

Product Innovation: An Opportunity for Economic growth in Colombian SMES

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Abstract

Objective: Evaluate the current situation of product innovation in Colombian SMES, to analyze opportunities for improvement that may arise in these organizations. **Methodology:** A descriptive/quantitative study was carried out; the population was made up of SMES from the city of Barranquilla. The sampling was carried out intentionally, 55 selecting companies with the following inclusion criteria: employees between 20 and 50 persons, companies with 3 to 5 years of operation. The instrument applied was designed under a Likert scale and validated by Alfa de Cronbach. The tabulation and analysis of the information was done in SPSS version 23 to facilitate interpretation. **Recommendations:** The information gathered suggests the importance of motivating product innovation, as companies do not currently promote this category at a higher level. **Conclusion:** For SMES, there is a great opportunity for growth to the extent that product innovation is embraced, although it is a process that requires more time, investment and space, it is a relevant aspect to grow in competitiveness.

Keywords: Competitiveness, Globalization, Innovation, Products, SMES

1. Introduction

Globalization is the phenomenon that has redefined market environments, giving companies the possibility to transcend barriers, in order to resize and achieve local and national development¹. The nature of today's markets, stimulated by the universalization and explosion of technology, requires companies to develop innovation and differentiation strategies to develop sustainable growth, with competitive advantages, results of the exploitation of new opportunities, the development of new products and services, and new markets².

It is difficult for organizations to remain in business that do not improve over time, which is why companies must constantly adapt to the dynamic business environment and market situation; most organizations must strive to do things differently and maintain a differentiated offer in relation to their competitors so that they can gain a competitive advantage, and thus maintain the loyalty and support of their stakeholders, which is essential

for their survival and growth³. The German economist Schumpeter defines innovation as the productive combination of services, i.e. he considers a new combination of factors⁴. On the other hand, the third edition of the Oslo Manual of the Organisation for Economic Co-operation



Figure 1. Types of innovations classified in the Oslo Manual.

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and Development (OECD) defines innovation in a more profound way, describing it as the "implementation, in business practice, of a significant novelty of a product, process or service in business practice"⁵; from this point onwards, four types of innovation are established according to Figure 1, and explained below.

The above categories are described as follows:

- Product innovation: It is the introduction of a good or service, considered as new or significantly improved in its characteristics or foreseen functions; contemplating aspects such as technical specifications, components and materials, software, ease of use or other functional characteristics⁵.
- Process innovation: considers the implementation of a new or significantly improved method in the production areas, including significant changes in techniques, equipment or software⁶.
- Marketing innovation: consists of the implementation of a new marketing method that includes significant changes in product design or packaging, product placement, product promotion or pricing; with which it is possible to better address customer needs, open new markets or achieve a new product positioning in the market⁷.
- Organizational innovation: is the implementation of a new organizational method in business practices, corporate organization or external relations; they are oriented to increase corporate development to reduce administrative costs or transaction costs, improve labor productivity, or reduce supply costs⁸.

In other words, innovation is the process by which opportunities are identified through mostly radical or disruptive processes; that is why Lowe and Marriott (2012) identified the key elements for successful innovation development:

- Creativity to challenge given assumptions, paradigms or stereotypes
- Corporate capacity to promote the new idea
- Capacity to manage the process, staff and other resources, both within and outside the organization
- Motivation and ambition of individuals to identify and exploit opportunities.

Innovation is presented as the key to the organization's survival, so it must be considered a fundamental element of any company, so that the rules, devices and behaviors are translated into a constant improvement in the company's

performance⁹. Research carried out by¹⁰ in 114 industrial companies in Spain confirmed that organisational innovation favours the development of technological innovation capabilities, and that organisational innovation, together with technological capabilities, can lead to superior organisational performance. On the other hand, a study carried out by¹¹ in companies in the hotel sector evaluated that most of the innovations implemented corresponded to those applicable to marketing processes and strategies, so that the organizations managed to obtain stock market returns of around 1.53%.

One of the bases of competitiveness is the creation of knowledge through research, learning and the internal diffusion of new concepts, which is a generator of business innovation, which is why the development of the business context towards an innovative environment is fundamental for the management of resources in different ways from their competitors¹². The elements that make up the organizational culture impact innovation processes in two ways, through the process of socialization and coordination; the first seeks to disseminate creative and innovative behaviors, and the second speaks of the organization through policies and procedures¹³.

Some other studies have focused on establishing the influence of transformational leadership on organizational performance through the dynamic capabilities of organizational learning and innovation¹⁴ analyzed 280 senior managers, executives, and administrators of 106 manufacturing companies, thus establishing the existence of a relationship between the components of leadership, innovation, and organizational performance; it is striking how¹⁵ reached the same conclusion, based on the study conducted in 168 Spanish companies.

However, in the regional context, in Colombia and Latin America, there are important indices in education, low levels of technology, and organizational practices that lead to innovative processes, still in their infancy, which are estimated to have been the cause of greater economic growth; the factors that have been identified, which have had the greatest impact on this type of development, are the lack of precise conceptualization of the new sources of innovation and productivity, through the processes of Research and Development (R&D)¹⁶.

For their part¹⁷ developed a study in 60 MSMEs in the city of Cali, in order to establish the effects that innovation generates on business performance, and concluded that the most significant contributions were manifested in a higher performance of MSMEs in the following aspects:

- Increased internal efficiency, in terms of product and service quality, internal operating processes, and organization of tasks
- Contribution to the improvement of customer satisfaction, in terms of speed in adapting to market needs, corporate image and products and services.
- Contribution to the increase of its general performance.

It should be noted that the competitive capacity is derived from the interrelationship between various factors, highlighting innovation and knowledge management; the strategic use of these variables must be managed by all employees of the organization to produce sustainable competitive advantages, with distinctive features and value generators in their business context¹⁸.

2. Methodology

A descriptive/quantitative study was carried out; the population was made up of SMEs from the city of Barranquilla. The sampling was carried out intentionally, 55 selecting companies with the following inclusion criteria: employees between 20 and 50 persons, companies with 3 to 5 years of operation. The instrument applied was designed under a Likert scale and validated by Alfa de Cronbach. The tabulation and analysis of the information was done in SPSS version 23 to facilitate interpretation.

The internal consistency method based on Cronbach's alpha allows the confidence of a measuring instrument to be estimated through a set of items that are expected to evaluate

the same construct or theoretical dimension. The validity of an instrument refers to the value at which the instrument can measure or value what it is intended to study¹⁹. Thus, Table 1 shows the evaluation of the instrument used, which was placed on a scale of .900, which indicates that it is reliable in terms of the objectives defined for the research.

Table 1. Instrument Validation

Data processing overview			
		N	%
Cases	Valid	55	100,0
	Excluded	0	0
	Total	55	100,0
Alfa de Cronbach		.900	

3. Results

In tabulating the information, it was found that innovation in the surveyed population is being carried out on several fronts, so that the concepts and assessments achieved are shown in Table 2.

Based on the results it can be mentioned that there is a greater number of improvements to products that are already on the market with 2.9 of improvements made. Similarly, the technical improvements to the products are on average 2.5 per year, while the number of products launched per year is on average 2. One point that stands out from the findings shown in Table 2 is that the improvements to the product, corresponding to an aver-

Table 2. Average number of product innovations in SMEs over the last year

	Number of new products on the market	Number of products optimized	Number of technical production improvements	Number of functional improvements	Number of technology improvements
Average improvements incorporated in products	2,0	2,9	2,5	2,3	2,2

Table 3. Average number of innovations made to processes in SMEs during the last year

Process Improvements	Average Number
Information, production and logistics systems	2,29
Distribution systems	2,00
Process reengineering and quality management systems	2,11
Implementation of new distribution methods	1,79
Implementation of new logistics methods	1,96
Implementation of new production methods	1,61
Implementation of improvements to production methods	1,68

age of 2.9 per year, do not seem to be made based on the study of customer needs through the application of surveys.

In general, SMEs report that they incorporate, on average, at least 2 product-related improvements per year, although the methods used may not be the most appropriate in some cases. On the other hand, innovation in the processes was also evaluated according to the number of incorporations made during the last year; Table 3 shows in summary the results of these variables. According to the data in Table 3, the greatest number of new employees and innovations were made in the area of information systems, production and logistics, with an average of 2.29 improvements made during the year. Also, process engineering, quality management and distribution systems have at least two during the last period. This indicates that SMEs make an effort to keep their processes updated and in search of continuous improvement.

The least favoured processes are those related to the implementation of new methods in the different areas of the company, such as distribution, logistics and production, where less than two are carried out per year. This result calls the attention in an important way, understanding that these are the core processes of any organization and also ensure the full operation of the business²⁰⁻²¹.

4. Conclusion

In accordance with the analyses carried out, it can be said that SMEs focus their efforts more on process innovation than on products. At present, the population being analyzed prefers to insert improvements to products that are already on the market. This may be due to the fact that the levels of demand and investment, as well as human and technical resources, may be lower, as expressed by several authors who have presented similar results in contexts associated with the Colombian environment.

Thus, it can be indicated that the weakest point in terms of innovation may be product innovation, as shown by the studies published in various sources, which reflect on the short-term mentality applied by the entrepreneur, recommending that as long as a product innovation is planned, as well as associated processes can open doors to highly visible and profitable opportunities that promote the sustainability of SMEs in the long term.

The evidence presented then indicates that the route to promote innovation must be mediated by training processes, especially for business leaders, since they are the ones who make the decisions and can allocate both the resources and the necessary spaces to move forward in this direction. This is a suggestion that is based on the above-mentioned research and also on the results presented, since, as was shown, the efforts being made today are incipient.

5. References

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