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The Michael Porter Diamond approach. Level of international competitiveness of the Mennonite cheesemaking industry in Cuauhtémoc, Chihuahua, Mexico

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Abstract

Faced with globalization and its impacts on the promotion of trade, local consumers gained access to international brands and entrepreneurs were able to offer their goods and services in other climes, translating into an economic benefit. Unfortunately, many artisanal businesses, such as the cheesemakers of Cuauhtémoc in the state of Chihuahua, Mexico, do not enjoy these same effects, as they fail to implement technical processes or marketing strategies and their commercial vulnerability increases as a result. This study employed Michael Porter’s diamond model to assess this industry in terms of its competitiveness. The research is mixed: 26 cheesemakers were sampled, three experts in the field were interviewed, and the data was analyzed using SPSS software. It is concluded that the cheese cluster presents weaknesses in the relationships with suppliers and in the marketing networks, while a notable strength is the high product quality. Given these findings, an intercultural negotiation strategy between the various actors is proposed in order to maximize the potential of this distinctive regional product.

KEYWORDS: cluster, competitiveness, advantage.

El enfoque del Diamante de Michael Porter. Nivel de competitividad internacional de la industria quesera menonita de Cuauhtémoc, Chihuahua, México

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Resumen

Frente a la globalización y sus impactos en el comercio internacional, los consumidores locales ganaron acceso a marcas internacionales y los emprendedores pudieron ofrecer sus bienes y servicios en otros climas, traducido en un beneficio económico. Desafortunadamente, muchos negocios artesanales, como los queseros de Cuauhtémoc en el estado de Chihuahua, México, no gozan de estos efectos al fallar en la implementación de procesos técnicos o estrategias de marketing, lo cual eleva su vulnerabilidad comercial. Este estudio emplea el modelo de Diamante de Michael Porter para caracterizar esta industria en términos de competitividad. El estudio recoge diversos elementos: un muestro a 26 queseros, 3 entrevistas a expertos en el campo y un análisis de datos aplicado con la herramienta SPSS. Se concluye que el clúster quesero presenta debilidades en su relacionamiento con proveedores y en las redes de marketing, mientras que presenta una fortaleza notable en la calidad del producto. Con dichos hallazgos, se propone una estrategia de negociación intercultural entre múltiples actores para maximizar el potencial de este distintivo producto regional.

Introduction

The globalization to which international commercial operations are subject, in which opening-up processes have almost entirely eroded protectionist measures, has meant that negotiations evolve in line with commercial demands (Kotler, 2000) related to production, technology, and markets, through the design of innovative techniques for the sale of products and services that combine quality, price, and leadership. Of all international business clusters, the dairy sector, and especially the cheese production industry, has been among the most impacted by these trends, in that it has lagged behind the expectations of markets and customer bases (Amiot,1991). The role that cheese has played in human diets throughout history has changed, having gone from being a staple to a complement or a snack. For every kilogram of cheese an average of ten liters of milk is required, and this key input has also been subject to restructuring; until 20 years ago cooperatives acted as suppliers, but now purchases are largely made on the open market (Calderón, 2018). Other important factors in this artisanal business segment are the active role of consumers, who assert their rights and whose tastes and preferences vary amid the diversity of competing brands (including equivalents or imitations), and, within the industry, a general lack of knowledge of support programs related to credit provision, training, and market advisory offered by state and federal government, resulting in weak relations between the parties.

Problem statement:

As well as fruit growing, the region of Cuauhtémoc is the state of Chihuahua's[1] predominant cheese-producing area. But paradoxically, the level of competitiveness in the region is low, and the continuation of outmoded production and management practices hampers sales, employment, and certification. Disconnect with government programs, failure by leaders to restructure their organizational systems, and apathy about participation in global markets point to an urgent need to analyze the sector in order to design timely strategies aimed at bolstering its economic strength.

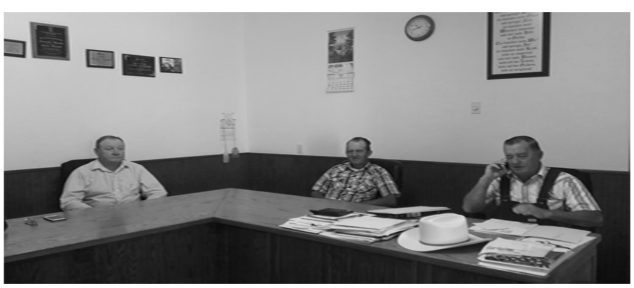
General objective:

To determine the status of the artisanal cheesemaking sector in Cuauhtémoc, Chihuahua, Mexico, by applying Michael Porter's diamond model.

Theoretical background

Ibaibarriaga (2011) has noted that "there are a million and a half [people] in the ethnic religious group known as the Mennonites, distributed across 51 countries." Gamboa (2005) pointed out that more than 8,000 Mennonites arrived in Cuauhtémoc in 1922, having emigrated from Canada when that country's government refused to respect their preferences not to provide military service, salute the flag, or fight in wars. The basis of their day-to-day lives are religion, work, and the family. The Assemblies of Brethren are comprised of the minister, a responsible adult; the field leader; and community representatives, who exercise authority (see Figure 1). According to Arvizo (2005), some 20% of Mexico's Mennonite population can be described as liberal; they coexist with mestizo culture, travel freely to and from the United States and Canada, and conform to mainstream patterns of dress, lifestyle, technology usage, and schooling.

Figure 1 – Mennonite authorities: 2019 field study



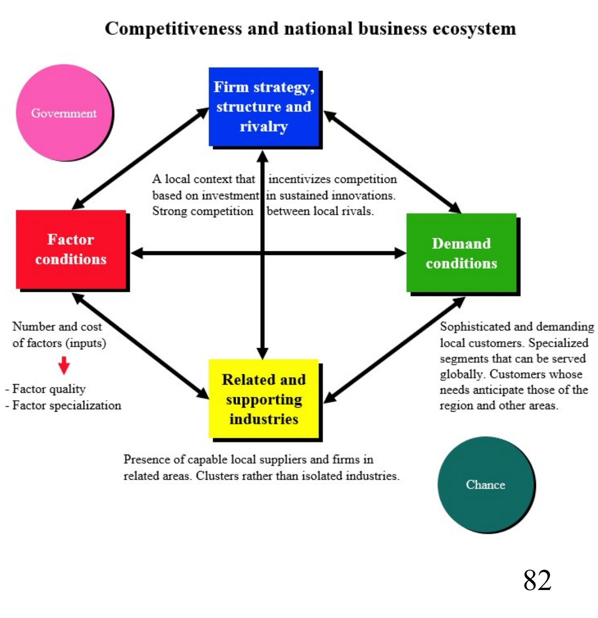
However, Islas (2017) has pointed out that, throughout the state of Chihuahua, those Mennonites who preserve traditional customs and practices prevail. For these adherents, membership of the Church is fundamental and religious beliefs govern everyday activities.

[1] The cheese produced is known within the state as "Menonita," after the religious group involved in its production, and in the rest of Mexico as Chihuahua or cheddar.

Jacquez (1994) has noted a so-called "crisis "in Europe and the Americas associated with a structural transformation of the environment. The high levels of competition associated with globalization give rise to marketing techniques that disrupt and innovate the mix of costs, quality, technology, and consumers. In a global market, competitive advantages and domestic markets must be considered (Fleitman); and when formulating strategies, it is reasonable to look toward the Triad composed of Japan, the United States, and Europe, which stands out as a market with dizzying technical progress based on the standardization or adaptation of supply. The former approach, standardization, is founded on market homogenization (in regions or segments) and customer preference for low prices and high quality. In turn, adaptation considers cultural, semantic, psychological, and geographical differences.

It is necessary to optimize internal resources in order to resist fast-evolving circumstances with the least possible uncertainty. This study's objectives of determining levels of competitiveness and developing pertinent strategies will be instrumental in categorizing those institutions or companies with a sustainable competitive advantage. As Porter (1991) has noted, to devise a competitive strategy, it is vital to consider the industry in which a company is engaged, what that industry "experiences," and how it is placed in relation to the competition in order to glimpse the social context as well as the prevailing strengths and weaknesses. At the same time, an industry can be analyzed by way of a diamond-shaped model (Figure 2) in which the threats new competitors pose to a company must be scrutinized and fended off, by creating entry barriers that might include large-scale production, transportation costs, access to distribution channels, experience, or others. Substitute products play a similar role for the same segment, but with different technology. This threat can increase whenever a new technology emerges to alter the price–performance ratio by way of the product–market ratio. Customers and suppliers have bargaining power (the greater the power they have, the weaker the industry becomes) when they engage in transactions, which has effects on the potential profit levels of a given activity. The notion of the value chain is another proposal of Porter's (1991), referring to how the organization of each department in a company favors market positioning and profit increase through attainment of an internal (costs) or external (markets) competitive advantage. This is defined as "the superiority achieved over immediate competitors, which can be for the same product" or part of the marketing mix.

Figure 2 – Diamond showing the industry`s frontiers and rivalries, Porter (1991)



Boucher and Brun (2011) proposed a solution for regions to weather the global system and consequent commercial openness by way of a local system that relates territory with products. As a prototype, they cite traditional cheeses with their distinctive characteristics linked with a space, its actors, and their knowhow. These are components of identity that promote business development and economic benefits.

Methodology

This study entails the design of a methodology to determine the level of competitiveness of the cheesemaking industry in Cuauhtémoc, Chihuahua, based on Michael Porter's (1991) diamond model. The research employed a mixed approach involving surveys and semi-structured interviews with business owners and/or managers, direct observation of the production area, and consultation of state- and municipal-level documents as well as statistics from primary and secondary sources. The study applies Michael Porter's diamond model. For its part, the survey drew on the Likert scale. To interpret the data, SPSS was used as a basic tool. The sample was composed of 26 cheese-producing companies. Confidence interval: 95%. Margin of error: 3%.

Methodology

As we noted earlier, Porter (1991) recommended that to devise a competitive strategy, one must consider the industry in which a company is located, what is going on in the industry, and the status of the competition, which is what shapes the social context as well as the strengths and weaknesses. Faced with the threat of new competition, companies must defend themselves by putting up barriers such as economies of scale, transportation costs, access to distribution channels, effects of experience, and so on. Also relevant are substitute products, which are those that play the same role for the same group of customers but using different technology. In turn, and as noted, imitation products can increase following the impact of a technological change that alters the quality--price ratio with that of the product--market ratio. Customers and suppliers possess bargaining power[2] when they enter a transaction, in that they can influence the potential profitability of an activity. For instance, customers compel companies to lower prices, or to demand services or guarantees that are more extensive or of better quality. For their part, suppliers can increase price, delay delivery time, or place limits or conditions on the quantities sold to a customer. In the analysis of the cheese industry in Cuauhtémoc, Chihuahua, it was found that:

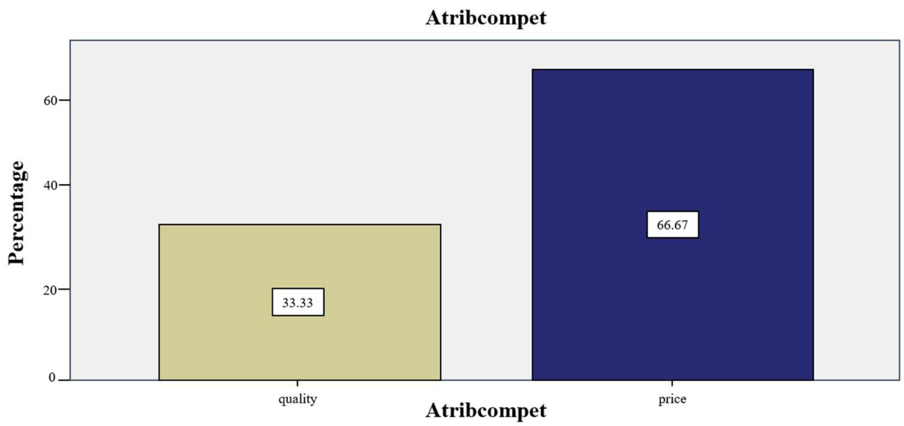
1. Firm strategy, structure and rivalry, and conditions of demand: The artisanal cheesemakers that make up the sample have, on average, been operating in the market for more than 80 years, which translates into an assurance of market preference, as well as a considerable local presence and the appearance of solidity. They produce a type of cheese known as cheddar (traditional in flavor and texture) in blocks that weigh approximately 2.2 kilograms, and wheels weighing around 10 kilograms. In Mexico, the Secretariat of Health and Social Security is the body responsible for regulating the sanitary characteristics of cheese, which are currently governed by NOM 243-SSA1-2010 (production of cheese based on pasteurized milk). Just 25% of the cheesemakers draw on aspects of strategic planning such as a mission and vision, but which, as with other objectives, are not communicated to employees. Meanwhile, only 50% utilize management software. Rivalry, in local terms, is not a determining factor, given that Cuauhtémoc cheese, despite having a higher price than that of the competition, tends to be preferred by customers. None conduct market research, and nor do they receive requests for new products. All

[2] The greater the power the customers or consumer have, the weaker the industry will be.

businesses in the sample sell their products on the domestic market alone rather than internationally, arguing that they lack the capacity to meet greater demand. A total of 75% channel their sales through distributors, of which 50% prefer them for their product quality, 25% for flavor, and 25% for the type of cheese they produce. Prices are not subject to much variation, remaining at around 148.00 Mexican pesos per kilogram.

Figure 3 shows that 33% of the businesses feel that the competition positions itself due to its quality, while the remaining 66% attribute this to their variety of product forms.

Figure 3 – Attributes that set apart from the competition



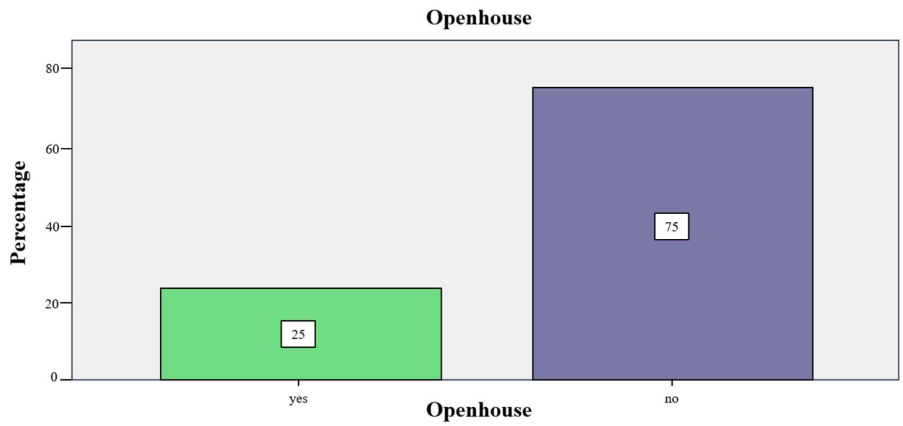
2. Related and supporting industries: It was found that 75% of the interviewees select their suppliers from among their cooperatives. The remaining 25% acquire their inputs on the open market, while all request transportation in chilled containers. When it comes to the prospects of forming value chains with suppliers and working jointly to create value for customers, the results were polarized: 50% of the value chain thought this impossible, while the remaining 50% considered it an excellent idea.

3. Government: As to the 234-SSA1-2010 standard, 50% said that this instrument had not made an impact because they were already using pasteurized milk, while the remainder answered that it had affected sales or that they were not familiar with the matter. In turn, 25% stated that they knew of support programs for cheesemakers such as those operated by the Institutional Trusts Related to Agriculture (Fideicomisos Institucionales en Relación con la Agricultura, FIRA) and the Secretariat of Agriculture, Livestock, Rural Development, Fishing, and Food. None of the respondents had sought to participate in these programs because they did not believe they were eligible. With regard to the question about actions taken to promote Chihuahua brands such as “Caré Nije,” none of the producers knew of any such strategies.

3. Input conditions and correlation of factors: None of the producers knew the percentage of their sales income that was spent on publicity. Some 75% used the network’s commercial website as a means of publicity. Only 50% had their own website. Likewise, 50% said that the product attribute highlighted in their advertising centered on the brand, which is inconsistent with another answer in which they single out quality as the dimension they seek to emphasize. This is indicative of a contradictory approach to strategizing, resulting in a loss of financial and market potential. With regard to relations with the broad range of stakeholders, such as suppliers, customers, competitors, the government, or distributors, none of the producers had policies in place.

Meanwhile, only 25% of those surveyed had ever held "open-house" events (see Figure 4). Although some of the respondents support different institutions or associations, they do not regard such practices as part of public relations or social responsibility programs, seeing them merely as isolated altruistic actions.

Figure 4 – Businesses with open house events



4. Competitiveness: In this bracket, 75% of the businesses considered themselves to have a good level of competitiveness, while the remaining 25% categorized themselves as excellent in this regard. One discerns a high level of self-paternalism, in that the businesses rate themselves as competitive despite awareness of their considerable internal and external weaknesses. One possible reason for this could be that their brands are well positioned in the local and national markets. It is necessary to overcome this perception, because competitive advantage stems from numerous variables and if progress on each of these fronts is not balanced, the overall results could be negative. Half were open to a new strategy for marketing their products on the national market, while just 25% were willing to consider extending their brand to the international arena.

Discussion

Artisanal cheesemakers from the region of Cuauhtémoc, Chihuahua, México, regard themselves as competent in their commercial operations. This perspective has repercussions in the form of a lack of modernization or innovation in comprehensive competitiveness strategies. Thus, there is a need for more strategic planning and analysis of market transformation. Moreover, there is a total disconnect with the government, while the only condition placed on suppliers is that the inputs be approved by laboratory testing. This causes problems for the entire industry, whose general structure is outmoded and holds back the region's economic development. When it comes to pursuing strategies for competitiveness in the cheesemaking industry, the Secretariat of Health, through the State Commission for Protection Against Sanitary Risks, administers information and provides valuable support.

Conclusions

This study has found that the level of competitiveness of Chihuahua's artisanal cheese industry--based on analysis of variables such as commercial environment, internal structure, customers, marketing, competition, suppliers, government, and communication strategies--is low. Despite businesses having an average age of 80 years, most do not plan and are not interested in acting in line with trends in the national market--far less the international ones. The entry of businesses producing similar cheeses, often at lower prices, has caused a decline in the income recorded by these established businesses, in a context in which international cheese producers with high-tech practices are also present on the market.

Even so, the cheesemakers in the sample are content to limit themselves to current daily production levels. They show poor communication with distributors and customers, without monitoring changes in the preferences of their stakeholders.

For cultural reasons, they are satisfied with surviving in a market that is already highly competitive. Unless sweeping changes to the structure of the industry are applied, the region will continue to squander its potential to position itself as a major exporter of this product. But if the producers heed the findings of this analysis and implement innovations, increase their product and service lines, and design new management and market strategies while conserving the traditional attributes, they will be succeed in improving their competitiveness.

Limitations and future lines of research

The main limitation was the difficulty obtaining information from cheese producers due to a lack of trust. Another limitation is the lack of a concerted work scheme in conjunction with the government aimed at raising awareness among producers: motivating them, integrating them, showing them the importance of market expansion, and promoting the fundamental role they play in the development of the region and their potential to create a distinctive regional brand. All these possibilities should be explored in future research.

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