Educational Administration: Theory and Practice
2024, 30(6), 3778 -3785
ISSN: 2148-2403
https://kuey.net/

Research Article

Innovation Capacity Of Micro, Small And Medium-Sized Enterprises In The Hotel Sector

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Citation: Dr. William Baldemar López Rodríguez (2024), Innovation Capacity Of Micro, Small And Medium-Sized Enterprises In The Hotel Sector *Educational Administration: Theory and Practice*, 30(6), 3778 -3785
Doi: 10.53555/kuey.v30i6.6293

ARTICLE INFO

ABSTRACT

In Tabasco, Mexico, micro, small and medium-sized enterprises (MSMEs) in the hotel sector play a vital role in the local and regional economy by generating employment and promoting economic development. This study aimed to analyze the innovation capacity of these MSMEs using a scale adapted from Delgado-Cruz et al. (2018, 2021) that assesses two components: human capital and organizational structure. Surveys were applied to 212 owners and managers, with results that highlight a generalized positive perception of innovative capacity, with an average of 4.01 and an efficiency index of 0.80. Although human capital shows strengths in training and customer engagement, the need to improve the documentation of activities was identified. The organizational structure exhibits an innovative culture and effective communication, although it is recommended to increase autonomy in decision-making to further strengthen the innovation capacity in these MSMEs.

Keywords: MSMEs, hotel sector, innovation capacity, human capital, organizational structure.

Introduction

The role played by micro, small and medium-sized enterprises (MSMEs) in the economic development of any country is important, this is due to the contribution to the economy of each country from which they come, the number of jobs they generate at the national and regional level is also considered, both in industrialized countries and in countries with a lower degree of development (Cabrera-Cruz et al., 2019).

According to data from the economic census carried out in that year, in Mexico there are approximately 6.3 million establishments, of which 94.9% of the establishments are Micro size and 4.9% are SMEs, which together contribute 70% of the personnel employed in our country, (National Institute of Statistics and Geography (INEGI), 2019) contributing 50% of the Gross Domestic Product (GDP). which are also vulnerable to the changing environment of globalization, competition, technological development and economic turbulence they are experiencing; that affect their growth and increase their tendency to disappear, a vulnerability directly related to their size (García-Moreno et al., 2019).

In the case of Mexico: the life expectancy of businesses from the moment they are born is 7.8 years the national average, however, it varies according to the sector: manufacturing companies live on a national average of 9.7 years, while those dedicated to commerce survive 6.9 years and those in service 8 years. In the case of Tabasco, life expectancy is 5.3 years, so it is unlikely that they will be consolidated in the market. INEGI, (2016)

This makes it necessary to generate competitive advantages to survive in the market; a panorama that is presented through the situation that prevails in micro, small and medium-sized enterprises (MSMEs) in Mexico. In today's hotel industry, consumer demands have changed and grown, driven by the impact of globalization of markets, increased supply, differentiation, specialization, and personalized services. This suggests that the hotel industry is trying to reinvest itself to incorporate the changes brought about by these dynamics in order to compete and meet consumer demands and preferences (Urrutia-De La Garza & Cuevas-Contreras, 2016)

Among the main problems faced by the hotel sector in Mexico, according to , are: structural and hierarchical organizational problems, problems related to marketing actions, institutional image, use of technology and information, use of spaces, quality in the services provided, customer service, among other aspects, little innovation that is used to improve competitiveness, they see investment as an expense, strategic orientation

of the actions necessary for the positioning of the non-existent company. which reflects a lack of knowledge of the target market, competitors and the environment where the company operates, deficiencies in financial results, high operating costs, inadequate and obsolete infrastructure, little motivation to carry out continuous improvement, lack of documentation of knowledge and experiences on intellectual capital and the efficient use of the untapped hidden potential value possessed by personnel. Varela Loyola and Méndez Mendoza (2017)

Literature review

From the position of the dynamism of organizations in recent decades, it has been to achieve sustainable competitive advantages, which allow them to compete in increasingly dynamic and competitive markets, and these advantages are the essential characteristics of the liberalization of the market and capital. According to innovation, which companies consider a strategic issue, implies the ability to respond to changing environmental conditions and requirements, small and micro enterprises due to the specificity of their resources and operations have more difficulty in innovation. Villegas et al. (2016) Morales-Rubiano et al. (2016)

Currently, companies are involved in a wide range of possibilities around virtual and globalized markets, very diverse goods and services, changing market segments, and quality of goods and services due to specific customers. It has been considered that the competitiveness and economic performance of companies are affected by the capacity for innovation; For this reason, much research has been devoted to studying and understanding the innovation process and the innovation capacity of companies, which is characterized by structural complexity and multidimensionality (Bravo-Ibarra & Herrera, 2009a)

According to the main and most important factor in the survival of a company is innovation. Therefore, the business reality is characterized by demanding companies to reinvent themselves, leaving the conventional and facing competition with unique and differentiated ways; in other words, their innovation is demanded. But despite the fact that the concept of innovation dates back to 1934 with the notions of Joseph Schumpeter, there are still dilemmas in understanding how to develop the capacity for innovation in companies. Sözbilir (2018) (Delgado et al., 2017)

Concept of innovation capacity

Based on the concept of innovation, although it is not new, in recent years it has gained special importance from the business point of view, The capacity for innovation is a distinctive competence that allows innovation and, consequently, enhances competitiveness, especially in SMEs, so it is an important factor of impact on business performance. Contributing to the success and survival of the company, it is ultimately related to more complex aspects, including organizational and marketing innovations. This capacity is conditioned by internal and external factors García-Rodríguez et al. (2014) (Fernández-Jardón, 2012).

Bravo-Ibarra and Herrera (2009) They mention that the capacity for innovation is shown as the result of four processes: knowledge creation, knowledge absorption, knowledge integration and knowledge reconfiguration. These processes are supported by four types of resources: human capital, leadership, structures and systems, and organizational culture.

Morales and Díaz (2019) They assert that innovation capabilities are integrated through the skill set required to develop and implement new technologies and execute them in practice. It includes the capacity to invent, innovate and improve existing technology beyond the established parameters.

Fernández-Jardón (2012) it mentions that the capacity for innovation is a distinctive competence conditioned by internal and external factors that allows innovation and, consequently, enhances competitiveness, especially in SMEs.

Fernández-Jardón (2012) He points out that the capacity for innovation is determined by the technology that is introduced into a company and underpins the engine of innovation. the innovative skills of the workers, which when combined through the organization of the company allow them to seek more creative and innovative solutions to the company's problems; and processes that directly foster innovation.

Delgado-Cruz et al. (2018) They define innovation capacity as the ability to absorb, combine and transform certain organizational resources to generate value above the market average, such as structure, people and relationships.

Villegas et al. (2016) They mention that innovation capabilities are considered as an instrument to achieve success in the market, in other words, the effort to adapt to the environment should be a fundamental objective that justifies them in organizations. In this way, the ability to understand the environment can be considered part of the capacity for innovation.

Martínez-Román (2016) He points out that innovation capacity reflects a company's ability to engage in the generation of new ideas, experimentation, and creative processes that can result in new products, processes, or management methods.

Robledo-V. et al. (2010) Innovation capacity is the particular set of organizational capabilities, with a dynamic and innovation-oriented character, aimed at increasing competitiveness and successfully implementing new products, processes and forms of organization and marketing, or significantly improving existing ones

Poblano-Ojinaga et al. (2021) He argues that the ability to innovate is a key driver and adapter, and in companies operating in an increasingly competitive environment to enable them to succeed in innovation and technological development.
Delgado-Cruz et al. (2017) It states that the capacity for innovation implies a revolutionary management that corresponds to the increase in competitiveness, efficiency and effectiveness of resources, value creation and development of unique skills of employees, as well as presiding over leadership and a culture of innovation, not only organizational but also at the market level.
Leyva et al. (2020) They affirm that the ability to innovate is the key characteristic to aspire to compete and strengthen one's market positions, and this is not so easy to achieve, even if the decision to do so has been made, due to the associated financial and organizational requirements.

Measuring innovation capacity

According to the study of innovation capacity does not have a defined explanatory model, this is because the process from idea to development and commercialization can be seen from a variety of perspectives. For example, it measures innovation capacity from the perspective of the four dynamic capacities: knowledge creation, knowledge absorption, knowledge integration and knowledge reconfiguration supported by four types of resources: human capital, leadership, structures and systems, and organizational culture. On the other hand, it establishes a model to measure innovation capacity with three dimensions: organizational structure, human capital, and collaboration networks. Delgado-Cruz et al. (2017) Bravo-Ibarra and Herrera (2009) Delgado-Cruz et al. (2017, 2018, 2021)

Dimensions of innovation capacity

Based on and capacity for innovation can be measured from different perspectives and dimensions, with five dimensions described below: Delgado-Cruz et al. (2017, 2018, 2021) Bravo-Ibarra and Herrera (2009)

- **Organizational structure:**

As stated It is the internal form of a business entity, it is the internal form of the company is based on reacting quickly and efficiently to management processes supported by culture and integrated work, communication and the environment, decision-making will greatly facilitate the development of innovations that will allow the company to adapt and know how to act in the face of changes in the environment, while developing knowledge in new products and processes, as well as organizational and marketing practices. Similarly, they mention that the organizational structure is fundamental for the development of innovation capacity, since it is the one that can inhibit or facilitate the transfer of knowledge, but for this it must be flexible since having this type of innovation capacity will achieve positive organizational performance. Similarly, he mentions that the structure of the organization creates interconnected patterns of work activity and is described as the relatively permanent assignment of job roles and management mechanisms that the organization in its own activities performs, coordinates, and controls, so that business competition, leadership, talent, and functional relationships are seen as the architecture of the company. which has two important components which are formalization and centralization. Delgado-Cruz et al. (2021) Bravo-Ibarra and Herrera (2009) Omar et al., (2016)

- **Human Capital:**

According to the study, human capital has become a constantly evolving task due to its importance for organizations. Thus, he affirms that human capital refers to the knowledge and skills of individuals that allow changes and improvement of the company, it can be developed through professional training or through programs aimed at updating and renewing knowledge, such knowledge is important for the absorption and creation of new capacities. On the other hand, he considers that human capital in the capacity for innovation is made up of the intellectual competencies and skills of people who produce wealth and value in organizations. The efforts of companies to innovate fall on this resource, since by articulating other organizational resources, human assets can more easily create new goods and services, supported by the role played by companies to provide training and new knowledge that will allow the creation, sharing and storage of people's knowledge for the development of innovation, thereby achieving, the motivation of people and the development of their productive skills. On the other hand, it mentions that human capital is a component of intellectual capital, an intangible element of development and economic growth with a strategic character, in which the education and job training presented by the organization's employees is immersed, which contributes to the generation of value in the company and that are not present in its financial statements. Vega Martínez & Martínez Serna (2017) Bravo-Ibarra and Herrera (2009) Delgado-Cruz et al. (2018) Rangel-Magdaleno et al. (2018)

- **Collaborative networks**

According to the International Institute of Innovation, they state that collaboration networks are those strategic alliances or collaboration agreements that allow them to be a way to access the experience of other companies regarding their innovation activities, that is, companies establish bridges with other agents that generate innovation, useful to optimize supply processes, obtain new knowledge and improve the positioning of those involved. On the other hand, collaboration networks in innovation capacity are those that interact with customers, suppliers and other actors who provide necessary information which leads to the generation of knowledge to improve with the support of the absorption capacity the innovation capacity in the company, relationships in collaborative networks can be formal, through the signing of contracts, or informal, based on

the mutual trust of the participants, since what they seek is to share knowledge. Delgado-Cruz et al. (2018) Del Carpio-Gallegos & Miralles (2021)

- **Leadership**

According to leadership, it is defined from two perspectives: transformational and transactional leadership, in the first the leader has the ability to convince others of his or her own benefits of the group's interests, transactional leadership defends the existence of a transaction between the leader and the members of the group, where they accept the influence of the leader as long as he or she provides them with valuable resources. On the other hand, he mentions that leadership plays an important role as an agent of change in any organization. Leaders must be the promoters of change, motivating all members of the organization to put all their effort into the capacity for innovation, in order to use the best skills and capabilities of each person for the benefit of the entire organization. Therefore, he states that leadership is a factor that influences how innovation occurs in organizations both in terms of ideas and motivation to overcome obstacles, and the transformational leadership style is the most suitable to improve innovation, since these leaders facilitate innovative activities at the organizational level using the mental stimulation of employees and their motivational stimulation. Bravo-Ibarra and Herrera (2009) Ferrer-Dávalos (2015) Omar et al. (2016)

- **Organizational culture**

According to organizational culture, it is the personality of the company, which helps to foresee its behaviors and attitudes, helping them to differentiate themselves from the rest by presenting their own characteristics. Therefore, it influences the productivity and results of companies. Thus, he mentions that organizational culture is the set of behaviors that arise naturally and spontaneously, among the members of the company without anyone imposing them or remembering that it has to be done because it is an intrinsic part of being human, of the way of working and living. Hence, he defines organizational culture as the set of principles, values and norms associated with a group of people who interact daily with stakeholders and who define them through their specific characteristics. Padrón-Díaz et al. (2019) (Ferrer-Dávalos, 2015) Flores-Urbáez, (2015) Acosta-Guzmán (2015)

Methods and procedures

The population studied in this research were micro, small and medium-sized enterprises in the hotel sector of Tabasco, Mexico. The type of sampling was probabilistic random, the way of collecting the data was carried out through surveys applicable to the owners, general managers and managers of these MSMEs.

The total population is 1,320 sample units, so the sample size was 222, which was determined with a sampling error of 5% and a confidence level of 95%.

Of the total number of hotels that were invited to answer the questionnaire: only 212 hotel owners and managers agreed to answer it, missing 10 surveys to reach the established sample, so, at the time of the closing of the fieldwork, this represented a response rate of 95.49%.

The instrument used was the adapted measurement scale consisting of 16 items that has been used in previous research. This adaptation considers this construct with two components: human capital (HC) with 8 items and organizational structure (OE) with 8 items, using Likert scales from 1 (completely disagree) to 5 (completely agree) to measure managers' perceptions of human capital and organizational structure. Delgado-Cruz et al. (2018, 2021) Daza-Nieto et al. (2020) and Delgado-Cruz et al. (2017)

This adaptation considers this construct with two components: The items of the human capital (HC) dimensions with 8 items and the organizational structure (OE) with 8 items, which were adapted to the context of an MSME in the hotel sector, using Likert scales from 1 (completely disagree) to 5 (completely agree) to measure the perceptions of the owners and managers.

For the reliability of the instrument, the analysis tool called Cronbach's alpha reliability coefficient was used, which according to table 1 shows that the results evaluated from the factors present values between 0.864 and 0.896, and the reliability values of 0.915 for the two variables studied, showing that it is a reliable instrument for conducting the research.

Table 1. Instrument reliability assessment

Dimensions	Code	Questions	Cronbach's alpha	No. Of elements
From the CI instrument		CICH01- EO08	0.9150	16
Human capital	CICH		0.896	10
Organizational structure	CIEO		0.864	7

Fountain. Prepared by the author with data obtained from SPSS 24

RESULTS

The information provided by the 212 questionnaires applied indicates the following results: In relation to the profile of the executive, 63% of them are chaired by an owner and 37% by managers and middle managers. Of these, 45.3% are women and 54.7% men. In relation to age, 26% are between 25 and 35 years old, 30% between

36 and 45 years old and 44% over 45 years old. 84% have a higher level of education and 52% have been in their position for 11 years or more.
Table 2 shows the descriptive analysis of the 8 questions that make up the human capital dimension, the mean between 3.69 and 3.97 for questions CICH02, CICH03, CICH04, CICH06 and CICH07. The median ranges from 4; Fashion ranges between 4 and 5. The percentiles show that 75% have a trend of 5, which indicates that hotel owners and managers regularly or periodically hire qualified personnel in the hotel industry who are motivated to generate innovative and creative ideas for the hotel. In addition, employees are highly motivated to frequently exchange their knowledge with each other, as well as constantly document their activities and knowledge in routine logs. On the other hand, questions CICH01, CICH05 and CICH08 show a mean between 4.01 and 4.11, the median ranges from 4; Fashion ranges between 4 and 5. Percentiles show that 75% have a trend of 5 indicating that hotel staff frequently or regularly include guest opinion and feedback in the development of new or improved products and services, driven by specialized training and education received and continuously managed by owners and managers, which translates into the creation of new products and services mainly focused on customer satisfaction and the quality of hotel service. On the other hand, the same table 2 shows the descriptive analysis of the organizational structure dimension composed of the 8 questions, showing a mean between 3.78 and 3.96 for the questions ICDC03, ICDF04, ICD05 and ICD06. The median ranges from 4; Fashion ranges between 4 and 5. The percentiles show that 75% have a trend of 5, which indicates that hotel owners and managers frequently or regularly promote a favorable work environment for the increase of innovative projects. They also provide opportunities for all members to develop their leadership skills. In turn, the officials of the different departments recognize their role in contributing to the development of innovative projects and working for the introduction of innovative proposals. On the other hand, the questions ICD01, ICDN02, ICDF04 and ICD08 show a mean between 4.16 and 4.33, the median ranges between 4 and 5; the fashion is 5. The percentiles show that 75% have a trend of 5, which indicates that hotel owners and managers frequently or regularly promote an innovative culture in their hotels, as they regularly analyze trends to improve innovative management processes with total autonomy of choice, promoting projects to create new and 123 better products and services for guests in their hotels, All this is supported by effective communication between all hierarchical levels of the different hotels, thus facilitating the contribution of the ideas of each of the employees individually.

Table 21. Statistics of the innovation capacity variable

		HUMAN CAPITAL DIMENSION								ORGANIZATIONAL STRUCTURE DIMENSION							
		CICH 01	CICH 02	CICH 03	CICH 04	CICH 05	CICH 06	CICH 07	CICH 08	CIEO 01	CIEO 02	CIEO 03	CIEO 04	CIEO 05	CIEO 06	CIEO 07	CIEO 08
N	Valid	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212	212
	Lost	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Stocking		4.09	3.91	3.91	3.92	4.01	3.97	3.69	4.11	4.33	4.26	3.96	3.81	3.9	3.78	4.16	4.27
Median		4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	5
Fashion		5	5	4	4	4	4	4	5	5	5	5	5	5	5	5	5
Desv. Deviation		1.058	1.11	1.089	1.114	0.998	1.028	1.163	0.952	0.846	0.966	1.105	1.213	1.26	1.255	0.918	0.914
Variance		1.119	1.233	1.185	1.24	0.995	1.056	1.353	0.907	0.715	0.932	1.221	1.471	1.587	1.576	0.843	0.835
Asymmetry		-1.184	-0.693	-0.879	-1.025	-1.089	-0.939	-0.739	-1.027	-1.259	-1.306	-0.861	-0.758	-0.903	-0.748	-1.019	-1.248
Standard error of asymmetry		0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167	0.167
Minimal		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Maximum		5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
Percentiles	25	4	3	3	3	4	3	3	4	4	4	3	3	3	3	4	4
	50	4	4	4	4	4	4	4	4	5	5	4	4	4	4	4	5
	75	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5

Source: Prepared with results from the SPSS.

Discussion

The information obtained through the SPSS v25 statistical package (Statistical Package for Social Sciences) shows us an average of 4..01 and an efficiency index (IF) of 0.80 on the innovation capacity in the hotel sector in the State of Tabasco, Mexico. This index represents a positive measure of the effectiveness of the efforts made by the owners and managers of the different hotels in the state. When analyzing the capacity for innovation through the dimensions of human capital and organizational structure, the following was found: Human capital obtained a mean of 3.95 and a grade or IF of 0.79, while for the dimension of organizational

structure a mean of 4.05 and a grade or IF of 0.80 was obtained. This suggests that in general, hotels are efficiently using their resources and capabilities to innovate. However, there is room for improvement and increased effectiveness in both aspects.

Table 3 Degree of innovation capacity in the hotel sector in Tabasco, Mexico.

Dimension	Stocking	Efficiency Index (IF) or Grade	OM Level
Human capital	3.95	0.79	Regular
Organizational structure	4.05	0.81	Well
Total	4.01	0.80	Well

Fountain: *Prepared with results from the SPSS.*

Conclusions

MSMEs in the hotel sector in Tabasco not only represent an important and vital part of the local and regional economic aspect, but are also crucial for innovation and economic development. The ability of this business sector to adapt and evolve through innovative practices is of paramount importance for its competitiveness and long-term sustainability. To foster an environment where innovation and the development of human capital are priorities, which will allow them to continue contributing positively to the economic, employment and social growth of the State and region. The results reflect a high level of positive perception about it.
In general terms, the study variable is based on innovation capacity with an average of 4.01 and an IF of 0.80, which reflects a high level of positive perception in MSMEs in the hotel sector in Tabasco, which highlights the importance and impact on the economy and job creation in the State. With regard to the first dimension of IQ; Human capital shows a positive assessment with an average of 3.95 and an IF of 0.79. The areas of training and training (4.09) and the inclusion of customer reviews (4.11) are especially highlighted. However, the documentation of activities (3.69) represents an opportunity for improvement for the registration and systematization of knowledge in the hotel sector of the State. Regarding the second dimension of IQ; organizational structure showed a highly positive perception with a mean of 4.05 and an IF of 0.81. The areas of innovative culture (4.33) and effective communication (4.27) are important strengths. However, freedom in decision-making (3.16) is an area that requires attention to improve employee autonomy. Some recommendations that could maximize the capacity for innovation would be, firstly, the implementation of policies that give employees greater autonomy for freedom in decision-making, which will give a greater generation of ideas and innovative projects. Second, continue to promote an innovative culture and effective communication between hotel managers and employees. Thirdly, implement the use of digital tools for the exchange of information and creation of accessible and friendly databases for employees and finally, design training programs that give the opportunity to develop leadership skills for all members.

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