

**Formación en creatividad e innovación: estudiando las  
percepciones y prácticas de los jóvenes emprendedores  
locales**

*Training in Creativity and Innovation: Studying perceptions and practices of  
Young Local Entrepreneurs*

*Formação em criatividade e inovação: estudando as percepções e práticas  
de jovens empreendedores locais*

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## Resumen

**Introducción.** Las empresas mexicanas, y en particular las pymes, han venido padeciendo de un alto estancamiento en su competitividad y productividad, así como de una deficiente destreza para la gestión de actividades innovadoras. Esto se traduce en la necesidad de promover la adecuada formación de personas con habilidades críticas, creativas y con capacidad para tomar decisiones y resolver problemas. **Objetivo.** En este artículo se presentan los resultados de una investigación que se realizó con el objetivo de conocer las percepciones y prácticas empresariales enfocadas en el estímulo de la creatividad y la innovación. **Método.** Los participantes fueron cincuenta y cinco jóvenes emprendedores de Ciudad Victoria, Tamaulipas, México. Se aplicó un cuestionario que aportó datos sobre los siguientes aspectos: creatividad en la empresa, perfil de una persona creativa, origen de la creatividad, barreras de la creatividad, capacitación y desarrollo creativo del personal, prácticas promovidas en la empresa y estímulos a la creatividad. **Resultados.** Los resultados muestran que los empresarios son conscientes de la importancia de la creatividad para ellos, sus empleados y sus empresas. Estos hallazgos permiten caracterizar la situación actual de las empresas iniciadas por jóvenes emprendedores, así como también conocer los retos que enfrentan. **Conclusiones.** Los empresarios conocen los beneficios de la creatividad y la innovación en el ambiente empresarial; sin embargo, todavía existen áreas de oportunidad que permitirán entenderlas y explotarlas mejor. Para lograr este objetivo se requiere de un proceso continuo de capacitación y concientización que fortalezca en los jóvenes sus capacidades creativas e innovadoras.

**Palabras clave:** creatividad, emprendimiento, innovación, percepciones, prácticas.

## Abstract

**Introduction.** Mexican companies (especially SMEs) have been suffering from a high level of stagnation in their competitiveness and productivity; they also have been exhibiting a deficient capacity to manage innovative activities. This translates into the need to promote the adequate training of people with critical, creative skills and with capacity to make decisions and solve problems. **Objective.** This paper presents the results of a research that

was conducted with the aim of studying the perceptions and business practices focused on the stimulation of creativity and innovation. **Method.** The participants were fifty-five young entrepreneurs from Ciudad Victoria, Tamaulipas, Mexico. A questionnaire was administered; it provided data on the following aspects: creativity in the company, profile of a creative person, origin of creativity, barriers of creativity, creative development of staff, practices promoted in the company and stimuli for creativity. **Results.** The results showed that entrepreneurs know that creativity and innovation are important for them, for their employees and for their companies. The findings allowed to characterize the current situation of the companies started by young entrepreneurs, as well as to know the challenges they face. **Conclusions.** Entrepreneurs know the benefits of creativity and innovation in the business environment; however, there are still areas of opportunity that will allow them to understand and exploit them better. To achieve this objective, a continuous process of training and awareness is needed to strengthen young people's creative and innovative capacities.

**Keywords:** creativity, entrepreneurship, innovation, perceptions, practices.

## Resumo

**Introdução** As empresas mexicanas e, em particular, as PMEs, sofrem com a alta estagnação em sua competitividade e produtividade, bem como com uma habilidade deficiente para a gestão de atividades inovadoras. Isso se traduz na necessidade de promover o treinamento adequado de pessoas com habilidades criativas e críticas e a capacidade de tomar decisões e resolver problemas. **Objetivo** Neste artigo apresentamos os resultados de uma investigação que foi realizada com o objetivo de conhecer as percepções e práticas de negócios voltadas para a estimulação da criatividade e inovação. **Método** Os participantes eram cinquenta e cinco jovens empresários de Ciudad Victoria, Tamaulipas, México. Foi aplicado um questionário que forneceu dados sobre os seguintes aspectos: criatividade na empresa, perfil de uma pessoa criativa, origem da criatividade, barreiras de criatividade, formação e desenvolvimento criativo de pessoal, práticas promovidas na empresa e estímulo à criatividade. **Resultados** Os resultados mostram que os empreendedores estão cientes da importância da criatividade para eles, seus funcionários e suas empresas. Esses achados nos permitem caracterizar a situação atual das empresas iniciadas por jovens empreendedores,

bem como conhecer os desafios que enfrentam. Conclusões Os empreendedores conhecem os benefícios da criatividade e inovação no ambiente de negócios; No entanto, ainda existem áreas de oportunidade que nos permitirão compreendê-las e explorá-las melhor. Para atingir este objectivo, é necessário um processo contínuo de formação e sensibilização para reforçar as capacidades criativas e inovadoras dos jovens.

**Palavras-chave:** criatividade, empreendedorismo, inovação, percepções, práticas.

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## Introduction

Nowadays, Mexican companies and SMEs in particular have a high level of stagnation in their competitiveness and productivity, which has an impact on their poor capacity to manage innovative activities. In fact, when compared to other countries in Mexico, there is a very low level of investment in research and development activities (0.46% of GDP), which is below the regional average of Latin America and the Caribbean. Caribbean (0.63%) and impacts negatively compared to the average of the most developed countries of the Organization for Economic Cooperation and Development (OECD). This translates into the need to promote an adequate formation of people with critical, creative skills and with capacity to make decisions and solve problems.

For companies, innovation is a very favorable factor, since it allows them to have greater profitability as a result of the design and production of new and better goods or services through the use of more appropriate techniques than those used by their competitors. Innovative companies know how to respond quickly and effectively to globalization and to competitive threats. But to be innovative, a company requires knowledge, technology, appropriate practices, economic resources and, mainly, human capital.

Promoting creative capacity, therefore, is a priority to generate an innovative culture, which is a relevant factor for business success. In this way, you can react favorably to the challenges and you can improve the existing work methods.

According to the conception of some authors (Villalba, 2004, Waisburd 2004, Waisburd and Sefchovich, 1985), creativity is the ability to produce original answers or solutions to problems. However, creativity finds its fulfillment until there is a real contribution that the organization and the environment adopt and recognize; Then, an idea or find, however brilliant, can be useless if it is not put into practice. For this reason, companies should favor creative thinking. Entrepreneurs must promote policies that allow the growth of an innovative culture that is the seedbed of creativity.

In this article, as a result, we present the results of an investigation that was guided by the following question: how are the perceptions of entrepreneurial entrepreneurs in Ciudad Victoria, Tamaulipas (Mexico), about creativity in general and about their company? in particular? In this regard, the objective was to describe this reality and to hypothesize that there are areas of opportunity that can be exploited through training in innovation and creativity. In this work, therefore, the characterization of these perceptions is analyzed and contributions are made to a knowledge gap on creativity in regional companies in Tamaulipas (Mexico), which has prevented to have a preliminary overview based on the design and implementation ongoing training and support programs for young entrepreneurs.

The article has the following structure: first the background of creativity is presented as an element of human capital and the basis of innovation; then some cognitive theories of creativity are exposed, which is framed in the business environment. Subsequently, the method followed in this investigation is explained, the results and discussion are presented, and finally the conclusions are exposed.

### **Creativity as an element of human capital**

It is said that a person is creative not only when analyzing a problem, but when putting into practice solutions that are capable of generating changes (Urquiza-Pozo and Gómez, 2007). Creativity is a natural characteristic of the human mind; only people can develop it to face the problems of their environment. A creative person identifies problems where others do not see them. Creativity is also an attitude towards life that allows generating new ideas and experiences. However, this faculty requires the development of discernment to identify the best idea of all that may arise. Robbins and Judge (2009) think that creativity is a capacity

that consists in mixing new ideas to be useful and different from what exists. Schultz (1961), for his part, states that human capital is the result of investing in knowledge and skills, key aspects to boost the wealth of a country and, consequently, to improve the quality of life of society.

In economic terms, human capital can be measured in terms of the value of the productive capacity of the people of a company or a country (Boisier, 2002). Human capital is key to national, regional and local development. In their acquisition and development process, education, experience and interpersonal relationships are important (Navarro Abarzúa, 2005). Another important element is creative thinking, which allows individuals and societies to make appropriate and innovative decisions in the various aspects of human and work life.

### **Creativity as the basis of innovation**

According to Great Place to Work (GPTW) (2016), creativity is an important element in organizations, since innovation depends to a large extent on it, which is used to add new ideas to existing elements, which are not they must necessarily be related to the latest technological advances. Innovation, then, is a process that starts with an idea, continues with the development of a product, technique or service useful to others, and culminates with a positive economic result (Alcoba, 2017). For this reason, it can be said that creative thinking is a priority in the economic and social spheres, especially in organizations that must manage support systems and networking, which translates into the development of innovative projects.

In today's world, creative thinking is an increasingly valuable asset. Nowadays emphasis is placed on adding value to products and services through the innovative use of knowledge. To achieve this, a strengthening of the creative abilities of the people is required. Alcoba (2017) highlights the current challenge of continuously investigating creativity as a source of innovation and emphasizes that companies that do not incorporate creative attitudes will be limited or will soon be extinguished. This reality reveals the need for a change of attitude to have an opening of thought. In this sense, education is a determining factor in the promotion of creativity and innovation.

The European Council, since 2009, promotes creativity and innovation capacity in the inhabitants of the continent. In this initiative it is assumed that education stimulates talent and creativity, for which a permanent learning program was implemented as a key instrument for the development of society, business, research and social cohesion.

### **The cognitive theories of creativity**

The review of the literature indicates that creativity has been approached with different approaches, from non-empirical to experimental ones that seek to explain it. Due to the complexity of its study, creativity can be conceived as a multidimensional phenomenon with a plurality of meanings. Within the theoretical analysis, different explanatory theories of creativity can be visualized, among which the psychoanalytic, the associational, the gestalt, the existentialist, the psychometric, the behavioral proposals, the Piagetian, the Constructivist and the Differential stand out, although the that are taken into account in the present study are cognitive ones.

These emphasize the creative process in the person emphasizing the role of cognitive mechanisms as a basis for creative thinking and the person, considering the differences of the individual in those mechanisms. Cognitive theories and their main exponents are Guilford's theory of thinking skills, Torrance's theory of creative thinking, E. de Bono's theory of lateral thinking, Mednick's associationist theory, the model theory of creative cognition of Finke and the theory of creative classes of R. Florida.

For Guilford (1967) creativity is an indirect consequence of at least the following four skills: fluency, flexibility, originality and elaboration. Therefore, developing creativity does not imply the exclusive use of ingenious elements, but also working with various aspects of creative thinking, which enables people with means to seek varied and alternative possibilities to solve problems. In this sense, Torrance (1969) considers that creativity needs a divergent mind, which defines in the following terms:

[It is] the process of gap of sensitivity or lack of disturbing elements that form ideas or hypotheses referring to them, that test these hypotheses and that communicate the results, modifying and possibly re-testing these hypotheses (p. 31).



According to Dunn (2000), Torrance (1977) addresses three meanings of creativity. In the first, people face a situation about which they do not know the solution because it does not exist or they have not learned it. The second has to do with the use of body parts and their sensations. The latter explains a situation where the person identifies problems or difficulties, and obtains a solution after performing some tests.

De Bono (1994), for his part, considers that most people tend to conceive only one way to solve a problem when in reality there are multiple ways of doing it. Lateral or divergent thinking is free, relational and allows obtaining solutions from different perspectives. Both thoughts (the logical and the lateral) complement each other. Creativity plays a decisive role in the design of alternative solutions. This vision of creativity allows people to have a better attitude to transform difficulties into opportunities. In his work, De Bono proposes ways to increase creativity through techniques that promote divergent thinking.

Mednick (1962), on the other hand, conceives creativity as a set of related and combined elements, but separated from each other. The further away you are from, the more creative the result will be. This is how creativity would depend on the ability of people to associate elements.

Finke, Ward and Smith (1992) present creative cognition as an approach to creativity with the aim of identifying the cognitive processes that favor creative products. From this approach, creativity is not an isolated or unique process, but is the result of the interaction of many other processes that allow creative enlightenment and pre-venting states.

Florida (2010) uses the term creative classes to refer to people with special talents, technological skills, creative activity, values and tolerance that allow exchange between cultures. In this way, a universal and plural perspective of citizenship was coined. In this definition there are three concepts: talent, technology and tolerance, which are fundamental for the theory of economic growth based on creative classes. Florida believes that economic growth can not depend only on companies, but also on regions that have favorable conditions for development. If there is tolerance in a region, it can attract people and generate favorable movements among them. Creative people choose their residences taking into account the tolerance, the cultural life of the cities and the job offers they find there.



### **Creativity in the company**

According to Pizarro, Real and De la Rosa (2011), the knowledge of individuals is related to the level of innovation of the company. In fact, it is also known that continuous learning and good management of employee competencies affect creativity (Echeverri, Lozada, and Arias, 2018). On the other hand, Rocha (2016) presents diversity in the company as a source of creativity, for which reason it argues that businesses achieve multiple benefits when they create innovation groups that integrate people with different races, ages, nationalities and preferences. Among the benefits obtained are a higher level of creativity and impulse to talent, an increase in innovation and greater skills of employees to solve problems. With this vision, Luring and Klitmoller (2017) agree, adding that the openness for the diversity of languages among employees has a strong relationship with creativity and job performance.

Creativity is a distinctive feature of people, organizations and the environment. In companies, the creativity of people is usually the beginning of organizational innovation. The autonomy that is given to employees facilitates the emergence of creativity (Hahm, 2018). Mejía-Vayas et al. (2018) emphasize that leaders understand the situations that surround them, learn from their experiences and have creativity to solve problems. Companies need creative leaders and people who can manage support systems for creativity and networking among entrepreneurs with the aim of translating these efforts into innovative projects and the creation or growth of companies. Works such as Cirella's (2016) agree with these ideas and seek to know the variables that affect the collective development of creativity in business. Cirella, in fact, points out that specific processes and tasks must be clear to employees, who must also know their role and their level of autonomy in the execution of their duties. These two aspects are significant to promote collective creativity.

Barroso (2012), on the other hand, performs an empirical study focused on the impact of programs applied to the development of creativity, mainly in higher education students. The results of this research show that activities for intellectual development, mental agility and the ability to infer are relevant elements for creative thinking, although they can not predict entrepreneurial skills. In this sense, Peterková (2017) argues that creativity should be encouraged from university classrooms, especially with students of economics and business;

for this purpose, the mentioned author uses simulation games that allow him to determine that these technological tools are useful, beneficial, interesting and rewarding for the students.

Likewise, in the work of Barroso (2007) the factors and reasons for developing creativity in companies are studied, among which the following stand out: the leadership of the bosses and the need for a favorable work environment, as both are compatible with innovation. This author reflects on the importance of creativity and the need to develop it in companies as a means to promote greater competitiveness. However, in a later study, Barroso (2010) finds a discrepancy between what entrepreneurs say they do to develop the creative potential of their employees and what they perceive. In his research, this author points out that routine is very common in companies and that it is easy to find barriers that hinder the development of creativity.

Finally, González Jaramillo, Riofrío and Sánchez-Quezada (2017) agree that the promotion of creativity and innovation are important in companies because of the benefits obtained, although they also recognize that there are barriers that must be overcome, such as lack of adequate knowledge to trigger and launch innovation. Also, Robinson (2015) explains that large and small companies use brainstorming as a method to trigger creativity, although the former also rely on multidisciplinary teams to take advantage of diversity.

## **Method**

### **Design of the investigation**

The present investigation was of a quantitative, descriptive and transversal type. The purpose was to describe the responses collected among the young entrepreneurs of Cd. Victoria, Tamaulipas, in terms of their knowledge, perception, use and encouragement of creativity.

### **Participants**

The participants in the study were young entrepreneurs who belong to the Employers Confederation of the Mexican Republic (Coparmex) and the National Chamber of Commerce (Canaco), employer unions of voluntary affiliation that bring together entrepreneurs from all sectors. These groups aim to represent and defend the interests of entrepreneurs, as well as

support the operation and competitiveness of companies in your area. Specifically, there were 55 participants who were in charge of their own company. Of them, 31 were men and 24 women, with ages between 18 and 35 years.

### **Data collection instrument**

The questionnaire used for data collection was previously designed and validated by Barroso (2010), and presents a section of general data, with 57 items divided into seven sections: 1) creativity in the company, 2) profile of a creative person, 3) origin of creativity, 4) barriers to creativity, 5) training and creative development of company personnel, 6) practices promoted in the company and 7) stimuli to creativity. The scale used in each of the questions was as follows: completely agree (5), agree (4), disagree (3), strongly disagree (2) and do not know (1).

### **Data collection procedure**

The information was collected through the distribution of printed questionnaires to young entrepreneurs affiliated with Coparmex and Canaco during one of their monthly meetings held in April 2018. The participants answered the questions at the end of their monthly meeting. The members of these organizations who did not attend the meeting received an electronic version of the instrument, for which the *summetrics* program was used.

### **Analysis of data**

The answers were processed in Excel, where they were normalized in values of zero to one that were used to make the radar graphs according to each one of the dimensions of the questionnaire. To obtain a normalized value in the range from zero to one, the following formula was applied:

$$valor\_opinión = \frac{1}{5n} \sum_{i=1}^n opinión_i$$

Where n corresponds to the total number of respondents. This is illustrated with the following example. Assume that the reagent All people can be creative was applied to five participants who gave their opinion according to the numerical scale of the reagents (5 = completely agree, ... 1 = I do not know) as illustrated in the table one.

**Tabla 1.** Escenario hipotético de respuestas de cinco participantes a una pregunta del cuestionario

Participante	Respuesta a la afirmación <i>Todas las personas pueden ser creativas</i>
1	5
2	4
3	3
4	1
5	5
Total	18

Fuente: Elaboración propia

According to the given formula you have:

$$valor_{opini3n} = \frac{1}{5 * 5} \sum_{i=1}^5 opini3n_i = \frac{1}{25} (5 + 4 + 3 + 1 + 5) = \frac{18}{25} = 0.72$$

A value close to one will indicate an opinion in the category Completely agree, while a value close to zero will indicate an opinion in the category I do not know.

## Results

The characterization of the participants is shown below in table 2:

**Tabla 2.** Caracterización de los participantes en este estudio (n = 55)

Característica demográfica	Porcentajes
Edad	20-23: 31 %
	24-27: 24 %
	28-35: 45 %
Sexo	Hombre: 58 %
	Mujer: 42 %
Estudios	Preparatoria: 5.6 %
	Licenciatura completa: 77.8 %
	Maestría completa: 14.8 %
Documento obtenido	Certificado: 5.6 %
	Pasante: 9.3 %
	Acta de examen: 3.7 %
	Título: 68.5 %
	Inconcluso: 11.1 %
Actualmente estudia	Sí: 33.3 %
	No: 66.7 %
Tipo de empresario	Comercio: 51.9 %
	Manufactura: 3.7 %
	Servicio: 44.4 %
Afiliación	Coparmex: 33 %
	Canaco: 6 %
	Independiente: 55.6 %
Número de trabajadores en su empresa	1 o 2 trabajadores: 5.6 %
	3 trabajadores: 35.2 %
	4 trabajadores: 13.0 %
	5 trabajadores: 9.3 %
	6 o más trabajadores: 37.0 %
Años de experiencia empresarial	1-3: 64.8 %
	4-6: 11.1 %
	7-9: 3.7 %
	10-12: 3.7 %
	13-15: 16.7 %

Fuente: Elaboración propia

### Standardized results

The global normalized values of the responses of the participants obtained with the formula used are shown in Table 3. In the subsequent sections the graphs of each of the dimensions of the questionnaire are taught and analyzed.

**Tabla 3.** Caracterización de las respuestas normalizadas de los participantes (n = 55)

Afirmación presentada a los participantes	Valor normalizado de respuesta global
<b>Creatividad en la empresa</b>	
La creatividad es una ventaja competitiva para la empresa	0.989
La creatividad ayuda al éxito de las empresas	0.967
Las empresas más creativas se adaptan mejor al medio	0.898
Todas las personas pueden ser creativas	0.894
Los empresarios son creativos	0.865
La creatividad ayuda a aprovechar los conflictos	0.861
Los trabajadores son creativos	0.832
<b>Perfil de una persona creativa</b>	
Es original	0.901
Es empeñosa y constante con su trabajo	0.894
Tiene alto nivel de aspiraciones y exigencias	0.894
Se orienta a los detalles en su trabajo	0.858
Hace productos diferentes (no necesariamente inusuales)	0.836
Tiene buena imagen de sí misma	0.829
Es sensible a los problemas y a las mejoras	0.814
Quiere ser ella misma (ser independiente)	0.807
Produce grandes cantidades de artículos similares no originales	0.581
<b>Origen de la creatividad</b>	
Para ser creativo hay que ser totalmente original	0.810
La originalidad es innata	0.636
Creatividad significa producir algo tangible	0.589
Se requiere un alto coeficiente intelectual para ser creativo	0.516
Los artistas y científicos son las únicas personas creativas	0.509
Los genios creativos son expertos en todos los temas	0.509
Solo los jóvenes pueden ser creativos	0.472
<b>Barreras para la creatividad</b>	
Objetivos organizacionales no claros	0.881
Mal ejemplo de jefes que marcan objetivos y no los cumplen	0.859
Deshumanización por parte de la empresa y del trabajador	0.855

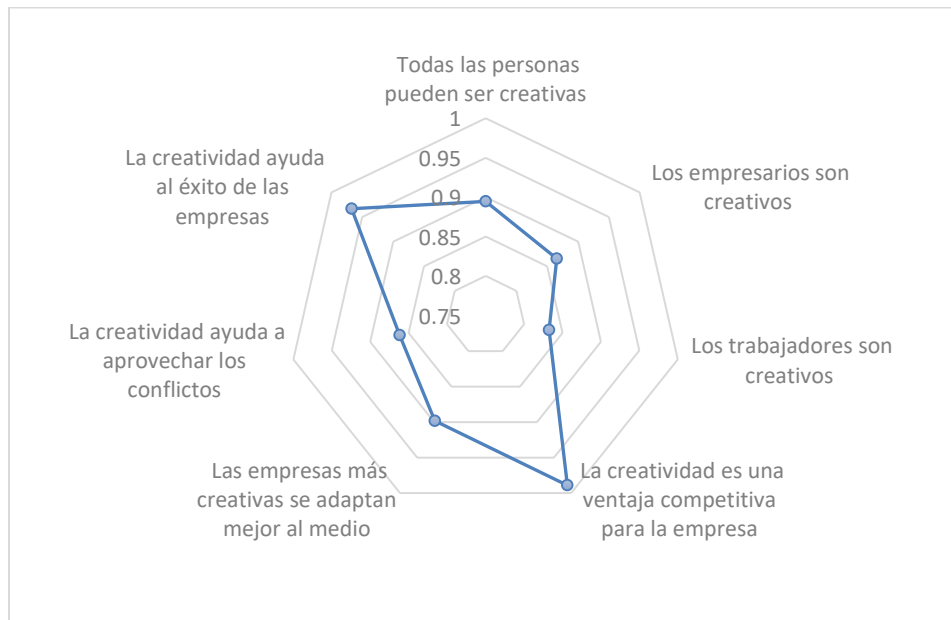
Incapacidad para manejar bien el liderazgo (empresarios)	0.833
No tomar en cuenta las necesidades del trabajador	0.829
La rutina	0.829
Miedo al fracaso	0.814
Deficiente organización del tiempo de los trabajadores	0.811
La centralización del poder en la empresa	0.770
Gente que quiere aprovecharse de la situación	0.759
Capacitación orientada a las rutinas	0.748
Excesivo apego al reglamento	0.744
La edad	0.559
<b>Capacitación y desarrollo creativo del personal de la empresa</b>	
Confianza	0.885
Capacidad para tomar decisiones por sí mismos	0.870
Inteligencia	0.866
Perseverancia ante la frustración	0.859
Disposición a correr riesgos	0.792
Tolerancia a la ambigüedad	0.762
<b>Prácticas promovidas en la empresa</b>	
Confianza entre trabajadores y jefes	0.929
Confianza entre trabajadores como compañeros	0.918
El intercambio de ideas entre jefes y subordinados	0.907
El reconocimiento de las ideas	0.903
La comunicación adecuada entre jefes y trabajadores	0.903
Evaluación justa de las ideas que aporta el personal	0.862
Evaluación constructiva de las ideas del personal	0.844
Libertad al trabajador para realizar sus labores	0.833
La remuneración del trabajo creativo	0.811
<b>Estímulos a la creatividad en la empresa</b>	
Fomentando la satisfacción de los trabajadores con la empresa	0.903
Fomentando el compromiso de los trabajadores con la empresa	0.892
Capacitando a los trabajadores para que sean creativos	0.855
Estimulando el pensamiento creativo de los trabajadores	0.818
Involucrando a los trabajadores en las decisiones	0.811
Dando estímulos económicos	0.781

Fuente: Elaboración propia

**Creativity in the company**

The data show a perception that entrepreneurs and workers are not creative, despite the fact that their opinion is that all people can be creative and that creativity is beneficial for companies. This can be seen in Figure 1.

**Figura 1.** Representación gráfica de las respuestas de los participantes en la categoría *Creatividad en la empresa*

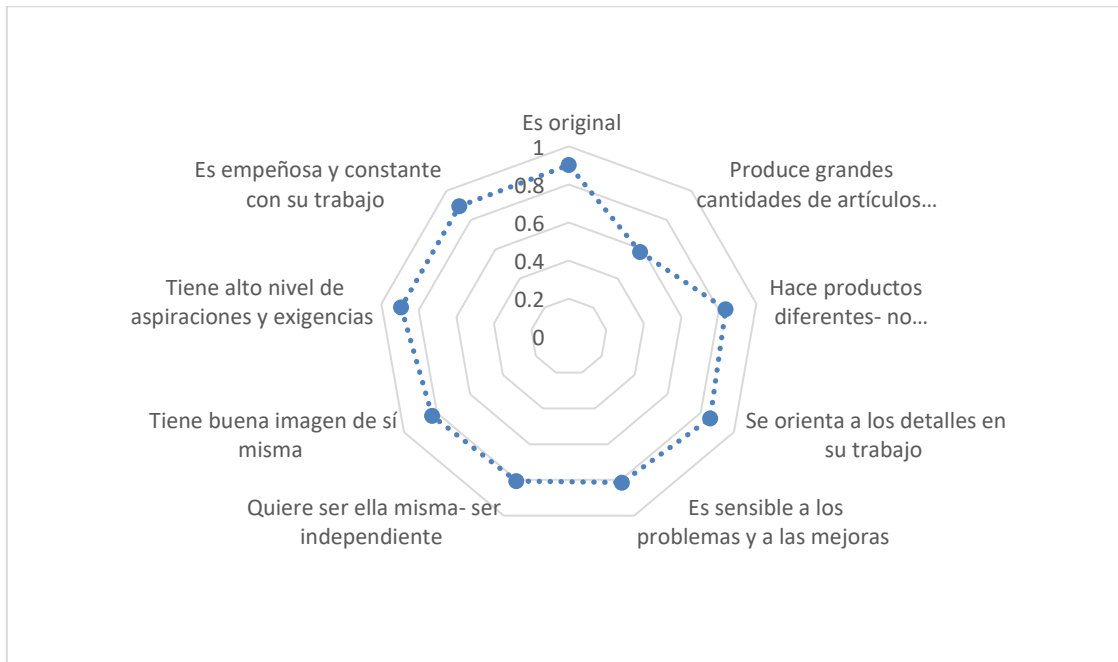


Fuente: Elaboración propia



**Profile of a creative person**

**Figura 2.** Representación gráfica de las respuestas de los participantes en la categoría *Perfil de una persona creativa*



Fuente: Elaboración propia

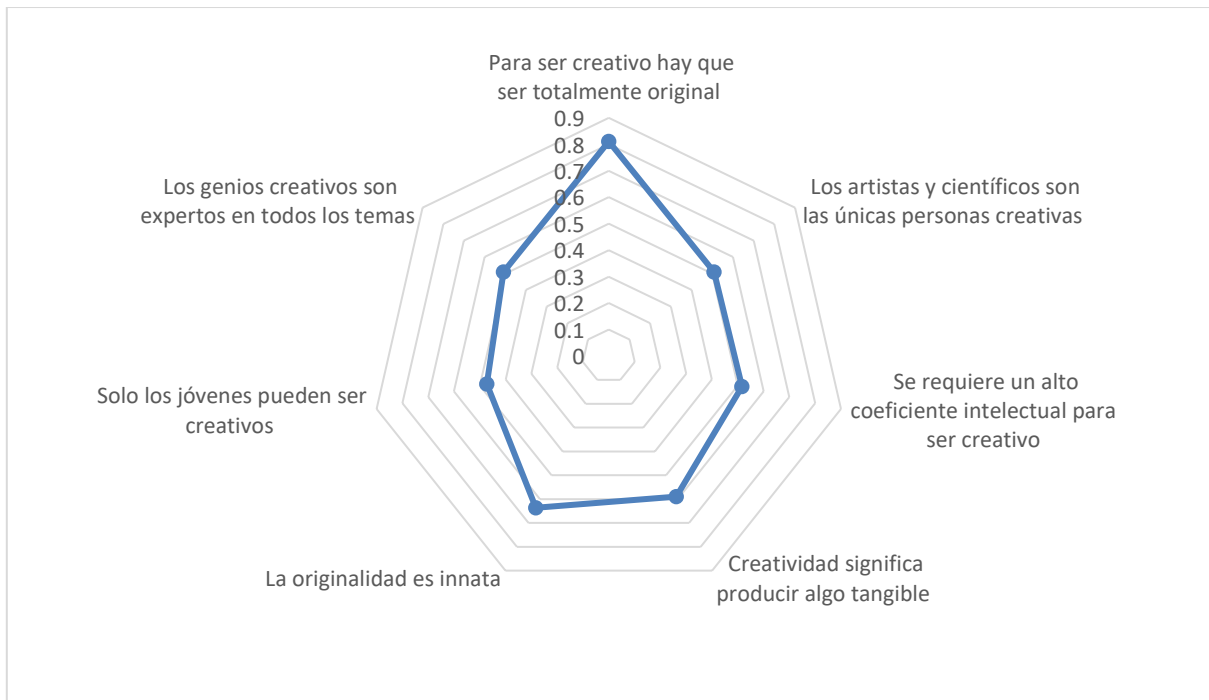
The data show the perception about a creative person. A special feature is the fact that only a proportion of respondents consider that a creative person produces large quantities of similar non-original items (see figure 2). It is convenient to remember that to be creative you do not necessarily have to create something new, but it is enough to see new opportunities in a scenario that could always be the same.

**Origin of creativity**

Figure 3 shows that a significant percentage of respondents believe that to be creative you have to be totally original. This agrees with the results of the profile of a creative person shown in the previous section, where the respondents have the belief that to be creative necessarily something totally new must be developed. It also draws attention to the tendency

to believe that creativity is innate, so that it can not be stimulated or developed through other means.

**Figura 3.** Representación gráfica de las respuestas de los participantes en la categoría *Origen de la creatividad*

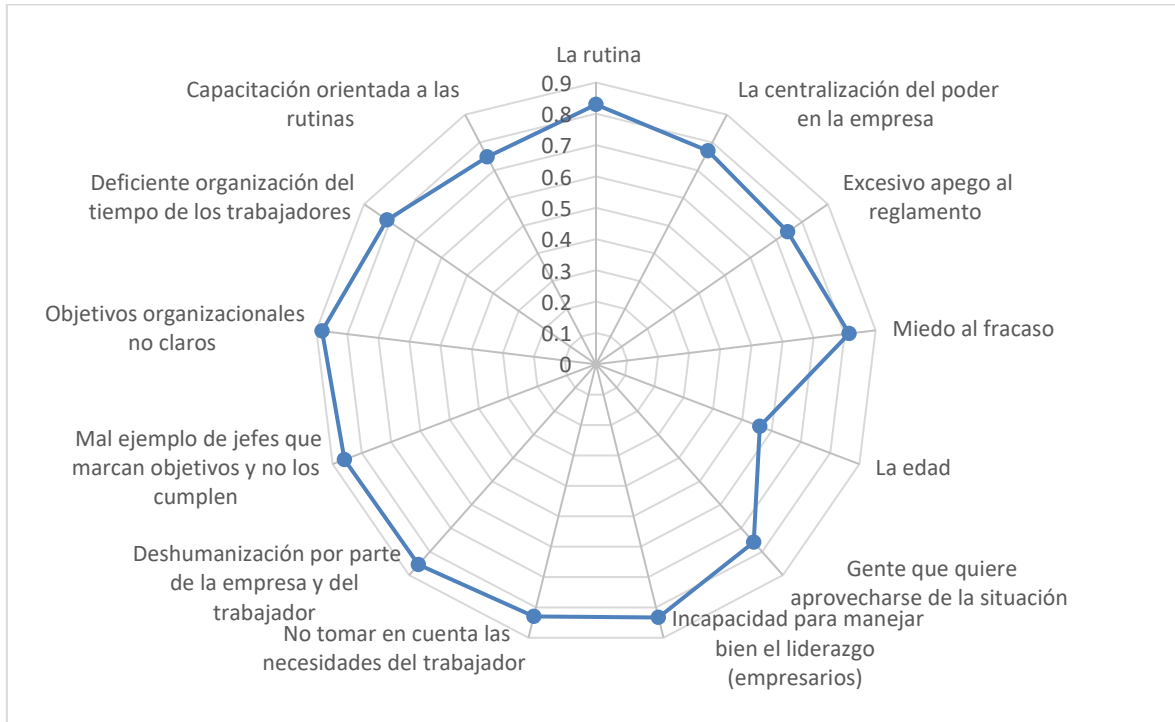


Fuente: Elaboración propia

### Barriers to creativity

The results show that participants recognize a significant number of barriers for creativity to flourish (figure 4). Elements such as routine, lack of clarity in organizational objectives, lack of planning, excessive regulation, fear of failure, as well as dehumanized behavior and away from workers are some examples of the obstacles that creativity finds in companies . Likewise, the tendency of the participants to recognize that age is not a barrier for creativity stands out.

**Figura 4.** Representación gráfica de las respuestas de los participantes en la categoría *Barreras para la creatividad*

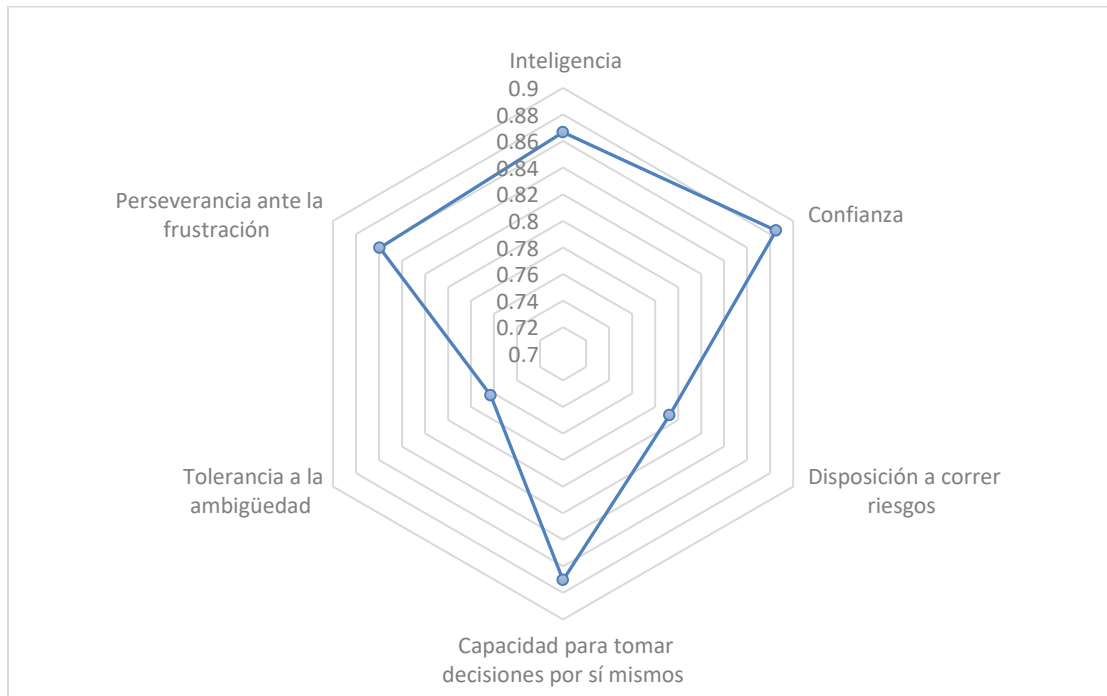


Fuente: Elaboración propia

### Training and creative development of the company's personnel

These results highlight that a significant proportion of respondents do not train their staff to take risks or tolerate ambiguities and uncertainties (figure 5), which clearly is an area of opportunity for organizations. On the other hand, employees are trained and supported to stimulate their intelligence, confidence, perseverance in the face of frustration and their ability to make decisions.

**Figura 5.** Representación gráfica de las respuestas de los participantes en la categoría *Capacitación y desarrollo creativo del personal de la empresa*

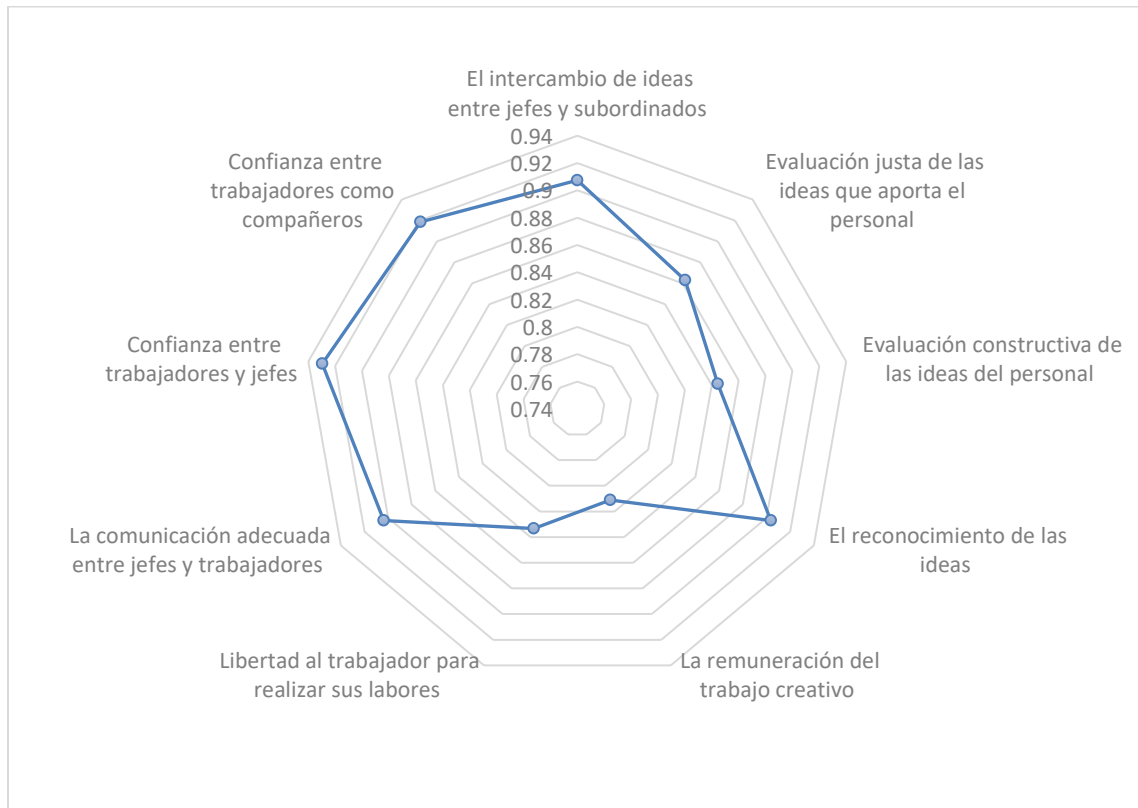


Fuente: Elaboración propia

**Practices promoted in the company**

As can be seen in Figure 6, most employers value more the trust and interaction between workers, colleagues and bosses. It is striking that the freedom to perform the tasks and the remuneration of creative work are the least promoted practices in companies. Low scores in the evaluation of employee ideas are also highlighted. This gives an impression of restrictions and lack of recognition towards workers.

**Figura 6.** Representación gráfica de las respuestas de los participantes en la categoría *Prácticas promovidas en la empresa*

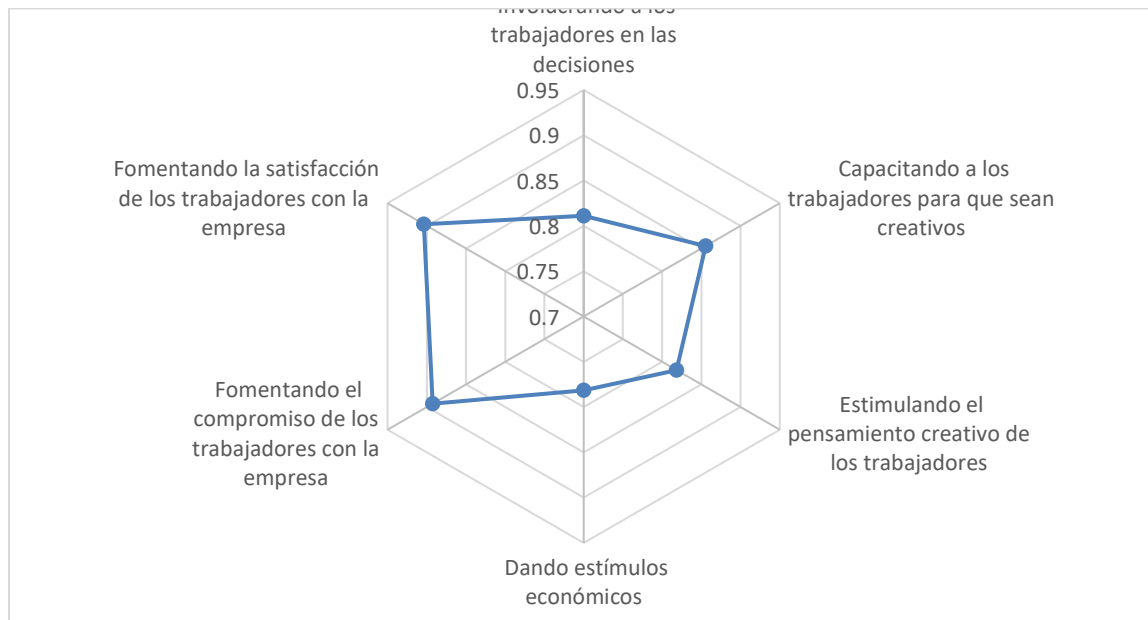


Fuente: Elaboración propia

### Stimuli for creativity in the company

Entrepreneurs indicate that they encourage creativity, mainly through the following actions: seeking the satisfaction of workers with the company, generating a commitment of workers with the company and training workers to be creative. Figure 7 highlights that the least used means is to provide economic stimuli.

**Figura 7.** Representación gráfica de las respuestas de los participantes en la categoría *Estímulos a la creatividad en la empresa*



Fuente: Elaboración propia

## Discussion

The results obtained show that entrepreneurs know that creativity is a competitive advantage for their companies. However, they recognize that neither they nor the workers are as creative as they could be. It was also detected that the conception of creativity that entrepreneurs have can be enriched with perspectives that allow them to glimpse new creative attitudes even in routine work, and not only with totally original ideas. On the other hand, although entrepreneurs place the origins of creativity well, there is a tendency to think that creativity is innate. According to the answers gathered, it was evident that the workers are poorly trained to tolerate ambiguity or to be willing to take risks; On the other hand, they are given little freedom to carry out their work, and there is a tendency to not remunerate their creative work and not to evaluate their ideas. These are measures that could curb creativity, especially if these facts do not involve employees in making decisions or stimulate their creative thinking. These results have important practical implications for management,

because they uncover opportunities for improvement that should not be avoided in the process of business growth.

The findings of this study agree with those of González Jaramillo et al. (2017), as young entrepreneurs know that creativity and innovation provide great benefits to their companies. However, there are also barriers that must be overcome; One of them is the adequate training to promote creativity and business innovation.

We agree with Peterková (2017) that creativity should be stimulated from university classrooms, for which it is necessary to know the environment and study the challenges it faces and its areas of opportunity. We also agree with Barroso (2010) that the gap between what entrepreneurs say and what their employees perceive should be deepened. However, the investigation of concrete positions of entrepreneurs and their workers about the efficiency of development and stimulation of creativity in the company is proposed as a future line of work. Relational analyzes with the data of this study, as well as the development of concrete training plans aimed at strengthening the deficiencies detected are also pending for future inquiries.

Finally, the interpretation of the results of this work should be done taking into account its limitations, since the research was conducted only in Ciudad Victoria, Tamaulipas (Mexico), and included entrepreneur entrepreneurs up to 35 years old who are members of the organizations Coparmex and Canaco.

## **Conclusions**

Creativity in the business environment is not valued in its proper measure. Entrepreneurs have a clear idea about several facets of this empowered; however, they can still expand their vision of it for their benefit and for their employees. While it is true that entrepreneurs take measures to promote thinking and creative skills, the findings of this research suggest that they do so in a conservative way that still imposes restrictions and dangerous limits for the development of creativity. Training, accompaniment and follow-up are means of support so that creative competences flourish within companies.

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