Main Weaknesses Presented by the MIPYMES of the Serrana Region of the State of Sonora

Jesús Guadalupe Vázquez González, Francisco Antonio Medina Ortiz, and Alejandra Frisby Morales

Universidad de la Sierra, Mexico

Abstract: The present investigation was conducted in the business center of Universidad de la Sierra, in Moctezuma, Sonora, which is a department of the institution responsible for providing tax advice, accounting, development of productive projects, and research, to mention a few. The objective of the research is to analyze the weaknesses that MSMEs present in the mountain region of the state of Sonora, so that the entrepreneur knows and identifies them and these do not affect the development of the company. Our work is focused on micro, small and medium enterprises, because they are considered an important part in the economy of the region, for this reason the problem that is addressed in the study is the analysis of the factors that affect both positively and negatively MSMEs. As a result of the study derived from various information gathering techniques, among them the survey, it was established that MSMEs in the region experience some weaknesses that directly influence the development of activities, such as: limited access to financial aid, political and social problems, lack of marketing tools, technological problems, competition, among others. Finally, it is expected that once the weaknesses of MSMEs are identified, entrepreneurs can respond in an efficient way to all the challenges they face today in order to remain in the market.

Key words: MSMEs, innovation, analysis, business and competition

1. Introduction

MSMEs are micro, small and medium sized enterprises that play an important role in the economic development of nations, both in industrialized countries and in those with lesser levels of development as Mexico.

In Mexico it has been difficult to locate them correctly over time, due to the variables and indicators that have been taken into account to classify them correctly. Economic and accounting parameters have been used to classify them, such as: the total number of workers, total annual sales and income. Information is in Table 1.

When talking about the mountain region of the state of Sonora, MSMEs are distinctive units or entities considered as an excellent means to boost the economic

Table 1   Business clasification [1].

Size	Sector	Range of number of workers	Annual sales amount range (mdp)	Maximum combined limit
Micro	All	Up to 10	Up to 4	4.6
Small	Commerce	From 11 to 30	From $4.01 to $100	93
Small	Industry and services	From 11 to 50	From $4.01 to 100	95
Medium	Commerce	From 31 to 100	From $100.01 to $250	235
Medium	Services	From 51 to 100	From $100.01 to $250	235
Medium	Industry	From 51 to 250	From $100.01 to $250	250

development of a locality or community, not only for their contributions to the production and distribution of goods and services, but also for their great potential in job opportunities, labor specialization, technology transfer and access to other markets; characteristics that allow as a whole, to strengthen the internal capacities of a particular society, in such a way that

Corresponding author: Jesús Guadalupe Vázquez González, Professor; research areas/interests: business, tourism, rural development. E-mail: jvazquez@unisierra.edu.mx.

they promote the endogenous development of the region.

However, it is important to analyze which are the weaknesses of MSMEs in the region since they provide the greatest number of economic units and personnel employed, hence the relevance of this type of companies and the need to strengthen their performance, since they have a fundamental influence on greater performance and profitability.

At present, micro and small businesses are involved in a constantly changing environment, which is why they have been forced to grow and improve themselves day by day to be able to remain in today's competitive market. To achieve that it is necessary they identify their strengths and weaknesses, as well as the opportunities and threats of the environment in which they are immersed to seek better solutions through the planning of their goals in order to achieve success.

Considering that one of the main problems facing Sonora is the lack of economic growth and employment creation, highlighting the importance of MSMEs is imperative since they represent a relevant contribution in tax collection with a 58%, and a 38% contribution to GDP, in addition to being an important source for job creation. Hence the importance of promoting their development and progress [2].

Both the low operability of federal government programs for the promotion of MSMEs, and the macroeconomic behavior from the past years, the necessary conditions to make them grow at a dynamically and steadily pace have not been met. And that is mainly because MSMEs face a series of difficulties that significantly obstruct their progress.

MSMEs in the mountain region of Sonora currently face some kind of uncertainty regarding the continuation of the activities they develop, this derived from some factors that directly affect the generation of profits, for example, the rise in oil prices, dollar parity versus Mexican peso, changes in current regulations, and political factors.

However, some companies have managed to remain in the market from generation to generation, because they have sought competitive strategies that allow them to do so; that is why this paper seeks to determine which are the main weaknesses or threats that negatively affect MSMEs in the region, so that they can develop strategies that allow them to keep their place in the market, thereby involving state and municipal authorities in the promotion of MSMEs boost and progress.

2. Literature Review

The definition of a company regardless of its size, or its place of origin, is the same anywhere in the world, since, within its definition, it will always include the same components necessary for it to be considered as a company.

Therefore, López F. (2009) [3] defines the company as: an organized combination of money and people who work together, which produces material value both for people who have contributed that money, and for people who work with that money in that company, through the production of certain products or services that they sell to people or entities interested in them.

On the other hand, Felix J. (2000) points out that the company is seen as a group of people who come together and cooperate to achieve a common goal through the balance and play of personal motivations.

As mentioned by the authors, we can describe a company as a unit that brings together the services of the factors of production and uses them to produce goods and/or services, which are marketed in a market to different consumers.

We can also define a company as an organization where more than two people work together to achieve organizational goals and objectives.

The term MSMEs refers to a very diverse group, with companies in all levels of development, in different sectors and industries and geographies, with different management and ownership structures, and with different organizational cultures, operating in social, economic environments. and different policies [4].

Based on what has been described, it can be identified that micro, small and medium enterprises (also known by the acronym MSMEs) are companies with distinctive characteristics, and have dimensions with certain occupational and financial limits prefixed by the States or Regions. They are agents with specific logics, cultures, interests and entrepreneurial spirit.

3. Importance of MSMEs

Micro, small and medium enterprises are particularly important for national economies, not only because of their contributions to the production and distribution of goods and services, but also because of the flexibility to adapt to technological changes and the great potential for generating jobs. They represent an excellent means to boost economic development and a better distribution of wealth.

Today, governments in developing countries recognize the importance of MSMEs for their contribution to economic growth, job creation, as well as regional and local development [5].

Referring to Mexico, micro, small and medium enterprises (MSMEs) participation in the economy is essential for a sustained economic growth in the country. According to INEGI, there are about 2 million 844 thousand business units in Mexico, 99.7% of which are MSMEs that together generate 42% of the Gross Domestic Product (GDP) and 64% of the country's employment. Definitely, MSMEs are of great importance today as they are the engine of development of the country [6].

Derived from the above we can mention that MSMEs have contributed to boost and detonate economic development, so in the country strategies must be designed in favor of micro, small and medium enterprises, in order to boost their growth and promote places that the labor market requires.

3.1 Competition

Basic competence for work is defined as the ability of an individual to apply knowledge in the performance of daily work activities and its use to solve problems in different work situations: it implies the possibility of using the same competence to varied occupations [7].

However, the concept of competition applied to companies refers to the condition of prevailing in a competitive market in order to seek and achieve benefits for the company at the expense of the advantages of another one [8].

3.2 Innovation

According to Schumpeter J. (1934) [9], innovation is any way of doing things differently in the realm of economic life. Thus, examples of innovation would be the introduction of a new product, a new production method, the opening of a new market, the use of a new source of supply, or the implementation of a new structure in a market.

Meanwhile, Gopalakrishnan S. and Damanpour F. (2006) [10] indicates that innovation implies new ideas: the existence of a new idea that is tried to put into practice to obtain a new product, process or service. Innovation therefore presupposes the generation, development or adaptation of a new idea that must be transformed into a tangible reality. Innovation also involves the generation of new behaviors or new practices, the emergence of new possibilities and opportunities.

Innovation is used to associate the idea of progress and search for new methods, based on the knowledge that precedes it, in order to improve something that already exists, to solve a problem or facilitate an activity, it is a continuous action and covers different fields of human development.

3.3 Training

Training consists of an activity planned and based on real needs of a company or organization and oriented towards a change in knowledge, skills and attitudes of the collaborator. In order for the general objective of a company to be fully achieved, a training function that collaborates is necessary, providing the company with

duly trained and developed personnel to perform their functions well, having previously discovered the real needs of the company [11].

Training consists of an activity raised and based on real needs of a company or organization and oriented towards a change in the knowledge, skills and attitudes of the collaborator, with the purpose of preparing it to efficiently perform a specific and impersonal work unit [12].

4. Materials and Methods

This research was conducted at the Business Center of Universidad de la Sierra, in the municipality of Moctezuma, Sonora, from August 13 to December 14, 2018.

Geographically, the study is limited to the mountain region of the state of Sonora, considering nine municipalities: Nacozari, Cumpas, Divisaderos, Tepache, Granados, Huásabas, Villa Hidalgo, Bavispe, and Bacerac.

This research aims to reveal the current situation of MSMEs in the mountain region of Sonora, in relation to the factors that are significantly involved in their progress. As a data collection technique, a survey was applied which was responded by entrepreneurs in the region, from both goods and services sectors.

5. Methodology

The research design, as well as type of study, unit of analysis, the steps for the sample design, the measuring instrument, the selection of the sample, as well as the results that were obtained to show the validity and reliability of the techniques used. This grouping of methodologies was designed with the intention of answering the research questions of this paper and to know which variables are significantly involved in the development of MSMEs in the mountain region of the state of Sonora.

5.1 Study Type

The type of study conducted for this research was descriptive, taking into account the objectives and characteristics to achieve the formulation of our project, so that it can be executed and monitored, since the procedure was identified in the collection of data on different aspects.

According to Fernández, Hernández and Baptista (2006) [13], the researcher's goal is to describe phenomena, situations, contexts and events; that is, detail how they are and manifest. Descriptive studies seek to specify the properties, characteristics and profiles of people, groups, communities, processes, objects or any other phenomenon that is subjected to an analysis. That is, they only intend to measure or collect information independently or jointly on the concepts or variables to which they refer, that is, their objective is not to indicate how they relate.

A descriptive study seeks to specify important characteristics of people, groups, communities or any other phenomenon that is subjected to analysis. They measure or evaluate different aspects, dimensions or components of the phenomenon to investigate. From the scientific point of view, to describe is to measure. That is, in a descriptive study a series of questions is selected and each one is measured independently, in order to describe what is being investigated.

5.2 Technical Strategies for Data Collection

Next, a brief description of the techniques used for data collection, and how they were used for this paper, is presented:

Direct observation according to Rodríguez E. (2005) [14] is one in which the researcher can observe and collect data through his own observation.

However, Honrubia M. and López M. (2005) [3] mention that direct observation aims to observe a phenomenon in its natural context trying to disturb it minimally, considering that it is the purest type of research.

As told by the authors, direct observation is used to collect data through the researcher's own observation, for the purposes of this investigation this technique was

carried out in order to discover the main challenges facing MSMEs in the mountain region, it was a very useful technique that helped in the development of the investigation because it was possible to have direct contact with the establishments and it was possible to realize the areas of opportunity that MSMEs have as well as the weaknesses they currently face.

According to Grasso L. (2006) [15], the survey is a procedure that allows you to explore issues that make subjectivity and at the same time obtain information from a considerable number of people, it allows you to explore public opinion and current values in a society, issues of scientific significance and importance in democratic societies.

The survey designed for this study consists of 12 questions that emphasize the main activity of the company, the challenges involved in the development of its activities, access to financial aid, fiscal situation, among other aspects. The objective of the survey was to obtain sufficient information that will help to identify the causes that intervene in the development of MSMEs in order to be taken into consideration by small business owners so they can improve the deficiencies that are currently experiencing.

5.3 Sample Setting

To determine the sample, it was necessary to analyze the data of the total number of establishments by municipality and thus know the total. For this purpose, data from the National Institute of Statistics and Geography (INEGI) was analyzed. To determine the number of surveys to apply, it was necessary to use the formula to know the size of the sample to be studied, the procedure is described below:

Calculation to know the sample**:**

$$n = \frac{s^2 N p q}{e^2 (N-1) + s^2 p q}$$

Where:

n²: simple size

s: Confidence level (security)

q: 1-p in this case (1-0.50 = 0.50)

e: Error level

N: Total of population

p: Expected proportion

Table 2   Sample determination by municipality.

Municipality	Calculation
Nacozari	$n = \dfrac{(1.96)^2(123)(0.50)(0.50)}{(0.05)^2(123-1)+(1.96)^2(0.50)(0.50)} = \dfrac{118.12}{1.2654} = 93.34 = 93$ companies
Cumpas	$n = \dfrac{(1.96)^2(56)(0.50)(0.50)}{(0.05)^2(56-1)+(1.96)^2(0.50)(0.50)} = \dfrac{53.78}{1.0979} = 48.98 = 49$ companies
Divisaderos	$n = \dfrac{(1.96)^2(13)(0.50)(0.50)}{(0.05)^2(13-1)+(1.96)^2(0.50)(0.50)} = \dfrac{12.4852}{0.9904} = 12.60 = 13$ companies
Tepache	$n = \dfrac{(1.96)^2(14)(0.50)(0.50)}{(0.05)^2(14-1)+(1.96)^2(0.50)(0.50)} = \dfrac{13.4456}{0.9929} = 13.54 = 14$ companies
Granados	$n = \dfrac{(1.96)^2(4)(0.50)(0.50)}{(0.05)^2(4-1)+(1.96)^2(0.50)(0.50)} = \dfrac{3.8416}{0.96115} = 3.996 = 4$ companies
Huásabas	$n = \dfrac{(1.96)^2(7)(0.50)(0.50)}{(0.05)^2(7-1)+(1.96)^2(0.50)(0.50)} = \dfrac{6.7228}{0.9754} = 6.892 = 7$ companies
Villa Hidalgo	$n = \dfrac{(1.96)^2(11)(0.50)(0.50)}{(0.05)^2(11-1)+(1.96)^2(0.50)(0.50)} = \dfrac{10.564}{0.9854} = 10.72 = 11$ companies
Bavispe	$n = \dfrac{(1.96)^2(7)(0.50)(0.50)}{(0.05)^2(7-1)+(1.96)^2(0.50)(0.50)} = \dfrac{6.7228}{0.9754} = 6.892 = 7$ companies
Bacerac	$n = \dfrac{(1.96)^2(8)(0.50)(0.50)}{(0.05)^2(8-1)+(1.96)^2(0.50)(0.50)} = \dfrac{7.6832}{0.9779} = 7.856 = 8$ companies

The information contained in the Table 2 indicates the total number of establishments analyzed, the total number of companies surveyed was 206.

Another technique employed was the unstructured interview addressed to the owners of some of the establishments, this technique was applied in order to investigate in a more specific way the problem previously identified.

Finally, and continuing with data collection, another way to gather information was identified: working with what was collected to turn it into useful knowledge for research. In addition, it was necessary to turn to secondary sources of information such as consultations in books, theses, articles, and monographs of recognized authors. This kind of information strengthened the data collected and helped supporting and validating what is stated in the study consisting of the Analysis of the Main Weaknesses faced by MSMEs in the mountain region of the state of Sonora.

6. Results

In this section, the results obtained through the surveys are structurally exposed. As well as the analysis and interpretation of them, later the conclusions of the unified analysis are stated, through graphs and comparative charts, the results obtained from the application of the techniques of information collection are also exposed, mainly the survey that was carried out to small entrepreneurs of the mountain region of the state of Sonora.

Fig. 1 indicates the percentage of MSMEs that were analyzed by municipality. As you can see, Nacozari is the municipality where you can find more MSMEs with a representation of 47%, secondly we have Cumpas, and the municipality with lesser amount of MSMEs is Granados.

Fig. 2 shows the activity carried out by the companies that were surveyed. There are three categories that group business transfers according to their activity: industrial, commercial and services.
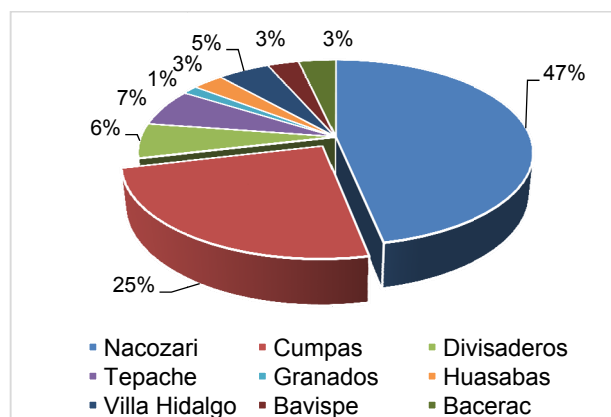

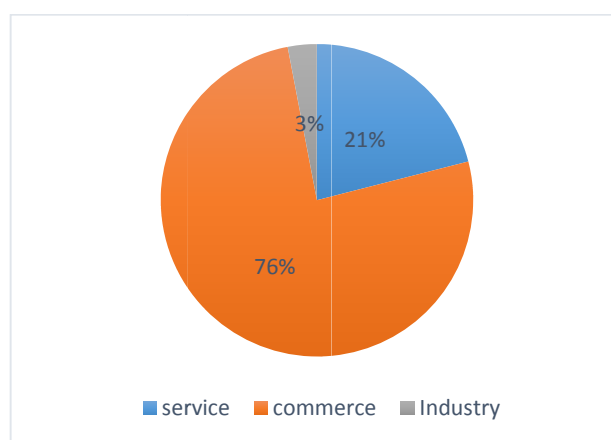**Fig. 1   MSMEs by municipality.**

Fig. 2   Company sector.

However, within these three groups there is a great diversity of possible activities, being the commercial activity the one that predominates with 76% and only with 3% the industrial activity, being this one the one with a lesser representation in the analyzed information.

As shown by data in Fig. 3, from the total number of companies surveyed, 95% have one to five employees and only 5% of the companies have six to ten employees. Which means that of the companies analyzed, none of them has more than 10 employees.

Information in Fig. 4 is about the main weaknesses and/or challenges faced by MSMEs in the region, as it can be seen there are several aspects to be considered, being the financial and economic situation the priority, that is, 82.52% of the companies have problems of this nature, followed by competition with 79.12%, financial

support with 68.44% and the aspect that has less impact is political and social problems.

Information exemplified in graph five, represents the reason why income in MSMEs does not increase, it can be seen that the highest percentage is the low demand for products with 54%, that is 111 companies, and 21% for the lack of credits.

As Fig. 6 shows, more than half of MSMEs have not been creditors of any type of financing, which has an impact on their development and a very minimal percentage of the enterprises have requested financial aid.
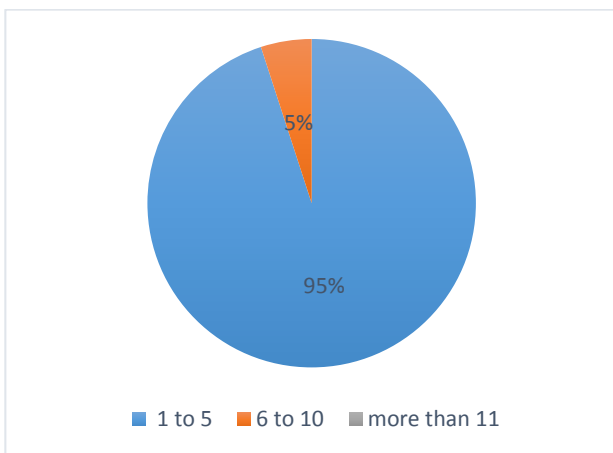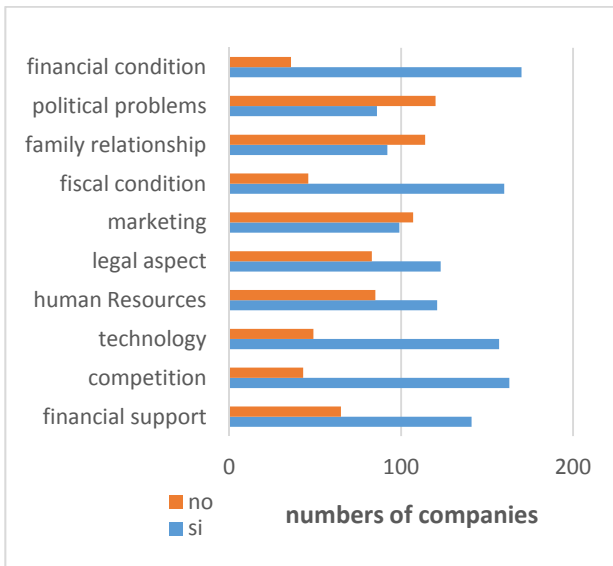

Fig. 3   Number of employees per company.

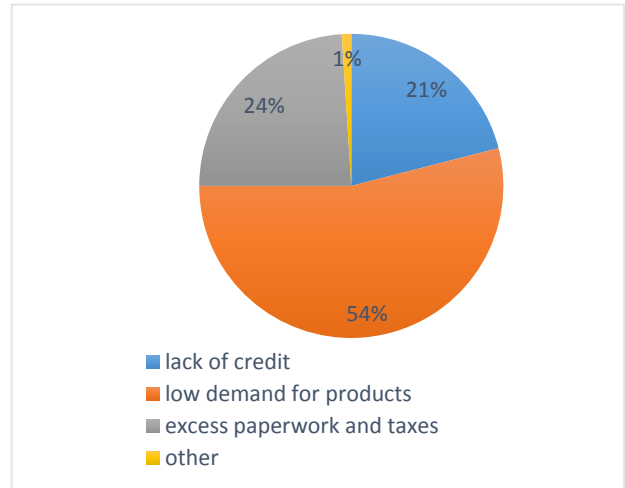**Fig. 4   Main challenges that affect the development of your company.**

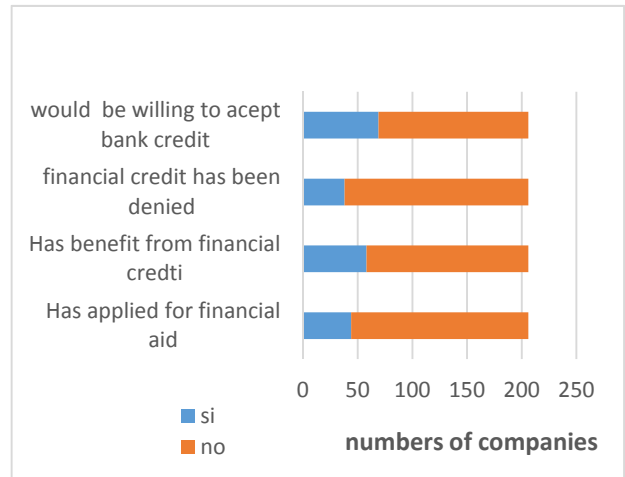**Fig. 5   Reasons why their income does not increase.**

Fig. 6   Access some type of financing.

7. Conclusion

Results start primarily from the literature consulted for the development of this research which has added elements of theoretical strengthening towards certain aspects that frame MSMEs in the region, highlighting the following:

- Its importance lies in the fact that these types of companies contribute to the economic development of the region and are the main source of employment even though their contribution in production and income to the economy is not that high.

- It is expected that with the results of the study, it is intended that businessmen know what are

the challenges they are exposed to, and in this way their weaknesses are improved by using the tools that are necessary to achieve their development.

To achieve that, it is important that objectives and goals are defined, that their compliance is monitored and that there is sufficient operational flexibility by MSMEs in addition to ensuring their profitability and sustainability. Therefore, they must adjust to the conditions of the environment and understand, in an essential way, both their external and internal environment in an integral way and thereby understand their present to anticipate their future. Hence, they must constantly revalue their environment in terms of customers, competitors, and management trends and new trends.

References

[1] Diario Oficial de la Federación (DOF), Acuerdo por el que se establece la estratificación de las micro, pequeñas y medianas empresas, 30 de junio de 2009, available online at: http://dof.gob.mx/nota_detalle.php?codigo=5096849&fecha=30/06/2009.

[2] J. González, Factores que Intervienen en el Desarrollo de las Pymes del Sector Manufacturero en Cinco Municipios del Área Metropolitana de Monterrey, Afiliadas a la CAINTRA. 2006, available online at: http://eprints.uanl.mx/2636/1/1080227499.pdf.

[3] M. Honrubia and M. López, *Ciencias sociales aplicadas* (1st ed.), España. Cepal, 2005.

[4] E. Correa, *Responsabilidad Social Corporativa en América Latina: Una Visión Empresarial* (1st ed.), Cd. de México. Cepal, (2010).

[5] C. Aguilar, Importancia de las pymes en México, 2013, available online at: http://importanciadelaspymesenmexico.blogspot.com/2013/07/ensayo-importancia-de-la-pymes-en-mexico.html.

[6] R. Regalado, *Importancia de las Mipymes en México. Las Mipymes en Latinoamérica*, México, 2012.

[7] R. Monzo, *Concepto de Competencia en la Evaluación Educativa* (1st ed.), Cd de México. Mc Graw Hill, 2006.

[8] D. Gordon, *Diccionario de Economía*, Cd de México, McGraw-Hill, 2014.

[9] J. Schumpeter, Emprender e innovar. Primera Edición, España, Netbiblo, 1934.

[10] S. Gopalakrishnan and F. Damanpour, *Gestión del cambio y la innovación en la empresa* (1st ed.), Ideaspropias, 2006.

[11] A. Aguilar, *Capacitación y desarrollo de personal* (4th ed.), México, Limusa, 2004.

[12] A. Silicio, *Capacitación y desarrollo de personal* (4th ed.), México: Limusa, 2004.

[13] R. Hernández, C. Fernández and P. Baptista, *Metodología de la Investigación* (4th ed.), México: Mac Graw Hill, 2006.

[14] E. Rodríguez, *Metodología de la Investigación. Primera Edición*, México: Universidad Juárez Autónoma de Tabasco, 2005.

[15] L. Grasso, Técnicas e instrumentos de investigación, 2006, available online at: http://www.eumed.net/tesis-doctorales/2012/mirm/tecnicas instrumentos.html.