

## **Impact of Internal Marketing, Organizational Commitment and Organizational Learning in the Innovation of SMES in Mexico**

<sup>1</sup>Maria Del Carmen Martinez Serna, <sup>2</sup>Eduardo Vega Martínez, <sup>3</sup>Gonzalo Maldonado Guzman and <sup>4</sup>Patricia Mojica Carrillo

<sup>1</sup>Universidad Autonoma de Aguascalientes, Aguascalientes, Mexico

<sup>2</sup>Avenida Universidad 940, 25260 Saltillo, Coahuila, Mexico

<sup>3</sup>Ciudad Universitaria, Coyoacan, 04510 Ciudad de Mexico, CDMX, Mexico

<sup>4</sup>Villas de la Universidad, 20131 Aguascalientes, Mexico

---

**Abstract:** The evolution in the study of human capital and the importance it takes on organizations representing the costs and difficulty to achieve for SME's has increasingly become necessary further evidence of the role of human capital on innovation in organizations due to the high number of studies showing that innovation improves performance and competitiveness of business. This research aims to identify internal marketing, organizational learning and organizational commitment as possible background of innovation, same background on which human capital rely special importance for its implementation in the company. A survey is conducted among top managers to determine whether the use of these strategies has positive impact on innovation of SMEs, the results are analyzed using structural equation modeling, same results that point out that internal marketing and organizational learning are key elements to cause better standards of innovation in companies. That is not the case with organizational commitment where there is found no significant impact when it is related directly to innovation in business.

**Key words:** Internal marketing, organizational commitment, organizational learning innovation, SMEs

---

### **INTRODUCTION**

The World Economic Forum (2014-2015) report which measures 144 economies in the world indicates that Mexico in the global competitiveness index has fallen 5 positions in the base called "innovation". According to the National Innovation Program which is an instrument of action in terms of public policy, it is necessary to encourage companies to use IT technology innovation and technological development in their products and services. This requires promoting the development of human capital as an important factor for knowledge dissemination into the manufacturing sector. It is quoted in the same document that according to calculations of the organization for Economic Co-operation and Development in most developed countries the innovation accounts for between two-thirds and three-quarters of the GDP growth rates observed between 1995 and 2006. It is identified in the diagnosis of the document itself that comprehensive strategies are needed to encourage innovation for the development of a management culture knowledge and learning processes

in terms of human capital to improve and increase the productive, creative and innovative contributions of individuals.

On the other hand in the diagnosis of national science and technology program 2014-2018, it is identified the proportion GIDE/GDP (expenditure on scientific research and experimental development/gross domestic product) which is an international indicator adopted to measure current expenditure and investment dedicated to these activities; according to this indicator developed countries spend between 1.5 and 3.8% of GDP-GIDE. For Mexico, the value of this indicator has remained virtually constant for years without exceeding 0.5%. In 2012 the GIDE of Mexico represented 0.43% of GDP; the purpose is to reach 2.3 by 2032, comparable to countries such as France, Belgium and Slovenia. Among the factors that develop a knowledge economy according to the world bank, it is found an effective innovation that allows public and private promotion of research and development, resulting in new products or goods, new processes and new knowledge which is why in that program are invited to reinforce efforts to significantly increase the number of innovative technology-based companies.

Researchers and academics have also focused to learn in how to create value and innovation with a customer-oriented culture as well as how to involve employees in the development of innovations in services (Berry and Parasuraman, 1991). Human capabilities are crucial to the development of organizations this has suggested that the brainpower of knowledge dissemination and group interaction lead to innovation processes and better performance (Zhai *et al.*, 2013). The current business environment has prompted new ways of managing organizations in which the collaboration of workers in a team is very important and requires people with specific profiles. It is essential for an organization to have people and equipment qualified to generate and manage knowledge better than others so the development of people skills and their ability to incorporate new ideas is a challenge that can support ongoing learning (Gundry *et al.*, 2015). It has been found in the scientific literature that human resource management has a positive relationship between innovation and performance; nevertheless, there is no supported information yet about processes or strategies through which the human resource leads to a positive influence (Zhai *et al.*, 2013).

In accordance with the literature review internal marketing promotes a philosophy for internal customers who are motivated to create value and satisfaction for external customers (Ahmed *et al.*, 2003) thus, internal marketing allows to pay attention to employees and recognize their participation in the development of innovations (Garcia and Calantone, 2002).

Organizational efforts and strategies are needed in order to have more internal customers that are heard, cared for and satisfied with their work for their own benefit and that of the organization (Ahmed *et al.*, 2003), achieving this purpose will enable in turn have more human capital committed to the organization (Garcia and Calantone, 2002; Wang, 2008). According to Eisenberger this commitment to the organization generates innovation even in the absence of anticipated reward directly or personal recognition. From this same perspective it is understood that the efforts of the organization, to generate greater collective knowledge are benefited by increasing their levels of organizational learning providing greater possibilities of developing innovations (Hurley and Hult, 1998).

This study is presented in order to contribute to the identification of strategic guidelines that SMEs should develop to evolve higher levels of innovation. In addition, it revisits the importance of human capital in the organization and aims to identify the relationship between

organizational commitment internal marketing and organizational learning as precedents of innovation in small and medium enterprises in aguascalientes and identify with it, if these three backgrounds contemplate the participation of employees in the generation of innovations.

Academics in the field have explored the relationship between these constructs (internal marketing, organizational learning and organizational commitment) with innovation (Alegre and Chiva, 2013; Calantone *et al.*, 2002; Garcia and Calantone, 2002; Hult *et al.*, 2004; Hurley and Hult, 1998; De Castro *et al.*, 2013; Jimenez-Jimenez and Sanz-Valle, 2011) also found a relationship between two of the constructs with innovation (Baker and Sinkula, 1999; Calantone *et al.*, 2002; Gatignon and Xuereb, 1997), from the theory of resources and capabilities it has been investigated what strategic orientations influence on innovation, identifying entrepreneurial orientation (Wang, 2008), market orientation (Lopez-Cabrales *et al.*, 2009; Lukas and Ferrell, 2000), nevertheless this research is to verify if given the importance of human capital for SME's help to increase rates of innovation when employees are heard and committed to continuous learning and development for the benefit of the organization.

Firstly, the paper presents the theoretical framework of the variables subject to study: Innovation, organizational learning, organizational commitment and internal marketing as well as empirical evidence of the relationship of the variables with the hypothesis formulated. Secondly, the methodology and the scales used to measure constructs are explained, finally the results of the structural analysis of the proposed model and the discussion of the study are presented.

### **Theoretical framework**

**Innovation:** The concept of innovation has been regarded as the propensity of firms to evolve and or to adopt new ideas, new products, manufacturing processes and business systems (Garcia and Calantone, 2002). Innovation is a knowledge intensive process that depends entirely on the acquisition interpretation and dissemination of customer information, competitor and technology (Beyene *et al.*, 2016).

Innovation can be classified according to how new is innovation: radical and incremental (Zhao *et al.*, 2005), it has also been identified innovation in product innovation, process innovation or innovation management systems as well as identification as a strategy to the innovative capacity (Akman and Yilmaz, 2008).

The literature recognizes innovation as a factor facilitating essential competitive advantage and impact on the growth of companies and nations (Alegre and Chiva, 2013; Cefis and Marsili, 2006; Galia and Legros, 2004; Hurley and Hult, 1998; Keizer *et al.*, 2002; Kelly and Storey, 2000; Kuster and Vila, 2011; Sinkula *et al.*, 1997; Efrat, 2014). The importance of innovation as a factor that provides competitive advantage has been documented (Larsen and Lewis, 2007) it is also contemplated that innovative firms have higher labor productivity and higher sales growth than those non-innovative companies (Cainelli *et al.*, 2004). On the other hand innovation is needed to extend the product lifecycle and to take advantage of the new opportunities presented by the market.

It has been noted that the degree of innovation in enterprises, compared with its competitors, it is essential to improve performance (Barnett and Hansen, 1996). The business environment is increasingly dynamic, complex and uncertain, so that technology, knowledge, globalization, competitiveness and innovation impact on their overall performance (Hadjimanolis, 1999; Hitt, 2006) (references in project). Hughes (2001) found in the empirical evidence in diverse contexts, that innovation of SMEs in Britain significantly increased its profit margin; similar studies show that innovation has positive effects on the performance of SMEs in Hsueh and Tu (2004) in Norwa, Nonaka and Takeuchi (1995). Yamin *et al.* (1999) and Van de Van *et al.* (2008). Given the limitations SMEs face in their financial, human and technological resources, the implementation of innovation processes turn out complex (Hadjimanolis, 1999), representing difficult obstacles to exceed innovation (Larsen and Lewis, 2007).

In order to develop innovation, companies require substantial changes that have to do with internal and external factors in the organization. If changes are made, SMEs have greater opportunities of growth otherwise, negative impact to the organization will be generated.

Successful innovation is about developing an organizational climate that supports creative behaviors in the workplace (Gundry *et al.*, 2015). There are several studies in which human resources are analyzed as an obstacle to innovation. It is therefore the perspective of human resource refers particularly important to know the influence of these strategies: internal marketing, commitment and organizational learning on human resources which are the human capital precisely important as a key element in the results of higher levels of innovation.

**Internal marketing and innovation:** Internal marketing retakes the importance of human capital in organizations

because it is conceived as “a management philosophy that promotes the development of strategies and programs to motivate, encourage, engage and promote the performance of all company employees which in turn makes easy the achievement of organizational objectives with final customers in the foreign market” (Gounaris, 2006). It is mentioned with some other terms such as endomarketing and marketing applied to human resources.

On the other hand the domestic marketing has been considered as a tool for managing human resources to educate, motivate and train employees, (Tansuhaj *et al.*, 1991) and recognize their participation in the development of innovations directly affecting their results both in terms of customers and financial results. Garcia and Calantone (2002) from the perspective of organizational communication management internal marketing is recognized as the way in which training develops or as a philosophy for managing human resources based on marketing perspective (Gronroos, 1990). To Rafiq and Ahmed (2000), “Internal marketing is a planned effort to overcome organizational resistance to change in order to align, motivate and integrate to employees towards the effective implementation of functional and corporate strategies”.

The issue of internal marketing has been discussed for decades; in addition, it has also reached agreement on improving service quality (Berry and Parasuraman, 1991). It is also linked with support to motivate convey the visions and objectives of the organization which increases organizational commitment (Huang and Chen, 2013), other studies related internal marketing to the moderating role of employee satisfaction.

The first stage focuses on motivation and employee satisfaction, the second stage is about customer orientation (Gronroos, 1990) in which is noted that in addition to a motivated employee it is also required to be focus on sales and customer and the third stage: internal marketing regarded as the implementation of a strategy and as management change (Winter, 1985). The current stage is based on the creation of value from supporting the achievement of objectives and strategies of the organization which through internal communication improve aspects such as commitment, motivation and organizational learning (Keizer *et al.*, 2002).

There is empirical evidence regarding the relationship between market orientation and development of internal marketing in the company (Dunst *et al.*, 2010) as well as the key role in the external marketing (Bansal *et al.*, 2001). Studies show the relationship of market orientation to innovation and performance in companies (Akman and Yilmaz, 2008; Baker and Sinkula, 1999; Keskin, 2006;

Renko *et al.*, 2009; Zhao *et al.*, 2005) internal marketing is a precedent for the development and promotion of market orientation so it can be inferred that there is evidence of the relationship of market orientation as an antecedent to innovation, besides internal marketing is an antecedent of innovation.

However, there is also empirical evidence of a positive relationship of internal marketing with innovation including evidence of Garcia and Calantone (2002) in which hotel companies apply further strategy Internal Marketing and are more willing to co-creating innovations with its customers Umashancar develop an empirical study indicating that frontline employees and employees also represent a critical resource for feedback generated by users; there are as well studies that conclude in their findings the impact of each of the dimensions of internal marketing in technological innovation (Alambro, 2013). Based on the above, the following hypothesis is proposed:

- H<sub>1</sub>: Greater internal marketing leads to greater innovation in SMEs

**Organizational learning and innovation:** A learning committed organization continuously generates inquiries and tests, evaluates and reflects on his experiences turn the lessons learned from these experiences into useful knowledge for the organization and uses this knowledge to achieve the purposes and goals of the organization (Dunst *et al.*, 2010, 2011).

Organizational learning is generally seen as something different to work in an organization and innovation is seen as a necessary improvement element, both learning and innovation function as elements of change within the organization and complement each other to achieve success in business strategies (Brown and Duguid, 1991). The learning activity of an organization is an incorporated part in the innovation process that enables the firm to createv high-value products to customers (Wheeler, 2002). Due to the increased dynamic business environment, organizational learning is essential to increase flexibility and adjustment to changes in the organizational environment (Sirmon *et al.*, 2007; Zahra and George, 2002).

For Hurley and Hult (1998) the innovation process is related to organizational culture and is related to organizational learning which is antecedent to an innovative culture. According to De Castro *et al.* (2013) continuously innovate is not possible if there is not an ongoing commitment to organizational learning, the effective creation, development and commercialization of new products is possible only if firms collect interpret and

disseminate reliable information. Continuous learning adds flexibility to the efforts of the organization to create and market new products (Dicle and Köse, 2014), the innovative organizations posses high ability to learn effectively and build new knowledge (Senge, 1990; Nonaka and Takeuchi, 1995).

Organizational learning is the management company that recognizes the need for new ideas and actions of the organization to carry out them (Van de Ven, 1986). In order to develop the capacity to learn in situ, it is essential and required to have support from immediate supervisors for development of process improvement (Brown and Duguid, 1991), requires innovation capacity to apply relevant knowledge to understand the market and its successful implementation will depend on the development of new ideas within the organization (Zhao *et al.*, 2005). It is important that there is an outlook of organizational learning in the workplace to support the generation of new ideas.

Studies have been conducted linking organizational learning to innovation in different business environments, the results indicate positive relationship (Alegre and Chiva, 2013; Calantone *et al.*, 2002; Hult *et al.*, 2004; Jimenez-Jimenez and Sanz-Valle, 2011; Martin-de Castro *et al.*, 2012). In Mexico, Martinez his findings indicates a positive and significant relationship between both constructs in SMEs, however, it is important from the perspective of human resources assess organizational learning with others variables that help to improve innovation levels.

Innovation processes in organizations incorporate continuous learning, patterns in learning will change depending on the size of the company, the type of technology innovation and industry, nation or innovation systems and it will also depend on the different learning methods. There is evidence that the level of commitment to learning, building shared vision and the level of openness in an organization are strongly influenced by the culture where a company is located. Studies also show that national culture, through its influence on organizational learning orientation influences on innovation and its performance in innovation (Garrett *et al.*, 2006).

Learning has been studied as antecedent of innovation, along with market orientation (Hurley and Hult, 1998; Sinkula, 1994; Slater and Narver, 1995) in order to have new ideas must be knowledge and must be simultaneously shared within the organization. Through organizational learning is that knowledge can be created, acquired and disseminated, therefore, organizational learning is considered necessary to generate new ideas (Garcia and Calantone, 2002; Huber, 1991; Hurley and

Hult, 1998; Jimenez *et al.*, 2014). There are three fundamental values in the organization: commitment to learning, shared vision and open mind (Sinkula *et al.*, 1997; Baker and Sinkula, 1999).

Commitment to learning means the level at which an organization values and promotes learning. Share the vision has to do with extending the emphasis on learning, shared vision coordinates the emphasis on the different departments and open-mindedness is evaluating established routines as well as the acceptance of new ideas, questioning the old way of doing things and renewing knowledge (Sinkula *et al.*, 1997).

There is a consensus in the literature that indicates that learning originates new knowledge which is used by its employees in the development of innovations, the organizational learning influences on innovation (Aragon-Correa *et al.*, 2007), organizational learning has an indirect impact on performance through innovation, later innovation impact the business performance (Akgun *et al.*, 2007; Aragon-Correa *et al.*, 2007; Fernandez *et al.*, 2012; Keskin, 2006).

It is also found in the literature on manufacturing firms in Ethiopia, organizational culture affects organizational learning, business performance and product innovation (Beyene *et al.*, 2016). There is empirical evidence that proves if organizations learn faster; their control, quality and cost of innovation process is better (Jimenez *et al.*, 2014). Noruzy *et al.* (2013) found that organizational learning influences directly and significantly on the innovation of manufacturing companies. Conclude that if firms implement a transformational leadership and use organizational learning and knowledge management, performance in manufacturing enterprises and generation of innovation in the organization will be facilitated. developed an empirical study of (2010) Korean companies that measure the impact of organizational learning capability on innovations; the results indicate that the ability of organizational learning has a strong impact on innovations. Based on the above, the following hypothesis is proposed.

- H<sub>2</sub>: Greater organizational learning leads to greater innovation in SMEs

**Organizational commitment and innovation:** The issue of organizational commitment has been approached from different disciplines including in the field of psychology, sociology and business which have emerged various concepts according to their research perspective. The

organizational commitment has been considered as a participatory process of combining information influence and incentives to achieve attachment of employees to organizational success. Also as a form of relationship between employees and their organizations, promoted by psychological contracts or involvement of the individual with the organization (Meyer and Herscovitch, 2001) and a willingness to follow the rules of the organization and disseminated in the same.

Allen and Meyer mention three components of organizational commitment: affective commitment which establishes an emotional connection with the organization; the continuance commitment refers to the interest of avoid losing the investment in labor productivity and normative commitment which is the relationship based on the sense of obligation or duty.

According to the study of Garcia and Calantone (2002) trust and organizational commitment helps generate a favorable work environment to outstand learning and new products development. They conclude that organizational commitment influences on product innovation by generating organizational learning in human resources. Ruppel and Harington suggest that employee communication with management in an ethical work environment build trust and in return for are given greater efforts to meet organizational objectives besides to the generation of new products. When there is a lack of commitment and members of an organization made innovation efforts, they fail innovation efforts which conclude that the processes that guide engagement, also the commitment itself, are critical to innovation processes.

On the other hand, employees would use the perceived organizational support to address potential benefits that result from the compensation that could be obtained as a result of a high effort. This can strengthen the perception that the company values the contributions which would mean that the more commitment is generated by the employee higher contributions would have to activities relating to innovation (Eisenberger *et al.*, 1990).

Individual commitment to the company is important to facilitate the dissemination of knowledge also that this has the greatest impact on knowledge in first order, followed by risk-taking and organizational crisis. Van de ven (2003) identified individual commitment that has the greatest impact on the dissemination of information which increases the probability that new products are available at the right time. The research of Ruppel and Harington (1986) finds that there is a relationship between worker confidence and perception of commitment and innovation. By increasing confidence, also

increases the willingness of workers to take risks and assume the role to develop creativity and innovation by themselves.

Lambert and Hogan (2009) conducted an empirical study on a correctional facility in mid Western, US to study the work environment and the relationship of perception on organizational innovation with the stress of prison labor, job satisfaction and organizational commitment. In a multivariate study, it was found a positive association of organizational innovation with job satisfaction and organizational commitment.

Through the human resources practices oriented toward commitment, firms can develop tacit knowledge, skills and abilities of their employees. In a survey conducted to 103 companies in Turkey is empirically evaluated a human resources system oriented to commitment on innovation activities (organizational, process, marketing), the positive influence on them with new products and innovation performance (Ceylan, 2013) in the literature of strategic human resources management, practices oriented human resources are related to innovation performance (Chen and Huang, 2009) in addition to increasing the performance of the organization through innovation activities (Jimenez-Jimenez and Sanz-Valle, 2011; Wang, 2008). The findings of Gundry *et al.* (2015) indicate that collaborative communication builds relationships of trust which lead to greater organizational commitment, thereby facilitating more technical and administrative innovation, orientation to innovation mediate the effect of organizational commitment and technical and administrative innovation. As Ng found that higher affective commitment will result in greater efforts to generate and share ideas with colleagues and work to turn them into innovations. Based on the above, the following hypothesis is proposed:

- H<sub>3</sub>: Greater organizational commitment leads to greater innovation in SMEs

## MATERIALS AND METHODS

**Data:** In order to compare the hypotheses proposed in the study, an empirical study was conducted in SMEs of Aguascalientes (Mexico) and is taken as a reference the Statistical Directory of Economic Units (DENUE) from the National Institute of Statistics and Geography (INEGI). For inclusion in our sample, the companies have attributes that define them as “small and medium enterprises” and as noted by the government of Mexico means that a company has <250 employees. SMEs were requested to participate in the study and the sample was selected by “convenience” agreeing to participate a total

of 350 companies. Face-to-face meetings were conducted with top managers and/or owners of SMEs in the commercial industrial sector and services, surveys were conducted in October and November 2015.

**Measures:** Our key constructs are latent and that cannot be observed directly, scales multiple choice which were based on previous research which have been translated in previous studies were used, a confirmatory factor analysis was developed to test the validity of the constructs.

The construct of innovation was measured as a second order construct through three dimensions of first order: product innovation, process innovation and innovation management systems. The scale innovation was based on previous studies (Gimenez, 2015). Five point scales are used which were from 1 (Slightly Important) to 5 (very important). Organizational learning was measured as a second order construct, the scale was adapted according to the work of Sinkula *et al.* (1997). The three dimensions that constitute organizational learning are commitment to learning, shared vision and open mind, a Likert scale of 1 was selected (strongly disagree) to 5 (strongly agree).

The internal marketing construct is constituted as an analogy of market orientation proposed by Kohli and Jaworski (1990) and taken up by Lings (2004), Gounaris (2008) and Garcia and Calantone (2002). That scale has three dimensions: Generation of information on the domestic market dissemination of internal information 3 Response to internal information. The review of the organizational commitment literature confirm that the scale proposed by Meyer and Herscovitch (2001) is replicated successfully in different cultures by Meyer and Herscovitch (2001) such as Ko *et al.* (1997) in Korea in Mexico. The scale is integrated by three dimensions: affective commitment, normative commitment and continuance commitment.

## RESULTS AND DISCUSSION

**Measure validation:** In order to evaluate the validity and reliability of the scales used is developed a confirmatory factor analysis (AMOS version 22 was implemented). Table 1 illustrates the proposed model evaluated empirically. According to the accepted practice (Anderson and Gerbing, 1988; Churchill, 1979), we proceeded to evaluate the properties of the scales regarding their dimensionality, discriminatory validity, convergent validity and reliability. The result of the adjustment rate for the general model provides an acceptable fit of the data. The latent

Table 1: Reliability and convergent validity of the measurement scale

Factor	Item	Factor loading	t-value	Loading average	Cronbach	CFI	AVE
Generation of Information	GIM3	0.694		0.796	0.835	0.761	0.667
	GIM1	0.872	11.671***				
	GIM2	0.824	11.364***				
Disemination of Information	DIF3	0.745		0.805	0.840	0.891	0.707
	DIF2	0.881	12.802***				
	DIF1	0.789	11.956***				
Response of information	REI6	0.762		0.803	0.834	0.846	0.657
	REI5	0.955	12.756***				
	REI4	0.693	11.230***				
Affective Commitment	CA3	0.740		0.835	0.870	0.776	0.701
	CA2	0.879	13.515***				
	CA1	0.886	13.576***				
Continuance Commitment	CC5	0.774		0.734	0.770	0.726	0.549
	CC4	0.828	11.084***				
	CC1	0.602	8.784***				
Normative Commitment	CON6	0.718		0.792	0.810	0.831	0.643
	CON5	0.972	11.766***				
	CON4	0.687	10.683***				
Learning Commitment	COA3	0.725		0.859	0.887	0.920	0.746
	COA2	0.934	14.319***				
	COA1	0.918	14.229***				
Shared Vision	VIC3	0.724		0.826	0.862	0.875	0.688
	VIC2	0.899	12.973***				
	VIC1	0.857	12.745***				
Open Minded	MEA4	0.767		0.765	0.801	0.779	0.593
	MEA3	0.875	11.422***				
	MEA1	0.653	9.784***				
Product	PR1	0.858		0.841	0.828	0.892	0.708
	PR2	0.825	14.360***				
Process	PRO1	0.871		0.883	0.877	0.941	0.780
	RO2	0.896	17.58***				
Management	GE1	0.876	0.863	0.898	0.930	0.760	
	GE2	0.846	16.322***				
	GE	0.892	17.494***				

Model fit measures for the general model: Chi (df = 509): 879.756 = 1.728 (p = 0.000); RMSEA = 0.054; NFI = 0.847; IFI = 0.927; CFI = 0.926; TLI = 0.914

variables in the study are: Generation of information, dissemination of information, response to information, commitment to learning, shared vision, open mind, normative commitment, continuance commitment, affective commitment, product innovation, process innovation and innovation management systems. Cronbach's alpha coefficient was used to measure the internal consistency of the items with item-total correlation <0.3 were eliminated. The values of alpha range between 0.770 and 0.898 (Table 1) all exceed the value of 0.7 which indicates that it has reliability in all factors, besides the rate of composite reliability established by Bagozzi and Yi (1988) was calculated, estimates for this index values range from 0.782 and 0.920 which indicates that also have results confirming the reliability of the scales.

After confirming the reliability, the full set of items was subject to a Confirmatory Factor Analysis (CFA), structural equation modeling was used to verify dimensionality. Both the factor loadings as Goodness of Fit Index are also indicated in the Table 1. The adjustment indexes implemented were The Normed Fit Index (NFI), Non-Normed Fit Index (NNFI) incremental Fit Index (IFI),

Comparative Fit Index (CFI) and the Root Mean Square Error of Approximation (RMSEA), (Bentler, 1990; Byrne, 1989; Hair, *et al.*, 1995). According to the literature we know that the values of these indices can range from 0-1.00 and the values close to one indicate a good fit (Byrne, 1989). Another index that is used to verify the model fit of measurement is the measurement error which should ideally be 0.05-0.08 according Jaworski and Kohli (1993). Table 1 shows the results of Confirmatory Factor Analysis (CFA) which indicate a good fit (SBX 2 = 879.75, df = 509; NFI = 0.847, IFI = 0.927, CFI = 0.926, RMSEA = 0.054). It can also identify all items of the factors which relate are significant (p<0.001) and the size of all loads of standardized factors exceed 0.70 (Bagozzi and Yi, 1988). IFC Cronbach's e have a value beyond 0.70 and the Extracted Variance Index (EVI) was calculated for each pair of factors, resulting in a higher than 0.50 as recommended Fornell and Larcker (1981) IVE, therefore It confirms that each variable contributes significantly to the definition of the construct also there is convergent validity because of the fit indices suggest that the constructs are one-dimensional and fit to the data ( Table 1).

Table 2: Discriminant validity

VA	GI	DI	RI	CA	CC	CN	CAP	VI	ME	PR	PRO	GE
GI	0.667											
DI	0.376	0.707										
RI	0.114	0.105	0.657									
CA	0.200	0.184	0.056	0.701								
CC	0.170	0.157	0.047	0.379	0.549							
CN	0.071	0.065	0.020	0.159	0.135	0.643						
CAP	0.137	0.126	0.038	0.115	0.098	0.041	0.746					
VI	0.138	0.127	0.038	0.116	0.099	0.041	0.172	0.688				
MEA	0.123	0.114	0.034	0.104	0.088	0.037	0.154	0.156	0.593			
PR	0.091	0.084	0.025	0.051	0.044	0.018	0.059	0.059	0.053	0.708		
PRO	0.101	0.093	0.028	0.057	0.048	0.020	0.065	0.066	0.059	0.640	0.780	
GE	0.066	0.061	0.018	0.037	0.032	0.013	0.042	0.043	0.038	0.484	0.535	0.760

The diagonal represents the index variance extracted (IVE). The part of the variance is shown below the diagonal (correlation to the square) GI = Generation of Information; CAP = Learning Commitment; PRI = Innovation of Product; DI = Dissemination of Information; VI = Shared Vision; PROC = Innovation of Procedure; RI = Response of Information; MEA = Open Minded; GE = Systems management innovation; CA = Affective Commitment; CC = Continuance Commitment; CN = Normative Commitment

Table 3: Path coefficient with t-observed values

Hypothesis	Structural relationship	Standardized coefficient	t-value	p-value
H <sub>1</sub> : Greater internal marketing leads to greater innovation in SMEs	IM INN	0.313	3.529	***
H <sub>2</sub> : Greater organizational learning leads to greater innovation in SMEs	OL INN	0.192	2.243	NS
H <sub>3</sub> : Greater organizational commitment leads to greater innovation in SMEs	OC INN	0.760	1.017	*

\*\*\*<0.001 NS no significant Chi (df = 512): 1018.086 (p = 0.000); RMSEA = 0.063; NFI = 0.879; IFI = 0.902; CFI=0.901. \* <0.05

The discriminant validity was assessed by comparing the IVE of each pair of constructs with the square of the inter-constructs correlations (which are displayed in the Table 2 diagonal) as suggested by Fornell and Larcker (1981). The IVE of each pair of constructs was larger than the corresponding square of the correlations of the inter-constructs indicating discriminant validity. The results are displayed in Table 2 subsequent to the validity and reliability of the scales was confirmed, the structural model was developed, the results show a good fit of the model, the ratio chi square and degrees of freedom is 1.98, CFI = 0.900; NFI = 0.879; IFI = 901; RMSEA = 0.063. Table 3 shows the path coefficients ( $\beta$ ) with the t observed values and the level of significance obtained are indicated. H<sub>1</sub> has confirmed the hypothesis that relates to internal marketing innovation in SMEs ( $\beta = 0.313$  p<0.001). It has also verified the H<sub>2</sub> hypothesis that establish the influence of organizational learning with innovation of SMEs ( $\beta = 0.192$  p<0.05). It has not verified the H<sub>3</sub> hypothesis in which the influence of organizational commitment on innovation of SMEs ( $\beta = 0.309$ ) is established (Table 3).

### CONCLUSION

This study empirically assesses whether certain orientations in which human capital as organizational learning, internal marketing and organizational commitment has a significant positive influence on innovation in SMEs in the context of Mexico. For the

relationship of the influence of organizational learning on innovation, findings indicate a positive and significant impact which means that small and medium-sized enterprises should promote open-mindedness to evaluate established patterns in the company, to question the usual way of doing things and accept new ideas to renew knowledge; SMEs should assess and promote learning, sharing the approach to this competence in order to develop new ideas into products and create new processes (H<sub>2</sub>), the results are similar to other studies. (Beyene *et al.*, 2016; Fernandez *et al.*, 2012; Jimenez-Jimenez and Sanz-Valle, 2011; Keskin, 2006; Noruzy *et al.*, 2013). Another important finding is the positive and significant influence of internal marketing on innovation. If SMEs want to encourage innovative ideas for products, management and processes, managers should foster and meet the working needs of the employee and supply competition in the labor market for each group of employees is necessary to listen to their needs in the performance of their duties and respond with action on identified needs. These actions will motivate employees and will increase their willingness to co-create new ideas with customers and provide feedback on what they observe in their working environment and propose changes (H<sub>1</sub>). The results are similar to those obtained by Alambro (2013). On the other hand, the positive and significant relationship between organizational commitment to innovation was not accepted, the findings are similar to those of Garcia and Calantone (2002) they conclude that the influence of affective commitment on



product innovation turns out to be not significant, the authors note that the relationship is not seen to be direct but that there is indirectly, it is necessary any link for relating the two variables with innovation, such as organizational learning. Even when the CEO perceives commitment in employees and put their trust on them, it may be necessary condition but not enough to generate better results on innovation. That sufficiency could be through the direction of the organization toward learning. Thus in future research, it would be useful to investigate more about this relationship evaluating organizational learning as moderating variable in this relationship.

According to the results, organizational commitment itself not generates new ideas into products, new processes and good management of employees of SMEs. The results are contrasting with those of Ruppel and Harrington (2000) which are worth building trust for employees to take risks as this lead to increase creativity and innovation, the researchers consider that trust with commitment influence on innovation. In this study, trust as a variable and antecedent of commitment was not considered, thus in future studies could be a variable that increases innovation through commitment. Contrasting the results of this study with those of Groundy (2016) in which proved that the orientation to innovation mediate the effect of organizational commitment with innovation performance, we note that the results of no positive significance in the relationship of organizational commitment and innovation could be because it is important to assess the effect of the first variable on orientation to innovation and not directly on innovation as we value in this study. Given the globalization of markets is relevant to firms of foreign investment in Mexico and other countries in seeking market incursion, gain better insight into the inner operations of organizations in Mexico and the determinants of behaviors and attitudes of their employees (Clercq and Rius, 2007).

The SMEs in Mexico are not similar to other economies of developed countries, however, they are essential for the economic development of the country due to the high percentage of employment and other features that this type of companies posses which is why it refers important to know how employees within organizations can help to generate innovation. On the one hand in countries with collectivist culture such as Mexico, perceptions of workers lead to attitudes and behaviors of individuals which should be considered when managing organizations. Future studies should be complemented with objective measures of innovation that can be measured as results since one the limitations in this study is the measurement of innovation subjectively through perceptions.

## **LIMITATIONS**

Another, limitation is that in the model is proposed three elements through which can impact on innovation of SMEs from the perspective of human capital but the investigation should be extended to analyze other elements that have greater impact on innovation. Another limitation is that was held in small and medium enterprises which should increase knowledge whether these strategies support in different contexts and environments.

## **RECOMENDATION**

It is important to mention that future studies should inquire about which dimension of organizational commitment contributes to influence innovation. Studies such as the indicate that higher affective commitment leads to more energy in the workplace by employees.

## **ACKNOWLEDGMENTS**

An important contribution of this research is that few studies have proved how is that different orientations in which human capital has importance can positively influence innovation of SMEs, it is important to promote the scholars to deepen on the knowledge of attitudes and behaviors of this valuable resource within organizations because of them depend to successfully implement business strategies. This study contributes precisely to empirically test a model that takes three variables (internal marketing, organizational learning and organizational commitment) where human capital is involved to explain the influence on innovation. The variables had been investigated separately through a structural technique; thus, they had not been studied jointly through a model that seeks to explain innovation. The findings of this study also contribute to know results of these relationships through a model in an emerging country, given the possible influence of culture on the results of studies where human capital is involved.

## **REFERENCES**

- Ahmed, P.K., M. Rafiq and N.M. Saad, 2003. Internal marketing and the mediating role of organisational competencies. *Eur. J. Market.*, 37: 1221-1241.
- Akgun, A.E., J.C. Byrne, G.S. Lynn and H. Keskin, 2007. Organizational unlearning as changes in beliefs and routines in organizations. *J. Org. Change*, 20: 794-812.
- Akman, G. and C. Yilmaz, 2008. Innovative capability, innovation strategy and market orientation: An empirical analysis in Turkish software industry. *Intl. J. Innov. Manage.*, 12: 69-111.

- Alambro, A., 2013. The impact of internal marketing on NPD. *Coll. Bus. Econ. Qatar Univ.*, 2013: 1-6.
- Alegre, J. and R. Chiva, 2013. Linking entrepreneurial orientation and firm performance: The role of organizational learning capability and innovation performance. *J. Small Bus. Manage.*, 51: 491-507.
- Anderson, J.C. and D.W. Gerbing, 1988. Structural equation modeling in practice: A review and recommended two-step approach. *Psychological Bull.*, 103: 411-423.
- Aragón-Correa, J.A., V.J. García-Morales and E. Córdón-Pozo, 2007. Leadership and organizational learning's role on innovation and performance: Lessons from Spain. *Ind. Market. Manage.*, 36: 349-359.
- Bagozzi, R.P. and Y. Yi, 1988. On the evaluation of structural equation models. *J. Acad. Market. Sci.*, 16: 74-94.
- Baker, W.E. and J.M. Sinkula, 1999. Learning orientation, market orientation and innovation: Integrating and extending models of organizational performance. *J. Market Focused Manage.*, 4: 295-308.
- Bansal, H.S., M.B. Mendelson and B. Sharma, 2001. The impact of internal marketing activities on external marketing outcomes. *J. Qual. Manage.*, 6: 61-76.
- Barnett, W.P. and M.T. Hansen, 1996. The red queen in organizational evolution. *Strategic Manage. J.*, 17: 139-157.
- Bentler, P.M., 1990. Comparative fit indexes in structural models. *Psychol. Bull.*, 107: 238-246.
- Berry, L.L. and A. Parasuraman, 1991. *Marketing Services: Competing through Quality*. The Free Press, New York, USA.
- Beyene, K.T., C.S. Shi and W.W. Wu, 2016. Linking culture, organizational learning orientation and product innovation performance: The case of Ethiopian manufacturing firms. *South Afr. J. Ind. Eng.*, 27: 88-101.
- Brown, J.S. and P. Duguid, 1991. Organizational learning and communities-of-practice: Toward a unified view of working, learning and innovation. *Organiz. Sci.*, 2: 40-57.
- Byrne, B.M., 1989. *A Primer of LISREL: Basic Applications and Programming for Confirmatory Factor Analysis Analytic Models*. Springer, New York, USA.
- Cainelli, G., R. Evangelista and M. Savona, 2004. The impact of innovation on economic performance in services. *Serv. Ind. J.*, 24: 116-130.
- Calantone, R.J., S.T. Cavusgil and Y. Zhao, 2002. Learning orientation, firm innovation capability and firm performance. *Ind. Market. Manage.*, 31: 515-524.
- Cefis, E. and O. Marsili, 2006. Survivor: The role of innovation in firms survival. *Res. Pol.*, 35: 626-641.
- Ceylan, C., 2013. Commitment-based HR practices, different types of innovation activities and firm innovation performance. *Intl. J. Hum. Resour. Manage.*, 24: 208-226.
- Chen, C.J. and J.W. Huang, 2009. Strategic human resource practices and innovation performance-The mediating role of knowledge management capacity. *J. Bus. Res.*, 62: 104-114.
- Churchill, Jr. G.A., 1979. A paradigm for developing better measures of marketing constructs. *J. Market. Res.*, 16: 64-73.
- Clercq, D.D. and I.B. Rius, 2007. Organizational commitment in Mexican small and medium-sized firms: The role of work status, organizational climate and entrepreneurial orientation. *J. Small Bus. Manage.*, 45: 467-490.
- De Castro, G.M., M. Delgado-Verde, J.E. Navas-Lopez and J. Cruz-Gonzalez, 2013. The moderating role of innovation culture in the relationship between knowledge assets and product innovation. *Technol. Forecasting Social Change*, 80: 351-363.
- Dicle, U. and C. Kose, 2014. The impact of organizational learning on corporate sustainability and strategy formulation with the moderating effect of industry type. *Proced. Soc. Behav. Sci.*, 150: 958-967.
- Dunst, C.J., A. Watson, N. Roper and D. Batman, 2011. Factors associated with employee appraisals of adherence to learning organization principles and practices. *E. J. Organizational Learn. Leadersh.*, 9: 81-93.
- Dunst, C.J., C.M. Trivette and D.W. Hamby, 2010. Meta-analysis of the effectiveness of four adult learning methods and strategies: Supplemental tables and references. *Learn.*, 3: 91-112.
- Efrat, K., 2014. The direct and indirect impact of culture on innovation. *Technovation*, 34: 12-20.
- Eisenberger, R., P. Fasolo and V. Davis-LaMastro, 1990. Perceived organizational support and employee diligence, commitment and innovation. *J. Applied Psychol.*, 75: 51-59.
- Fernandez, M.A., V.J. Alegre and G.R. Chiva, 2012. Entrepreneurial orientation, organizational learning ability and innovative performance. *J. Technol. Manage. Innov.*, 7: 157-170.
- Fornell, C. and D.F. Larcker, 1981. Evaluating structural equation models with unobservable variables and measurement error. *J. Market. Res.*, 18: 39-50.
- Galia, F. and D. Legros, 2004. Complementarities between obstacles to innovation: Evidence from France. *Res. Policy*, 33: 1185-1199.

- Garcia, R. and R. Calantone, 2002. A critical look at technological innovation typology and innovativeness terminology: A literature review. *J. Prod. Innov. Manage.*, 19: 110-132.
- Garrett, T.C., D.H. Buisson and C.M. Yap, 2006. National culture and R&D and marketing integration mechanisms in new product development: A cross-cultural study between Singapore and New Zealand. *Ind. Market. Manage.*, 35: 293-307.
- Gatignon, H. and J.M. Xuereb, 1997. Strategic orientation of the firm and new product performance. *J. Market. Res.*, 34: 77-90.
- Gimenez, G., 2015. Identities in globalization. *Spiral. Stud. State Soc.*, Vol. 7,
- Gounaris, S., 2008. Antecedents of internal marketing practice: Some preliminary empirical evidence. *Intl. J. Serv. Ind. Manage.*, 19: 400-434.
- Gounaris, S.P., 2006. Internal-market orientation and its measurement. *J. Bus. Res.*, 59: 432-448.
- Gronroos, C., 1990. Relationship approach to marketing in service contexts: The marketing and organizational behavior interface. *J. Bus. Res.*, 20: 3-11.
- Gundry, L.K., F.A. Munoz, L.F. Ofstein and E.T. Ortega, 2015. Innovating in organizations: A model of climate components facilitating the creation of new value. *Creativity Innov. Manage.*, 25: 223-238.
- Hadjimanolis, A., 1999. Barriers to innovation for SMEs in a small less developed country (Cyprus). *Technovation*, 19: 561-570.
- Hair, J.F., R.E. Anderson, R.L. Tatham and W.C. Black, 1995. *Multivariate Data Analysis with Readings*. 4th Edn., Prentice-Hall Inc., Upper Saddle River, New Jersey, USA.
- Hitt, M.A., 2006. Direct and moderating effects of human capital on strategy and performance in professional service firms: A resource-based perspective. *Acad. Manage. J.*, 44: 13-28.
- Hsueh, L.M. and Y.Y. Tu, 2004. Innovation and the operational performance of newly established small and medium enterprises in Taiwan. *Small Bus. Econ.*, 23: 99-113.
- Huang, M. and M.Y. Chen, 2013. Internal marketing, customer orientation and organizational commitment: Moderating effects of work status. *Psychol. Rep.*, 113: 180-198.
- Huber, G.P., 1991. Organizational learning: The contributing processes and the literatures. *Organ. Sci.*, 2: 88-115.
- Hughes, A., 2001. Innovation and business performance: Small entrepreneurial firms in the UK and the EU. *New Econ.*, 8: 157-163.
- Hult, G.T.M., R.F. Hurley and G.A. Knight, 2004. Innovativeness: Its antecedents and impact on business performance. *Ind. Market. Manage.*, 33: 429-438.
- Hurley, R.F. and G.T.M. Hult, 1998. Innovation, market orientation and organizational learning: An integration and empirical examination. *J. Market.*, 62: 42-54.
- Jaworski, B.J. and A.K. Kohli, 1993. Market orientation: Antecedents and consequences. *J. Market.*, 57: 53-70.
- Jimenez, J.D., C.M. Martinez and V.R. Sanz, 2014. Innovation, organizational learning orientation and reverse knowledge transfer in multinational companies. *Electr. J. Knowl. Manage.*, 12: 47-55.
- Jimenez-Jimenez, D. and R. Sanz-Valle, 2011. Innovation, organizational learning and performance. *J. Bus. Res.*, 64: 408-417.
- Keizer, J.A., L. Dijkstra and J.I. Halman, 2002. Explaining innovative efforts of SMEs: An exploratory survey among SMEs in the mechanical and electrical engineering sector in the Netherlands. *Technovat.*, 22: 1-13.
- Kelly, D. and C. Storey, 2000. New service development: Initiation strategies. *Intl. J. Serv. Ind. Manage.*, 11: 45-63.
- Keskin, H., 2006. Market orientation, learning orientation and innovation capabilities in SMEs: An extended model. *Eur. J. Innov. Manage.*, 9: 396-417.
- Ko, J.W., J.L. Price and C.W. Mueller, 1997. Assessment of Meyer and Allens three-component model of organizational commitment in South Korea. *J. Appl. Psychol.*, 82: 961-973.
- Kohli, A.K. and B.J. Jaworski, 1990. Market orientation: The construct, research propositions and managerial implications. *J. Market.*, 54: 1-18.
- Kuster, I. and N. Vila, 2011. The market orientation-innovation-success relationship: The role of internationalization strategy. *Innovat.*, 13: 36-54.
- Lambert, E.G. and N.L. Hogan, 2009. Wanting change: The relationship of perceptions of organizational innovation with correctional staff job stress, job satisfaction and organizational commitment. *Criminal Justice Policy Rev.*, 21: 160-184.
- Larsen, P. and A. Lewis, 2007. How award-winning SMEs manage the barriers to innovation. *Creativity Innov. Manage.*, 16: 142-151.
- Lings, I.N., 2004. Internal market orientation: Construct and consequences. *J. Bus. Res.*, 57: 405-413.
- Lopez-Cabrales, A., A. Perez-Luno and R.V. Cabrera, 2009. Knowledge as a mediator between HRM practices and innovative activity. *Hum. Resour. Manage.*, 48: 485-503.

- Lukas, B.A. and O.C. Ferrell, 2000. The effect of market orientation on product innovation. *J. Acad. Market. Sci.*, 28: 239-247.
- Meyer, J.P. and L. Herscovitch, 2001. Commitment in the workplace: Toward a general model. *Hum. Resour. Manage. Rev.*, 11: 299-326.
- Nonaka, I. and H. Takeuchi, 1995. *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*. 1st Edn., The Oxford University Press, New York, USA., ISBN-13: 978-0195092691, Pages: 284.
- Noruzy, A., V.M. Dalfard, B. Azhdari, S. Nazari-Shirkouhi and A. Rezazadeh, 2013. Relations between transformational leadership, organizational learning, knowledge management, organizational innovation and organizational performance: An empirical investigation of manufacturing firms. *Int. J. Adv. Manuf. Technol.*, 64: 1073-1085.
- Rafiq, M. and P.K. Ahmed, 2000. Advances in the internal marketing concept: Definition, synthesis and extension. *J. Serv. Market.*, 14: 449-462.
- Renko, M., A. Carsrud and M. Brannback, 2009. The effect of a market orientation, entrepreneurial orientation and technological capability on innovativeness: A study of young biotechnology ventures in the united states and in Scandinavia. *J. Small Bus. Manage.*, 47: 331-369.
- Ruppel, P.C. and J.S. Harrington, 2000. The relationship of communication, ethical work climate and trust to communication and innovation. *J. Bus. Ethic.*, 25: 313-328.
- Senge, P.M., 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Doubleday Currency, New York, pp: 45.
- Sinkula, J.M., 1994. Market information processing and organizational learning. *J. Market.*, 58: 35-45.
- Sinkula, J.M., W.E. Baker and T. Noordewier, 1997. A framework for market-based organizational learning: Linking values, knowledge and behavior. *J. Acad. Market. Sci.*, 25: 305-318.
- Simon, D.G., M.A. Hitt and R.D. Ireland, 2007. Managing firm resources in dynamic environments to create value: Looking inside the black box. *Acad. Manage. Rev.*, 32: 273-292.
- Slater, S.F. and J.C. Narver, 1995. Market orientation and the learning organization. *J. Market.*, 59: 63-74.
- Tansuhaj, P., D. Randall and J. McCullough, 1991. Applying the internal marketing concept within large organizations: As applied to a credit union. *J. Prof. Serv. Market.*, 6: 193-202.
- Van de Ven, A.H., 1986. Central problems in the management of innovation. *Manage. Sci.*, 32: 590-607.
- Wang, C.L., 2008. Entrepreneurial orientation, learning orientation and firm performance. *Entrepreneurship Theory Pract.*, 32: 635-657.
- Wheeler, B.C., 2002. NEBIC: A dynamic capabilities theory for assessing net-enablement. *Inf. Syst. Res.*, 13: 125-146.
- Winter, J.P., 1985. Getting your house in order with internal marketing: A marketing prerequisite. *Health Market. Q.*, 3: 69-77.
- Yamin, S., A. Gunasekaran and F.T. Mavondo, 1999. Relationship between generic strategies, competitive advantage and organizational performance: An empirical analysis. *Technovation*, 19: 507-518.
- Zahra, S.A. and G. George, 2002. Absorptive capability: A review, conceptualization and extension. *Acad. Manage. Rev.*, 27: 185-203.
- Zhai, X., A.M. Liu and R. Fellows, 2013. Role of human resource practices in enhancing organizational learning in Chinese construction organizations. *J. Manage. Eng.*, 30: 194-204.
- Zhao, H., X. Tong, P.K. Wong and J. Zhu, 2005. Types of technology sourcing and innovative capability: An exploratory study of Singapore manufacturing firms. *J. High Technol. Manage. Res.*, 16: 209-224.
- Zhou, K.Z., C.K. Yim and D.K. Tse, 2005. The effects of strategic orientations on technology-and market-based breakthrough innovations. *J. Market.*, 69: 42-60.