



Impact of Innovation Models in the Textile Sector on Smes in the State of Hidalgo

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ARTICLE INFO	ABSTRACT
<p>Published Online: 19 February 2025</p> <p>Corresponding Author: María del Rosario López Torres</p>	<p>Innovation within the textile sector has represented a determining factor for the success of competitive companies. The purpose of the research was to design an innovation model that integrates the factors that impact the development and business competitiveness of SMEs in the clothing textile sector in the state of Hidalgo for their strengthening. This work is carried out under a quantitative, non-experimental, correlational and cross-sectional design approach on the textile sector in SMEs in the state of Hidalgo, considering a population of 180 companies registered in the National Center for Innovation and Fashion of the textile and clothing industries (CNITV), and a sample of 123 entrepreneurs. With the results obtained, the creation of an innovation model was proposed so that SMEs in the textile sector of the state of Hidalgo can raise their level of competitiveness and business development</p>
<p>KEYWORDS: Innovation, Competitiveness, Business development, Model.</p>	

I. INTRODUCTION

Productivity and competitiveness in companies is affected by different factors, mainly by the ability of a company to compete in the markets, and which has to do with quality and innovation [1]. This is understood as the ability of a company to change itself repeatedly and quickly in order to continue generating value [2]. The innovative company is one that changes, evolves, does new things, offers new products and adopts, or perfects, new manufacturing processes. Today companies are forced to be innovative if they want to survive, otherwise they will soon be caught up by competitors. The pressure is very strong, since products and processes generally have an increasingly shorter life cycle [3]. Organizations must be able to innovate at the global forefront, creating and marketing a series of new products and processes that displace the cutting edge of technology, advancing as quickly as their rivals catch up [4]. For this research, an innovation model has been designed that integrates the factors that impact the development and business competitiveness of SMEs in the clothing textile sector in the state of Hidalgo for their strengthening.

II. LITERATURE REVIEW

II. Company

The company is a social organization that uses a wide variety of resources to achieve certain objectives. [5].

II.1 SME concept

SMEs are small and medium-sized companies, with a small number of workers and a moderate turnover. In various countries, these companies are considered the driving force of the economy. [6].

II.2 Competitiveness

The competitiveness of a company is the organizational ability to create, develop and sustain superior capabilities in terms of attributes of its products and services compared to those of other companies competing for the same market, which generates a return on its investments equal to or greater than that of its competition. [7].

II.3 Innovation

Innovation has become one of the fundamental instruments within companies that want to remain competitive and also socially responsible, in an increasingly complex and changing environment. [8].

II.4 Innovation in companies

An innovative company is one that is capable of promoting advances within the system, and has the capacity to generate and manage radical innovations. Innovation is daring and innovation is being born every day are two good slogans, taken from a Chilean magazine. Today, the value of companies is linked to their capacity to adopt different offensive strategies, which are aimed at incorporating technological improvements in products and processes,

since they will allow them to position themselves against competing companies. [9].

II.5 Business Development

Business development articulates different elements with which the entrepreneur can lead an organization towards the achievement of its objectives. Elements such as economic growth, business culture, leadership, knowledge management and innovation. It is an integrative concept with which a positive impact can be achieved in organizations by recognizing the capabilities of human capital. [10].

II.6 Model

Models are abstractions of reality in short [11], they are cognitive tools for generating explanations that we use to illustrate a specific idea or purpose, but that do not contain all the elements of that reality. There are different models, among which the following stand out: Organizational projection model, change management, staff leadership, quality management, knowledge management, human talent management by competencies, productivity and innovation. Below, in figure 1, you can see the proposal of the innovation model for the development and business competitiveness of the Textile Clothing Sector in SMEs in the state of Hidalgo.

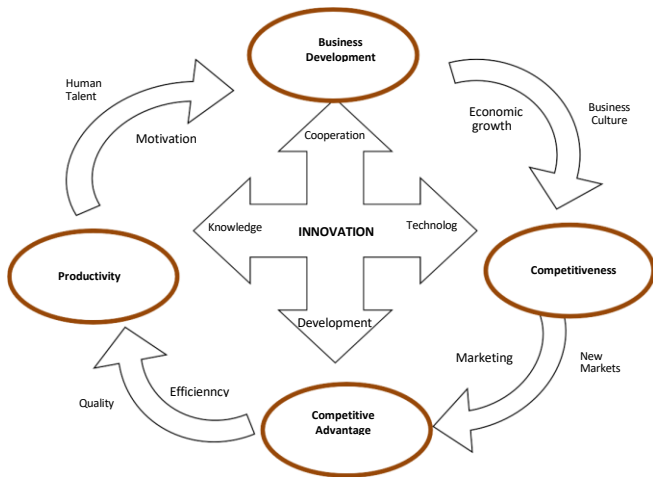


Figure. 1. Innovation model proposed for SMEs in the clothing textile sector in the state of Hidalgo based on Porter's competitive advantage

The proposed model arises from the theoretical review, taking as a basis the essential elements of innovation and Porter's competitive advantage, seeking the integration of various criteria that promote business development and competitiveness based on innovation factors.

III. METHODOLOGY

For the present investigation, the quantitative approach [12] was used, which uses data collection to test a hypothesis based on a numerical measurement, in this case the variables: Business development, competitiveness and Innovation. Applying data collection instruments with a

Likert scale, after selecting the sample of SMEs in the textile sector in the State of Hidalgo, in order to contribute to the design of the innovation model. It had a correlational scope, to measure the degree of association between Business development, competitiveness and Innovation, using SPSS, in which the variables were analyzed in order to test the hypotheses. The hypothesis raised was of a multivariate causal type, where a relationship between variables is raised. Which is described below

H_{A1}: Innovation positively influences the business development and competitiveness indicators of SMEs in the textile sector in the state of Hidalgo.

IV. The type of design used was non-experimental, without deliberate manipulation of the variables, and where the phenomena are observed to later analyze them. At the same time, it is a cross-sectional research, where data is collected at a single moment and time; and it allowed to describe the variables of: Innovation, competitiveness, business development and their respective indicators, as well as to analyze their incidence and interrelation between them

V. PARTICIPANTS

The sample was a stratified probabilistic type with systematic selection, using the grouping of people by homogeneous characteristics. The development of this research was carried out taking as organizations object of study the entrepreneurs of the textile industry of the SMEs of the state of Hidalgo, whose population was 180 formally constituted companies and that are registered in the National Center of Innovation and Fashion of the textile and clothing industries (CNITV). For the sample size, an a priori estimate was used, with a confidence interval of 95% and an estimation error of 5%. Applying a total of 123 instruments.

VI. RESULTS

Regarding the findings and results of the research on SMEs in the textile sector, they show that 60% of the companies have more than 10 years of experience in the textile sector, which generates an advantage in terms of knowledge of their business. 69.6% are small, which corresponds to more than half and covers the largest number of companies in the market, on the other hand, 30.4% are medium-sized. Associated with this, 43.2% of the owners have a secondary school education, 32.8% have a preparatory or technical level education, while 23.2% of the owners are professionals.

37.6% of the companies have quality certifications and 62.4% do not have them, and they are limited in negotiating with large corporations. Similarly, 93.6% of the companies in the textile sector do not have experience in the export process.

The results of the research show that 51.2% of companies say they are adapted to changing trends, which generates innovative products and helps them position themselves in

the market, achieving a competitive advantage. 50% of companies are aware that it is important to adapt to manufacturing processes, which is why 68.8% of companies have various product lines, in such a way that the needs of consumers are met. This is of vital importance, and 41.6% of organizations make product adaptations, which generates innovation and competitive advantage. Although it is important to mention that this is due to the fact that 82.4% of businessmen are involved in differentiating themselves from the competition; and 56% adapt their products according to the season, which means that the Textile and Clothing Sector in the State is making strong efforts to make a difference in the market and strives to be at the forefront of fashion and have a competitive advantage.

Associated with this, in Hidalgo, 49% of companies in the Textile Clothing Sector have established standards in the organization for production and quality control of their products. This is partly due to the fact that 72% of companies have manuals that specify the form of organization and the procedures to be carried out, in addition to the fact that 56.8% of companies have an infrastructure for the production of high volumes in the textile clothing sector, which allows them to meet demand on time.

In another sense, it is important that companies in Hidalgo have a business culture for the registration of their designs, since only 32% carry out the process of registering their designs with the IMPI and that 52% of the companies studied have cutting-edge technology to achieve better production, innovate and reduce times, helping them to have a good position in the market. This is a relevant factor for the registration of new designs and for entering foreign markets, since in Hidalgo product exports are at a low level, this as a consequence of its organizational problems and preparation in terms of export and its low level of business competitiveness and therefore the organizations do not have an area related to foreign trade.

It is worth highlighting that more than half of the companies in Hidalgo have between 15 and 20 years of export experience. These results are of great interest, as they reflect years of work and preparation in the field of international markets, which has allowed them to add processes, transactions, negotiations and administrative changes that have strengthened them. With sales between 100 thousand and 500 thousand dollars.

Based on the results obtained and to verify the hypothesis, a test was carried out using the Pearson correlation coefficient in SMEs, which did not show that there is a relationship between the variables innovation and competitiveness, nor between innovation and business development. Regarding competitive companies, they showed moderate positive correlations between the variables innovation and competitiveness, as well as between innovation and business development.

The research reflects low levels in the research results with respect to the scales, so it is inferred that there is no relationship between the variables due to the low levels of innovation, competitiveness and business development.

VII. DISCUSSION

The textile sector in Hidalgo has great opportunities for the future, but today it presents numerous challenges, with increasing competition and high levels of globalization. In this sense, it becomes relevant to generate a generalized proposal for regional application that allows increasing competitiveness through innovation.

According to the findings, it can be observed that companies in the sector in Hidalgo, despite having the infrastructure to cover large production volumes, do not do so, and their sales are minimal, so they should implement strategies to sell in large volumes and be certified to meet quality standards. Likewise, entrepreneurs need to register their designs with the Mexican Institute of Intellectual Property (IMPI), since in this way they will not be stolen by the competition, this will allow them to be at the forefront to generate differentiated products.

It is necessary to move away from old business practices such as selling in the informal market and enter the formal business, either through chain stores or even direct export, which allows access to the international market with brands of origin in the textile and clothing industry.

In relation to the organizational and business development aspect, it was possible to identify that there is an absence of formal administration and even more so of strategic planning, so it is important to link the skills of executives with the reputation that is desired to be established. This begins with a clear statement, similar to a mission statement, which links what the company wants to be known for by its best clients, with specific leadership skills and behavior.

In another sense, it was observed that entrepreneurs showed a general interest in collaborative work, as a way of obtaining greater business benefits and the possibilities of strengthening production to meet large volumes of purchases by chain stores or international markets. And with the disposition shown by the sector with respect to collaborative work, it was found that work can begin on the formation of a horizontal knowledge network, where companies that produce the same product are organized to produce a single product, mainly oriented towards the search for economies of scale and greater bargaining power.

With respect to the Model that is related to innovation, competitiveness and business development with its application, there will be a substantive change in the operation of the businesses of the SMEs in the textile and clothing industry of Hidalgo, in such a way that they work with knowledge networks, strengthen the development of organizations through human capital and initiate efforts to enter new markets through knowledge of new business schemes, with this there would be great progress in business

practices that promote development for companies in the sector in the State.

VIII. CONCLUSIÓN

It can be concluded that after the theoretical review and the results of the field work, it is proposed to work on the Comprehensive Innovation Model for the textile sector of the state of Hidalgo, which allows integrating the factors that impact the development and business competitiveness of SMEs in the textile sector of the state of Hidalgo for its strengthening; work collaboratively; improve administrative practices in organizations; implement strategies for knowledge management within organizations; rely on government institutions that provide support and incentives to the industry; work in business networks.

Through data collection and analysis of the results, the hypothesis was tested and it was also identified that there are areas of opportunity in the three variables that were addressed, because despite the fact that a large percentage of companies have cutting-edge technology, reality shows that it is not enough to achieve competitiveness and business development, since organizations in the sector have not been able to establish themselves in new markets or develop negotiations that generate greater profits and profitability. Regarding innovation in SMEs, it is identified that although the sector makes product adaptations, visualizes market trends and works on design, it has not been able to generate sufficient competitive advantages that allow them to differentiate themselves from the competition.

In terms of competitiveness, the results in SMEs showed that there is a low level of competitiveness, because despite efforts to ensure quality, few companies claim to be certified and consequently are failing in their delivery times. It is also identified that despite having cutting-edge technology in some cases quality is not determined by this advantage, since the finish or manufacturing details do not allow compliance with previously established standards, which has also slowed down the entry of formal chain stores or large corporations.

In the variable of business development of SMEs, it was identified that the commercial relationship with large corporations in marketing or manufacturing is almost non-existent, since there are no standardized processes and delivery times have not been met in a timely manner. In addition to the above, companies that are competitive in the state are present in international markets or even have negotiations with large corporations, which has generated important sales in a large percentage exceeding one million dollars. It is also important to highlight that one hundred percent of the companies surveyed make investments in R&D, as well as develop relevant actions to generate innovations in their products, which allows them to differentiate their products from the competition and develop in export markets.

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