Quantitative Study of the Behavior of Micro, Small, and Medium-sized Enterprises in San Pedro Cholula: Assessment of Market Strategies through Surveys of MSME Directors

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ABSTRACT: In the current study, a survey-based analysis was conducted to investigate the market strategies employed by directors of Micro, Small, and Medium-sized Enterprises (MSMEs) operating within the municipality of San Pedro Cholula, Mexico. The results of the analysis revealed that MSME directors primarily focus their efforts and market management strategies on the implementation of methods aimed at understanding their customer base, evaluating the quality of their products or services, and assessing the competitiveness of their pricing within the market. However, it is noteworthy that directors do not place as much emphasis on the development of strategies that facilitate the comparison of the effectiveness of their actions or on the implementation of monitoring activities directed towards their competitors.

KEYWORDS:MSMES,Market strategies, Benchmarking, ANOVA.

I. INTRODUCTION

[1]The Micro, Small, and Medium-sized Enterprise (MSME) sector has become a central focus of study within the field of administrative theory. Research efforts have primarily revolved around the examination of the economic perspective and the domain of business management. In diagnostic assessments and overarching conclusions, significant issues surface, including deficiencies in management, challenges related to the lack of associativity, adverse influences stemming from environmental variables, and the absence of credit and governmental support.

Methodologically, noteworthy approaches include the implementation of surveys conducted at a general level or within specific subsectors of MSMEs.

[2] Micro, Small and Medium-sized Enterprises (MSMEs) undoubtedly serve as a vital engine of the economy, not solely due to their sheer number of economic entities or the volume of employed personnel (given that microenterprises constitute 95% of economic entities and account for 41% of the national workforce). Instead, they represent the culmination of the efforts of numerous micro-entrepreneurs who have endured and adapted to the continual changes in their environment.

In contrast, large enterprises exhibit a well-developed and robust structure, enabling them to more readily confront the challenges posed by modernity and globalization. Consequently, managerial tasks are increasingly intricate and simultaneously of profound societal significance, as their effects reverberate and multiply throughout the chain of influence.

[3] In Mexican MSMEs, the commerce and services sectors predominate. According to the National Institute of Statistics and Geography (INEGI, 2019) in Mexico, MSMEs face numerous deficiencies, particularly in the administrative aspect. Only 15% of these enterprises provide training for their employees, a mere 14% take actions and implement a continuous improvement process to address production issues, 65% do not monitor performance indicators, only 3% have an

accounting system in place to record their operations and obtain financial information for decision-making.

Furthermore, preceding studies indicate that many MSMEs do not adopt marketing practices or use only basic techniques, falling short of implementing long-term strategies, let alone digital marketing strategies that could enable them to achieve competitiveness and long-term sustainability. In the Mexican context, the limited existing research highlights the nascent application of marketing practices within enterprises in this sector.

[4] In the majority of MSMEs, internal conditions are shaped by the entrepreneur's vision, while external circumstances in the surrounding environment dictate the adjustments made by the entrepreneur to the strategy and structure of these enterprises. Consequently, unlike most large corporations that have a well-defined path to follow based on the identification of sustainable competitive advantages, MSMEs often lack a formal strategic design or develop one in very broad terms, typically aligned with the vision of a sole manager or the owner of the MSME.

[5] Strategy entails the long-term direction and scope of an organization, securing advantages for the organization by configuring its resources within a dynamic environment to address market needs and meet shareholder expectations. It involves decisions regarding the domains in which a company competes, defining the specific boundaries of the firm, and aligning the company with its environment. In essence, strategy seeks to adapt the firm to its surroundings.

[6] Every enterprise must embrace a comprehensive strategy centered on creating a unique and valuable strategic position for the company. This competitive position should generate distinctiveness compared to other companies in the sector.

[7] Companies have three pathways to attain a superior position in relation to competition:

a) The first pathway is the generic cost strategy, which has been implemented by most national companies aiming to achieve process efficiency and generate economies of scale, enabling the provision of products to customers at lower prices.

b) The second pathway is the generic focus strategy, applied exclusively to a market niche, depending on the specific needs of this customer group.

c) The third pathway, the least employed but presenting an opportunity, is the generic differentiation strategy. This strategy is characterized by offering customers products with superior value in terms of design, functionality, and service.

[8]If the generic strategy results in superior performance, it is said that the company has developed a competitive advantage. In other words, companies must develop one or more competitive advantages aligned with the achievement of a generic strategy. These competitive advantages are grouped into four categories: efficiency, quality, service, and innovation. For example, to implement a differentiation strategy successfully, the company's value chain must be supported by high-quality products and services, a focus on innovation (the development and introduction of new products), exceeding customer expectations, and striving for superior service. Successful differentiation should entail greater process flexibility, optimized engineering design, enhanced product performance, improved usability, and so on.

[9] It is significant for companies to leverage regional resources to enhance the effectiveness of products or services required by the market, with the aim of adding value and differentiating themselves from the competition. Furthermore,MSMEsshould consider improvements, changes, and increased knowledge. This is supported by studies indicating that size impacts the survival of businesses. In this context, the ideal size for a nascent enterprise would be one that can meet current demand and allow for phased investments to address future demand.

Various municipalities in Mexico, especially those classified as "Pueblos Mágicos" (Magical Towns), have a thriving business development sector, primarily focused on commerce and services, and predominantly composed of MSMEs. It's worth highlighting the innovative aspects of these businesses that enable their growth, resulting in added value and a direct impact on increased competitiveness. Factors such as the implementation of technology, innovation in production processes, geographic location, limited funding, among others, are decisive for business survival.

[10] It is well-established how customer satisfaction with the perceived service throughout the product lifecycle significantly influences their decision to renew with the same brand upon reaching the end of that cycle. In the study, the author establishes that more than 52% of customers renew with a brand, even when they acknowledge that the purchased product did not meet their expectations in terms of quality. However, they do so because the service provided during the product's lifespan was excellent. Conversely, only 36% of

customers renew when they acquire a high-quality product, but the service received falls short of their expectations. Post-sale service becomes a crucial tool in customer loyalty.

In summary, it is imperative for organizations today to contemplate the need for excellent post-sale service management. This is because, based on the factors outlined, a company can leverage immediate customer attention to understand their expectations more closely. This allows for the improvement of weaknesses, reinforcement of strengths, and the identification of imaginative ways to exceed customer expectations, ultimately enhancing customer retention.

[11] Competitiveness is a recurring topic in contemporary discourse, often used to describe companies, countries, regions, or sectors that consistently formulate strategies to respond favorably to environmental demands. It also pertains to their ability to leverage available capabilities and resources, enhance the value of their products in the market, differentiate themselves from competitors, and maintain costs that lead to increased profitability. This, in turn, contributes to elevating the reputation and standing of a brand, place, or sector.

However, it's essential to recognize that competitiveness is not a singular concept. Its definition can vary depending on the level and context from which it is considered. Environmental conditions, available resources, competitor characteristics, and organizational objectives all differ across various perspectives. Consequently, finding a single parameter or indicator to encapsulate competitiveness becomes complex. Among the numerous combinations of levels and contexts, a single indicator fails to fully reflect the situation of a company, country, region, or sector.

[12] Implementing management and project administration processes in a standardized and methodical manner would enable companies to offer a greater number of projects without compromising quality. This approach allows for the provision of improved customer service and helps companies achieve a stronger market position. As a result, those in managerial roles within these enterprises should base their organizational performance on quality management. This should be underpinned by standardized processes oriented towards customer satisfaction, demonstrating a genuine commitment from all organization employees to quality objectives and fostering a mutually beneficial relationship between management and suppliers.

[13] In this regard, quality is a top priority that modern organizations must consider because customer loyalty to a product or service depends on it. Customer satisfaction determines whether they stay with an organization, creating a brand identity, or switch to another that they believe offers better service quality. This is why benchmarking tools are the best allies for these organizations.

In today's realities, the ability to adapt to new types of business is one of the significant challenges faced by large organizations, and managers should not overlook it. In this environment, organizations need to go beyond their pain points and stay ahead of the competition.

[14] Working towards an increase in human well-being or development involves adopting global efforts to reduce or alleviate poverty. Various alternatives have been promoted for this purpose, with education standing out as the most attractive option. Another option is the implementation of microenterprises, defined as small businesses that produce goods and/or services, primarily aimed at meeting market needs. Competitiveness is considered a fundamental element in microenterprises, which compels them to consider the most relevant variables for financial and social success both before and during their operation.

[15] The municipality of San Pedro Cholula is in the central-western region of the state of Puebla, Mexico. Its geographic coordinates are between the parallels 19° 01' and 19° 07' north latitude and the meridians 98° 16' and 98° 24' west longitude. To the north, the municipality shares borders with the municipalities of Juan C. Bonilla, Santa María Coronango, and San Juan Cuautlancingo; to the south, with San Gregorio Atzompa and San Andrés Cholula; to the east, with the city of Puebla; and to the west, with the municipalities of San Jerónimo Tecuanipan and San Andrés Cholula.

[16] The total municipal population reported for 2015 was 129,032 inhabitants, with half of them being 27 years old or younger. The population density was 1,677.8 inhabitants per square kilometer. The level of social deprivation for 2015 was low.

The purpose of this research is to conduct a quantitative analysis aimed at assessing the degree of implementation of market strategies within the daily operations and decisions of Micro, Small, and Medium-sized Enterprises (MSMEs) located in the municipality of San Pedro Cholula. This analysis will encompass areas that can address issues such as customer satisfaction or the application of competitive strategies.

II. METHODS

This study stands out for its quantitative and exploratory approach, supported by a cross-sectional research design. Data collection employed survey methodology to gather quantitative information. Subsequently, the collected data underwent comprehensive analysis and were presented in the form of statistical tables and graphs. The research instrument used in this study was developed by the Latin American Network of Administration and Business (RELAYN) and was administered to key leaders involved in making strategic decisions in MSMEs during the year 2020.

In this research, descriptive statistical techniques were employed to conduct a detailed analysis of the collected data. Additionally, a one-way analysis of variance (ANOVA) test was conducted with a 95% confidence level to perform significant comparisons among various elements of the study.

To ensure the representativeness of the sample relative to the population of interest, which consists of 9,018 economic units according to INEGI data in 2016, and is in the municipality of San Pedro Cholula, the necessary sample size was determined. This was done considering a 95% confidence level and a 5% margin of error, resulting in a requirement of at least 369 valid surveys.

[17] In the present study, we were able to analyze a total of 390 companies, ensuring that the sample size is appropriate and representative for the research objectives. To gather information about Micro, Small, and Medium-sized Enterprises (MSMEs) in the municipality, we used an instrument developed by Posada and colleagues in 2016. Data collection involved the collaboration of students from the Universidad Politécnica de Puebla (UPPuebla).

To carry out the information collection in a representative manner, questionnaires were administered using probabilistic sampling. The instrument in question consists of a total of 9 items. In the context of this specific study, we chose to use a five-point Likert scale, where the values correspond to the following responses: "I don't know/does not apply" (1), "strongly disagree" (2), "disagree" (3), "agree" (4), and "strongly agree" (5).

The variables we have examined are based on a questionnaire developed by RELAYN in 2020, which focuses on how Micro, Small, and Medium-sized Enterprises (MSMEs) in the municipality implement market strategy tools in their management. To analyze the data, we used STATPLUS® version 9.0 software, which allowed us to conduct comprehensive statistical analyses, including descriptive measures and significance tests such as one-way ANOVA, to assess differences between the responses of MSMEs in the municipality.Below, we provide a detailed description of these variables:

a) I have effective methods to evaluate whether the price of my products or services is appropriate.
b) I have effective methods to evaluate the quality of my products or services.
c) I have effective methods to understand my customers, their needs, and preferences.
d) I have effective methods to assess the quality of customer service I provide.
e) I engage in activities to identify the strengths and weaknesses of my competitors.
f) I frequently compare the results of my company with those of other companies.
g) It is easy for similar companies to emerge.
h) It is easy for other products or services to replace what I offer.
i) The company monitors actions taken by the competition.

A one-way analysis of variance (ANOVA) was conducted to compare the means across different survey items. The objective was to statistically assess the impact of each item using significance tests. This methodology allowed us to determine whether there are significant differences in the responses provided by the directors of Micro, Small, and Medium-sized Enterprises (MSMEs) in the municipality with respect to the various survey items.

III. RESULTS
After collecting the information from the surveys, a validation process was conducted for the results obtained from their administration, which included the elimination of incomplete surveys. Once the validation process for each survey was completed, measures of central tendency were calculated for each item.

Figure 1 provides a summary of the statistical means for each item, along with the associated confidence intervals reflecting the dispersion of the obtained results. In general, the data show results above 3.0 on the Likert scale for the MSMEs in the municipality. Notably, items a), b), c), d), g), and h) stand out with means above 3.7. However, items e), f), and i) displayed lower means compared to the rest of the items, which were close to 3.3.

This indicates that within the municipality, the directors of MSMEs focus their efforts and management strategies related to the use of market strategies on implementing methods to understand their customer base, evaluate the quality of their products or services, and verify if their prices are

competitive in the market. This study also suggests that there are significant factors within the municipality related to competition from other companies, such as the ease with which similar businesses can emerge on the horizon and compete for a limited market.

However, the items that received less favor from the directors of the businesses in the municipality were items e), f), and i), which correspond to the generation of strategies that allow for comparing the effectiveness of actions conducted by the directors, as well as the implementation of monitoring actions towards their competitors.

Subsequently, and with the aim of validating the statistical significance of the observations obtained in Figure 1, a statistical analysis of mean contrast was conducted using a one-way ANOVA test. The purpose of this analysis was to confirm that the results obtained for the contrast between the items obtained for businesses in the municipality have statistical relevance in relation to the size of the analyzed population. These findings are crucial for supporting informed decision-making and the design of effective strategies that promote innovation in businesses, thereby fostering their growth and competitiveness in the market.

The results obtained regarding the contrast of means between the different items are summarized in Table 1, which presents the summarized ANOVA table, indicating that differences between the means of the items are statistically distinguishable. These observations highlight the importance of identifying specific areas of strength and improvement opportunities in the management of market strategies promoted by decision-makers in the MSMEs located in the municipality of San Pedro Cholula, Puebla, Mexico.

The use of a mean comparison through an ANOVA test in a study that analyzes market strategies promoted by the directors of businesses located in the Municipality of San Pedro Cholula through surveys is of utmost importance. Firstly, this statistical technique allows for a significant evaluation of whether there are statistically significant differences between the means of various samples or groups of companies regarding their market strategies. This provides a deeper and more objective insight into how these strategies are being implemented in the context of MSMEs in the municipality.

Furthermore, the use of ANOVA provides the ability to identify specific groups of businesses that are applying market strategies more effectively or less efficiently compared to others. This information is crucial for managers and decision-makers in these MSMEs because it allows them to pinpoint areas for improvement and focus to optimize their business strategies. Ultimately, the ANOVA test adds a level of rigor and objectivity to the analysis of market strategies in MSMEs, which contributes to more informed decision-making and, ultimately, the growth and sustainable success of these businesses in the municipality.

In Table 1, it is evident that highly significant differences ($p < 0.01$) were observed when contrasting the means between items related to the market strategies promoted by the directors of MSMEs. It is possible that businesses may need to focus their efforts on developing strategies to address aspects with lower means and thereby improve their market strategies.

ANOVA

Source of Variation	d.f.	SS	MS	F	p-value	F crit
Between groups	8	292.1745	36.5218	28.2639	0.0000	1.9410
Within groups	3557	4,596.2621	1.2922			
Total	3565	4,888.4366				

TABLE 1. ONE-WAY ANOVA TEST AMONG ITEMS RELATED TO MARKET STRATEGIES PROMOTED BY DIRECTORS OF MSMEs IN THE MUNICIPALITY OF SAN PEDRO CHOLULA.
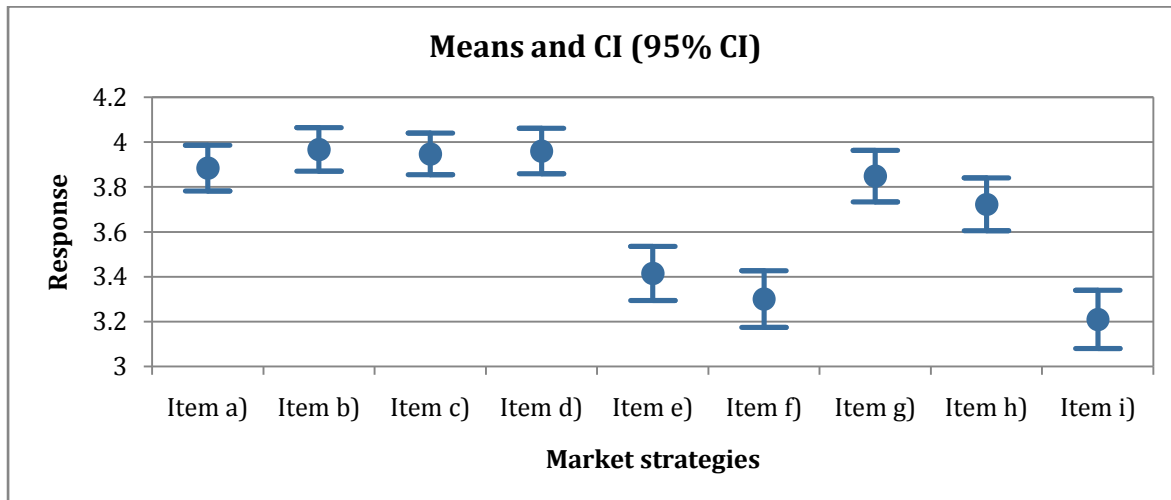
FIGURE 1. GRAPHICAL REPRESENTATIONDEPICTING THE MEANS AND CONFIDENCE INTERVALS PERTAININGTO MARKET STRATEGIES IMPLEMENTEDWITHIN MICRO, SMALL, AND MEDIUM-SIZED ENTERPRISES (MSMES) SITUATED IN THE MUNICIPALITY OF SAN PEDRO CHOLULA.

IV. CONCLUSION

Based on the statistical analysis of the data obtained from the RELAYN 2020 survey, specifically in the context of evaluating market strategies promoted by micro and small businesses (MSMEs) in the municipality, it can be concluded that the strategies implemented by the directors of these businesses are predominantly oriented towards generating market strategies focused on understanding their customer base. Additionally, they aim to find ways to evaluate the quality of their products or services and to determine if their prices are competitive in the market. These strategies are designed to stand out in the market and compete with other similar providers or service providers at the local level.

However, it is important to note that there are significant areas of opportunity for the MSMEs in the municipality that have been revealed by this study. These areas are related to the need for local businesses to develop strategies that allow for comparisons of the effectiveness of actions taken by directors, as well as the implementation of competitive monitoring actions. The application of Benchmarking strategies promoted by the managers of the municipality's businesses plays a crucial role in continuous improvement and business success.

Benchmarking allows companies to compare their processes, practices, and outcomes with those of their direct competitors and even industry leaders. This comparison provides valuable insight into where they stand in relation to the competition and which areas they can improve upon. Managers can identify best practices used by other companies and adapt them to their own processes, enabling them to gain efficiency, reduce costs, and improve the quality of their products or services.

Furthermore, Benchmarking facilitates a deeper understanding of local market trends and dynamics, enabling companies to proactively adapt to changes in consumer demand or market preferences. By closely monitoring their competition, managers can identify emerging opportunities and potential threats in the business environment.

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