

ICT as a means of support for the competitiveness and permanence of MSMEs. Case of footwear commercialization in San Martín Texmelucan

Las TIC como medio de apoyo para la competitividad y permanencia de las Mipyme. Caso comercialización de calzado en San Martín Texmelucan.

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Abstract

The shoe sales market in the San Martin Region Texmelucan needs to adapt and update itself to the current technologies and Means of communication and information, in order to streamline ITS Processes and generate information in real time, Which will help them face the Increase in competition and new ways of doing business: such as e-commerce. With This purpose, an innovative tool tailored to These MSMEs will be developed, based on a web system That covers the specific needs of These businesses, with the incorporation of fast access interfaces That Facilitate the generation of information related to the existence of Their products and development of sales in counter and online mode That Allows the customer to offer Their range of products Immediately; In the same way, through the system, you will be able to advertise the business through the web;

MSMEs, footwear marketers, ICT, Software

Resumen

El mercado de venta de calzado en la Región de San Martin Texmelucan necesita adaptarse y actualizarse a las tecnologías y medios de comunicación e información actuales, para agilizar sus procesos y generar información en tiempo real, que las ayude enfrentar el incremento de la competencia y las nuevas formas de hacer negocios como el e-commerce. Con este propósito se desarrollará una herramienta innovadora a la medida de estas Mipymes, basada en un sistema web que cubra necesidades específicas de estos negocios, con la incorporación de interfaces de rápido acceso que faciliten la generación de información relacionada a la existencia de sus productos y desarrollo de sus ventas en modalidad mostrador y en línea que permita ofrecer al cliente su gama de productos de forma inmediata; de igual forma mediante el sistema se estará en la posibilidad de hacer publicidad del negocio a través de la web; dando como resultado un sistema funcional que resulte en posicionamiento y permanencia comercial.

Mipymes, comercializadoras de calzado, TIC, Software

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Introduction

MSMEs play a fundamental role in the economy of a country in the particular case of Mexico, according to the Ministry of Economy (2012) and the last Economic Census published by the National Institute of Statistics and Geography (INEGI), universe of economic units in Mexico: 95.2% are microenterprises, generate 45.6% of employment, and contribute 15% of the economy's added value; however, small companies represent more than 3 percent of all companies and almost 15 percent of employment in the country, generate more than 14 percent of the Gross Domestic Product, in relation to medium-sized companies are almost 1 percent hundred of the companies in the country and generate 17 percent of employment; and contribute 22 percent to the Gross Domestic Product.

It is also important to highlight the mortality of these entities, the INEGI, through the study of demographic mobility called "Life expectancy of business in Mexico 2014", presents the life behavior of these according to the size of these businesses in how it can be seen in Table 1.

Size of business (employed persons)	Probability of death at first year of life	Life expectancy at birth (future years of life)
0-2	0.38	6.9
3-5	0.32	8.4
6-10	0.17	15.0
11-15	0.18	20.7
16-20	0.15	23.3
21-30	0.12	22.0
31-50	0.09	22.0
51-100	0.07	22.0

Table 1 Probability of death and life expectancy in the first year for businesses of 0-100 employed persons
Source: INEGI, Press Bulletin No. 087/15

The probability of death is greater as businesses are smaller, for example those of 0-2 people employed; four out of ten die during the first year of life and their life expectancy at birth is almost 7 years. This probability decreases as businesses grow larger and life expectancy increases as the size increases. (INEGI, Boletín de prensa Núm. 087/15: 5)

The importance of these companies and their fragility highlights the need to review the way in which they face the external and internal factors in which they operate, as well as the changes that these present, for example globalization because regardless of the size of the business they are affected by this phenomenon, as Gómez (2016) points out:

"The internationalization of markets for supply and demand, at least indirectly influences each business [...] with the entry of new international competitors into the national economy, or changes in customer behavior or preferences".

All the changes to which they are exposed, the local and global competition, emphasizes the need to provide them with all the means that allow them to obtain a position and permanence in their first years until reaching their commercial maturity.

Fortunately, there are various means to overcome these needs, one of them is the Information and Communication Technologies (ICT), its use has been generalized as a strategy for any activity of organizations, regardless of their size or size.

Problem

For this reason, the present work addresses the problems that currently face MSMEs dedicated to the commercialization of footwear in the region of San Martín Texmelucan de Labastida Puebla, today this commercial activity has had a great boom, a situation that has unleashed great challenges among the which stand out to face the increase of informal and formal competition of other establishments of equal or greater size; In addition to the various forms of sale used by these establishments such as sale by catalog and internet, and their sales strategies such as promotions, offers and payment, coupled with this is the large advertising campaigns carried out by larger companies, which causes market shrinkage for our MSMEs, and consequently various problems such as sales decrease, increase of off-season inventories, lack of liquidity to sustain their operating expenses such as continuing to supply seasonal products, payment of personnel and services, which in most cases favors their disappearance.

Another aspect to be considered and that is equally important for these organizations is the internal control of the information in their inventories, most of these organizations make this record manually in a notebook, which in most cases is not updated, and when it is required to make your purchases you do not have that information, or at the time of selling you do not have the security of having the product requested by the client, which causes you to lose time in your search.

The aforementioned hinders the control and management of your information to comply with your basic operations such as the purchase and sale of merchandise, the accounting record of your transactions and, consequently, compliance with your tax obligations.

Overall objective

To face the difficulties that currently challenge these MSMEs, it is proposed "To develop a web system that facilitates the administration and control of inventory, sales and advertising areas for shoe stores in the San Martín Texmelucan region".

Methodology

The present investigation is carried out in San Martín Texmelucan, the type of study is qualitative; lactigraphed as theoretical - descriptive, since it helps to have knowledge about a given phenomenon; In the first place, the opinion of the different people related to the problem is known, and based on the data, its interpretation is reached, which is why non-experimental research is chosen because the variables are not subject to manipulation.

The research is transversal, because the data collection is done in a single moment, in a single time.

The survey is applied as field techniques, to directly obtain information from those affected, the questionnaires applied are structured by closed questions, where the respondent only has an answer alternative yes or no.

For the application of this research instrument, at the time of requesting the information from the footwear merchants, they were given a cover letter explaining the objective of said survey, and in the same way it was indicated that the information provided would only be used to the realization of this project and would be handled confidentially, and to validate the writing was signed and stamped by the Director of the Institution, and also the pollsters who applied the survey showed the credentials that accredited them as students and teachers.

Poll

Because there was no official information on the number of existing shoe stores, a register was made and it was found that there are approximately 86 shoe stores formally registered in the San Martín Texmelucan region, but due to the number of businesses and the distrust and refusal of the respondents to answer the questionnaire, it was not feasible to determine a sample; It was also necessary to determine and identify the number of shoe stores that do not have a system for registering their operations and another for merchants that do have this and, according to the result, apply a questionnaire for each situation, as shown in Figure one.

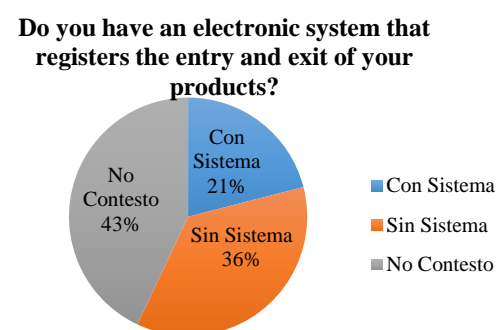


Figure 1 Footwear retailers that do not have an electronic system to register their operations.

Source: Self Made

Out of 86 surveys applied, 21% have a system for registering their sales, while 43% do not have a system and 36% did not collaborate in the survey. The argument of these people for not providing the information was the distrust to the pollster in spite of carrying official identification and presentation trades, they were afraid that when providing the information the SAT (Tax Administration Service), could have knowledge of it and they refused to answer the survey.

Once the previous data was obtained, it was necessary to divide the survey into two questionnaires, one for footwear merchants who did not have software for the registration of their sales and another for merchants who did have it. Below is the most representative results of the questionnaires applied.

Questionnaire 1

Applied to merchants who do not have an electronic system to record their daily operations.

- What medium do you use for the accounting record of your operations?

Out of 43 applied surveys, 86% use a notebook as a means of recording their sales, while 14% of the population uses a daily book.

- Do you have any historical records of your clients?

Out of 43 surveys applied, 86% of footwear retailers do not have a register of their clients, while 14% do have a register of their clients.

- Do you have a means of registration to control your sales?

Out of 43 surveys applied, 100% do not have a means to register their sales, because they are unaware of the subject.

- If I had to place an order for merchandise now, would I know how much I should order and buy?

Of 43 surveys applied, 14% of shoe merchants do not know what to order, while 86% know it based on their experience.

- Can you know the utility generated by your business at any time?

It indicates that 65% of merchants can know their business profit at the time they require and 35% do not know the data.

- What type of advertising do you use to make your business known?

Of 43 surveys applied, 70% of merchants do not use any type of advertising, 16% use the medium of flyers and 14% use other means (snooping, radio and press).

- Can customers know more about the company and its products without attending your establishment?

Out of 43 applied surveys it is indicated that 92% of the merchants their customers have to attend directly with them to know their products, while 8% do not need their customers to attend their business to know their products

- Would you be willing to implement a system that is helpful for the control of your inventory and sales, as well as for the increase in advertising and sales, easy to use?

Out of 43 surveys applied, 31% of merchants are willing to use the software, 25% do not and 44% do not know.

Questionnaire 2

Applied to merchants who do have an electronic system for recording their daily operations, the data was obtained from 18 people and the following information was obtained.

- Does your system apart from keeping track of your sales allow you to sell and digitalize your shoe store?

According to the 18 surveys, 100% of shoe merchants do not allow their software to sell and digitally diffuse their business at the same time, since it is only for the registration of their sales.

- Does the system you have help you expand your client portfolio?

According to the 18 polls, 83% of footwear retailers do not allow their software to increase their client base, while 17% do.

- Who can have access to the system?

According to the 18 surveys, 78% of shoe merchants only owners can access the system while 22% can access others (workers, Business related person).

Based on the results obtained in the two questionnaires, it was possible to demonstrate the importance of the project that has been called the web system for the control of the accounting and administrative information of a shoe store. (SOZA WEB).

Because footwear retailers in the area of San Martín Texmelucan need to integrate current technologies in their processes, to be more efficient, and achieve more with fewer resources, these will help them in their digital transformation and consequently to generate many more profits.

Research of the offer

Once defined the need that the MSMEs in question must have a tool based on ICT, the market was looked for the existence of a system that covers the needs of these businesses in the areas of sales control, inventories and advertising, and it was found that in the market if there are software with characteristics similar to those required, among those that stand out:

- ASPEL SAE: Controls the cycle of all the operations of purchase and sale of the company such as: inventories, customers, billing, accounts receivable, sellers, purchases, suppliers and accounts payable; efficiently automating administrative processes. (Aspel, 2016)
- MICROSIP Sales: Registers the entire sales cycle, from the quote to the delivery.
- MICROSIP Zinc E-commerce: Allows you to sell without restrictions or borders.
- MICROSIP Inventories: Control the inventory levels of one or several warehouses individually and consolidated. (MICROSIP, 2018).

When analyzing the options offered by these systems, it was discovered that they mostly meet the requirements of the MSMEs in question, but in the same way they offer various options that for the needs of these businesses are redundant, which would result in an unnecessary expense, since they would not be occupied;

Another aspect to observe is that to cover the needs of control of inventories, sales and advertising, the suppliers of mentioned systems offer a different product for each of them, the merchant would have to acquire them individually

Which for most of these Mipymes would be a difficult expense to pay for, what they need is a system developed to measure, that covers their particular needs, that allows them to carry in the same software the internal control of their inventories, make sales by Internet (e-commerce) and control them along with those of counter and at the same time have the option of and carry out the promotion of your products; it is concluded then that in the market there is no system equal to SOZAWEB and therefore its development is more than relevant.

System characteristics

Among the functions of the system are the following:

- Inventory control

Through the system you will be able to keep track of the incoming and outgoing merchandise through a link with the sales module, which will allow knowing at any time the existence of each product, with alerts and detailed reports on the existing product.

- Counter sales and online store

Proper and simultaneous control of sales made at the store counter and those made through the Internet (e-commerce), the system will present the concentrated and detailed information in reports according to user requirements based on product and dat.

This information can be consulted at any time, you will also have the option of obtaining data in a historical and graphic manner, which will allow you to know at any time and quickly the real income and the generated profit, this will support the taking of decisions in relation to the purchase, offer and promotion of products, and will give competitiveness and commercial positioning.

- Internet publicity

Through the website used for online sales, you will be able to have a showcase to visually present the catalog of products and existing promotions, forming a showcase where you can show features, prices, and delivery times of the product.

The business will be present, customers can see that the company is there and what they offer, will be like having a permanent ad in a large directory, which can be changed, or improved as many times as you want, by using this medium it is also possible have a section to receive complaints and suggestions.

Development of the system

The present system was developed in the research department of the Technological Institute of San Martín Texmelucan, through the formation of a multidisciplinary team, in which teachers and students of the courses of Public Accounting and Computer Systems Engineering participate, currently the system is located in its evaluation phase, with the intention of determining that its functionality meets the needs of shoe merchants.

Results

The system is unique and covers basic needs of inventory, sales and advertising of the products of a shoe store, regardless of its size or variety of products.

It is a 3 in 1 service, unlike other providers that offer these services separately, which implies that their acquisition in costs increases.

Easy to use so that it can be used intuitively, without needing to have specialized knowledge in computer systems and accounting.

The sale of the system will be made through memberships, taking the opportunity that each year you can acquire the updates or improvements through an additional payment.

It is designed especially to meet the needs of MSMEs dedicated to the commercialization of footwear, who want to venture to use the new ICT.

It allows you to have concentrated and timely information to comply with your tax obligations.

It can be customized in relation to the users and the information contained according to the permissions granted by the administrator.

Access to the web allows users in different locations to connect to the system. It will streamline and cheapen operational processes related to marketing of the goods.

This tool will help you penetrate deeper into key business factors, and let you identify the most profitable customers, most efficient suppliers, and early detection of potential problems that may arise in the organization and require rapid correction .

Conclusions

Due to the characteristics of the project impact it is directly applied to the commercial sector dedicated to buying and selling footwear in the region of San Martín Texmelucan, Puebla (SMMEs), giving them the opportunity to be in line with new ways to trade through innovative tool based on new technologies with a system able to adequately control inventory and sales area in the accounting aspect, and electronic advertising, and in turn will help in attracting new customers to increase profits. The main feature is that it is designed specifically for a shoe store, will not contain modules that are not used and will be more, as with the current software on the market,

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