

Culture of innovation in small business

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Abstract

The objective of this research is to identify, from the perception of the small entrepreneurs, the situation in which their companies are in terms of innovation culture. For this purpose a quantitative type analysis was used with a sample of 51 small companies by the number of their collaborators that from 10 to 50. For this study the culture of innovation was defined and seven thematic areas were identified that measure them according to Tejeiro (2014): 1) corporate style, 2) fostering of creativity, 3) leadership and management by competencies, 4) organizational learning, 5) monitoring and technological intelligence, 6) organizational structure, and 7) relationship with the outside world. It is applied to an instrument with 29 Likert scale elements with 5 response options ranging from 1) never, 2) almost never, 3) sometimes, 4) almost always, and 5) always. The results obtained were found in all thematic areas that make up the culture of innovation. The entrepreneur replied that "sometimes" he performs actions aimed at innovation with averages ranging from 3.03 to 3.97 the highest, which shows that his culture is not directed to carry out innovative activities

Innovation, Organizational Culture, Small Business

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1. Introduction

A company that innovates in its products, processes and commercialization, is a company that will generate greater benefit, in this respect Geroski and Machin (1992) quoted in Galvez and García (2012) comment that innovation in the field of Research and Development (R + D) it causes greater profitability and competitiveness in organizations, this is because innovation focuses on the development or improvement of new products and in turn reduces costs, in such a way that this causes an economic benefit and a greater participation in the market.

For this, the strategy must be focused on innovation, its objectives, actions, materials and human capital must be focused on seeking capabilities that provide competitive advantage (Salavou, 2004)

Freel (2000) quoted in Galvez and García (2012) makes mention in his study, that small companies that innovate have a greater increase in their sales than those that do not develop innovation, even if this does not translate into an increase in their profits, this may be because of the limitations in reducing costs, which are an important element for obtaining higher profits.

Fernández, González and Pita (2016) comment that there are many official institutions that have developed their own questionnaire, such as: the European organism Eurostat, the National Institute of Statistics in Spain (INE) who carries out the Survey on Innovation in Companies, and some autonomous organizations such as the Gemological Institute of Spain (IGE) develop their Business Innovation Survey.

1.1 Justification

This research hopes to generate, through a diagnosis about the current situation in terms of culture of innovation, opportunities for improvement that allow the small entrepreneur to identify the factors that can lead him to develop a culture of innovation and in that sense see permeated the activity and at the same time increase the social, technological and financial benefits.

Regarding social importance, this empirical research will be carried out in an important sector for the economy such as small business; it is expected to identify opportunities for improvement to guide their strategy towards the culture of innovation and as a result, small businesses increase their sales, lower their costs and find the competitive advantage that allows them to survive and grow.

The culture of innovation allows, in the short term, as mentioned by Porter (1991), to maintain the factors of competitiveness, generation of value, quality, customer satisfaction and competitive costs as a result of good practices. Finally, this study will support research related to the innovation culture that is explored in small businesses, and all those actions that are aimed at improving the competitiveness of this productive sector.

1.2 Problem

It has been shown that there is a relationship between culture and performance and innovation, and studies in this regard have increased (Denison and Mishra, 1995, Denison, Haaland and Goelzer 2003, Mobley, Wang and Fang, 2005) cited by Martínez (2010).

Cardinal (2001) and Subramaniam & Youndt (2005) cited by Santos, Figueroa and Fernández (2011) comment that radical and incremental innovative capacity differs in the type of knowledge required by entrepreneurs and that intellectual capital influences the development of capacities for radical and incremental innovation. This indicates that human resource capacities have an influence on the development of the culture of innovation in organizations.

Each organization has its own culture, characteristics and identity, so companies must identify those attributes that bring competitive advantage to their company (Schneider, 2000) and from there feed and develop them until innovation becomes a way of being and to do the things. Hult, Hurley & Knight (2004) comment that companies with a corporate culture have customs and values that constantly drive them to improve their processes, products and services, as well as looking for new business opportunities.

In this regard, Tejeiro (2014) carries out a study on the measurement of innovation culture, rescuing the following thematic areas: (1) corporate style, (2) promotion of creativity, (3) management and competency management, (4) organizational learning, (5) surveillance and technological intelligence, (6) organizational structure and (7) relationship with the outside world.

1.3 Objectives

Identify, from the perception of small entrepreneurs, the situation in which their companies are in terms of culture of innovation with the purpose of contributing to knowledge with an empirical study applied to a representative sample of small businesses in Ciudad Obregón, Sonora.

2. Theoretical framework

For the development of the theoretical framework, it starts by identifying the concept of innovation, then an analysis is made about the organizational culture and how innovation permeates organizations to create a culture of innovation.

OECD & EUROSTAT in the Oslo Manual (2007) defines Innovation as "the introduction of a new, or significantly improved, product (good or service), of a process, of a new marketing method or of a new organizational method, in the internal practices of the company, the organization of the workplace and external relations" (pp. 56). Innovation combines technology with discoveries to generate new products, processes in order to improve its position in the market, while generating competitive advantages (Rirole, 1995 cited by Alvarado and Pumisacho (2015).

Regarding the organizational culture, this must be defined considering the practices that each of the companies carries out. Schein (1988) defines the organizational culture as a way of acting in companies based on their basic presumptions, those invented, those discovered and those developed by their collaborators to deal with problems. Naranjo and Calderon (2015) comment that there are different proposals to diagnose, measure and evaluate culture, highlighting the contribution of Cameron and Quinn (1999) that propose the Values in Competition Model (MVC) and that identifies and classifies companies by the type of dominant culture. Among those mentioned are the types: clan, ad-hoc, hierarchical and market, that for purposes of this research, the culture that is most oriented to innovation is that referred to Ad-hoc because its environment is creative type and risk taking and its leader is innovative which puts its emphasis on the innovative orientation of its employees.

However, the organizational culture will impact on innovation as long as the traits, values and actions of its co-workers are aimed at favoring innovation. Some characteristics of the organizational culture that favor innovation are: creativity, autonomy, assumption of risk, teamwork, sufficiency of resources, strategic orientation towards the client, decision-making, worker participation, continuous learning and flexibility (Naranjo 2010 , pp. 61 cited by Naranjo and Calderon, 2015). Hult, Hurley & Knight (2004) recognize factors of the culture of innovation such as: (1) orientation of the product or service according to the wishes of the client, (2) orientation towards learning, this is the development of new knowledge (R + D) considering the experiences of the company and (3) orientation towards entrepreneurship that includes strategic activities to reach new markets.

Hii & Neely (2000) comment that the companies that have greater capacity to innovate are because they have the capacity to generate new ideas, identify market opportunities and implement innovation. Fernandez, González and Pita (2016) conclude that "orientation towards innovation is a philosophy in which companies develop a system of norms and beliefs about learning and common knowledge, whose results are present and guide all functional areas towards innovation "(page 3). Therefore, the orientation to innovation is a set of actions developed by companies and allows them a meaningful learning of what they are doing and also leads them to new markets, design of new products and processes, among others.

Barret (1997) cited by Calderon, Cuartas and Álvarez (2009) comments that when a significant change occurs in organizations it is possible to identify a new way of working. In this regard Newman (2000) says that an organizational transformation leaves companies in greater dispoición to compete with their environment.

Regarding technological changes, some authors such as Aguilar (2005) and OECD & EUROSTAT (2007) observe that technological innovation is related to competitiveness and innovation and highlights the types of innovation such as: development of new products and processes, new versions of them, new organizational methods and new ways of marketing the product to new markets. For Schumpeter (1952) innovation is given in conjunction with capital and profit, thus giving a technological change and economic growth.

All these adjustments within organizations must be in a framework of organizational flexibility that allows you to adapt to changes that affect you continuously and be able to guide your culture to innovation.

3. Methodology

Below is the type of research and the method used to develop this research.

3.1 Kind of research

It is an empirical, descriptive research because the findings were described as they were observed, taking into account the objective of this research, it was also quantitative, due to the fact that numerical units were used that were treated by descriptive statistical tools..

3.2 Participants

The subjects of the study were small companies that had between 10 and 50 employees in Ciudad de Obregón, Sonora. The population was determined based on the National Statistical Directory of Economic Units (DENU) which yielded a total of 1145. For the sample determination, convenience sampling was chosen because the companies were selected for their availability, resulting in a total of 51 companies available to participate.

3.4 Materials

The instrument used was a questionnaire adapted from Tejeiro (2014) who developed a qualitative study to obtain the indicators that measure the culture of innovation in the areas of corporate style, creativity, leadership and competency management, organizational learning, monitoring and technological intelligence, organizational structure and relationship with the outside world.

The questionnaire contained general aspects that showed information about the name of the company, number of workers, year of incorporation, company turnover, if it was of the family type, age of the respondent, gender, position and degree of study. In the second part are elements related to the culture of innovation with a total of 29 items. The scale used was that of Likert with 5 response options ranging from 1) never, 2) almost never, 3) sometimes, 4) almost always and 5) always.

For the development of the research, first the innovation culture variable and its operational conceptualization was analyzed, the instrument was adapted and applied to a pilot test of 15 companies, the information was captured in the SPSS version 17 system, a Cronbach's alpha reliability index of 0.929 for a sample of 51 companies, the results were graphed and analyzed and the conclusions presented.

4. Results

Below are the results that identify, from the perception of small businesses the situation in which their businesses are in terms of culture of innovation in Ciudad Obregón, Sonora. In the first part, general aspects of the respondents are presented and in the second, the innovation culture from the indicators proposed by Tejeiro (2014).

Regarding the turn of the companies surveyed, 57% were commercial companies, 2% industrial companies and 41% of service. In terms of the size of the participating companies, these 14% were micro-enterprises and 86% were small companies because of the number of their employees, which ranges from 11 to 50 employees. 51% was found in a range of 5 to 10 years of incorporation, 16% in a range of 11 to 15 years and 33% greater than 16 years in the market.

Regarding the companies analyzed, they were asked if they were relatives, in this respect 42 companies answered yes and only 9 commented that they did not have a family structure. Of the 42 that answered that if they had a family member working in the company, 35% had between 2 and 3 relatives, 46% between 4 and 6 and 7 relatives in the answer was 19%.

Regarding the age of the respondents, 27% are between 18 and 25 years old, 45% between 26 and 35 years old, 14% between 36 and 45 years old and 14% of 46 years old and older. 47% of the respondents were female and 53% male. Of the respondents 35% were in management positions and 63% were in charge of the company when the owner was not. Finally, of the 51 respondents, 2% had only secondary education, 43% high school, 51% undergraduate and master's degree and doctorate 2% respectively.

In the second part, the means of central tendencies and dispersion of the answers of the 51 small companies on the culture of innovation are shown (see Table 1).

Innovation culture indicator	Average	Dev. Std.	Confidence interval	
			Lower limit	Upper limit
Corporate style	3.97	.7397	3.769	4.187
Formation of creativity	3.08	1.190	2.753	3.423
Direction and management of competencies	3.39	.8518	3.156	3.635
Organizational learning	3.15	1.084	2.849	3.459
Surveillance and technological intelligence	3.46	1.107	3.154	3.777
Organizational structure	3.03	1.413	2.641	3.436
Relationship with the outside	3.25	1.213	2.913	3.596

Table 1 Estimated marginal means of innovation culture indicators for the companies surveyed (N = 51) with a confidence interval of 95%

Regarding the corporate style, the participating companies, on average, answered in the range of "sometimes" and "almost always". The items that stand out in this category are the empowerment of the leaders and their collaborators in the strategic planning of the organization that includes the knowledge of the objectives, the mission and vision of the company; In addition to showing the inclusion of objectives towards innovation and autonomy in decision making, and closes with the vision that management has about innovation and if this is a priority in the organization.

To encourage creativity and in this way guide innovation, the participating companies answered that "sometimes", they encourage employees to create new ideas and hold meetings to meet new proposals. As noted, small businesses in this region of the country do not show the necessary interest to create a culture of innovation.

For the category of management and management of the competencies, the companies surveyed commented that "sometimes" they promote the training of their employees for the mastery of technological tools, besides that "sometimes" experts are asked to support the innovation process that leaves the employees of the companies vulnerable to the creation of new ideas, products and processes that allow innovation.

In the organizational learning the participants commented that "sometimes" feedback processes innovation, which include customers and suppliers, as well as other areas of the organization. In this regard, as Hult, Hurley & Knight (2004) comments, it is important, in order to achieve a culture of innovation, to guide actions towards learning, this is the development of new knowledge (R & D) considering the experiences of the company and in this way to contribute to the identification of new markets.

For the surveillance and technological intelligence that motivates the culture of innovation, the surveyed companies commented that "sometimes" they make an analysis of the future products and the technology that these could require, as well as "sometimes" they consider important the information captured from the outside as a source of innovation. For the OECD & EUROSTAT (2007) one of the types of innovation are the new organizational methods, and in this respect the companies surveyed commented on average that "sometimes" they make changes in their organizational structure based on a vision of innovation.

Finally, regarding the relationship between foreign relations and communication systems with the client, collaboration with universities, research centers and other organizations shows that "sometimes" they are considered in the field of innovation culture.

In this regard, organizations must be flexible and allow leadership with an inclusive vision that promotes the approach and connection with other instances that are generating new knowledge in an effective and efficient manner, and that will serve small businesses to orient themselves towards innovation. In order to have a broad view of the results of the surveys regarding the Culture of Innovation of the small companies, Table 2 was elaborated showing the average of the innovation culture variable.

Variable	Average	Dev. Std.	Intervalo de confianza	
			Lower limit	Upper limit
Culture of Innovation	3.33	.816	3.109	3.569

Table 2 Estimated marginal means of Innovation Culture for the companies surveyed (N = 51) with a confidence interval of 95%

As you can see the average that includes the items related to the thematic areas: (1) corporate style, (2) promotion of creativity, (3) management and competency management, (4) organizational learning, (5) monitoring and technological intelligence, (6) organizational structure and (7) relationship with the outside, shows together that on average (3.33) of a range that goes from 1 to 5, respondents "sometimes" perform activities that are aimed at innovation and the development of competencies and customs that allow it to make significant changes that have repercussions on its competitiveness.

5. Conclusions

Considering the objective of this research to identify, from the perception of small entrepreneurs, the situation in which companies find themselves in terms of culture of innovation, it is concluded that "sometimes" they promote innovation, but to adopt a culture of innovation.

Innovation, strategic direction is necessary, this in function of the development and positioning of said strategy influencing the beliefs, norms and all the cultural manifestations of the organization. In all the categories in which the variable of innovation culture was analyzed, the answers were on average "sometimes", which shows that their culture is not directed to carry out activities oriented towards innovation.

The small entrepreneur often has a significant number of operations to perform among which is customer service, purchase and sale of merchandise, collection, financing and all those situations related to the survival of their business, however there are few companies This size focuses these efforts on innovation, and not because it is not what they want, but because of the ignorance of the benefits that their company would bring to prioritize innovation and adapt a culture of innovation.

It is recommended that small businesses promote, in the field of innovation, specialization, standardization, formalization, centralization and delegation, with the aim of affecting cultural features such as loyalty, participation, attitude towards risk, among others (Klein, 2003 cited by Naranjo and Calderon, 2015) that could benefit the adoption of innovation in each of the actions, strategies, goals and objectives proposed by the companies. Companies today must be flexible, as is the case of the development of human resources management that allows them to adapt quickly and effectively to the changes that are occurring abroad and thus adjust, in terms of innovation, to market trends.

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