

Policy recommendations for current relationship between electronic commerce and Mexican SMEs: Theoretical analysis under the vision based on the industry

José G. Vargas-Hernández*; David Iván Pérez Rosas

Departamento de Administración, Centro Universitario de Ciencias Económico Administrativas, Universidad de Guadalajara, México

**To whom correspondence should be addressed. Email: jvargas2006@gmail.com*

Abstract

The objective of this essay is to present a different approach on the Porter's five forces model and to make the reader aware of the topic of industrial competence and e-commerce in Mexico. In this essay, the method used is the analytic descriptive. First, the current situation in which SMEs in Mexico are related to e-commerce is exposed, since this last one provides a significant opportunity for the improvement of business results for this class of companies. In addition, a review of the empirical literature is provided in which models that allow measuring the degree of adoption of e-commerce by SMEs are exposed, as well as to understand the behavior of these economic agents with the e-commerce worldwide as in territory Mexican. Finally, as a result, an analysis is carried out under the model of the Porter pyramid in relation to Mexican SMEs and e-commerce.

Keywords: *e-commerce, SMEs, Mexico*

JEL Classification: L81, O32, M31.

INTRODUCTION

Information and communication technologies have allowed many new activities for society, both for those individuals who consume and those who produce and market through these tools, leading to generate new consumption habits, production and new distribution channels. E-commerce is not new, it has been in Mexico for a long time and with very attractive annual growth percentages. It is known that micro and small businesses employ the largest number of the economically active population, and its importance in the domestic economy is not questioned. Based on this, it is important to know how they operate, their performance and the areas of opportunity that could be used by entrepreneurs to have better results in the market.

One of those opportunities that any company, regardless of its size and budget, can access is electronic commerce, since this resource can be a viable strategy for that performance improvement that competitive organizations seek since, considering the intense competition environment. In free market economies, smaller companies have to find a way to compete with their peers and remain in the market. In the case of Mexico, the National Institute of Statistics and Geography (INEGI) in its last census (2014), provides relevant information about companies that take advantage of technological and digital resources for the commercialization of goods and services. The organization shows that the participation of small and medium enterprises (SMEs) is low, especially the

participation of the smallest, making clear the great opportunity they have to exploit this form of purchase and sale.

E-commerce is not a disruptive innovation, but a successful way to do business today, and if a small company takes advantage of what technology and the market offers and demands. It can promote solutions that meet the needs of its target market, much more efficient and effective, allowing to potentiate performance and become more competitive in the market.

In general terms, e-commerce in Mexican territory has a considerable growth, which has allowed it to gradually take on importance both among businessmen and consumers and in the guild of researchers in aspects of strategic management. Therefore, the purpose of this research work is focused on the analysis and evaluation of the influence of the e-commerce strategy on the performance of SMEs under the question of the ways in which this strategy can lead to an improvement in the performance of SMEs.

Since the sale and consumption of goods and services through the Internet and electronic commerce has not stopped being an object of interest for companies, regardless of their economic activity, size and target market. As this distribution channel, supported by information and communication technologies (ICTs), continues to be considered and used by society as a whole, that is, by consumers and government, as well as by companies, more confidence and relevance will be around.

In the Mexican scenario the circumstance between electronic commerce and SMEs is good, but it could be significantly improved since the National Institute of Statistics and Geography (INEGI) in the "2014 Economic Census" (Table 1), provided the information based on a sample of 4,211,231 companies of all economic activities in Mexico of which 794,234 (18.86%) have Internet service, and of that amount only 19% bought or sold goods or services online.

Table 1. Percentages of the purchase and sale of companies by size in relation to total companies

Size of the economic unit (Denomination)	Economic units	Counting with internet service		Selling-buying of products and services		Percentage of business that buy and sell services and products by size (%)
		Absolute	percentage (%)	Absolute	percentage (%)	
<i>1 to 10 persons</i>	4,020,022	635,442	15.81	111,459	17.54	73.84
<i>11 to 50 persons</i>	150,821	121,570	80.61	28,308	23.29	18.75
<i>51 to 250 persons</i>	32,649	29,920	91.64	8,773	29.32	5.81
<i>251 and more persons</i>	7,739	7,302	94.35	2,398	32.84	1.59

Source: Own elaboration based on the "2014 Economic Census" of INEGI.

The companies that stand out in the transactions through the internet in a positive way are the medium ones (51 to 250 employees) and the large ones (251 or more workers) with 29.32% and 32.84% respectively. Considering this, medium-sized companies represent 5.81% and large companies only 1.59% of the 150,938 companies that made online purchase-sale, while micro companies (1 to 10 employees) and small businesses (11 to 50 employees) that also performed such transactions represent 73.84% and 18.75% respectively. These numbers show a positive relationship in terms of the number of employees and marketing through the Internet, that is, the larger the company in terms of employees, the more likely they are to market through the Internet and vice versa. great opportunity for smaller companies to adapt and take advantage of the opportunities that electronic commerce can provide.

The Internet Association (2017) states in its annual study that in 2015 to 2016 there was an increase of 28.3% in relation to the market value of electronic commerce, that is, in 2015 the market was worth \$ 257.09 billion and in 2016 it was worth \$ 329.85 one billion. Currently, 64% of companies that sell online have a physical store, and it is through this channel that 74% of their sales come from on average and only 13% intend to close them and the three states of Mexico with the most online buyers are Mexico City, State of Mexico and State of Jalisco with 22%, 13% and 9%, respectively.

The large number of small and medium enterprises that exist in Mexico, can consider electronic commerce as an important opportunity for growth and as a competitive marketing strategy valuable (Ibarra 2014). Electronic commerce has opened a door of new opportunities for SMEs to access international markets through exports, find new sources of demand, investment and innovation options, product diversification and greater sales and growth, all through of strategies based on information and communication technologies. Beyond this optimistic image, there are challenges, especially for SMEs in developing countries like Mexico.

SMEs, due to the competitive environment in which they find themselves, do not perform sufficiently well to meet their objectives, such as growth, innovation, good salaries for their workers, as well as barriers to establishing an international online presence and internationalization of the company, often limit companies to settle with the domestic market. This is important to consider, because electronic commerce offers a great potential for multiple opportunities for companies, since these tools are accessible and can be appropriate to any budget is bulky or limited.

However, there are companies that do not use electronic commerce as a means of commercialization. One of the main causes being the lack of knowledge that entrepreneurs have about the benefits they can obtain with its implementation, including having the necessary technological infrastructure such as computation, software and Internet connection, tools and resources on which electronic commerce is developed. There is a barrier of distrust towards its benefits, in addition to the lack of trained personnel and the rejection of collaboration with other companies. That is, e-commerce is a distribution strategy that is not appreciated or exploited as a factor of potentization, despite the fact that companies have a digital presence such as having a website, making purchases and sales via the Internet, advertising, as well as using banking electronics.

E-commerce is not a trend to the future or a disruptive innovation, not even a fad. It is a way in which successful businesses are made today, and companies that still do not adapt to this strategy and that this can be very useful for their business and competitiveness goals, they need to adapt it to their needs and capabilities.

REVIEW OF THE EMPIRICAL LITERATURE

E-commerce and SMEs in the world

Since the sale and consumption of goods and services through the Internet, electronic commerce has not stopped being an object of interest for companies, regardless of their economic activity, size and target market. As this distribution channel, supported by information and communication technologies, continues to be considered and used by society as a whole, that is, both by consumers and government, as well as by companies, more confidence and relevance will be around it.

The importance for companies in improving performance has allowed electronic commerce to be a viable option to achieve considerable results such as reducing costs, having greater commercial participation in the domestic market and internationalization

through export to cross-border markets, i.e., higher sales, product diversification, investment and growth.

Much has been said about the role of competitive advantage in companies as a fundamental factor in the development and growth of companies. However, with the great steps that have been taken and achieved with information technologies in terms of process optimization, reduction of transaction and information costs, to mention just a few examples, through these tools, large successful businesses, and competitive strengths for companies that adapt and take advantage of ICTs, and innovative solutions for the consumer.

Not all companies take advantage of these technological options to achieve better business results or do not take advantage of them as they should. Hassen and Svensson, (2014) addressed this issue and it was in relation to the level of adoption of ICTs and electronic commerce by small businesses in Ethiopia and how these aspects relate to their growth emphasizing on the direct relationship between the size of the company and the use of electronic commerce as a strategic resource for growth. These two authors, based on two models, the model presented by Taylor & Murphy (2004) adoption ladder model adapted from Cisco-led Information Edge Partnership that can be seen in Figure 1 and the transport model of Levy & Powell (2002) to understand the degrees of adoption and increase. An example of this last model is seen in Figure 2. These models show different aspects of the use of ICTs by companies.

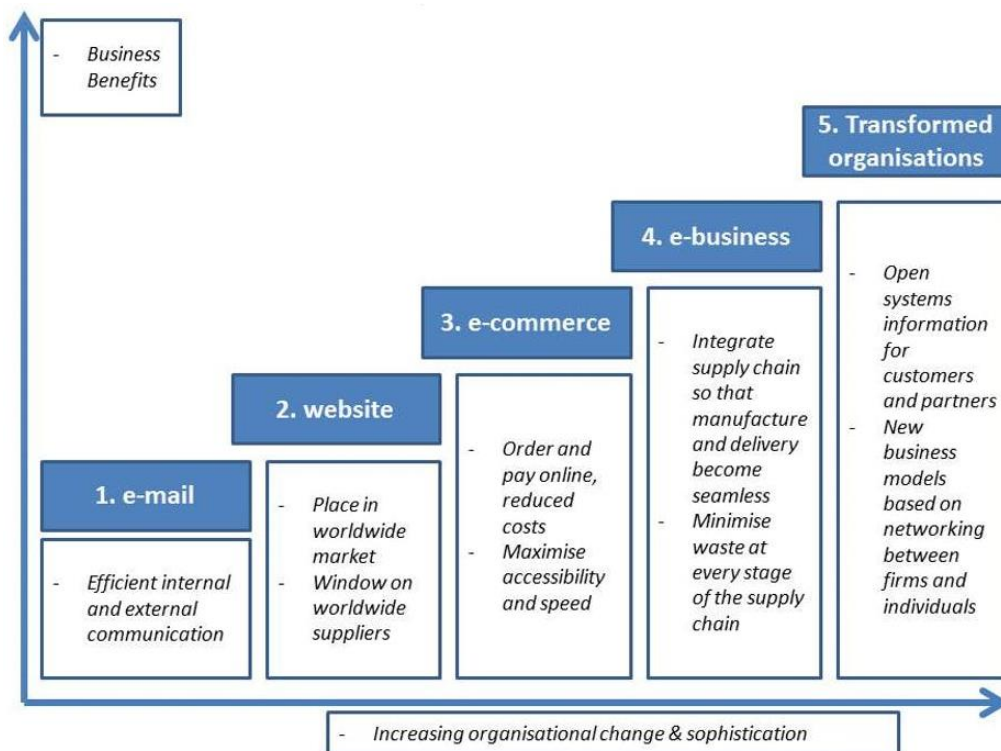


Figure 1. The adoption ladder

Source: Taylor & Murphy (2004, p.283)

The adoption ladder model has been used to analyze the use and role of ICT, focusing on electronic commerce, and the transporter model has been used to analyze the commercial value of ICTs, especially the business value of commerce. In the Taylor & Murphy presented model, the adoption ladder model, as shown in Figure 1, describes the evolution of business organizations in the use of e-commerce and the Internet as a means

to achieve their business development objective and the maximization of benefits by presenting the level of acceptance as a ladder through which organizations could grow.

According to the model, it generally begins with the use of the Internet only for communication purposes through e-mail and then to develop the website to be used as an introductory "window" to the global market; Then, as the level of use grows up the electronic commerce ladder, the real transactions of taking orders, buying, selling and paying through the Internet arrive. See figure 1 below.

The second model is transporter, the model of Levy & Powell (2002). In this it is perceived the adoption of small businesses to the Internet based on the value of their owners for the use of the Internet and their plans for business growth. It represents this in a two-by-two matrix, where the combination of higher and lower levels of owner business values on the one hand and the planning or not of business growth on the other hand to give four categories of acceptance levels.

Business Value of the Internet	High	Business Opportunity <ul style="list-style-type: none"> • Some perceived benefits • Owner has knowledge of IT value to the business • Some competitive pressure 	Business Development <ul style="list-style-type: none"> • High perceived benefits • Good Knowledge of IT opportunities • High competitive pressure
	Low	<ul style="list-style-type: none"> • No perceived benefit • Little or no knowledge of IT value to the business • No competitive pressure 	<ul style="list-style-type: none"> • Some perceived benefits • Owner has knowledge of IT value to the business • No Competitive pressure
		Brochureware	Business Support
		Not Planned	Planned
		Business Growth	

Figure 2. Patterns of Internet adoption segmented in SMEs.

Source: Levy & Powell (2002, p. 519)

Hassen and Svensson (2014) used the models previously explained to answer their doubts and concluded that there is a minimum correlation between the actual level reached of the use of electronic commerce of the companies evaluated by the ladder model; and business growth and value in relation to the planning proven by the carrier model. This is because there was hardly an association between the level of achievement in the use of electronic commerce and the plans of the owners based on the growth and value of the business.

However, the shortage of an infrastructure and qualified personnel together with limitations to be able to carry out the strategy due to the government policy plus changes in the rules of the game in the banking sector, is the basis of why electronic commerce in a less developed country does not It is something serious. However, entrepreneurs are certain of the opportunities that electronic commerce could provide to their business objectives.

The adaptability of ICTs is accessible to any budget, whether bulky or limited, but that does not lead to small companies adopting them and benefiting from their scope and advantages. The lag, distrust, conformism, ignorance or lack of skills on the part of some entrepreneurs in relation to the strategy and the use of the technologies on which it is based, can significantly damage their market positioning and the development of

competitive advantage. But, there may also be alien aspects that limit the opportunities that electronic commerce can provide to companies which are: limited institutions, outdated, or in the worst case, obsolete, damaging the improvement of conditions and options strategies, for both consumers as well as for entrepreneurs and their companies, that is, institutional barriers that instead of encouraging the free market, harm it.

In order to have a better understanding of the aspects that lead companies to adopt electronic commerce, we turn to the work of Deltoro, et al. (2012). The researchers exposed the determinants and consequences of the adoption of electronic commerce focused on the final consumer market, i.e. business-to-consumer (B2C). The interest sought by the authors in their work was to analyze the factors that influence the strategic decision to create virtual stores as an alternative to the physical store and its impact on business results among the main retailers in the United Kingdom, France and Spain. The conclusion was that the adoption of electronic commerce by the retailer is affected by the size of the company, the type of good sold and the country where the establishment is located.

However, it is important to point out that the adoption of this strategy is very influenced by the size of the companies as the authors mention it, but also the disparity in relation to the benefits and profitability on the part of those who use electronic commerce compared to those who have not done so is significant, since the simple fact of having a web page opens the doors to be able to market in the domestic market, that is, in other states, or in a foreign one depending on the capabilities and resources of the company. The adoption of electronic commerce as an alternative of distribution to the usual methods is a complex phenomenon that is influenced by different interrelated factors.

Therefore, the competitive environment, the type of product distributed and the size of the organization, as mentioned above, condition the activity of the companies. In the case of the work of Del Toro, et al. (2012) to retailers, and can significantly influence their decision to adopt the Internet and ICTs as tools for a distribution channel different from the traditional ones.

In the work of Sin, et al. (2016), they addressed the influence of relative advantage and competitive pressure as key factors considered in relation to the adoption of electronic commerce by SMEs in the 4 states north of Malaysia. These authors presented in their work a literature review of similar research applied in other parts of the world such as Singapore and Brunei. In those countries, the relationship of the key factor of relative advantage and adoption was trivial or superfluous, while in countries such as Australia and Malaysia was positive and significant. In the case of the key factor of competitive pressure and adoption, the authors stated that in Taiwan there is an insignificant relationship while in Thailand and Saudi Arabia there is a very important positive relationship. In the case of Malaysia, the researchers concluded that there is a significant influence between the two key variables and adoption.

In the globalized economy in which we live today, it can be seen that the free market generates intense competition pressure, as well as interdependence either between nations or companies leading to the point of creating commercial treaties as to form clusters and strategic alliances to be able to remain in the market through joint strategies and acting collaboratively. In the scenario of SMEs in a free market economy, this intense pressure of competition leads them to adopt efficient and effective business applications. These are such as electronic commerce since, considering the benefits in relation to costs, scope, communication and information that it provides.

Both the technologies in which electronic commerce is recharged and the same strategic option, have allowed the development of this way of marketing different from the usual. Savrul (2014) put SMEs in the middle of a global scenario in which they analyzed the importance and opportunities that these companies have for the economies in the world taking into account new business environments, comparisons between SMEs and large companies and the use of E-commerce, placing special emphasis on the influence of the globalization of economies on the behavior of SMEs and the limitations and opportunities of electronic commerce that SMEs face and take advantage of respectively. The author states that SMEs are adapting to ICTs and electronic commerce to be able to move forward, that is, to obtain greater benefits such as new forms of value creation, business models, models of products and services, expansion to new markets, among other things.

However, not everything is easy to carry out the implementation of the strategy because there are limitations such as logistics problems and payment methods, promotion and marketing strategies, reliability and security checks, legal aspects, as well as aspects related to biased perceptions such as ignorance and distrust of business models, accessibility and opportunities that ICTs that an SME could take advantage of. Of course, these aspects vary between countries since in some there will be adequate institutions for the development of commerce via the Internet while in others they would still be in process, just to mention an example.

As explained by Peng (2015), the same characteristics of SMEs explain the reason for the importance they have in the global economy. Being companies with less than 500 employees in the United States, or less than 250 employees in the European Union and in Mexico, according to INEGI (2014), besides generating 60% or 90% of the jobs depending on the country and representing the 95% of the existing companies in the world, it is understood the power not of market, but of relevance in the economies in the world that the PYMES own and the opportunity of the accessibility and use of the electronic trade could benefit of significant way to the domestic market as to the global.

Electronic commerce in Mexico

Within the Mexican scenario, the situation between electronic commerce and small businesses is growing and favorable, but it could be better. Something that characterizes a developing country like Mexico is that the adoptions of technological developments and innovations that arise in the world is late compared to the developed countries who are, generally, those who develop the disruptive technology and apply them in their own market.

Recently, work has been done such as those of Moheno, et al. (2011) and Figueroa et al. (2013) in relation to the use of electronic commerce and companies in Mexican territory. Both projects presented considerable cases in relation to this phenomenon of study. Moheno, et al. (2011) focused on the analysis of electronic commerce as a marketing strategy considering industrial exporting companies in the city of Villahermosa, Tabasco. They concluded that these companies do not use electronic commerce as a means of marketing, being one of the main causes the lack of knowledge that entrepreneurs have about the benefits that can be obtained with their implementation, including having the necessary technological infrastructure such as computer equipment, software and Internet connection, tools and resources on which electronic commerce is developed.

There is a barrier of distrust towards its benefits, in addition to the lack of trained personnel and the rejection of collaboration with other companies. It is not necessary to point out electronic commerce as the only alternative to export goods that can be

considered by companies so that they can increase their presence in the international market. However, it represents an opportunity that, if used properly, can generate great benefits for companies who seek to place their products in foreign markets. What must be considered is that little by little trust and consideration of ICTs and electronic commerce as tools for product placement and process optimization is strengthened in Mexican companies that are not large. In addition, little by little they are only considered as sales and communication alternatives to strategic factors for the objectives of small and medium organizations.

In the case of the work of Figueroa, et al. (2013), they analyzed in their work the degree of application of the activities and tools for the development of electronic commerce in the micro, small and medium enterprises of the commercial sector in the State of Durango, with the purpose of being able to determine if the trade electronic can be considered as a factor of success in the development of these companies. They came to the conclusion that e-commerce is little used by micro, small and medium enterprises (MIPyMES) of Durango. That is, it is a distribution strategy that is not appreciated as a growth factor by them, even though these companies already have a digital presence such as having a website, making purchases and sales via the Internet, advertising, as well as using electronic banking.

However, it should be noted that, for medium-sized companies, e-commerce is perceived as a competitive advantage, since medium-sized businesses believe that the application of technologies can make their organizations improve their processes and have better results. This shows that the bigger a company is, the more likely it is that it will apply and take advantage of new ICTs such as electronic commerce, as the "2014 economic census" of the INEGI (2014) puts it in figures and as already stated above: The larger the company in terms of employees, the more likely they are to market via the Internet and vice versa.

Current relationship between electronic commerce and Mexican SMEs.

To begin to analyze how electronic commerce could represent a viable strategy for the business objectives of SMEs, it must first be known what is called "electronic commerce". Electronic commerce, also known as e-commerce, is an interaction mechanism with a technological base and information among economic agents that allows the exchange of goods and services in an indirect and non-face-to-face manner.

The Organization for Economic Cooperation and Development (OECD) has its own definition for this strategy. For the organization, electronic commerce deals with transactions of purchase and sale of tangible and intangible products, as well as services, which is carried out through computer networks and through specific methods specially designed for the purpose of receiving or placing orders without the need for deliveries and payments to be made through this channel (OECD, 2016)?

It should be noted that there are fundamental aspects for electronic commerce to operate operationally: Internet, electronic devices and available information. This tool and strategic option for business is not new, it has been used for some time by lucrative and non-profit organizations, governments and even among people who buy and sell informally in the virtual space we know as the Internet.

Considering the above, it cannot be affirmed that electronic commerce is used in a general way since, distrust and ignorance on the part of some individuals in relation to this way of buying and selling, makes those agents who do not consider electronic commerce as an option of marketing and service support, as well as a means of acquiring goods for the coverage of needs. They are in an unfavorable position in the market as a producer, trader or consumer.

When a new technology that has application in the business world emerges, the market is initially altered, but eventually it adapts to the circumstances, changing the way in which business can be done. In the case of electronic commerce, the way of marketing changed, through virtual platforms and information and communication technologies (ICTs), but also production, that is, through ICTs and electronic commerce can be elaborated intangible products and services that can be distributed through platforms and the Internet. These alterations in the market are very attractive to study under the scientific approach because in doing so, it leads to being able to understand different behaviors, performances and circumstances to the traditional organizations and generate new scientific knowledge.

The importance for companies in improving performance and the need to be more competitive, has allowed electronic commerce to be a viable option to achieve positive results such as export and entry into cross-border markets, i.e., internationalization, higher sales, diversification of products, innovation and investment options, expand positioning and promote growth in the national market. There are still companies that currently have a poor participation in the digital world and could improve their performance if they adapt e-commerce as a viable strategic option for the distribution of their goods.

While some companies such as those that produce footwear, apparel and clothing accessories (among other items as well) already sell on the internet in a normal way through virtual stores and marketplaces, there are others that are not the case, as mentioned above, in where SMEs, in general terms, are characterized by their lag in relation to electronic commerce. Due to what has already been mentioned, this lack of adaptation to electronic commerce in the distribution proposal represents an area of opportunity that you could still take advantage of.

Analysis from the point of view based on the industry

The model of the five forces of Porter (2008) provides a broad and interesting panorama about the scenario in which the companies are or where the firm of an entrepreneur will be interested in venturing into the world of business related in the electronic trade.

Rivalry between competitors

Since there are many small companies with homogeneous products, they make a market of free competition where only the most competitive or that manages adequate finances can be sustained in the market. It should be noted that each year there are more SMEs that use electronic commerce as mentioned in the study done by the Internet Association (2017), however, some use them for aspects of competitive pressure, that is, simply because others already are. Using, instead of going to the strategic of electronic commerce as a strategic option analyzed marketing.

The fact that this strategy serves some SMEs, does not mean that they work for others because everything will be a function of their target market, product, but above all of an in-depth analysis on the relative efficiency of the strategy with the company in question.

Threat of potential competitors entering the market

The fact that ICTs and e-commerce are accessible tools for any budget be it small as in the case of SMEs, or large, as in the case of multinationals, generate motivation in entrepreneurship based on the digital economy and in technology. That is, in the creation of new companies that considers electronic commerce as an indisputable factor of value proposition and the main means of marketing.

In relation to the trend of adoption by society to electronic personal devices due to the accessibility of the Internet and the increasingly competitive market of products such as smartphones and laptops, the potential that electronic commerce can generate for the Internet is clear, the development of new companies, as well as for competition through this distribution channel.

Power of negotiation with suppliers

Due to the amount of options available in the market and the economic accessibility that characterizes the tools that allow Internet commerce focused on SMEs, the bargaining power of the suppliers of these tools is not high since there is no market concentration. That is, SMEs can migrate from one supplier to another, including combining services between companies that provide different solutions in order to boost digital commerce together.

Buying power of buyers

Due to the growth trend of Mexican society to the adoption and use of the Internet and electronic devices, consumption and online sales increase, favoring greater demand for tangible and intangible goods and services by consumers and businesses. In the case of consumers, over time they have become more demanding in the sense that they tend to search between virtual sales platforms, including physical stores, products at a cheaper price and that provide them with a higher level of satisfaction. So, everything will be a function of the scarcity or level of difficulty of finding goods that are acquired via the Internet with the bargaining power of consumers.

Threat of substitutes

In a competitive market where SMEs are usually found due to their natural business characteristics, there are high levels of demand elasticity due to the fact that homogeneous goods are offered in many sectors. The creation of competitive advantage of SMEs can lead to both direct and indirect competition, that is, companies that provide substitute products, allow SMEs to be more protected and even, at best, have a market captive applying. E-commerce and SMEs provide a way to market and consume goods that are not traditional. Although e-commerce is no longer new, for many companies it is, and those that do not use this strategy could be losing customers because there will be competition with "substitute" sales channels such as e-commerce.

CONCLUSSIONS AND RECOMMENDATIONS

Conclusions

Considering the foregoing, Mexican companies that have not yet adapted to electronic commerce still has a great opportunity to take advantage of the potential that this strategic sales option can offer. However, that relative opportunity will not last forever, because the more time passes, the opportunity gap will be smaller, at the point that they have to adapt to electronic commerce undoubtedly due to competitive pressure and no longer as a possible competitive advantage.

Policy recommendations

Among other implications of the analysis of the possibilities and potentials that electronic commerce offers and that require the design and implementation of public policies, some of them are delimited.

Public policies that favor the implementation of electronic commerce in micro, small and medium enterprises and that lead to tangible growth and development opportunities must be promoted at all levels of government. The existing institutions in

Mexico offer some very general guidelines and mechanisms that encourage technology-based entrepreneurs and micro, small and medium enterprises. The support to entrepreneurs and entrepreneurs to develop effective and efficient platforms is one of the important decisions to potentiate the growth of micro, small and medium enterprises.

The new public policies on electronic commerce should be aligned to create and institutionalize mechanisms that develop specialized talent, such as the reform of plans and study programs to include digital skills and abilities, as well as their hiring to support micro, small and medium-sized companies. The institutions offer limited training programs focused on the creation of exclusive e-commerce businesses that promote an increase in the commercial flow of MSMEs to global markets.

The regulatory institutions of electronic commerce in Mexico need to define their functions so that Mexican producers and consumers can carry out commercial transactions and promote the Mexican offer. These regulations of the agencies in charge must be functional to be sufficiently attractive to foreign markets through electronic commerce mechanisms.

One of the implications in terms of public policies is to assess the impact that electronic commerce has on the creation of digital ecosystem environments as an opportunity to increase and improve quality in international interactions. It is essential to accelerate the environments of digital ecosystems by creating robust platforms at low costs that allow the development of repertoires of satisfiers, products and services with different purposes, above all the conversion into sales.

REFERENCES

- Asociación de Internet. (2017). *Estudio de comercio electrónico en México*. Retrieved from <https://www.asociaciondeinternet.mx/es/component/remository/Comercio-Electronico/Estudio-de-Comercio-Electronico-en-Mexico-2017/lang,es/es/?Itemid>
- Deltoro, M.F., Descals, A. M., & Molina, M.E.R. (2012). Factores determinantes y consecuencias de la adopción del comercio electrónico B2C: una comparativa internacional. *Estudios Gerenciales*, 28(123), 101-120.
- Figueroa, G., Geovani, E., Hernández, C., Isela F., González H., María Brenda D., & Arrieta, D. (2013). Comercio electrónico como factor competitivo en las micro, pequeñas y medianas empresas del sector comercial en el estado de Durango. *Revista Internacional Administración & Finanzas*, 6(3), 29-44. Forthcoming.
- Hassen, Y.A., & Svensson, A. (2014). The Role of E-commerce for the Growth of Small Enterprises in Ethiopia. *The Electronic Journal of Information Systems in Developing Countries*, 65(1), 1-20.
- Ibarra, L.E. (2014). El comercio electrónico en las pequeñas y medianas empresas comerciales (pymes) que operan en Hermosillo, Sonora. *Global Conference on Business and Finance Proceedings*, 306.
- Instituto Nacional de Estadísticas y Geografía (INEGI) (2014). *Censos Económicos 2014*. Aguascalientes. Mexico: INEGI.
- Michael E.P. (2008) The Five Competitive Forces that Shape Strategy, *Harvard Business Review*, 88(1), 78-93.
- Moheno, G.A., Méndez, E.R., de la Cruz, J.T.A. (2011) El comercio electrónico como estrategia de comercialización para las empresas industriales exportadoras de Villahermosa, Tabasco. *XVI Congreso Internacional De Contaduría Administracion E Informatica*. October 5 – 7, 2011, Ciudad Universitaria, Mexico

- Levy, M., & Powell, P. (2002) SME Internet Adoption: Towards a Transporter Model, *15th Bled Electronic Commerce Conference, eReality: Constructing the eEconomy*, June 17 - 19, Bled, Slovenia, 507-521.
- OCDE/BID (2016), *Políticas de banda ancha para América Latina y el Caribe: un manual para la economía digital*, Paris: OECD Publishing, <http://dx.doi.org/10.1787/9789264259027-es>
- Peng M. (2015), *Estrategia Global, tercera edición*, Cengage Learning, 128-129
- Savrul, M., Incekara, A., & Sener, S. (2014). The potential of e-commerce for SMEs in a globalizing business environment. *Procedia-Social and Behavioral Sciences*, 150, 35-45.
- Sin, K. Y., Osman, A., Salahuddin, S. N., Abdullah, S., Lim, Y. J., & Sim, C. L. (2016). Relative advantage and competitive pressure towards implementation of e-commerce: Overview of small and medium enterprises (SMEs). *Procedia Economics and Finance*, 35, 434-443.
- Taylor, M. & Murphy, A. (2004) SMEs and E-business, *Journal of Small Business and Enterprise Development*, 11(3), 280-289.