

Information systems in the process management of commercial SMEs in Canton La Troncal.

Sistemas de información en la gestión de procesos de las pymes comerciales del Cantón La Troncal

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ABSTRACT

The study will be carried out in Canton La Troncal, the objective is to analyze the importance of information systems in the process management of commercial SMEs. The study was developed under a qualitative approach since it is supported by a bibliographic documentary review. The type of study is descriptive, with a non-experimental design, since the variables were not manipulated in the analysis, only recorded. The results obtained from the study show that information systems in the process management of commercial SMEs allow small and medium-sized companies to advertise their catalog of products and services much more quickly and at a lower cost. It is concluded that technology is key to streamline commercial and productive processes.

Keywords: Information systems, TPS, information systems implementation, process management, Canton La Troncal.

RESUMEN

El estudio se llevará a cabo en el Cantón La Troncal, el objetivo es analizar la importancia de los sistemas de información en la gestión de procesos de las pymes comerciales. El estudio fue desarrollado bajo un enfoque cualitativo puesto que está respaldado por una revisión documental bibliográfica. El tipo de estudio es descriptivo, con diseño no experimental, debido a que en el análisis no se manipularon las variables solo se registraron. Los resultados obtenidos del estudio evidencian que los sistemas de información en la gestión de procesos de las pymes comerciales, permiten que las empresas pequeñas y medianas puedan dar a conocer su catálogo de productos y

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servicios de forma mucho más rápida y a menor costo. Se concluye que la tecnología es clave para agilizar los procesos comerciales y productivos.

Palabras clave: Sistemas de información, TPS, implementación de sistemas de información, gestión de proceso, Cantón La Troncal.

INTRODUCTION

In the current context ICTs, are very useful tools for society because they have become indispensable resources for the development of the activities of organizations (Mexican Internet Association, 2018)

For Razak, et al, (2018), Information and Communication Technologies (ICT) guarantee business success, however many owners, managers and employees are unaware of the importance of the application of ICT, in companies since, these can achieve greater productivity, profitability and competitiveness.

In this sense, Guzmán, et al, (2016) state that among the main advantages offered by ICTs to SMEs is the economic performance since it improves the efficiency and effectiveness of the company. It also generates greater productivity growth and expansion, since small companies can grow and export their products to international markets and at the same time compete with large corporations.

The study is important because SMEs have increased, for example in the European Union there are 23 million SMEs representing 99% of all companies in the EU, which generate employment for more than 75 million people.

In Latin America, SMEs represent 99.12% of the total number of companies and generate 64.6% of employment. (ECLAC, 2020). According to these data it can be determined that the participation of SMEs in the national economy of Latin American countries is fundamental because it represents an important source of national income as in the case of Peru who leads with 98.10% of small industries, in Mexico small businesses represent 95.50%, while in Colombia they reach 93.20%, in Chile they represent 90.40%, the same happens in Brazil with 85.40%, also in Argentina where 81.60% are microenterprises, finally Uruguay is with 83.80%. (Ron & Sacoto, 2020).

In Ecuador, SMEs represent 95% of the productive units, generating 60% of employment and 50% of production. According to Delgado and Chávez (2018) Ecuador is a country of micro and small enterprises, which have proven to be the main engine for the development and economic growth of the country.

In our country the main business fabric is found in the provinces of Pichincha with 206,911 companies representing 23.4%, followed by Guayas with 165,971 companies corresponding to 18.77%, in third place is the province of Manabí with 78,608, representing 8.89% of companies. According to a report presented by INEC, small and medium commercial enterprises in Ecuador are engaged in wholesale and retail trade, manufacturing, agriculture, livestock, forestry, fishing and mining and quarrying. (INEC, 2020)

However, in order for these companies to be able to compete in the markets, it is necessary to implement information systems that allow them to improve their commercial activities.

In Canton La Troncal, there are 183 commercial SMEs, in which it can be observed that their owners or managers do not have computer systems to achieve successful results. Taking into account that currently commercial SMEs are highly competitive, it is necessary to implement strategies to counteract the effects of competition.

MATERIALS AND METHODS

Information and Communication Technologies (ICT), are at the service of small and medium enterprises (SMEs) to innovate, reduce costs, increase market share, improve service quality and product quality. (García, 2019)

In this sense, Scarabino and Colonnello (2009) point out that SMEs use ICTs to improve the company's performance. In other words, by implementing ICTs in SMEs, they will improve communication, as well as business effectiveness and efficiency, and customer satisfaction.

According to Valdés and Sánchez (2012) SMEs are a group of small and medium-sized companies that generate employment and economic growth for the country. In Ecuador, an SME is small when it has 10 to 49 employees and medium-sized when it has 50 to 199 employees.

In fact, ICTs are essential for small and medium enterprises to succeed in their economy. That is to say that ICT, in SMEs, allow to improve the performance of the company because they have tools such as websites, e-commerce to increase business activities and at the same time improve the economic performance of the company. (Slusarczyk, 2020)

Importance of ICTs in SMEs

SMEs are generally managed by their owners or a group of families, who do not have an annual sales ceiling. Pablo Zambrano Pontón (2017) mentions that these entrepreneurs cooperate in an organized manner, use their knowledge and human, material, economic and technological resources to develop products or services in exchange for a profit.

Operations support system

The decision support systems allow the establishment of guidance criteria so that SMEs can determine the direction to be followed by the business, by means of a redirection based on the needs of the market to which their operations are directed, since through the operations support system the manager can identify the appropriate decisions based on a global analysis of the state of business operations.

Decision support system

Due to the fragility of SMEs, it is necessary for owners, managers or employees to have alternatives that are within their reach, allowing them to provide tools that facilitate decision-making within organizations. It should be added that these systems are developed through the analysis of various factors that are carried out through the collection of information, and above all an adaptation of different business models and

experiences that allow to identify and provide solutions to the problems or challenges that come from decision making. (Scarabino & Colonnello, 2009)

Transaction processing systems

These transaction processing systems allow SMEs to collect, store, modify and retrieve a large amount of information about the transactions generated during their operations. The purpose of this system is to monitor this information and improve efficiency in operations. Within this aspect, it is important to mention that offering a quick response guarantees reliability among the different actors of the commercial process. (Guzmán, Guzmán, & Fuentes, 2016).

Implementation of information systems

The implementation of an information system makes it possible to know which products are most regularly purchased by customers, which is very important for sales planning. In fact, by implementing the customer information system, the company will be able to generate greater productivity and efficiency, thus optimizing resources. (Arribas, 2014) Among the main advantages of implementing information systems are:

- **Speed in the processes.** Facilitate the selection of raw materials, sales, logistics and payment to suppliers.
- **Better service.** Improved service provides competitive advantages over larger companies.
- **Advertising.** Creation of web pages to publicize the services to potential clients in order to increase the client portfolio.
- **Increased sales.** By implementing information systems, small or medium-sized companies become much more competitive since they have preference with other companies that have not implemented them (Lara, Lopez, & Vazquez, 2018).

María Slusarczyk Antosz (2020) carries out a study on ICTs in SMEs. The author analyzes SMEs in different European and Latin American countries, including Ecuador. The study highlights that SMEs are mostly created in family units and work independently. It also points out that these companies are characterized by creating wealth and local employment and therefore boost the economy and contribute to the creation of new jobs.

In other words, by implementing Information and Communication Technologies (ICT) in SMEs, it will be possible to unify markets. Therefore, it is necessary for small and medium-sized companies to take advantage of technology, because this is the only way to maintain constant communication with suppliers, customers and partners. However, he clarifies that in order to implement ICTs in SMEs it is necessary that the company has trained personnel to improve productivity and competitiveness of the company.

Vargas Ortiz Luz Elena, et al (2019) This author argues that small and medium-sized enterprises (SMEs) are very important in the economic field because they generate jobs and reduce poverty, hence the importance of SMEs in the country's economy.

Guzmán et al. (2016) conducted a study on the analysis of the use of ICT in SMEs in Guayaquil in 2015. The study shows that in the current era the use of technology is

essential either to buy or to sell, since this type of trade can be done from anywhere in the world.

In fact, the use of ICTs in small and medium enterprises, since they facilitate communication with customers, the marketing of products and cost reduction in marketing plan. This results in a greater tendency to innovation, more capacity to buy and sell products and services that are in accordance with the needs and demands of consumers.

The study on information systems in the process management of commercial SMEs in Canton La Troncal, was developed under a quantitative approach since it is supported by a literature review of several authors of articles in duly authorized indexed journals. The type of study is descriptive, with a non-experimental design, since the variables were not manipulated in the analysis, only recorded.

The descriptive method was used in the study in order to describe the study problem as well as the theoretical framework that supports the research. According to Guevara, Verdesoto, and Castro (2020) descriptive research makes it possible to clearly describe each of the components of reality and to clearly explain the causal relationships that make it possible to approach a specific problem and try to determine the causes that give rise to it.

Similarly, Hernández and Mendoza (2019) argue that descriptive research allows the researcher to use several concepts and variables in order to know the causes and consequences that originate the problem under study. That is to say that descriptive research will allow to know the opinion of several authors on information systems in the process management of commercial SMEs.

In the study on information systems in the process management of commercial SMEs in Canton La Tronca, research was conducted in 2 theses related to the topic of study on SMEs in Canton La Troncal, 7 books on the application of ICT in SMEs, 6 scientific journals in which the importance of the use of information systems in the management of processes of commercial SMEs is made known, 2 scientific articles in Scielo and Redalyc on ICTs in SMEs and 5 Internet pages that made known the importance of SMEs in the global context.

RESULTS

Once the state of the art was conducted, it became evident that there are several articles related to the topic of study on information systems in the management of processes of commercial SMEs, which show the importance of the use of information systems in SMEs, allowing small and medium-sized companies to publicize their catalog of products and services to achieve a much faster expansion and at lower cost.

In this aspect Vargas et al. (2019) considers that SMEs are able to show the catalog of their products through e-commerce which offers certain advantages to greatly reduce advertising costs. In this way SMEs are able to adapt to management processes in various places and above all a greater interaction of sellers and buyers energizing the economy and supporting the growth of the country at the same time.

According to a study conducted by Arguello (2019), since 2017 a large percentage of small businesses fail quickly even before three months of existence, this is mainly due to lack of innovation, so as seen in other countries the use of technology and devices conducive to transform and increase the added value of production.

According to data provided by María Slusarczyk Antosz (2020) in Ecuador, SMEs represent 95% of the productive units and generate more than 70% of total employment within the national territory. Vargas, et al (2019) reports that the contribution of small and medium-sized enterprises represents more than 25% of the national GDP in Ecuador.

According to these data, in our country, SMEs represent 95.40% of the total number of companies registered nationwide, small companies represent 3.80%, medium-sized companies represent 0.60% and large companies represent 0.20%.

In Cañar Province, the main economic activities carried out by SMEs are wholesale trade, followed by service companies, transportation, manufacturing, construction and other activities.

These results indicate that a high percentage of SMEs are engaged in wholesale and retail trade, which represents 28% of the total number of registered small and medium-sized companies, followed by the provision of services with 21%, companies engaged in transportation with 13% and manufacturing and construction companies with 9%, while the sale of real estate represents 7% and services rendered 5%.

In this regard, Arce et al. (2019) point out that small and medium-sized enterprises in Cantón La Troncal lack strategies to strengthen the current market and achieve greater profitability, so they propose the use of information systems. E-commerce is an excellent option for small and medium-size companies to publicize their product catalog and thus increase their sales. Ekos negocios (2021) makes known that e-commerce grew by 17% compared to 2019, while sales by physical means have decreased by 17%, on the other hand retail sales have increased by 14% compared to the previous year. So it can be highlighted that wholesale trade has increased by 11%.

Solis et al. (2017) state that microenterprises have an important role in economic growth, through innovation and especially for their ability to adapt to new circumstances. Therefore, sales through information systems in the last year have increased considerably, making SMEs adapt to electronic commerce and increase their sales, achieving greater economic growth. Based on the results obtained, access to technology is key for SMEs in Canton La Troncal, since the digitization of markets has facilitated the implementation of these new technologies, improving communication with potential customers.

Complementary studies should be carried out to identify the causes that motivate microentrepreneurs not to take the technological leap, taking advantage of the availability of information systems nowadays within everyone's reach.

As future work, it is recommended from the academy to encourage SMEs in Canton La Troncal, to benefit from information systems and improve the marketing of their products through digital platforms.

CONCLUSIONS

SMEs undoubtedly represent the most productive sector that contributes to the country's economy. Therefore, it is considered that technology is key to streamline commercial and productive processes, generating greater profits for companies and generating more jobs for the community. The banking sector has been key to this development, introducing merchants to carry out economic transactions and thus facilitating trade, increasing confidence among consumers.

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