Market Knowledge Management and Performance in Mexican Small Business

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Abstract

Market knowledge management is a relatively new construct in the current literature of business and management sciences. It is considered by some researchers and scholars as a possible miracle cure not only to obtain more and better results in small enterprises but also to improve significantly their level of business return. Similarly, the adoption and implementation of market knowledge management allow small enterprises to achieve more and better competitive advantages, a better market ranking and a significant increase in their business return. Therefore, this empirical research aims to analyze the prevailing relation between market knowledge management and the level of business return in small enterprises. In order to do this, a sample of 364 small and medium-sized enterprises was used from Aguascalientes State (Mexico). The results obtained show that market knowledge management has a positive and significant influence in the business return of small enterprises.

Keywords: Market knowledge management, performance, small business

1. Introduction

Even when the field of knowledge management is relatively new, there are more researchers, scholars, and professionals of business and management sciences that are interested in publishing their theoretical and empirical investigations about this important construct (Desouza *et al.*, 2005). Moreover, the adoption and implementation of knowledge management in organizations, especially small enterprises, varies a lot depending on the approach given by each business. There are some investigations that have used a technical approach to solve their main problems regarding knowledge management (e.g. Desouza *et al.*, 2005). Other studies have used an approach of knowledge management (e.g. Nonaka, 1994; Nonaka & Takeuchi, 1995; Alavi & Leidner, 2001; Hult, 2003) and some others have focused in a market knowledge management (e.g. Abrahamson & Eisenman, 2001; Desouza *et al.*, 2005; Jia-Jeng & Ying-Tsung, 2010).

Regarding the technical approach, knowledge management usually encompasses a series of practices and knowledge from different fields, especially information systems, which is normally used in most studies about knowledge management (Earl, 2001). Essentially, the use of this approach allows enterprises to obtain and store all the strategic information through systems based in knowledge in which the information is completely available and accessible to all the departments or functional areas of the enterprise to make a better decision (Wang et al., 2008). Consequently, the knowledge based on systems is essential to make the knowledge management of enterprises more efficient since both the tacit and explicit knowledge (such as the experience of the staff of the small enterprise) plays a vital role in the level of effectiveness and efficiency in the knowledge management of the enterprises (Gupta & Govindarajan, 2000).

Regarding the approach of the orientation of knowledge management, it is important to establish that this topic is relatively new in the literature of business and management sciences and it comes from the theory of knowledge based in enterprises (Grant, 1996), the perspective of the creation of knowledge (Nonaka & Takeuchi, 1995), the theory of the process of organizational information (Huber, 1991) and the theory of organizational learning (Sinkula et al., 1997). More specifically, the orientation of knowledge management is the degree in which enterprises, mostly small ones, show an organized and systematic behavior of the adoption and implementation of knowledge management in terms of the prevailing knowledge, the exchange of knowledge, the absorption of

external and internal knowledge as well as the reception of knowledge (Szulansky, 1996; Davenport et al., 1998; Holtshouse, 1998; Popper & Lipshitz, 1998; Hansen et al., 1999; Alavi & Leidner, 2001; Gray, 2001; Hult, 2003).

Other enterprises have chosen to adopt and implement a more social approach of knowledge management in which knowledge can be exchanged through the dialogue and interaction between people and the daily market relations that people and enterprises develop (Desouza et al., 2005). Therefore, based on this interaction between people and enterprises, there has been in the literature a new concept defined as market knowledge management that attempts to be a possible miracle cure to obtain better results in enterprises as well as to improve significantly business performance of the organizations (Davenport & Prusak, 1998; Kambil & van Heck, 2002; Desouza & Awazu, 2003; Desouza et al., 2003; Desouza & Awazu, 2004).

Thus, following the recommendations of Abrahamson and Eisenman (2001), Desouza et al. (2005) as well as Jia-Jeng and Ying-Tsung (2010), the main contribution of this empirical research is the analysis and discussion of the prevailing relation between market knowledge management and business performance in a developing country, which is the case of Mexico. The rest of the paper has been organized in the following way: the second section makes a review of the theoretical framework, the few previous empirical researches and the establishment of the research hypotheses; the third section presents the methodology, the sample and the variables used; the fourth section analyzes the results obtained and, in the final section, the main conclusions and the discussion of the empirical research are presented.

2. Method

The theory market knowledge management makes a clear distinction between rational and progressive regulations which mostly determine the use of market knowledge management techniques that are carried out in enterprises nowadays (Abrahamson, 1991, 1996a, 1996b). The rational regulations are the management techniques that can make some parts of knowledge management more efficient whereas the progressive regulations are the management techniques that can improve significantly the management of knowledge permanently and in all its aspects. These two regulations together create an important amount of information and market knowledge that can be spread rationally so the market knowledge management can be progressive and produce a higher level of business performance (Abrahamson & Eisenman, 2001).

In this regard, the organizations that have chosen to adopt and implement the market knowledge management, especially small enterprises, usually tend to improve significantly their knowledge management as well as achieve better results including a higher level of business performance (Gill & Wittle, 1993; Ambrahamson, 1997; Kieser, 1997; Abrahamson & Fairchild, 1999). This is one of the reasons why in the current literature of business and management sciences it is generally regarded as a process in which enterprises are constantly redefining their collection and production systems of market knowledge in a way that they can improve their techniques and knowledge management by making them more rational and progressive to obtain better results (Abrahamson, 1996a).

Accordingly, market knowledge management is considered in the current literature as one of the most modern and updated business strategies which has significant effects not only in the level of competitiveness of enterprises but also in the level of business performance (Jia-Jeng & Ying-Tsung, 2010). Thus, if enterprises can be more competitive in the market in which they participate, especially the small ones, they have to improve significantly the knowledge they have as well as to create new knowledge that turns into new products or services in a way that allow enterprises to increase significantly their market ranking and position which in turn will allow the enterprises to increase their level of business performance (Jia-Jeng & Ying-Tsung, 2010).

Basically, all the new knowledge produced inside enterprises will have to be created through two generic processes in order to have a deeper impact in the results of the organization: the combination and exchange of knowledge (Nonaka, 1994). Consequently, in order to take advantage of the infrastructure of the new knowledge created in an efficient way, the process of market knowledge management will have to consider the storage, transformation and distribution of this knowledge in all the areas or departments of the organization (Almeida, 1996; Appleyard, 1996; Porter-Liebskind, 1996; Nonaka & Konno, 1998), for as it will depend greatly that this process allows enterprises (including small businesses) the input, discrimination and transfer or knowledge in an efficient and effective way. All this will have results in the level of business performance (Jia-Jeng & Ying-Tsung, 2010).

Similarly, Su and Lin (2005) concluded that the knowledge of clients and consumers about enterprises can increase significantly through the forecast of available resources in the organization and the process of knowledge management. On the other hand, Grant (1995) claimed a theoretical model that can distinguish the

main aspects of integration process of knowledge which depends basically on three main aspects: efficiency, range and flexibility of the integration of knowledge. In this way, the frequency and variability of the integration process of knowledge determine greatly the efficiency of the integration, because the more frequent the enterprises are using their market knowledge management processes, they become habitual and the regulations become routines and their integration processes are more efficient (Grant, 1996).

In this regard, the variety of prevailing knowledge in the organization which is integrated in the market knowledge management defines basically the range of the integration of knowledge inside the enterprises (Grant, 1996). Finally, the flexibility of the integration of knowledge refers to the way in which enterprises can combine the existing knowledge inside the organization (Grant, 1995). However, for the knowledge management to have a higher impact in the level of business performance it is important that the organizations, especially small enterprises, manage adequately their internal knowledge but also the effectiveness of the management of external knowledge, especially the one obtained from the market (El Sawy et al., 2000).

Additionally, in the current literature, several researchers, scholars and professionals of the field of knowledge management have identified different aspects of market knowledge management. Some of the most outstanding are the input, use, transfer, acquisition, collaboration, integration, experimentation and exploitation (Teece, 1998), as well as the creation, transfer, use (Spender, 1996), creation and process (Ivers, 1998). However, the classification proposed by Gol et al. (2001), which categorizes market knowledge management in four dimensions (acquisition, transformation, implementation and protection), is the most accepted and used one by the community of researchers and scholars. Consequently, it will also be the classification used in this empirical research.

The acquisition of market knowledge refers to all the activities made by small enterprises that are focused to achieve market knowledge in which they participate (Jia-Jeng & Ying-Tsung, 2010). Moreover, the knowledge obtained allows enterprises to create their own knowledge. For this, it is necessary to adopt and implement activities of exchange and dissemination of experiences and skills of all the staff of the organization. This cooperation will need to take place between people of the same organization and between enterprises, associates and suppliers because the collaboration between individuals usually takes place in a context of personal differences (e.g. style, knowledge, experiences, skills) which can be used for the creation of new knowledge (Luo, 2000). This creates a higher level of learning among the personnel as a socialization of knowledge and a higher level of business performance (Teece, 1998).

The partnership between enterprises, suppliers and business associates is commonly regarded in the literature as an essential resource for the acquisition and creation of new knowledge (Inkpen, 1996; Inkpen & Beamish, 1997; Inkpen & Dinur, 1998; Dyer & Nobeoka, 2000). Thus, the cooperation with other enterprises is fundamental as it allows small enterprises to obtain new knowledge that will have to be disseminated in all organization (Grant, 1995, 1996; Matusik & Hill, 1998), as well as the exchange of technology, the staff rotation and the work with other enterprises through business alliances which can allow small enterprises to gain knowledge (Inkpen, 1996; Inkpen & Dinur, 1998), and the necessary skills to achieve a higher level of business performance (Inkpen & Beamish, 1997). Therefore, it is possible at this point to establish the first research hypothesis:

H₁: Higher acquisition of knowledge, higher level of business performance

The transformation of market knowledge refers to the activities that small enterprises adopt and implement which focus in making the prevailing knowledge in the enterprise useful for all the organization as a whole (Jia-Jeng & Ying-Tsung, 2010). Some of the most important processes that allow the transformation of knowledge in small enterprises are the ability to organize knowledge (O'Dell & Grayson, 1998), the integration of knowledge (Grant, 1996), the combination, structure and coordination of knowledge (Sánchez & Mahoney, 1996), and the distribution of knowledge (Zander & Kogut, 1995; Davenport *et al.*, 1998; Davenport & Klahr, 1998). Furthermore, small enterprises have to develop and implement a model or system to organize and structure their knowledge adequately (O'Dell & Grayson, 1998), as this will determine significantly the achievement of a higher level of business performance (Jia-Jeng & Ying-Tsung, 2010).

Accordingly, the combination or integration of market knowledge decreases significantly the redundancy, it increases the consistency and it improves in a high percentage the efficiency of knowledge which eliminates the excess of volume of information that is not relevant (Grant, 1996). This process allows small enterprises to replace the knowledge that is obsolete and is not important for the organization. The process also inserts the new knowledge produced by employees and workers of the enterprise which implies not only management revenue and efficiency of market knowledge but it also improves the level of business performance (Jia-Jeng & Ying-Tsung, 2010). Thus, at this point, it is possible to state the second research hypothesis:

H_2: Higher transformation of market knowledge, higher level of business performance

The implementation of market knowledge refers to all the activities developed by small enterprises that have as a main goal to use more efficiently the current knowledge that the organization has (Jia-Jeng & Ying-Tsung, 2010). As a consequence, an effective and efficient implementation of the current knowledge that enterprises have may have positive and significant effects in both the results of the organization and the business performance (Jia-Jeng & Ying-Tsung, 2010). Moreover, some of the main characteristics published in the literature that are closely linked to the implementation of knowledge are the storage, retrieval, execution, contribution and exchange of knowledge (Appleyard, 1996), since an effective system of storage and retrieval of knowledge allows small enterprises to access quickly to market knowledge. This creates a higher level of competitiveness and business performance (Jia-Jeng & Ying-Tsung, 2010).

Likewise, knowledge and experience from the staff in small enterprises must be exchanged among themselves because this will enable the implementation of market knowledge through the development of new products or services such as the increase in its functionality (Kogut & Zander, 1992; Kraatz, 1998; Johannessen *et al.*, 1999). Consequently, a correct and effective execution of market knowledge can help significantly the organizations to improve their results and decrease their production costs (Fathian *et al.*, 2008). Thus, a correct implementation of market knowledge can become a strategic and substantial resource so small enterprises can produce not only a higher impact in the sustainability of the company, but also a higher level of growth and business performance (Jia-Jeng & Ying-Tsung, 2010). Hence, at this point, it is possible to state the third research hypothesis:

H_3: Higher implementation of market knowledge, higher level of business Performance

Finally, the protection of market knowledge refers to all the activities made by small enterprises to protect the existing knowledge in the organization from inappropriate or illegal use from other people or enterprises (Jia-Jeng & Ying-Tsung, 2010). So, in order for an enterprise to create and protect their competitive advantages as well as to increase significantly their business performance, it will be necessary that all the current knowledge inside the organization is totally protected (Porter-Liebskind, 1996). Similarly, the knowledge that small enterprises have can be protected legally through patents, brand registration and copyright so they can obtain all the rights of the intellectual property for the development of new products or services (Porter-Liebskind, 1996).

Additionally, small enterprises have to take as much advantage as they can from the information technologies, they have to restrict or allow fast access to essential market knowledge that the organization has. If users of market knowledge have difficulties to get access then small enterprises can have problems with their results and with their level of business performance (Jia-Jeng & Ying-Tsung, 2010). As a result of this, small enterprises have to adopt and implement a security system that protects market knowledge, especially the one that is unique and unparalleled, from their competitors. Also, they need to implement programs to improve knowledge management because they will determine in a high percentage the increase in the level of business performance (Jia-Jeng & Ying-Tsung, 2010). Hence, at this point, it is possible to state the third research hypothesis:

H_4: Higher protection of market knowledge, higher level of business performance

2.1 Sampling Procedures

In order to answer the four hypotheses stated in this research paper, an empirical investigation was made with a sample of 368 small and medium-sized enterprises from Aguascalientes State (Mexico). For the research, it was considered the 2016 business directory of the Sistema de Información Empresarial Mexicano (System of Mexican Business Information, or SIEM) for Aguascalientes State which had 5,196 registered enterprises in December 2016, but for practical purposes the only enterprises considered for this research were the ones that had from 5 to 250 employees which produced a business directory of 1,261 enterprises. Additionally, the sample was selected randomly with a reliability level of 96% and a sampling error of ±4.5% which produced a total sample of 368 enterprises. Finally, the instrument used was a questionnaire which was applied as a personal interview to managers and/or owners of the 368 selected enterprises. The interviews were made from January to April 2016.

2.2 Measures and Covariates

Similarly, for the measurement of market knowledge management the scale proposed by Gold *et al.* (2001) was considered and it encompasses four dimensions: *acquisition of knowledge* (measured by a scale of ten items); *transformation of knowledge* (measured by a scale of ten items); *implementation of knowledge* (measured by a scale of ten items); and *protection of knowledge* (measured by a scale of ten items). Furthermore, the business performance was measured by means of a three-item scale (1: return of the investment; 2: earnings compared with the competition; and 3: market participation), and it was adapted from Tan and Litschert (1994). All the

items of the scales used are based on a Likert-type scale of five positions from "1 = completely disagree to 5 = completely agree" as limits.

Likewise, before the analysis of the results obtained, an analysis of reliability and validity of the scales of market knowledge management and business performance was carried out with a Confirmatory Factorial Analysis of second order (CFA) by using the method of maximum likelihood with the software EQS 6.1 (Bentler, 2005; Brown, 2006; Byrne, 2006). Furthermore, the reliability was evaluated with Cronbach's alpha and the Composite Reliability Index (CRI) (Bagozzi and Yi, 1988). Additionally, the recommendations made by Chou *et al.* (1991) and by Hu *et al.* (1992), were taken into consideration regarding the correction of statistics of the theoretical model, when it is considered that the normalcy of data is present as well as the robust statistics in order to provide a better statistical adjustment of the data (Satorra & Bentler, 1988).

The results obtained of the implementation of the CFA are presented in Table 1 and they indicate that the theoretical model of the relation between market knowledge management and business performance has a good adjustment of data ($S\text{-}BX^2$ = 2,319.568; df = 692; p = 0.000; NFI = 0.851; $NNFI$ = 0.822; CFI = 0.867; $RMSEA$ = 0.079), since all the items of the four dimensions of market knowledge management and the three-items of the business performance are significant ($p < 0.001$), the size of all the standardized factorial loads are higher than 0.60 (Bagozzi & Yi, 1988), Cronbach's alpha and the CRI have a value higher than 0.70 and the Variance Extracted Index (VEI) has a value higher than 0.50 (Fornell & Larcker, 1981). Therefore, all these values indicate that there is enough evidence of reliability and convergent validity which justifies the internal reliability of the two scales used (Nunally & Bernstein, 1994; Hair *et al.*, 1995).

Table 1. Internal consistency and convergent validity of the theoretical model

Variable	Indicator	Factor Loading	Robust-t Value	Cronbach's Alpha	CRI	EVI
Knowledge Acquisition	KA1	0.781***	1.000[a]	0.928	0.929	0.572
	KA2	0.768***	17.674			
	KA3	0.826***	20.223			
	KA4	0.883***	23.311			
	KA5	0.627***	13.989			
	KA6	0.675***	17.037			
	KA7	0.611***	12.528			
	KA8	0.826***	22.609			
	KA9	0.873***	23.246			
	KA10	0.627***	13.989			
Knowledge Conversion	KC2	0.770***	1.000[a]	0.908	0.909	0.560
	KC3	0.670***	12.753			
	KC4	0.612***	10.259			
	KC5	0.818***	14.961			
	KC6	0.822***	14.980			
	KC8	0.612***	10.259			
	KC9	0.818***	14.961			
	KC10	0.822***	14.980			
Knowledge Application	KP1	0.746***	1.000[a]	0.962	0.963	0.723
	KP2	0.790***	28.425			
	KP3	0.882***	32.317			
	KP4	0.909***	32.666			
	KP5	0.925***	32.674			
	KP6	0.808***	29.410			
	KP7	0.674***	21.115			
	KP8	0.882***	32.317			
	KP9	0.909***	32.666			

	KP10	0.937***	32.687			
	KR3	0.668***	1.000ᵃ			
	KR4	0.710***	18.620			
	KR5	0.903***	22.205			
Knowledge Protection	KR6	0.765***	20.272	0.914	0.915	0.578
	KR7	0.621***	15.535			
	KR8	0.710***	18.620			
	KR9	0.903***	22.205			
	KR10	0.754***	19.959			
	BP1	0.791***	1.000ᵃ			
Business Performance	BP2	0.848***	25.291	0.869	0.870	0.691
	BP3	0.854***	27.945			

$S\text{-}BX^2$ (df = 692) = 2,619.568; p < 0.000; NFI = 0.851; NNFI = 0.857; CFI = 0.867; RMSEA = 0.079

ᵃ = Parameters limited to that value in the identification process

*** = p < 0.01

The analysis of the discriminant validity was made by two tests. The first one is the *reliability interval test* (Anderson & Gerbing, 1988) which establishes that with an interval of 95% of reliability none of the individual latent elements of the matrix of correlation must have a value of 1.0. Secondly, the *extracted variance test* (Fornell & Larcker, 1981) establishes that the extracted variance between each pair of constructs is higher than their corresponding square covariance. Therefore, based on the results obtained from both tests, it can be concluded that that both measurements provide enough evidence of discriminant validity of the theoretical framework.

Table 2. Discriminant validity of the theoretical model

Variables	Knowledge Acquisition	Knowledge Conversion	Knowledge Application	Knowledge Protection	Business Performance
Knowledge Acquisition	**0.572**	0.061	0.085	0.081	0.125
Knowledge Conversion	0.198 – 0.294	**0.560**	0.045	0.032	0.056
Knowledge Application	0.236 – 0.348	0.165–0.261	**0.723**	0.144	0.087
Knowledge Protection	0.233 – 0.337	0.134–0.222	0.324–0.436	**0.578**	0.120
Business Performance	0.292 - 416	0.183–0.291	0.231–0.359	0.287–0.407	**0.691**

The diagonal represents the Extracted Variance Index (EVI), whereas above the diagonal the variance is presented (squared correlation). Below diagonal, the estimated correlation of factors is presented with 95% confidence interval.

3. Results

The theoretical model was analyzed in order to prove the hypothesis established in this empirical research by using the structural equations model (SEM) of second order with the software EQS 6.1 (Bentler, 2005; Brown, 2006; Byrne, 2006), with the same variables to confirm the structure of the theoretical model and obtain the results that allow contrasting the hypothesis stated at the beginning of this paper. Similarly, the nomological validity of the theoretical model was analyzed through the Chi-square test. It was mostly based on the comparison of the results obtained from the original model and the measurement model; that provided non-significant results statistically between the Chi-square of both models which provide an explanation of the relations observed between the constructs of the latent variable of the two models (Anderson & Gerbing, 1988; Hatcher, 1994). The results obtained by means of the SEM can be seen in a more detailed way in Table 3.

Table 3. Results of the structural equation model of the theoretical model

Hypothesis	Structural relationship	Standardized Coefficient	Robust Value t
H$_1$: Higher market knowledge acquisition, higher business performance level.	Acquisition → Performance	0.447***	8.419
H$_2$: Higher market knowledge conversion, higher business performance level.	Conversion → Performance	0.353***	7.208
H$_3$: Higher market knowledge application, higher business performance level.	Application → Performance	0.429***	8.215
H$_4$: Higher market knowledge protection, higher business performance level.	Protection → Performance	0.387***	7.536
S-BX^2 (df = 680) = 2,606.545; p < 0.000; NFI = 0.855; NNFI = 0.862; CFI = 0.872; RMSEA = 0.077			

*** = P < 0.01.

Table 3 shows the results obtained from the implementation of the structural equations model of second order. Regarding the hypothesis **H$_1$** the results obtained, β = 0.447, p < 0.01, indicate that the market knowledge acquisition has a significant positive influence in the business performance of small enterprises of Mexico. Regarding the hypothesis **H$_2$** the results obtained, β = 0.353, p < 0.01, indicate that the market knowledge transformation has a significant positive influence in the business performance of small enterprises. Regarding the hypothesis **H$_3$** the results obtained, β = 0.429, p < 0.01, indicate that the market knowledge implementation has a significant positive influence in the business performance of small enterprises of Mexico. Regarding the hypothesis **H$_4$** the results obtained, β = 0.387, p < 0.01, indicate that the market knowledge transformation has a significant positive influence in the business performance of small enterprises.

4. Discussion

The results obtained in this empirical research allow us to conclude in three main aspects. Firstly, market knowledge management is an essential activity in small enterprises because it is precisely through this type of actions and activities, that the small enterprises can obtain the information and knowledge produced outside the organization, transform this knowledge into new knowledge inside the organization, implement the existing knowledge in the enterprises for the production or development of new products or services and protect legally the intellectual property rights of the new knowledge so their main competitors cannot copy or use this knowledge. This will enable enterprises not only to obtain or improve their competitive advantages and their market position, but also to achieve a higher level or business performance.

Secondly, all enterprises try to obtain better results. In order to do this, they need to adopt and implement not only new business strategies but also make substantial changes inside the organization. One of the most interesting results for organizations, and mainly for small enterprises, is to increase significantly the level of business performance, because a higher business and/or financial performance will create the necessary resources so small enterprises can adopt and implement new business strategies. Otherwise, it will be very difficult and complicated for small enterprises to change or modify their production or management processes, and it will be even more complicated that they make a change in the organization culture. Therefore, business performance has become a necessary result for small enterprises.

Thirdly, it is possible to conclude that there is a close link between market knowledge management and business performance. Depending on how small enterprises improve significantly their level of market knowledge management, it will be directly proportional to increase powerfully their level of business performance. Therefore, it is possible to conclude in a general way that if the executives of small enterprises, have as one of their goals to increase the level of business performance, then they will have to adopt and implement all the activities and actions aimed to market knowledge management. In other words, use only the information and knowledge which are essential for the enterprise to transform that knowledge in new products and protect it.

On the other hand, this empirical research contains a series of implications that are necessary to establish. The first one is that managers and/or owners of small enterprises have to focus the market knowledge management accordingly. In other words, the market knowledge management (both inside and outside of the organization itself), has to focus in the acquisition of all the relevant information and knowledge for the enterprise, transform the information and knowledge in new knowledge, disseminate this new knowledge in all the areas or departments of the organization, transform the new knowledge in new products or services, and protect by means

of intellectual property rights the new products. All this will enable small enterprises to increase significantly their level of business performance.

A second implication of this empirical research is that the executives of small enterprises have to carry out the necessary activities for the adoption and implementation of the market knowledge management, as well as to establish clearly the type of information and knowledge that may be necessary to obtain from the market, how to transform all that information and knowledge outside the organization in new knowledge, the strategies to disseminate that new knowledge into the enterprise, the stages of the implementation of the new knowledge in the development of new products and services, and the strategies to protect the rights of intellectual property of the newly produced knowledge. This will allow small enterprises to increase not only their market ranking by offering new products or services, that do not exist in the market but also to displace their main competitors from the current market.

A third limitation of this empirical research is that the executives of small enterprises have to create the necessary and optimal conditions, so the inside the organization can adopt and implement market knowledge management adequately and efficiently. In order to achieve this, it will be essential that the executives design and implement a formal training program as complete as possible, for all the staff in the organization so employees and workers can identify clearly, the type of information and knowledge required from the market (clients, suppliers, competitors, products, technology, and so on), as this will determine mostly the creation of new knowledge and the improvement of the market ranking, as well as the achievement of more and better competitive advantages and the increase in the level of business performance.

Finally, a fourth limitation in this empirical investigation is that that the executives of small enterprises will have to create a working environment, that promotes in all the staff of the organization the confidence to express their ideas, freely and offer possible alternatives to solve the main problems that small enterprises face. This will enable this type of enterprises to be more proactive than reactive in the uncertainty that presents and increasingly competitive and more globalized market. Moreover, it will be necessary that the executives of small enterprises promote team work so all the staff of the enterprise can develop their skills, share their knowledge, experience and abilities which will facilitate the creation of new knowledge inside the organization and, consequently, a higher level of business performance.

Accordingly, this empirical research has a series of limitations that are important to consider. Thus, the first limitation is the one regarding the use of the scale of the market knowledge management and the scale of business performance, because only four dimensions or factors, were used for the measurement of market knowledge management and only three-items for the measurement of business performance. Future investigations will need to use other types of scales to confirm the results obtained. The second limitation is that the questionnaires to collect the data were applied only to managers and/or owners in the state of Aguascalientes (Mexico). This can make that the results obtained vary significantly if a different sample is used.

A third limitation is the collection of data since only qualitative variables were considered to measure the market knowledge management and business performance, so in future studies it will be necessary to incorporate quantitative variables or hard data to verify if the similar results are found. The fourth and final limitation of this research is that most enterprises considered that the information requested was considered as confidential, so the results obtained from the enterprises selected may not necessarily reflect the reality regarding their market knowledge management and their level of business performance.

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