Al evaluar los atributos de manera independiente se encontró que los determinantes en la atracción comercial son la seguridad, cercanía, variedad de almacenes y relación precios calidad.

PALABRAS CLAVE: Factores de Atracción, Centros Comerciales, Factores de Oferta, Factores de Demanda

COMMERCIAL FACTORS ATTRACTING THE MALLS: FROM THE PERCEIVED VALUE OF USERS CALI-COLOMBIA

ABSTRACT

This research aims to identify the factors of commercial attraction since the perceived value of users of the five major shopping malls Cali Colombia, to 530 users malls was performed by applying staff surveys in their homes. The results were organized from two approaches. First, from a descriptive analysis of the profile of users is presented from the sociodemographic and behavioral attributes, identifying that the people who visit the mall are young people from stratum three singles with a level of high school and university study, and mostly women. Then, through a descriptive and multivariate analyzes the determinants of commercial attraction noting that among the four factors, the most important is the internal environment and the external environment, the range and finally the entertainment were identified. In assessing the attributes independently found that the determinants of commercial attraction are safety, proximity, variety stores and price-quality ratio.

JEL: C35, C39, M31, L83

KEYWORDS: Comercial Attraction Factors, Shopping Centers, Supply Factors, Demand Factors

INTRODUCCIÓN

Las características del comercio minorista ha venido evolucionando a través del tiempo; inicialmente, la plaza mayor de las ciudades era el lugar de compras preferido por las personas, pero en la medida que las ciudades crecieron y el centro empezó a quedar prisionero en medio del tráfico, de las edificaciones y vías transformadas en caminos peatonales, empezaron a surgir otros áreas comerciales en otros sitios de las ciudades (Ward, 2005). En 1950, en Seattle - Estados Unidos construyeron el primer centro comercial grande y moderno llamado NorthGate, y en 1956 nace en Minneapolis el centro comercial Southdale Shopping Center que tenía como diferenciadores su techado y su climatización (Pintaudi, 1992). En la actualidad, la creación de centros comerciales se ha convertido en un fenómeno social que cada día llega a todas las comunidades posibles.

Este fenómeno también incursionó en Latinoamérica cuando en 1966 inauguran en São Paulo Brazil el Shopping Iguatemi (Pintaudi, 1992). Del mismo modo, que en Estados Unidos, este centro comercial brasileño cambió las dinámicas geoespaciales de la compra en toda la región. Como en la mayoría de los países de Latinoamérica, en Colombia ha sido significativo el incremento de los centros comerciales en las áreas urbanas del país. Entre los factores que originaron este fenómeno, se resalta la migración de la población del campo hacia la ciudad que alcanzó su máximo nivel histórico entre 1951 y 1964 (Vargas, Forero 2013), es así, que para el 2014 el 70% la población reside en las ciudades. El primer centro comercial de Colombia denominado San Diego nace en 1972 en la ciudad de Medellín, Antioquia; y en 1975 procedente de un modelo americano, se construye en Bogotá el Centro Comercial Unicentro (Fenalco, 2013), considerado el más importante de la Capital. Esta tendencia, motivó entre los constructores y comerciantes la cimentación de Centros Comerciales en todas las ciudades de mediano y gran tamaño del país. Si bien es cierto que en Colombia han surgido nuevos Centros Comerciales con áreas privadas de locales comerciales por habitante entre 0,13 y 0,15 metros cuadrados, en otros países como Chile y Estados Unidos la relación es cuatro y ocho veces mayor respectivamente.

Según cifras de la Federación Nacional de Comerciantes (Fenalco, 2013), en el país hay 480 de estos establecimientos con más de 50 locales, de los cuales el 50% se consideran galerías comerciales, porque no cuentan con una tienda ancla, es decir un supermercado en particular o una tienda por departamentos. El dos por ciento de los Centros Comerciales en las tres ciudades principales, Bogotá, Medellín y Santiago de Cali, tienen más de 500 locales, el 28 por ciento hasta 100 y el 33 por ciento menos de 50; en cuanto a las compras se refiere, en "Estados Unidos el 69% de los hogares las efectúan en Centros Comerciales; en Chile el 33%y en Colombia el 21%" (Camacho, 2012). Actualmente "existen en Colombia cerca de 16.000 establecimientos en los Centros Comerciales, con una media de 100 tiendas por centro comercial, de los cuales el 37% corresponde a tiendas de ropa, 14% calzado y artículos de piel, 11% artículos para el hogar, muebles y decoración y 13% restaurantes. Esta penetración del sector retail en las ciudades de Colombia ha permitido que para el 2011 se alcancen ventas de 29,9 billones de pesos, lo que indica un incremento del 22,9 por ciento respecto al 2010" (Fenalco, 2013). En este contexto, la evolución de la distribución comercial, experimentada en Colombia durante los últimos treinta años, ha originado importantes planteamientos de la situación futura de los diferentes tipos de minoristas, tales como mayor concentración per-cápita de Centros Comerciales produciendo saturación; por ejemplo, en ciudades como Medellín "son más de 150 paseos y Centros Comerciales en algunas áreas comerciales donde se observan locales desocupados" (Fenalco, 2013).

En Santiago de Cali, la concentración de los Centros Comerciales en una reducida área comercial de la ciudad, ha producido solapamiento y alta competencia entre ellos. Sin embargo, ha dinamizado la economía, impulsando a su alrededor el desarrollo de la vivienda, el comercio, hoteles, en algunos casos acopios industriales y la llegada de nuevos proyectos de comercio de igual o similar formato, constituyéndose en potencializadores del desarrollo de la ciudad. Es así, que los centros comerciales han empezado a transformarse hacia una oferta que integral diferentes actividades, tendencias que han sido motivadas por el comportamiento espacial de los usuarios, quienes no sólo salen de compras, sino que al mismo tiempo quieren entretenerse y divertirse. Por tanto, factores como la apariencia, la fachada, la

iluminación entre otros se han vuelto significantes a la hora de entregar una propuesta diferente a los públicos de los centros comerciales, en donde los consumidores no solo compran un producto, sino que también tienen la oportunidad de vivir una experiencia y dependiendo de cómo ésta sea percibida, traerá fidelidad hacia la marca. Por tanto, esta investigación resulta importante, porque identificar el comportamiento espacial de compra, así como los factores que atraen a los usuarios de los centros comerciales de la Cali será de utilidad para los empresarios que deseen localizar un nuevo punto de venta. Aunque existe un gran número de estudios similares en España y Estados Unidos, muchos de ellos se han enfocado desde la perspectiva de la oferta realizando estudios microeconómico para seleccionar el área más conveniente al ubicar un nuevo local comercial; y otros se orientado desde la demanda analizado el comportamiento espacial de los usuarios, lo que les ha permitido determinar los clientes actuales y potenciales de este tipo de negocios en una determinada área geográfica (KOSIAK DE GESUALDO, 2006). Dado que no se registraron estudios similares para la Ciudad de Santiago de Cali, se identificó la oportunidad de elaborar este proyecto con el cual se espera que la información de fuentes primarias permita identificar las variables determinantes de localización (desde la demanda y la oferta) para que los minoristas la tomen como referencia al momento de realizar los estudios de mercados que sirva de fuente en la decisión de abrir un nuevo punto de venta.

REVISIÓN LITERARIA

El estudio de la atracción comercial surge desde las características de la oferta, con el geógrafo Johann Heinrich Von Thünen (1820) quien planteó un modelo de localización optima agrícola. En 1909, Alfred Weber adaptó a la industria este modelo de la localización mediante el uso del costo mínimo de la distancia y el transporte como la variable clave para explicar la variación espacial en la renta económica respecto a la oferta y la demanda (Butler,1986). Es solo a partir de la década de los cincuenta que surgen otras teorías que refutan estos postulados teóricos, puesto que no toda la oferta de bienes y servicios basa su lógica de localización en patrones de frecuencia y alcance de las zonas de residencia. Las áreas de atracción comercial pueden surgir desde la misma infraestructura vial de las ciudades, cuando los comerciantes aprovechan las grandes vías o avenidas para localizar sus puntos de venta o cuando aprovechan la atracción generada por terceros. Asimismo, las variaciones de los ingresos a lo largo de la ciudad también contribuyen a la alteración del sistema de distribución comercial y de servicios (Kunz, 2003, pág. 34). En este contexto aparecen investigaciones, tanto estadísticas como empíricas, que incluyen variables de comportamiento en la determinación del área de atracción comercial. Chasco, (2000), estudia diferentes Modelos de Gravitación comercial, llamados gravitatorios, los cuales se fundamentan en dos variables: una variable "masa" o de atracción y otra variable "fricción" o de frenado. Desde el enfoque de marketing, estos modelos son útiles para explicar el comportamiento de los individuos ante situaciones de elección. Tal es el caso de los referidos Modelo de Reilly (1931), Modelo de Huff (1963), así como del Modelo Multiplicativo de Interacción Competitiva, de Nakanishi y Cooper (1974), Modelo Logit Multinomial de McFadden (1974) (que es una de las generalizaciones posibles del Modelo gravitatorio de Huff) y del Modelo Logit de Destinos Competitivos de Fotheringham (1989).

En la revisión de la literatura se observa que en España, los modelos más utilizados para la determinación de las áreas y subáreas comerciales son los modelos de gravitación comercial, fundamentalmente, los Modelos de Reilly y Huff. Estos modelos gravitatorios sólo tienen en cuenta dos variables: la variable "masa" de atracción comercial (que en el caso del Anuario Comercial de España es la variable "superficie de venta") y la variable "fricción", que suele ser la distancia entre el punto de origen y el de destino (o también, el tiempo de viaje). Los estudios recientes sobre atracción comercial incluyen en los factores de elección "el comportamiento de compra de la demanda". Aunque siguen siendo relevantes los factores económicos como el ahorro de dinero por el desplazamiento, este valor percibido varía dependiendo del tipo de producto que se espera comprar, y más recientemente, por la diversidad y combinación de actividades que en la actualidad realizan las personas en un centro comercial.

Es así, que las actividades de *ir de compras* son consideradas como una forma de ocio y recreación, porque además de realizar la compra de un producto o servicio, las personas aprovechan el viaje para realizar actividades complementarias de ocio y recreación. En este concepto de valor se encuentran intrínsecos: la calidad del producto, el precio y calidad del servicio. Para Fotheringham (1991, p96) existen tres tipos de atributos que se consideran en la decisión de elección de una alternativa comercial: los atributos del sitio, que describen las características no locacionales de cada alternativa; los atributos de situación, que se derivan de la localización; y los atributos de separación entre el consumidor y otra alternativa. En el comportamiento de compra del consumidor deben diferenciarse tres conceptos: *la preferencia, la elección del establecimiento y el patronaje.* La primera se refiere a un estado de influencia positiva de un consumidor respecto a una punto de venta dado; el segundo es la respuesta del comportamiento, que según Spiggle y Sewall (1987) "el consumidor compra o no en una tienda determinada; y el patronaje es el comportamiento del consumidor a lo largo del proceso de elección del establecimiento para realizar la compra.

Los autores que reconocen el comportamiento del consumidor en la decisión de comprar en un establecimiento y no en otro, afirman que el proceso anteriormente mencionado está influenciado por otros aspectos no reconocidos hasta el momento, como son los factores culturales, factores psicológicos de los individuos y las características del punto de venta (distancia, surtido, infraestructura), asociadas a la permanente innovación y cambio de características de la oferta comercial y de servicios (Kunz, 2003, pág. 34). Los modelos clásicos propuestos por "Nicosia, Howard y Sheth, Wenglen y Kollat y Blackwell" que han sido tomados como referencia por diferentes investigadores para la elaboración de estudios sobre el comportamiento de compra de los consumidores para la elección de un producto o un establecimiento (Diez De Castro, 1997). El modelo de Francesco M.

Nicosia desarrollado en 1960, se centra en el flujo de información entre la empresa y los consumidores y en la forma en que la empresa ejerce su influencia en los consumidores y a la inversa. Se tiene en cuenta el efecto de tres factores: actitudes, motivaciones y experiencias. El proceso se compone de cuatro campos: la actitud del consumidor ante el mensaje de la empresa, la búsqueda y evaluación que el individuo hace del producto, el acto de compra y la retroalimentación. El modelo de Howard y Sheth presentado por los autores en 1969 se fundamentó en la teoría del aprendizaje, el modelo explica el comportamiento de compra en relación con la elección a partir de tres condicionantes: la compra es racional, la elección de la marca es un proceso sistemático y la conducta debe ser probada por algún hecho y está constituido por unas variables de entrada como el ambiente comercial, social, de productos y de comunicación; y unas variables de salida como las características de los productos, la obligación temporal de compra, la situación financiera y personalidad del comprador, grupos sociales, organizacionales y la clase social, que desde el punto de vista cultural, introduce diversos tipos de necesidades y normas. Blackwell, Miniard, & Engel, (2002) a partir del modelo de Howard – Sheth, presentan un modelo de comportamiento del consumidor que detallan en cuatro secciones, así: El campo psicológico individual, el procesamiento de la información, el proceso de decisión y el proceso de compra.

A partir de los modelos clásicos de comportamiento del consumidor, en diferentes periodos de tiempo, los investigadores Spiggle y Sewall (1987), Diez de Castro, y Vigaray (1997) realizaron estudios empíricos para identificar el comportamiento del consumidor en la elección de un punto de venta para realizar sus compras. Estos autores coinciden que en el proceso del comportamiento del consumidor hacia la elección de un punto de venta, denominado "comportamiento de ir de compras" influyen variables personales, del entorno y del establecimiento o comerciales. A demás, aclaran que el comportamiento del consumidor no es estático, por tanto varía en cualquier fase del proceso. Spiggle y Sewall (1987) citado por (Diez De Castro, 1997, pág. 73) elaboraron a partir de investigaciones previas un modelo de elección del punto de venta por parte del consumidor, enfocado en tres aspectos: los estados sicológicos del consumidor (actitudes, percepciones, imagen, pesos de los atributos), las características del consumidor (orientación de compra, características demográficas y estilos de vida) y las características del punto de venta (distancia, surtido y tiempo recorrido). Diez de Castro (1997) expone que la elección de un punto de venta implica la

consideración de tres elementos: la existencia o no de una preferencia por parte del consumidor, la selección del punto de venta se relaciona con el hecho que el consumidor ha efectuado una compra en el mismo y la fidelidad se produce cuando el consumidor ha realizado compras de manera reiterada, la cual ha sido motivada por la costumbre o por la poca implicación del consumidor.

De Juan Vigaray & Rivera Camino, (1999) explica que la selección de un punto de venta supone por parte del consumidor tres decisiones influenciadas por las características del establecimiento y del propio consumidor: la elección del detallista, es decir el consumidor elige comprar en un punto de venta después de evaluar varias opciones, el consumidor desarrolla una preferencia por un establecimiento y el consumidor lleva a cabo el proceso de compra a lo largo del proceso con el objeto de adquirir un producto. Kosiak de Gesualdo (2006), desde un enfoque económico tradicional consideran que los consumidores se comportan de manera racional al hacer efectiva la compra de bienes y servicios, sin tener en cuenta los aspectos sicológicos y sociológicos del individuo por el territorio especifico donde se efectúan las compras. Estudios más recientes, incluyen como variables de atracción el ocio y el entretenimiento. McGoldrick y Thompson (1992) catalogan los factores de atracción económica que poseen los centros comerciales en tres dimensiones diferentes: Variedad, accesibilidad y actitud del mercado. En *la Variedad* incluye la calidad de las tiendas, diversidad de establecimientos, pluralidad de las mercancías, selección de productos, saldos especiales y promociones, acontecimientos singulares y exhibiciones; en este sentido, los consumidores prefieren un lugar donde pueden pasar muchas horas y realizar diversidad de actividades. La *Facilidad*, y la *accesibilidad* a grandes superficies hace referencia a atributos como: fácil aparcamientos, disponibilidad de comidas y refrigerios, áreas confortables, buenas vías de acceso y la ubicación geográfica que facilite el desplazamiento. La *Actitud de mercado* relacionada con la oferta tiendas personales, buenos precios, centros conservadores. "Ha de tenerse en cuenta que en relación a las restantes variables de marketing, la invulnerabilidad de una ventaja localizacional es elevada" (Jain y Mahajan* 1979; 219).

Otros elementos que determinan la atracción comercial que ejercen los centros comerciales son: el entorno, la competencia, la distancia y accesibilidad, imagen de la zona y del establecimiento; siendo este último, el factor de atracción más importantes para un punto de venta, entre ellos se resaltan el acceso vehicular y peatonal, transporte, facilidades de pago, limpieza y parqueadero. Desde el punto de vista de la demanda, la elección de establecimientos por parte del consumidor final, a diferencia de la elección de marcas, es una elección espacial (Fotheringham, 1988; 299), puesto que el lugar donde los consumidores deciden efectuar las compras y los desplazamientos que están dispuestos a asumir, determinan la importancia relativa de los distintos centros comerciales. El análisis de los factores de atracción desde la demanda, se concentra en identificar el comportamiento espacial que asumen los compradores ante los diferentes estímulos que perciben desde la oferta, tales como los motivos de elección, hábitos de consumo y compra. Para ello es importante segmentar la demanda desde las variables demográficas, psicográficas, geográficas y conductuales. En la revisión de la literatura se identifica que las investigaciones que explican el auge la atracción comercial que ejercen los centros comerciales y demás minoristas se concentran en el contexto norteamericano y europeo; especialmente en España en donde se han desarrollado investigaciones de tipo exploratoria y descriptiva. Desde la óptica del consumidor, se encontró que los principales criterios de selección son: el impacto visual de la zona, la imagen interna, y el servicio al cliente, convirtiéndose estos en los factores más importantes que tienen en cuenta los consumidores al momento de elegir un centro comercial, lo que da como respuesta, la preferencia, satisfacción, recomendación y recompra.

De Juan Vigaray & Rivera Camino, (1999) plantean que la actitud hacia un centro comercial que pueden sentir los usuarios hacia los mismos, se explica a través de sus tres componentes básicos: el componente cognoscitivo, el afectivo y el de conducta o comportamiento. (p. 29). Las investigaciones adelantadas por, Bell, (1999), Thang & Tan, (2003) y Rigopoulou, Tsiotsou, & Kehagias, (2008), siguen los criterios planteados por De Juan y Rivera (1999), ya que enfocaron sus estudios en las variables relacionadas con la imagen, la calidad y variedad de tiendas y productos, decoración de la tienda, servicio al cliente, conveniencia y precios justos; factores que inciden en que el grado en que a un usuario le guste más una

zona comercial en particular. Bell, (1999), concluye que los aspectos evaluados son los que aumenta la probabilidad que los consumidores compren y continúen comprando dentro de esa área; por su parte Thang & Tan, (2003), incluyen la variable accesibilidad, haciendo énfasis en la ubicación y la posibilidad de encontrar transporte público; mientras que Rigopoulou, Tsiotsou, & Kehagias, (2008), plantean que los consumidores parecen vincular la reputación de las tiendas con la calidad y el valor de su compra y apalancadas en la recomendación de familiares y amigos cercanos. Respecto a la distribución comercial y a los factores de competitividad de los centros comerciales, las investigaciones adelantadas, exponen que los factores de atracción que ejercen los centros comerciales, se podrían explicar en seis variables; accesibilidad, surtido, ocio, entorno interno, comunicación y promoción y la intención de comprar.

Suárez Vázquez, Rodríguez del Bosque, & Trespalacios Gutiérrez, (2000) y Suárez et al., (2004) han investigado sobre el poder de atracción de los centros comerciales a partir de la imagen, un factor vinculado al tiempo de desplazamiento y el denominado "primera visita". De Juan (2004) analiza y modela la atracción de los consumidores hacia los centros comerciales mediante la distancia y la imagen del detallista reflejada con base en las características propias de los centros comerciales, en este caso son la conveniencia y accesibilidad, los cuales además de la imagen, son los factores que más influyen en la atracción comercial. Alemán & Díaz, (2006), analizaron los condicionantes que atraen al comprador al centro comercial evaluando principalmente los factores hedónicos y de ocio; con técnicas descriptivas, análisis de hipótesis, factorial y de regresión; el principal aporte de esta investigación, es la de advertir la importancia del ocio como atractivo principal de los centros comerciales, el cual según los autores se constituirá en una auténtica locomotora. Nogales, Arévalo, & Suplet, (2007) identificaron como las principales variables que influyen en las preferencias de los consumidores a la hora de escoger un centro comercial su accesibilidad, surtido y las características de los detallistas ubicados en él, así como su gestión, esta última hace referencia a la seguridad, limpieza y público que visita el centro comercial.

Porral & Dopico, (2013), a través de un análisis de estructura de covarianzas, integran la importancia de la especialización del centro comercial; además del surtido y la especialización, así como la oferta de ocio del centro comercial, son los factores de atracción más importantes; el estudio revela la escasa importancia que el entorno interno tiene como factor de atracción para los usuarios, así como la accesibilidad del centro comercial. En conclusión, hay cuatro componentes que influyen en la capacidad de atracción comercial de los centros: a) el ambiente externo: la accesibilidad, que guardaría estrecha relación con la localización y la conveniencia de localizar el centro comercial; b) Aspectos relacionados con la oferta: el surtido o variedad; c) el ambiente interno o presentación relacionado con las características físicas y ambientales de los centros comerciales, y finalmente d) la posibilidad de ocio o entretenimiento que ofrecen los centros comerciales a los consumidores.

Los Centros Comerciales

Las asociación Española considera a los centros comerciales como el "Conjunto de establecimientos comerciales independientes, planificados y desarrollados por una o varias entidades, con criterio de unidad; cuyo tamaño mezcla comercial, servicios comunes y actividades complementarias que está relacionado con su entorno, y que dispone permanentemente de una imagen y gestión unitaria" (AECC, 1998: 49). Dawson (1983), Howard (1992; 1997); Kirkup y Rafik (1998) y Frasquet Deltoro, citados por (Kosiak de Gesualdo, 2006), restringen la aplicación del concepto exclusivamente a toda agrupación planificada de comercio, quienes consideran que el centro comercial debe concebirse más que como un activo inmobiliario como una entidad empresarial en la que la planificación y gestión integrada del complejo adquiere una particular importancia. La diferencia más significativa entre centro comercial y las agrupaciones comerciales no planificadas o zonas las comerciales es *la unidad de gestión*.

METODOLOGÍA

La metodología desarrollada en la investigación se desarrolló en dos fases. La primera fase, consistió en una investigación exploratoria documental, donde se consultaron los informes de la Asociación de Centros Comerciales de Colombia y la Federación Nacional de Comerciantes; asimismo se realizó una revisión de literatura, lo que permitió seleccionar los ítems que se incluyeron en el instrumento. En la segunda fase, se realizó una investigación empírica de tipo descriptivo-explicativo, para ello se determinaron el área geográfica a considera en la muestra, se definieron las variables sociodemográficas y los criterios de selección de la unidad de estudio. Las variables a estudiar se clasificaron en cuatro factores: ambiente externo, ambiente interno, surtido y entretenimiento. El ambiente externo se explicó con seis ítems, ambiente interno se explicó con ocho ítems; la variedad del surtido se construyó con ocho ítems; y para el factor entretenimiento se seleccionaron seis ítems. Como técnica de recolección de información, se elaboró un instrumento de medición con tres secciones de preguntas: preguntas de clasificación donde se incluyó la edad, género, nivel socioeconómico, nivel de estudios, estado civil y composición de la familia. En las preguntas básicas, se elaboró una escala de medida tipo Likert de cinco puntos, donde uno era totalmente en desacuerdo y cinco totalmente de acuerdo. También se midieron el tipo de actividad y algunas variables relacionadas con hábitos de uso y compraComo objeto de estudio se seleccionaron los cinco principales centros comerciales de la ciudad de Cali, para ellos se tomó como criterio de selección: número de visitas por año, que tengan área de compras, ocio, servicios y parqueadero.

La Muestra

El universo en este estudio fueron las personas mayores de 16 años de estratos socioeconómicos 3, 4, 5 y 6 de Cali y que haya visitado un centro comercial de la ciudad en los últimos seis meses. El tamaño de muestra fue de 530 encuestas con margen d error del 4,25% y un nivel de confianza de 95%. La muestra se asignó por cuotas. Como técnica de recolección se empleó la encuesta personal la cual se aplicó a personas directamente en sus hogares, para ello se seleccionaron siete puntos muestrales dispersos en toda la ciudad. El trabajo de campo se realizó entre los meses de marzo y abril de 2015.

Técnicas de Procesamiento y Análisis de Datos

Los datos se procesaron mediante el uso de software SPSS y para el análisis se emplearon técnicas univariante y bivariante. Para el análisis se realizó el análisis descriptivo de la muestra, calculando medidas de frecuencia, de tendencia central y dispersión; como fase preliminar ya se había calculado la confiabilidad y validez del instrumento. Seguidamente se determinó las dimensiones del instrumento de medición, utilizando un Análisis Factorial Exploratorio (AF). Se hizo un diagnóstico de la matriz de correlaciones, se utilizó la prueba de Esfericidad de Bartlett para evaluar correlaciones significativas entre las variables y se utilizó el índice de adecuación de Kaiser-Meyer-Olkin (KMO) para diagnosticar la adecuación de los datos en el AF. El número de factores se eligió a partir del criterio del valor propio menor a 1 y se utilizó el método de la Componente Principal para extraer los factores. Las pruebas fueron contrastadas con un nivel de significancia del 5% y el análisis estadístico se realizó en el software SPSS.

RESULTADOS

Perfil de los Usuarios de los Centros Comerciales

El perfil de los usuarios de los centros comerciales se determinó desde variables sociodemográficas, psicográficas y conductuales. En cuanto a las variables sociodemográficas se consideraron la edad, sexo, nivel socioeconómico, nivel de estudio y estado civil. En cuanto a las variables conductuales se consideraron la frecuencia de visita, días de visita, medios de trasporte, lugar de procedencia, distancia recorrida en minutos, actividades que realiza; y con relación a las variables psicográficas se evaluó el motivo de visita. Desde el análisis sociodemográfico las personas que más visitan los centros comerciales son mujeres (52.33%), con edad entre los 17 y 39 años, de estrato tres (45.73%), solteros (45,93), con una

formación académica de bachiller (32.95%) y universitario (23.26%). Adicionalmente se estudió la asociación entre las variables (Genero, Estrato, Estado civil y Nivel educativo) y la preferencia del centro comercial, se encontraron asociaciones significativas con el estrato (valor-p<0.01), Estado civil (valor-p=0.02) y Nivel educativo (valor-p<0.01), esto indica de forma exploratoria que hay un factor influyente en la preferencia del centro comercial, de acuerdo a las características mencionadas.

Desde las variables conductuales, se logró identificar que las actividades que más realizan los usuarios varían según el centro comercial visitado. Chipichape es el centro comercial que más se prefiere, seguido de Unicentro para realizar todas las actividades. Para ir a *cine, visitar un bar* y *ver eventos especiales* los usuarios prefieren Chipichape (19,7%), seguido de Palmetto (11,8%). El centro comercial Jardín Plaza es preferido para ir a *casinos* (1,3%) y *compra de artículos para el hogar* (6,6%), después de Chipichape con porcentajes de 3,9% y 8,1% respectivamente. Unicentro destaca junto a Chipichape en actividades como: *comer* (17,3%), *vitrinear* (14,66%), *tomar café* (6,2%), *compras* (16,7%), *compras de tecnología / electrodomésticos* (5,26%) *y trámites bancarios* (10,7%). Llama la atención que las personas prefieren mercar y realizar vuelta de pagos de recibos y facturas en lugares diferentes a los centros comerciales.

De los cinco principales centros comerciales de Cali, los más frecuentados por los usuarios encuestados son Chipichape (51%) y Unicentro (38%). Según el medio de transporte el 49% de los entrevistados llegan en vehículo particular, seguido del transporte masivo (14%) y caminando (13%). El 86% de las personas que visitan un centro comercial vienen desde su residencia y en promedio se demoran entre 6 y 10 minutos en llegar. Según el lugar de residencia, las personas que más visitan los centros comerciales son las personas que viven en el sector sur y nor-occidente de la ciudad. La frecuencia de visita es semanal, quincenal (29%) y mensual (30%).

Factores de Atracción Comercial

En el primer lugar se encuentra el ambiente interno, obtuvo una puntuación media de 4,52. Esta es la dimensión con mayor número de variables calificadas con una puntuación superior al 90%. De ocho variables, las personas entrevistadas consideran supremamente importantes seis de ellas. Las siguientes son las variables que identifican esa variable: seguridad (98,47%); Tener pasillos amplios y poder caminar con facilidad (96,96%), tener amplios horarios de atención (95,95%) limpieza y mantenimiento en general (95,44%); contar con instalaciones y entorno agradable (93,84%) y la señalización (92,63%). Al cruzar la percepción de las variables que conforman este factor con la edad, nivel socioeconómico, sector de residencia y sexo se identificó que respecto al sector de residencia del encuestado, para las personas residentes en el sector nor-occidente la limpieza tiene una mayor importancia, pero tiene menor importancia la señalización. Respecto al sexo, no se observan diferencias significativas. Según rango de edad de los encuestados las personas de 18 – 30 años tiene una menor importancia en el atributo señalización, los horarios y la decoración frente a los otros rangos de edad estudiados. En relación al estrato la señalización es más importante para el estrato socioeconómico tres que para los demás estratos.

El segundo factor es el ambiente externo, el cual alcanza un valor medio de 4,39. Las variables que más contribuyen con este puntuación son cercanía (93,75%); encontrar parqueo con facilidad (64%), fácil acceso-fluidez del tráfico (93,4%), iluminación externa (90,4%). Por tanto, la infraestructura es un aspecto importante para la decisión de ir de compras de los usuarios. Al cruzar la percepción con la edad, nivel socioeconómico, sector de residencia y sexo, se identificó que para las personas que habitan en el sector nor-occidente "la ubicación" es un aspecto muy importante; mientras que al analizar por edad, los jóvenes entre 18 – 30 años le restan importancia a ubicación del centro y al parqueo; Para las mujeres es muy importante la Iluminación e imagen.

El tercer factor de importancia con mayor valoración media de 4,36. Las variables que contribuyen con esta puntuación son: Gran variedad de almacenes (95,76%), la oferta de servicios como bancos, compañías de

seguros (92,64%) y que se puedan realizar todas las actividades en un solo sitio (90,82%), oferta de servicios como bancos, compañías de seguros, inmobiliarias, etc. (92,64) y que tengan buenos precios (90,82). Al cruzar la percepción de las variables que conforman este factor con la edad, nivel socioeconómico, sector de residencia y sexo. En relación al sexo, las marcas extranjeras tienen una menor importancia para el género femenino en comparación al masculino. Con relación a la edad, los jóvenes entre 18 -30 años tiene una menor importancia los atributos precios, ofertas, tener de todo y marcas nacionales. El estrato socioeconómico frente a los atributos marcas extranjeras, supermercado y tener de todo presenta una calificación menor en el estrato tres que los otros estratos, por el contrario es más importante para las personas del estrato tres el atributo "regalos".

Finalmente, el factor de entretenimiento es el cuarto factor con una valoración de 4,08. Las personas estudiadas dan un alto valor a la variedad de restaurantes (94%), y "que hayan salas de cine" (83%). Cuando se analiza el nivel de importancia de esta categoría según sector de residencia el atributo "eventos" es de mayor importancia para el sector nor-oriente, de igual forma el atributo "caminar" para los residentes del sector nor-occidente. El sexo femenino le da mayor importancia al atributo caminar que el género masculino, respecto al atributo cafés-bar el masculino le da mayor importancia. Respecto a su edad, para los encuestados con edad entre los de 51 – 80 años, el atributo más importante es "que hayan cafés – bar", mientras que el cine tiene una menor importancia comparadas con los otros rangos de edad. Para las personas de estrato tres el atributo "eventos" tiene mayor importancia que para los otros estratos.

Variables Determinantes de la Atracción Comercial

En este aparte se valoraron todos los atributos evaluados con el objetivo de hacer una jerarquía de acuerdo al nivel de importancia para definir las variables que determinar los factores de atracción comercial ideal El atributo de mayor importancia de un centro comercial ideal es la Seguridad, siendo el más importante entre todos los atributos evaluados con una calificación media de 4.81, limpieza con 4,62; cercanía con 4,61, variedad de almacenes con 4,61 y precios con 4,6. De los 29 atributos evaluados, 26 de ellos lograron una valoración entre importante y muy importante. Los atributos que definitivamente no marcan un valor percibido positivo son "que tengan marcas extranjeras", "que tenga café y bar" y "que realicen eventos".

CONCLUSIONES

Dado que el objetivo de esta investigación es identificar los factores de atracción comercial desde el valor percibido por los usuarios; para el desarrollo de la misma, primero se identificó el perfil de los usuarios de manera global y por centro comercial. Los resultados la mayoría de los usuarios de los centros comerciales de Cali, son personas jóvenes entre 17 y 39 años de edad, mujeres, de estrato tres, solteros con un nivel educativo entre bachilleres y universitarios; llegan en vehículo particular y transporte masivo Mio, vienen desde sus casas ubicadas en el sur o el noroccidente de la ciudad y se demoran entre 6 y 10 minutos en llegar, con una frecuencia de visita semanal, quincenal y mensual. Estos resultados son coherentes con los obtenidos en los estudios de Munuera y Cuestas (2006) y Calvo (2013).

En cuanto a los factores de atracción desde el valor percibido por los usuarios entrevistados se identificaron como determinantes principales el ambiente interno, seguido del ambiente externo, surtido y finalmente el ocio y entretenimiento. Por factores, se destacan la seguridad, pasillos amplios, horarios de atención, la limpieza, el mantenimiento en general y un entorno agradable. Este factor es el más importante para los usuarios de los centros comerciales de la ciudad de Cali, aspecto que contrasta con los estudios revisados, puesto que es menos relevante. El segundo factor determinante y principal es el ambiente externo, resaltando la cercanía, es decir la distancia que se debe recorre para llegar al centro comercial, facilidad para llegar y parquear, así como una buena visibilidad e imagen externa. El tercer factor de importancia es el surtido, resaltando aquí la gran variedad de almacenes, la oferta de servicios como bancos, compañías

de seguros, que se puedan realizar todas las actividades en un solo sitio, tengan buenos precios. Finalmente, en el factor de entretenimiento se resalta la variedad de restaurantes y que haya salas de cine.

Finalmente, al realizar el análisis global de los atributos sin considerar los factores, se identificaron como atributos relevantes la seguridad, cercanía, variedad de almacenes que coincide Teller (2008) y Calvo (2013) y relación precios calidad que también resultó relevante en la investigación de Calvo (2013) y que además explica que tiene lógica en un entorno económico de recesión como el actual.

Sin embargo, los resultados obtenidos en estudio con relación al entorno interno no coincide con el estudio de Calvo, puesto que para su investigación este factor no tiene importancia para los consumidores españoles, mientras que para los usuarios caleños fue el más importante. La variable seguridad que en esta investigación obtuvo la puntación más alta, no se identifica en los estudios revisados como un atributo relevante, esto se explica por la situación propia de nuestro país que ha llevado a los usuarios a realizar sus actividades en los centros comerciales porque les brinda confianza y seguridad. Se espera que estos resultados sean de interés para las personas que dirigen o administran centros comerciales para diseñar sus estrategias de gestión corporativa.

REFERENCIAS

Abad, J. C., & Sánchez, M. P. (2000). Áreas comerciales, capacidad de compra y riqueza en la provincia de Almería. Universidad Almería.

Blackwell, R. D., Miniard, P. W., & Engel, J. F. (2002). Comportamiento del consumidor (Novena ed.). EDICIONES PARANINFO.

Botero, G. N. (2010). Los centros comerciales transforman a Colombia. Obtenido de Fenalco: http://www.fenalco.com.co/contenido/1431

Burruezo García, J. C. (2003). La gestión moderna del comercio minorista. ESIC Editorial.
Camacho, S. I. (28 de Julio de 2012). Construcción de centros comerciales, una industria que no se detiene. El Tiempo.

Chasco Lafuente, P. (2000). Modelos de gravitación comercial: una aplicación al anuario comercial de españa. Universidad Autónoma de Madrid, 1-9.

Chasco, P. L. (2000). Modelos de gravitación comercial: una aplicación al anuario comercial de españa. Universidad Autónoma de Madrid, 2-10.

Christaller, W. (1966). Central Places in Southern Germany. Prentic-Hall.

De Juan Vigaray, M. D. (1998). La atracción que ejercen los centros comerciales sobre los consumidores. Universidad de Alicante.

De Juan Vigaray, M. D. (2004). Comercialización y retailing: distribución comercial aplicada. Pearson Prentice Hall.

De Juan Vigaray, M. D., & Rivera Camino, J. (1999). Los determinantes de la atracción comercial. Investigaciones Europeas de Dirección y Economía de la Empresa, V(2), 15-34.

Delgado Maecha, O. (2003). Debates sobre el espacio en la geografía contemporánea Espacio y territorio. Bogotá: Universidad Nacional de Colombia.

Diez De Castro, E. (1997). Distribucion comercial. MCGRAW-HILL.
Evans, K. R., Christiansen, T., & Gill, J. D. (1996). The impact of social influence and role expectations on shopping center patronage intentions. Journal of the Academy of Marketing Science, 24(3), 208-218.

Farez, E. (1 de Febrero de 2013). Centros comerciales en Colombia y España: Una oportunidad de inversión en el sector retail. Obtenido de http://www.slideshare.net/efarez/comercio-minorista-y-centros-comerciales-en-colombia

García, C. M. (1995). Actividad comercial y espacio urbano. Universidad de Castilla La Mancha.
Garrocho, C. R. (2003). La teoría de interacción espacial como síntesis de las teorías de localización de actividades comerciales y de servicios. Economía, sociedad y territorio, 4(14), 203-251.

JAIN, A.K y MAHAJAN, V. (1979). "Evaluating the Competitive Environment in Retailing using MCI Model". En J. Sheth (ed.). Research in Marketing, Greenwich, Conn. JAI Press, pp. 217-235

Kosiak de Gesualdo, G. (2006). Atracción Comercial. El comportamiento de los consumidores en los centros comerciales de la ciudad de Santa Fe. (Primera ed.). Santa Fe, Argentina: Universidad Nacional del Litoral.

Kunz, I. B. (2003). Usos de suelo y territorio. México: Plaza y Valdes.

MacGee, T. (1969). The Southeast Asian city : a social geography of the primate cities of Southeast Asia. London: Bell and sons.

Pintaudi, S. M., & Frúgoli, J. H. (1992). Shopping centers: Espaço, cultura e modernidade nas cidades brasileiras. São Paulo, SP: Editora UNESP, Fundação para o Desenvolvimento da UNESP.

Oficina Comercial De La Embajada De España En Colombia. (2009). Comercio y distribución en Colombia. Obtenido de http://www.fenalco.com.co/sites/default/files/blog/COMERCIO%20Y%20DISTRIBUCI%C3%93N%20en%20Colombia.pdf

Rivera, J. C., Arellano, R. C., & Molero, V. M. (2000). Conducta del consumidor: estrategias y tácticas aplicadas al marketing. ESIC Editorial.

Rosenbloom, B. (Octubre de 1976). The Trade Area Mix and Retailing Mix: A Retail Strategy Matrix. Journal of Marketing, 40(4), 58-66.

Solé Moro, M. L. (2003). Los consumidores del siglo XXI. ESIC Editorial.

Stern, L., & El-Ansary, A. (1988). Marketing channels (Tercera ed.). Prentice Hall.

Vargas-Tisnés, G. (11 de Julio de 2012). Pedro Fermín de Vargas y Bárbara Forero: un amor ilustrado. Credencial, 276-281.

Vergara, C. C. (23 de Abril de 2013). Especial centros comerciales en colombia 2013. Publicidad & Mercadeo, 59-76. Obtenido de http://www.revistapym.com.co/sites/default/files/Especial%20CC%20Abril.pdf

Von Thünen, J. H. (1966). Isolated state. Pergamon Press.

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