

https://doi.org/10.23913/ricea.v8i16.135

Artículos Científicos

ISSN: 2007 - 9907

# Innovación de productos, de procesos y estratégica: un escenario de los empresarios futuros y actuales en México

Product, Process and Strategic Innovation: A Scene of Future and Current Entrepreneurs in Mexico

Produto, processo e inovação estratégica: um cenário de futuros e atuais empreendedores no México

> Nery Elena Rodríguez Valencia Universidad Tecnológica Metropolitana, Yucatán, México neryelena@gmail.com https://orcid.org/0000-0001-8385-6223

> Rodrigo Alejandro Olivares Contreras Universidad Tecnológica Metropolitana, Yucatán, México mercadolivares@yahoo.com.mx https://orcid.org/0000-0001-8185-7062

## Resumen

En el ámbito empresarial, académico y científico, la innovación ha ganado protagonismo como factor preponderante para el éxito en el desarrollo económico. La presente investigación tiene como objetivo central determinar la relación que guardan los futuros y actuales empresarios mexicanos con respecto al grado de innovación en productos, procesos y diferenciación de mercado, a través de un estudio comparativo. Dicha comparación se llevó a cabo mediante un estudio de carácter cuantitativo, correlacional con un diseño no experimental transversal que utiliza la base de datos del *Global Entrepreneurship Monitor México 2015*. Con los resultados de dicho análisis se comprueba que son los futuros empresarios quienes cuentan con mayor grado de innovación en productos, procesos y diferenciación de mercados. Como contribución futura se propuso replicar el análisis donde





se involucren variables como el sector de la industria o estudios longitudinales que aporten información relevante al campo de estudio.

Palabras clave: empresarios, estrategia, innovación, México.

# Abstract

In the business, academic and scientific field, innovation has gained prominence as a preponderant factor for the success of economic development. The aim of this research is the relationship between current and future Mexican entrepreneurs, through a comparative study between the levels of product, process and market differentiation. This comparison was made through a quantitative, correlational study with a non-experimental cross-sectional design that uses the database of the *Global Entrepreneurship Monitor México 2015*. With the results of this analysis, it is verified that the future entrepreneurs have a greater degree of innovation in products, processes and market differentiation. As a future contribution, it was proposed to replicate the analysis where variables such as the industry sector or longitudinal studies provide relevant information to the field of study involved.

Keywords: entrepreneur, strategy, innovation, México.

## Resumo

No campo empresarial, acadêmico e científico, a inovação ganhou destaque como fator preponderante para o sucesso no desenvolvimento econômico. O objetivo desta pesquisa é determinar a relação entre os futuros e atuais empresários mexicanos com relação ao grau de inovação em produtos, processos e diferenciação de mercado, através de um estudo comparativo. Essa comparação foi realizada por meio de um estudo quantitativo, correlacional com um delineamento transversal não experimental que utiliza a base de dados do Global Entrepreneurship Monitor México 2015. Com os resultados desta análise, verificase que são os futuros empreendedores que apresentam os maiores grau de inovação em produtos, processos e diferenciação de mercado. Como contribuição futura, foi proposto replicar a análise envolvendo variáveis como o setor industrial ou estudos longitudinais que fornecem informações relevantes para o campo de estudo.

Palavras-chave: empreendedores, estratégia, inovação, México.





Fecha Recepción: Marzo 2019

Fecha Aceptación: Julio 2019

# Introduction

Through the last decades it has been confirmed that innovation is not a new phenomenon that is taking place in the economies, but that it is a process inherent to human development. Despite the importance attributed to innovation and the creation of companies as key factors for the economic development of countries, there is a great ignorance of the differences between the groups of companies that make up the business fabric, specifically the characteristics that make in some it is the most effective innovation than in others.

A market like the current one, highly globalized and where almost all of the companies are micro, small and medium-sized (Valdés and Sánchez, 2012), many of them of recent creation, require constant changes not only to adapt to the requirements of business, but also to the organizational adjustments that entrepreneurs have to make to ensure the success of their company and significantly improve the levels of competitiveness that the environment demands for its preservation in the business environment. Therefore, studies on companies related to innovation issues are becoming more common in the field of research, due to large contributions worldwide in the economic environment (Carter, Reynolds, Stearns and Williams, 1994; Laitinen, 1992).

This is how this research aims to focus on two groups of Mexican entrepreneurs: future entrepreneurs and current entrepreneurs — understood by future entrepreneurs those who already have the preconceived idea of a business and are in the process of opening it, and for those who already have the company in operation.

In a study conducted by Yeh-Yun and Yi-Chin (2007), organizational efforts based on product, process and administrative innovation were identified and measured, and favorable and evident results were obtained in the company's performance.

It is for the above that, from the complexity involved in the classification of innovation, it has been decided to use the following three by type of innovation: innovation in products, processes and strategic or market differentiation. Regarding product innovation, it is considered: creating new goods and services or improving existing ones; Regarding the processes: organization, management, marketing, new equipment and technology material, and finally, the novelty can be: new markets, expanding them, segmentation of them or new suppliers of raw materials or services (Sánchez, 2011)





What is intended is to know the significant differences between these two groups of entrepreneurs and the relationship they have with product innovation, process innovation and market differentiation. The intention of characterizing these two groups of businessmen is due to the fact that in the last 10 years all kinds of government support for their creation and growth within the business fabric have been addressed.

ISSN: 2007 - 9907

# Literature review

Innovation has a significant role today in the new way of doing business as it is a catalyst for business success. The characteristics of the behavior of these companies are important, as is the relationship regarding the levels of innovation that they may have in relation to the aforementioned company groups (Birch, 1979; Kirchhoff and Phillips, 1988; Acs and Audretsch, 1990).

Some studies support that companies can have a greater impact on economic development after the first years of their start of operations. This is because they have had time to consolidate the market, as well as gain experience, financial strength and other resources (Carr, Haggard, Hmieleski and Zahra, 2010; Freeman, Edwards and Schroder, 2006; Lewin and Massini, 2004). While future companies, close to being launched, generate more innovations without mentioning the important contribution they make to new jobs (Herbig, Golden and Dunphy, 1994).

The creation and management of companies plays an important role for the economic development of nations; Mexico is not the exception. The relevance of the influence of innovation in the business fabric has been proven with the different contributions that these organizations make to national employment and gross domestic product, both in emerging and developed countries, which has maintained global interest in their analysis and study of their behavior (Acs and Audretsch, 1990; Kirchhoff and Phillips, 1988). It is in modern periods when the term innovation is used more broadly and concretely (Galindo, Ribeiro and Méndez, 2012).

The most recent research has focused primarily on economic growth, as well as in the field of business innovation. Studies such as those carried out by the Global Entrepreneurship Monitor (GEM) focus on entrepreneurs, who are responsible for managing and administering organizations.





Different theories have tried to explain the innovative facet in the business function, but it is the Schumpeterian theory that has demonstrated a fundamental support for the study of entrepreneurs of future or new companies (Schumpeter, 1934, 1942). With a different approach, there is the theory of organizational learning, which provides the corresponding support for current companies already established in the market (Audretsch y Fritsch, 1994; Levitt y March, 1988; Kolb, 1984).

ISSN: 2007 - 9907

Schumpeterian theory argues that it is future companies that have a high level of innovation, therefore, they have the ability to displace those that have been in the market for longer, and emphasizes the relationship between the entrepreneur and the innovation (Schumpeter, 1934, 1942). Among the most relevant characteristics that this theory mentions are a minimum fear of risk, a high impetus to dominate the market and a high rate of use of technologies.

On the other hand, the theory of organizational learning has managed to attract the attention of the academic community in recent decades, since it states that the better companies are prepared and have more experience, they will have a greater capacity to learn, detect and correct errors, which will favor the accumulation of experience and knowledge that will allow, in the future, to have the necessary tools for excellent performance in the business environment (Levitt and March, 1988). Works like Dodgson's (1993) complement the above. Since this author states that companies achieve greater competitiveness, productivity and innovation over time; that is, it will be those companies that have more time in the market who have better performance.

Contrasting these two theories, it is intended to know if the experience of current entrepreneurs really influences the relationship of innovation in products, processes and their differentiation; or if it is the future entrepreneurs who have the greatest contributions in these matters, since they have more current knowledge and more innovative academic formations, which add to their great impulse to dominate the market.

The future companies, as well as their future owners or administrators, from their conception and beginning of planning, already have a considerable effect on the economy, especially for being job creators, in addition to being considered a great innovation factor. This is due to its impetus to be new companies, but with a level equal to or higher than those already existing in the market (Fritsch, 2008).

From a basic approach, the present investigation tries to provide a contribution in the investigation on the subject and foundation for the productive activity of these two groups of





companies and their relation with the innovation, considering that the innovation nowadays is crucial for the economic growth of a country, as it stimulates productivity and competitiveness (Mendoza, 2017).

In the same line of research, Roberts (1980) emphasizes that the time of the company, from its conception to its establishment, is and will be an important factor to study. Based on this, the relevance of studying these two moments of Mexican companies is confirmed, and the following hypotheses are derived:

H<sup>1</sup>: Product innovation is greater for future entrepreneurs compared to those who already have a company today.

H2: Innovation in processes is greater for future entrepreneurs compared to those who already have a company today.

H3: Innovation in market differentiation is greater for future entrepreneurs compared to those who already have a company today.

# Innovation and future and current companies

Many times entrepreneurship is described as something innovative, flexible, dynamic, capable of taking risks, creative and growth-oriented; The truth is that everyone wants to be innovative, flexible and creative when it comes to entrepreneurship. Thus, when summarizing the term in a more popular way, entrepreneurship would be the ability to start and operate a newly created company and, according to the Schumpeterian approach, it is the new and future companies that are identified as responsible (Acs and Audretsch, 1990).

According to the Organization for Economic Cooperation and Development [OECD] (2005), innovation is considered essential for the growth of both production and productivity in companies. The growing academic interest around newly created companies, current, future companies and the evidence about their contribution to economic growth have led to the rejuvenation of the socio-productive fabric, the relaunching of regional spaces, the revitalization of the innovative process and the generation of new jobs (Kantis, Ishida and Komori, 2002).

The relationships between innovation and economic progress have been analyzed many times throughout the economic literature, and a positive relationship has been found between both areas (Rodeiro and López, 2007). Hence the interest in innovation, and the extraordinary





effects that most of the times produce on economic activity. This is why in recent decades the work carried out in the field of management has been able to emphasize the need for innovation as a main factor in all the processes of a company (Salas, Aguilar and Susunaga, 2000).

Innovation, a concept not of this century, has been the focus of many debates for more than 70 years, and these discussions have not focused especially on semantic issues, but on how to differentiate, generate and apply it in the different areas of a organization, strategies, culture, staff and any type of tools that help improve business success (Haro, Córdova and Alvarado, 2017). According to Veciana (2007), the importance of innovation as a factor of economic development and growth is not a new issue.

Criterio		Clasificación	Características
Causa de	la	Impulsada por la demanda	Surge por la identificación de necesidades no cubiertas del mercado.
innovación		Impulsada por la ciencia	Surge por un nuevo descubrimiento científico o tecnológico.
Grado	de	Radical	Lanzamiento de un nuevo proceso, producto, servicio o tecnología.
novedad		Incremental	Mejora técnica y cualitativa de un proceso, producto o servicio o tecnología ya existente.
Objeto de	la	De producto	Fabricación de un producto o servicio totalmente nuevo o mejora de alguno ya existente. A su vez, esta se puede dividir en: incremental, sintética, discontinua.
innovación		De proceso	Nuevas formas de producción o cambios en la forma en que el producto es producido o el servicio suministrado. También se subdivide en: incremental, sintética, discontinua.
		Organizacional	Produce cambios en las estructuras organizativas con beneficios significativos a la organización en su conjunto, con el cambio de sus valores, métodos de gestión y liderazgo o la creación de un clima que favorezca la innovación.

# Tabla 1. Clasificación de la innovación





#### REVISTA IBEROAMERICANA DE CONTADURÍA, ECONOMÍA Y ADMINISTRACIÓN

Mercadotecnia

Involucra la generación e implantación de nuevos métodos de comercialización como el cambio de diseño, envasado del producto, promoción, distribución y colocación del producto o servicio, así como los métodos tarifarios de los mismos.

Fuente: Elaboración propia con base en OCDE (2005) y González y De la Parra (2017)

Table 1 shows the main classifications according to the variety of definitions of innovation; At the same time, the effect that the business environment has is presented. Along with the definitions presented, there is a wide variety of innovation classifications that have been made following different criteria, such as the cause of innovation, the degree of innovation, the objective of innovation, among others (Barceló, 1994).

The literature on innovation has developed different classifications on this concept, but in this paper we will use one of the best known and accepted. Damanpour (1991) differs two types of innovation: technical and administrative. The first includes new processes, new products or new services; and the second, administrative innovations regarding new procedures, policies and organizational forms (Rodríguez and Vaillant, 2014).

The innovative activity of entrepreneurs of new and future companies, according to Schumpeterian theory, is the one that unintentionally feeds a process of creative destruction by causing constant economic disturbances in the equilibrium of the system, in the creation of opportunities for the increase of economic income (Wong, Ho and Autio, 2005).

Similarly, the studies by Van Praag and Versloot (2007) and by Rodeiro and López (2007) mention the substantial advantages that the creation of new companies brings with them in terms of innovation and the positive relationship between innovation and economic progress ; Hence, interest is derived on the extraordinary effects that most of the time produces on economic activity. This is because entrepreneurship, according to Schumpeter (cited in Peneder, 2009), is already a particular economic function, responsible for introducing innovation to the system. (Cohen y Levinthal, 2000).

Schumpeter (cited in Thomas Morgan, 1987) places special emphasis on the unique connection between the entrepreneur and innovation throughout the evolution of the development of his economic theory. This theory mentions that it is entrepreneurs who are forced to start new businesses in order to develop an innovative activity where they tend to be reluctant to change; and this is why, ultimately, new companies are considered as the





initiators of the process of modernization and economic development (Audretsch y Fritsch, 1994; Kirchhoff y Phillips, 1988).

ISSN: 2007 - 9907

## **Product innovation**

Innovation is considered a condition inherent to entrepreneurship. Therefore, the ability of a company to introduce new products should be considered in the same way.

The relevance of having new products within a company has been largely a result of the companies' survival efforts; to obtain greater economic benefits and guarantee their permanence in the market (Avlonitis and Salavou, 2007). Therefore, at present, different studies have shown that, according to the operation of newly created companies, including future ones, the concept of innovation is more related to that of products and services.

Following the work of Rodeiro and Fernández (2006), product innovation is the most frequent; and more than 50% of companies apply this type of innovation. This is because it is considered in some way the simplest, as it does not imply radical or disruptive innovations, but rather innovations in the products or services offered.

Companies often experience new internal conditions that foster product innovation. By increasing the chances of survival and allowing the acquisition of new customers, the introduction of new products is considered an effective way to enter the market (Audretsch, 1991; Audretsch, 1995; Lewin and Massini, 2004). Hence, the authors maintain that new or open companies have a greater chance of success.

Today's companies play an important role in the economy by serving as agents of change due to their rapid innovative business activity and the stimulating evolution of the industry (Acs and Audretsch, 1990; Carree and Thurik, 2010).

In accordance with the above, product innovation, being simpler, represents the entry letter to a highly competitive market within future companies, and ensures its permanence; Different situation for current companies, which tend to be more reactive to the innovative products that are presented in the market.

### The innovation in processes

In recent years, the economic side of technology has grown exponentially — by noting its impact on the productive task, from the creation and configuration of new products and services to activities within the transformation industry (Merino and Villar, 2007). With





these changes, business activity with respect to technological innovation plays an important role in the processes of a company (Leibenstein, 1968).

ISSN: 2007 - 9907

When the concept of innovation is accompanied by technology we are referring to a certain attitude of the company towards the profitable application of its use. This use reinforces the development and use of new products and services, equipment and production processes, which helps not only to the improvements in these concepts, but to the competitive improvement of the company (Rodeiro and Fernández, 2006).

Economic transformations have provided many alternatives, driven above all by information and communication technologies (ICT), which, in some way, have created a new economic environment (Audretsch and Thurik, 2001). The entrepreneur in this environment has managed to reposition itself as the engine of structural change and economic competitiveness.

Both in emerging sectors and in which technology provides the main basis for competition, the promotion and development of technological innovation is the fundamental source of competitive advantages and the center of strategy formulation (Grant, Fernández, Gómez and Navarro , 2006). Process innovation is a sequence of activities that begins with the definition of a problem and ends with the commercialization of a product (Keskin, Diehl and Molenaar, 2012).

Some start-up companies usually enjoy organizational flexibility to adopt new technologies and organizational solutions that allow them to innovate in their processes, while in some established ones, barriers that prevent this change are often presented. This generates some advantage in future or newly created companies, since they are more free to apply new technological solutions in their processes, because they use open financing (Niosi, 2002).

## Market differentiation-strategic innovation

Innovation being a key factor for competitiveness in terms of market differentiation, every day there is an exponential increase in such competition. Strategic innovation is described as the creation of growth strategies: it uses new categories of products, services or business models that change the "rules of the game" and generate significant value for the consumers, customers and partners of the corporation (Palmer and Kaplan, 2007). That is: companies redefine or create markets and are located in positions that, due to the advanced degree of innovation, lack competitors or the number of rivals is very limited. As already





mentioned, in comparison to current or newly created companies, already established companies have greater difficulty to innovate strategically (Markides, 1998). The above is due to latent risk, to a certain fear of failure. Also, many times the idea of high costs resonates more strongly in established companies (Niosi, 2002). Additionally, new or newly created companies can freely adopt new organizational forms without incurring additional costs (Dosi, 1988).

According to Drucker (1985), the innovation process will always be customer oriented and can be derived in general from three different functions: innovation oriented by the perceived needs of the client, innovation oriented by the unperceived needs of the client and innovation oriented for the future needs of customers.

The global business fabric consisting mainly of micro, small and medium-sized companies (Valdés and Sánchez, 2012) makes these companies depend on their innovative capacity to achieve and maintain a competitive advantage. This leads them to look for strategies that allow them to be more innovative in new markets (Parida, Westerberg and Frishammar, 2012).

For companies, strategic innovation will always be focused on the pursuit of excellence, the reduction of costs, the improvement of the quality of products or services that allow them to remain and consolidate in the market as long as possible with a view to growth. Therefore, they must be able to create and market new products and processes that allow them to be ahead of their competitors. And for this wide range of markets, innovation plays the key role, creating an unquestionable differentiation (Yeh-Yun y Yi-Chin, 2007).

In fact, Yeh-Yun and Yi-Chin (2007), through their work, confirm that companies, despite their size or nature, must institutionalize innovation by establishing a culture, systems and processes that allow them Improve the way of doing business. Ruelas (2003; cited in Garza, 2017), a renowned Mexican academic and innovation consultant, mentions that his clients have undergone a true cultural transformation when applying innovation, and that more than 50% of their clients have obtained both tacit and tangible results that justify your investment in any organization.

Garza (2017) mentions that innovation as a strategy in Mexican organizations is a little explored topic, since most entrepreneurs think that it only occurs in countries with high economic development: in Mexico it is only used to achieve a high index in cost reduction. Therefore, it would be necessary to create ties that allow generating synergies between





companies, universities and the Government that allow the development and integration of innovation as a strategy in Mexican organizations.

ISSN: 2007 - 9907

# Method

The present quantitative research uses a database to test the above-mentioned hypotheses based on numerical measurement and statistical analysis. This in order to establish patterns of behavior and test theories (Sampieri, Fernández and Baptista, 2014). In addition, it has a retrospective approach, since it uses the information captured in Mexico by the GEM 2015 Adult Population Survey Individual Level.

Similarly, the research is non-experimental, since, as mentioned by Sampieri et al. (2014), joins the studies that are carried out without the deliberate handling of variables and in which only the phenomena in their natural environment are observed to analyze them. The information with which one works is transversal, because all the observations coming from the GEM respond to the work carried out during 2015, as mentioned in the beginning.

The sample was obtained from the GEM records, according to the proportion in which they are presented in the database. Individuals who declared to participate in current and future companies are considered to be studied, and those belonging to established companies that have been in the market for more than four years, as well as those that have already closed and the interviewed experts were eliminated. Incomplete records were excluded from the sample, that is, with data omitted or with responses such as "Do not know" or "Did not answer." As a result of these reductions, the effective sample turned out to be constituted with the information of 716 future businesses and 271 current businesses, that is, a total of 987 cases.

The variables that characterize interest are the type of business, that is, future or current; One folio per record was added to the database, and it was used as a control measure for the records or cases. Regarding the content variables, these correspond to the answers regarding product innovation, process innovation and competitive difference.

Contingency tables were prepared and the respective independence tests were verified in order to identify the possible relationship between the content variables (product, competitors and process) and by type of business (future or current). Subsequently, the relationship was verified by chi-square independence tests and Kendall's Tau-b coefficient was used to determine its meaning and strength, which is adequate as long as at least one of the variables is of type ordinal. The hypothesis tests were applied to determine the





verification of the hypotheses raised earlier in the present investigation as a first approach to the comparative analysis for future and current businesses. The purpose of these tests is to confirm whether the innovation in products, processes and market differentiation is greater for future entrepreneurs compared to those who already have a current company.

ISSN: 2007 - 9907

# **Results**

As part of the findings, the contingency tables for the crossings of variables are presented. In these, statistically significant relationships were identified by verifying the independence tests. In all cases, the upper percentage corresponds to the proportion with respect to the total of the rows and the lower percentage, the percentage with respect to the total of the columns. Similarly, all the results presented were obtained through the application of the statistical package IBM SPSS Statistics 22. Below is the relationship for type of business against product, competitors and process.

				Producto: Los clientes potenciales consideran que sus productos son nuevos o no familiares			
				Ninguno	Algunos	Todos	Total
Tipo	de	Futuro	Recuento	503	163	50	716
negocio			%	70.3 %	22.8 %	7.0 %	100.0 %
			%	69.0 %	82.3 %	83.3 %	72.5 %
		Actual	Recuento	226	35	10	271
			%	83.4 %	12.9%	3.7%	100.0 %
			%	31.0 %	17.7%	16.7%	27.5 %
Total			Recuento	729	198	60	987
			%	73.9 %	20.1 %	6.1 %	100.0 %
			%	100.0 %	100.0 %	100.0 %	100.0 %

Tabla 2. '	Tabla	de contingencia:	Tipo de	negocio e	innovación	de producto
------------	-------	------------------	---------	-----------	------------	-------------

Fuente: Elaboración propia con base en GEM (2015)

As can be seen, the percentage distribution of the perception of the number of potential customers that consider the products as innovative is more optimistic in the case of future business than in the case of current business. In the case of futures, it is considered that for 22.8% of customers some products are innovative and 7.0% consider them totally innovative; while in the case of the current ones, this percentage is considered to be lower:





12.9% and 3.7% respectively. It was obtained as a response level that 72.5% of the cases are future businesses and 27.5% are current businesses.

				Diferenciación: Otros negocios ofrecen el mismo producto o servicio para sus consumidores potenciales			
				Muchos	Pocos	Ninguno	Total
Tipo	de	Futuro	Recuento	455	246	15	716
negocio			%	63.5 %	34.4 %	2.1 %	100.0 %
	-		%	70.3 %	76.9 %	75.0 %	72.5 %
	-	Actual	Recuento	192	74	5	271
			%	70.8 %	27.3 %	1.8 %	100.0 %
			%	29.7 %	23.1 %	25.0 %	27.5 %
Total			Recuento	647	320	20	987
			%	65.6 %	32.4 %	2.0 %	100.0 %
			%	100.0 %	100.0 %	100.0 %	100.0 %

Tabla 3. Tabla de contingencia: Tipo de negocio y diferenciación de mercado

Fuente: Elaboración propia con base en GEM (2015)

Table 3 shows the analysis of the differentiation variable. The percentage distribution of the perception of the number of competitors who consider products innovative is more optimistic in the case of future business than in the case of current business. In the case of futures, 63.5% consider that there are many businesses that offer the same products, while in the case of current ones, this percentage is higher: 70.8%. Table 4 presents the analysis of the process innovation variable. As for the percentage distribution of the perception of the age of the technology and processes used, this is more optimistic in the case of future business than in the case of current business. In the case of futures, 83.7% declare that they are over five years old, while in the case of current futures this percentage is higher: 94.1%.

Proceso: Cuánto tiempo tiene la tecnología y procesos utilizados para el producto o servicio Total			Total	
Más de cinco años	De uno a cinco años	Menos de un año		

Tabla 4. Tabla de contingencia: Tipo de negocio e innovación de procesos





#### REVISTA IBEROAMERICANA DE CONTADURÍA, ECONOMÍA Y ADMINISTRACIÓN

						ISSN	: 2007 - 990
Tipo	de	Futuro	Recuento	599	96	21	716
negocio			%	83.7 %	13.4 %	2.9 %	100.0 %
			%	70.1 %	91.4 %	75.0 %	72.5 %
		Actual	Recuento	255	9	7	271
			%	94.1 %	3.3 %	2.6 %	100.0 %
			%	29.9 %	8.6 %	25.0 %	27.5 %
Total			Recuento	854	105	28	987
			%	86.5 %	10.6 %	2.8 %	100.0 %
			%	100.0 %	100.0 %	100.0 %	100.0 %

Fuente: Elaboración propia con base en GEM (2015)

# Pruebas de hipótesis

En la tabla 5 se describen los resultados de la verificación de las pruebas de independencia efectuadas y los valores resultado del análisis de la prueba Tau-b de Kendall, que sirvieron para determinar el sentido y fuerza de la relación entre las variables de contenido, tales como los tres tipos de innovación: en productos, procesos y diferenciación de mercado.

Fila		Columna	Prueba de independencia de ji al cuadrado. Valor <i>p</i>	Resultado de la prueba de relación con coeficiente de Kendall
Tipo	de	Producto	0.000***	Hay relación (Taub = $-0.13$ , valor $p =$
negocio				0.000)
Tipo	de	Competidores	0.097*	Hay relación (Taub = $-0.067$ , valor $p =$
negocio				0.029)
Tipo	de	Proceso	0.000***	Hay relación (Taub = $-0.13$ , valor $p =$
negocio				0.000)

Tabla 5. Prueba de independencia de ji al cuadrado y pruebas Tau-b de Kendall

Fuente: Elaboración propia con base en GEM (2015)

Table 5 shows the result of the rejection of the null hypothesis of the independence test. The level of innovation associated with the product, competitor and process is not independent of the type of business. However, although this relationship is statistically significant, its value is relatively low, given that Kendall's Tau-b correlation coefficient takes values of -0.13, -0.067 and -0.13 (the negative sign indicates that for future business the perception is more optimistic than in the case of current business).

# Discussion





It can be confirmed that what is indicated in the bibliographic review is consistent with the results found in Mexican companies, since it was possible to identify that it is future entrepreneurs who have more positive perceptions about innovation.

ISSN: 2007 - 9907

On the above, when considering the hypothesis that innovation in products is greater for future entrepreneurs compared to current entrepreneurs, it is verified that the hypothesis is fulfilled, once the differences were significant and with a greater value in perception of future entrepreneurs. Therefore, the null hypothesis is rejected and the first alternative hypothesis is accepted.

Regarding innovation in processes, as in the previous hypothesis, significant differences were found between both groups of entrepreneurs. It was also identified that future entrepreneurs have higher values compared to their current counterparts. Consequently, the second alternative hypothesis, which states that the perception of innovation in processes is greater for future entrepreneurs compared to those who already have a company, was verified.

The third hypothesis states that market differentiation is greater for future entrepreneurs than for those who currently have a company. This hypothesis was also verified; higher values were identified in perceptions in this type of strategic innovation in future entrepreneurs and lower in current ones. More importantly, these differences were significant.

It is interesting to mention the contributions regarding the literature review, which point to the two mentioned theories, the Schumpeterian (for future entrepreneurs) and the theory of organizational learning (current entrepreneurs), since it could be confirmed that the The behavior of the groups studied is governed by the characteristics mentioned by these theories.

Another contribution regarding the additional results to the academics already mentioned above, is the fact that the results provide relevant information for decision-making regarding public policy, since they could be useful for various government actors and institutions support the creation of new companies at national and state level.

A limitation that was identified in the investigation was the non-inclusion of other characterizing variables, such as gender, age of the entrepreneur, as well as type of industry to which these current and future entrepreneurs belong. Incidentally, it is considered to include them as part of future lines of research. The above would help to better characterize the profile of the entrepreneurs of both groups of companies, since each industry has its





requirements and particularities that may not only model the profile of the entrepreneur, but also the innovative strategy by industry sector.

ISSN: 2007 - 9907

Similarly, it is desired to mention that one of the great disadvantages of the database used is that the observations are made in a single moment and contact with the interviewee is lost for future research or to know their evolution and development in the tissue business. Therefore, focusing on longitudinal cutting work, where you can identify the advances of the groups of companies compared in the present study, would enrich the findings even more.

Finally, it is valid to mention that there are reasons, such as the scarcity of financial resources, difficult access to technology, among other reasons, which obviously decrease innovation within Mexican companies. The lack of financing is one of the reasons that tops the list and makes us reflect on the issues mentioned in the literature: it is relevant for increasing levels of innovation in products, processes and market differentiation.

# Conclusions

Once the results of the research have been discussed and analyzed, it is concluded that future entrepreneurs presented the highest values in innovation, most likely due to the impetus to start a business, to enter a new market or to identify new business opportunities. market.

Also, according to the literature review and based on the Schumpeterian theory, it follows that the results obtained are due to future entrepreneurs having greater ambition, which makes them, to some extent, more daring in the use of new technologies in their products and in their processes. Therefore, as regards the Mexican business fabric, it can be affirmed that, according to the results of the present investigation, there is an obvious inclination to what is explained by Schumpeter (1934, 1942). They also provided more knowledge to boost economic development in our country.





ISSN: 2007 - 9907

As for current entrepreneurs, it is confirmed that, by having more experience and path traveled in the market and because they have already faced competition and have resolved various business problems so that their companies survive the high levels of demand for consumers, it is confirmed, as they said, that they have more reserved perceptions than their future counterparts. Surely, this road has given them a more robust opinion than those who are still making their way into the business fabric. For sure, the subject of experience, knowledge and skills could provide a prominent field of research in future research on the phenomenon of innovation.

Going a little deeper into the remarkable difference between these two groups of companies and their relationship with innovation, although differences can be made in terms of size, industry or types of innovation, the fact of establishing the relationship between new entrepreneurs and futures, together with the innovation variable, puts the focus on some factors such as lack of financial resources, low capacity to acquire technologies, difficult access to government support. Although most companies are small and medium-sized and have their flexibility in the business environment, we must not forget that all of them use innovation as a catalyst for competitiveness.

Finally, we want to insist that, as a first approximation to the contrast of these two groups of companies, it is interesting to confirm that they have significant differences in the three types of innovation.

## References

- Acs, Z. J. and Audretsch, D. B. (1990). *Innovation and small firms*. London, England: MIT Press.
- Audretsch, D. B. (1991). New-firm survival and the technological regime. *The review of Economics and Statistics*, 73(3), 441-450.
- Audretsch, D. B. (1995). Innovation, growth and survival. *International journal of industrial organization*, *13*(4), 441-457.
- Audretsch, D. B. and Fritsch, M. (1994). On the measurement of entry rates. *Empirica*, 21(1), 105-113.





Audretsch, D. B. and Thurik, A. R. (2001). What's new about the new economy? Sources of growth in the managed and entrepreneurial economies. *Industrial and corporate change*, 10(1), 267-315.

ISSN: 2007 - 9907

- Avlonitis, G. J. and Salavou, H. E. (2007). Entrepreneurial orientation of SMEs, product innovativeness, and performance. *Journal of Business Research*, 60(5), 566-575.
- Barceló, M. (1994). Innovación tecnológica en la industria: una perspectiva española.Barcelona, España: Beta.
- Birch, D. L. (1979). The job generation process. *MIT program on neighborhood and regional change*, *302*,1979.
- Carr, J. C., Haggard, K. S., Hmieleski, K. M. and Zahra, S. A. (2010). A study of the moderating effects of firm age at internationalization on firm survival and short-term growth. *Strategic Entrepreneurship Journal*, 4(2), 183-192.
- Carree, M. A. and Thurik, A. R. (2010). The impact of entrepreneurship on economic growth. In *Handbook of entrepreneurship research* (pp. 557-594). New York, United States: Springer.
- Cohen, W. M. and Levinthal, D. A. (1990). Absorptive Capacity: A New Perspective on Learning and Innovation. *Administrative Science Quarterly*, *35*(1), 128-152.
- Damanpour, F. (1991). Organizational innovation: A meta-analysis of effects of determinants and moderators. *Academy of management journal*, *34*(3), 555-590.
- Dodgson, M. (1993). Organizational learning: a review of some literatures. *Organization studies*, *14*(3), 375-394.
- Dosi, G. (1988). Sources, procedures, and microeconomic effects of innovation. *Journal of economic literature*, 1120-1171.
- Drucker, P. F. (1985). The practice of innovation. In *Innovation and Entrepreneurship Practice and Principles* (pp. 19-33). New York, United States: Harper & Row.
- Freeman, S., Edwards, R. and Schroder, B. (2006). How smaller born-global firms use networks and alliances to overcome constraints to rapid internationalization. *Journal of international Marketing*, *14*(3), 33-63.
- Fritsch, M. (2008). How does new business formation affect regional development? Introduction to the special issue. *Small Business Economics*, *30*(1), 1-14.
- Galindo, M. Á., Ribeiro, D. y Méndez, M. T. (2012). Innovación y crecimiento económico:Factores que estimulan la innovación. *Cuadernos de Gestión*, 12, 51-58.





Garza, J. B. (2017). La innovación organizacional en empresas mexicanas. *Innovaciones de negocios*, (11).

ISSN: 2007 - 9907

- González, J. G. y De La Parra, J. P. N. (2017). Una visión de la innovación como elemento clave para mejorar la competitividad en las PyMEs mexicanas. *Red Internacional de Investigadores en Competitividad*, *5*(1).
- Grant, R. M., Fernández, Z., Gómez, J. D. L. y Navarro, J. R. (2006). *Dirección estratégica: conceptos, técnicas y aplicaciones*. Navarra, España: Thomson Civitas.
- Haro, F. A., Córdova, N. C. y Alvarado, M. A. (2017). Importancia de la innovación y su ejecución en la estrategia empresarial. *INNOVA Research Journal*, 2(5), 88-105.
- Herbig, P., Golden, J. E. and Dunphy, S. (1994). The relationship of structure to entrepreneurial and innovative success. *Marketing Intelligence & Planning*, 12(9), 37-48.
- Kantis, H., Ishida, M., & Komori, M. (2002). Empresarialidad en economías emergentes: Creación y desarrollo de nuevas empresas en América Latina y el Este de Asia. Inter-American Development Bank.
- Keskin, D., Diehl, J. C. and Molenaar, N. (2013). Innovation process of new ventures driven by sustainability. *Journal of Cleaner Production*, 45, 50-60.
- Kirchhoff, B. A. and Phillips, B. D. (1988). The effect of firm formation and growth on job creation in the United States. *Journal of Business Venturing*, *3*(4), 261-272.
- Kolb, D. A. (1984). *Experience as the source of learning and development*. New Jersey, United States: Prentice Hall.
- Laitinen, E. K. (1992). Prediction of failure of a newly founded firm. *Journal of Business Venturing*, 7(4), 323-340.
- Leibenstein, H. (1968). Entrepreneurship and development. *The American Economic Review*, 58(2), 72-83.
- Levitt, B. and March, J. G. (1988). Organizational learning. Annual review of sociology, 14(1), 319-338.
- Lewin, A. Y. and Massini, S. (2004). Knowledge creation and organizational capabilities of innovating and imitating firms. In *Organizations as knowledge systems* (pp. 209-237). London, England: Palgrave Macmillan.
- Markides, C. (1998). Strategic innovation in established companies. *Sloan management review*, 39(3), 31-43.





Mendoza, J. E. (2002). Innovación tecnológica y crecimiento regional en México, 1995-2000. *Revista Mexicana de Economía y Finanzas Nueva Época*, 1(3).

- Merino, C. y Villar, L. (2007). Factores de éxito en los procesos de creación de empresas de base tecnológica. *Economía industrial, 366*, 147-167.
- Niosi, J. (2002). National systems of innovations are "x-efficient" (and x-effective): Why some are slow learners. *Research policy*, *31*(2), 291-302.
- Organización para la Cooperación y el Desarrollo Económicos [OCDE]. (2005). Manual de Oslo: Guía para la recogida e interpretación de datos para la innovación. OCDE/European Communities.
- Palmer, D. and Kaplan, S. (2007). A Framework for Strategic Innovation: Blending strategy and creative exploration to discover future business opportunities. San Francisco, United States: Innovation-point. Retrieved from https://www.innovationpoint.com/Strategic%20Innovation%20White%20Paper.pdf.
- Parida, V., Westerberg, M. and Frishammar, J. (2012). Inbound open innovation activities in high-tech SMEs: the impact on innovation performance. *Journal of small business management*, 50(2), 283-309.
- Peneder, M. (2009). The meaning of entrepreneurship: A modular concept. *Journal of Industry, Competition and Trade*, 9(2), 77-99.
- Roberts, E. (1980). Getting new ventures of the ground, Management Review, 69(6), 51-56.
- Rodeiro, D. y Fernández, L. (2006). Características de las pymes gallegas innovadoras frente a las pymes no innovadoras. *Revista galega de Economía*, 15(2).
- Rodeiro, D. y López, M. C. (2007). La innovación como factor clave en la competitividad empresarial: un estudio empírico en pymes. *Revista galega de economía*, *16*(2).
- Rodríguez, N. and Vaillant, Y. (2014). The economic impact of SME's: Novel versus Established entrepreneurs. In *Culture of competitiveness in the new global context* (pp. 103-125). México: Red Internacional de Investigadores en Competitividad.
- Salas, C., Aguilar, I. y Susunaga, G. (2000). El papel de la innovación en el desarrollo económico regional: Algunas lecciones y experiencias del contexto internacional. *Transferencia*, 13(49).
- Sampieri, R., Fernández, C. y Baptista Lucio, M. D. P. (2014). *Metodología de la investigación*. Ciudad de México, México: McGraw-Hill.
- Sánchez, M. D. P. (2011). Competitividad e innovación en el producto turístico rural de la Región de Murcia. *Cuadernos de Turismo*, (27), 743-758.





- Schumpeter, J. (1934). *The theory of economic development*. Cambridge, England: Harvard University Press.
- Schumpeter, J. (1942). Creative destruction. *Capitalism, socialism and democracy*, 825, 82-85.
- Stearns, T. M., Carter, N. M., Reynolds, P. D. and Williams, M. L. (1995). New firm survival: industry, strategy, and location. *Journal of business venturing*, *10*(1), 23-42.
- Thomas, M. D. (1987). Schumpeterian perspectives on entrepreneurship in economic development: A commentary. *Geoforum*, *18*(2), 173-186.
- Valdés, J. y Sánchez, G. (2012). Las MIPYMES en el contexto mundial: sus particularidades en México. Iberofórum Revista de Ciencias Sociales de la Universidad Iberoamericana, 7(14), 126-156.
- Van Praag, C. M. and Versloot, P. H. (2007). What is the value of entrepreneurship? A review of recent research. *Small business economics*, 29(4), 351-382.
- Veciana, M. V. (2007). Las nuevas empresas en el proceso de innovación en la sociedad del conocimiento: evidencia empírica y políticas públicas. *Economía Industrial*, (363), 103-108.
- Wong, P. K., Ho, Y. P. and Autio, E. (2005). Entrepreneurship, innovation and economic growth: Evidence from GEM data. *Small business economics*, *24*(3), 335-350.
- Yeh-Yun Lin, C. and Yi-Ching Chen, M. (2007). Does innovation lead to performance? An empirical study of SMEs in Taiwan. *Management Research News*, 30(2), 115-132.



**Ricea** 

#### REVISTA IBEROAMERICANA DE CONTADURÍA, ECONOMÍA Y ADMINISTRACIÓN

ISSN: 2007 - 9907

Rol de Contribución	Autor (es)
Conceptualización	Nery Elena Rodríguez Valencia (principal) Rodrigo Alejandro Olivares Contreras (apoyo)
Metodología	Nery Elena Rodríguez Valencia (igual) Rodrigo Alejandro Olivares Contreras (igual)
Software	N/A
Validación	N/A
Análisis Formal	Nery Elena Rodríguez Valencia (igual) Rodrigo Alejandro Olivares Contreras (igual)
Investigación	Nery Elena Rodríguez Valencia (principal)
Recursos	Nery Elena Rodríguez Valencia (principal)
Curación de datos	N/A
Escritura - Preparación del borrador original	Nery Elena Rodríguez Valencia (principal)
Escritura - Revisión y edición	Nery Elena Rodríguez Valencia (principal)
Visualización	Nery Elena Rodríguez Valencia (igual) Rodrigo Alejandro Olivares Contreras (igual)
Supervisión	Nery Elena Rodríguez Valencia (principal)
Administración de Proyectos	Nery Elena Rodríguez Valencia (principal)
Adquisición de fondos	Nery Elena Rodríguez Valencia (principal)



Vol. 8, Núm. 16