Creativity and disruptive innovation in entrepreneurial intention: Mexico and Spain

Tapia Mejia, Erik*
Pico Gonzalez, Beatriz**

Abstract

This paper analyzes the influence of creativity and disruptive innovation on entrepreneurial intention, considering the subjective social norms and personal attitude of the Theory of Reasoned Action, and through a structural equation model. The empirical study was applied to a sample of potential entrepreneurs in two countries: Mexico and Spain, to identify behavioral actions within the relationships of the proposed model. The main results obtained indicate that entrepreneurial intention is influenced by personal attitude towards entrepreneurship, which in turn is shaped by subjective social norms, and by the self-perception of their creative abilities. While Mexican present a greater relationship with the influence of entrepreneurial attitude on entrepreneurial intention, Spanish entrepreneurs are more confident in their creative abilities to develop their projects. It is concluded, that there is a need to develop communication and training campaigns aimed at Mexican and Spanish society to promote a better opinion of the entrepreneurial process as well as to generate actions to develop and include creativity and disruptive innovation as part of the entrepreneurial process.

Keywords: Entrepreneurial intention; innovation; creativity; entrepreneurship; structural equations.
Creatividad e innovación disruptiva en la intención emprendedora: México y España

Resumen

El presente artículo analiza la influencia de la creatividad y la innovación disruptiva en la intención emprendedora, considerando las normas sociales subjetivas y la actitud personal de la Teoría de la Acción Razonada, a través de un modelo de ecuaciones estructurales. El estudio empírico se aplicó a una muestra de empresarios potenciales en dos países: México y España, con el fin de identificar acciones conductuales en las relaciones del modelo propuesto. Los principales resultados obtenidos indican que la intención emprendedora está influenciada por la actitud personal hacia el emprendimiento, que a su vez está moldeada por normas sociales subjetivas, y por la autopercepción de sus capacidades creativas. Mientras que, los emprendedores mexicanos presentan una mayor relación con la influencia de la actitud emprendedora sobre la intención emprendedora, los emprendedores españoles confían más en sus capacidades creativas para desarrollar sus proyectos. Se concluye, que existe una necesidad de desarrollar campañas de comunicación y formación dirigidas a la sociedad mexicana y española para promover una mejor opinión del proceso emprendedor. Así como, generar acciones que permitan desarrollar e incluir la creatividad y la innovación disruptiva como parte del proceso emprendedor.

Palabras clave: Intención emprendedora; innovación; creatividad; emprendimiento; ecuaciones estructurales.

1. Introduction

Entrepreneurs are people who are passionate about creating something new and disruptive, imagining innovations that provide new solutions to identified problems, overcoming risks and uncertainties. Whoever intends to undertake an activity, an action or has identified an unsatisfied need, it represents an opportunity for entrepreneurs to develop new actions, leadered by motivation. As Kabukcu (2015) points out, one of the principles of entrepreneurship is the ability to create new and useful ideas that solve problems and challenges that people face every day, identifying driving and constraining forces (Flores-Novelo, Bojórquez & Cuadrado, 2021).

Entrepreneurship, therefore, can be understood as a way of thinking and acting. To have this entrepreneurial spirit is fundamental to internalize it until it becomes a set of skills to be translated into the creation of innovative projects, ie, a true entrepreneurial intention that leads to action. The entrepreneur achieves this spirit by appropriating knowledge, thinking and acting with creativity focused on opportunities.
Therefore, the entrepreneur is an intuitive person with the capacity to create, to carry out his ideas with persistence, to assume risks, capable of identifying business opportunities, to possess initiative, and capacity to configure networks (Formichella & Massigoge, 2004). As Dabale & Masese (2014) indicate, entrepreneurs transform ideas into realities based on three main ingredients: creativity (creating all kinds of ideas), innovation (finding value in selected ideas), and entrepreneurship (developing a business from the innovative idea).

On the other hand, research in this area has been focused on studying: the characteristics of the entrepreneur, such as the motivation for achievement, the propensity to take risks or the preference for innovation (Stewart et al, 1999); the ability to adapt and tolerate ambiguity and uncertainty (Markman & Baron, 2003); self-efficacy and the capacity to adapt and tolerate ambiguity and uncertainty (Markman, Balkin & Baron, 2002); the locus of control (Wijbenga & van Witteloostuijn, 2007); the need for achievement (Hansemann, 2003); and motivation, creativity, leadership, decision making and critical thinking; operational knowledge of a business, understanding of human talent management, knowledge of finance and marketing (Quispe et al, 2022).

The above-mentioned researches show that the personality characteristics of the entrepreneur present a positive and significant correlation with the entrepreneurial intention and the performance of the company (Zhao et al, 2010).

In this way, Theory of Reasoned Action (TRA) explains the intention to undertake, taking as a background the subjective norms or opinions made by those who know the individual about his pretension (social pressure); as well as the personal attitude towards the behavior presented by the individual (Fishbein & Ajzen, 1975). Associated to this is the Theory of Planned Behavior (TPB) (Ajzen, 1991), which is an extended form of the reasoned action theory, with the addition of a new variable, perceived behavioral control. Some examples are the works of Rueda et al, (2013), Tsordia & Papadimitriou (2015) and Sabah (2016).

The creativity is considering a precursor of innovation and entrepreneurship (Zhou & Shalley, 2011). In this sense, innovation, driven by creative and enterprising people, makes it possible to transform not only the product or service they offer but also the way it is offered (Lowe & Mariott, 2006); that is, a disruptive innovation that transforms the business model. In this way, creativity allows the individual to act on the opportunities it detects; and provides the basis for innovation and business growth, while positively impacting society (Bilton, 2007; Fillis & Rentschler, 2010); thus, creativity is linked to innovation.

As Shalley et al, (2015) point out in the literature, a significant amount of research has been devoted to creativity, innovation and entrepreneurship, but independently of each other; however, by their nature, these three areas of research need to be interrelated: in order to successfully survive and thrive in today’s global marketplace. Based on the above, it can be deduced that creativity and innovation within the enterprise are essential, since creativity and innovation are key resources and a fundamental part of the knowledge society. On the other hand, entrepreneurship and innovation go hand in hand (Torres & Meleán,
Taking into account that creativity is considered as the starting capacity of the innovation process (Salazar et al., 2014), this article aims to analyze the influence of creativity and the disruptive innovation on entrepreneurial intention through a model of structural equations, considering the subjective social norms and personal attitude of the Reasoned Action Theory. The data for the analysis are obtained through a survey of potential entrepreneurs in Mexico and Spain.

2. The entrepreneurial intention

Several authors define entrepreneurial intention as the state of growing awareness in a person's mind, in his or her state of mind, of wanting to create new value in an existing organization (Nabi et al, 2006; Guerrero et al, 2008). Therefore, entrepreneurship, as a social phenomenon, has been of the psychology interests for many years (Quezada, Vega-Valero & Nava-Quiroz, 2021).

According to Ajzen's Theory of Planned Behavior (TPB) model (2002), intentions are determined by three antecedents: subjective norms, personal attitude, and perception of behavioral control. Studies on entrepreneurial intention, using both Ajzen's Theory of Planned Behavior (TPB) and Ajzen's Theory of Reasoned Action (TRA), shed light on how these antecedents influence individuals' beliefs and intentions about entrepreneurship, indicating what to achieve with the action to undertake; however, they do not consider or explain how, that is, how individuals manage to create something new and different by undertaking.

The attitude towards entrepreneurial behaviour, or personal attraction that one has to undertake, refers to the degree to which an individual personally values, positively or negatively, being an entrepreneur (Ozaralli & Rivenburgh, 2016). For Ajzen (2005), people develop attitudes based on the beliefs they have about the consequences of carrying out certain behaviour (Choo & Wong, 2006; Vanevenhoven & Liguori, 2013). In addition, they have values, preferences, evaluate their own capacities, opportunities and make decisions regarding the initiative to undertake.

The entrepreneurial attitude is described as a cognitive representation of the individual about the actions to be implemented to create a new project. Depending on whether this representation or assessment is positive or negative, the entrepreneurial attitude will trigger, or not, the entrepreneurial intention to create a new project. Consequently, the following hypothesis is put forward:

H1: An entrepreneurial attitude has a positive impact on entrepreneurial intent.

In the literature on entrepreneurship, an individual's perception of what other people and/or reference groups (family, friends, acquaintances) may think about their behavior and decisions refers to subjective norms (Ozaralli & Rivenburgh, 2016). For Ajzen (2002), subjective norms measure the perceived social pressure to carry out, or not, certain behavior. In this sense, it seems evident that the perception an individual has on what other people think about his decisions, will influence the entrepreneurial intention individual presents. Affecting, their entrepreneurial attitude. Consequently, the following hypotheses are put forward:
H2: Self-perception of subjective norms positively affects entrepreneurial intent.
H3: Self-perception of subjective norms positively affects entrepreneurial attitude.

3. Creativity and disruptive innovation

On the other hand, the creation of a new, valuable and useful product, service, idea, procedure or process is known as creativity and to launch it creative skills on the environment situation and the application must be combined. Individuals employ techniques to develop creative skills and bring about change in systems, structures and atmosphere.

Vigotsky (1981) considers that creativity is present in any human being who imagines, transforms or creates something. In the field of entrepreneurship, creativity is considered the starting capacity for the innovation process (Zhou & George, 2001). Thus, entrepreneurship can be understood as a particular facet of creativity and its relationships (Comeche & Pascual, 2014).

According to Fillis & Rentschler (2010) and Schmidt, Soper & Facca (2012), there is countless evidence that creativity is a fundamental skill of entrepreneurs. Consequently, the following hypothesis is put forward:

H4: The self-perception of creative ability positively affects entrepreneurial intent.

Ozaralli & Rivenburgh (2016) and Schwarz (2015) indicate, innovation is the process of turning ideas generated in creativity and knowledge into new value through thought. In this way, innovation is the ability to apply creativity to provide solutions to those opportunities, with the aim of improving or enriching people’s lives (Kabukcu, 2015); for the above, it is necessary to create spaces that promote this type of innovative actions for the development of organizations (Calanchez et al, 2022). In this sense, for the creative destruction of Schumpeter (1934) to take place, the innovation proposed by entrepreneurs must be disruptive. According to Christensen (1997), disruptive innovation refers to a product or service that becomes a leader in a short time, after being introduced in the market, using new business models to surpass in the market the companies that were leaders until then.

In this regard, Martínez-Fierro et al, (2015); George (2007); Baer (2012); Frederiksen & Knudsen (2017) affirm that practicing divergent thinking increases the entrepreneurial skills of individuals; facilitating the generation of a greater number of ideas. In this way, disruptive innovation, according to Bower & Christensen (1995); Christensen (1997); Salazar et al, (2014), is generated through a creative destruction capable of forming new markets, business models and value networks that alter and end up disturbing the traditional areas in the economic-commercial aspect.

Consequently, the following hypotheses are put forward:

H5: The self-perception of innovative ability positively affects entrepreneurial intention.

H6: The self-perception of creative ability positively affects the self-perception of innovative ability.

Diagram 1. Presents the model analyzed, specifying the relationships between the different variables considered and that support the hypotheses formulated.
4. Methodological scope

The study population were potentially enterprising people. Given that, neither in Mexico nor in Spain, there is any registry or database where this population is captured, convenience sampling has been used. The people selected to answer the questionnaire expressed interest in starting a new entrepreneurial activity.

The surveys were voluntary and anonymous, carried out in printed and online format. Several institutions linked to entrepreneurship counseling collaborated to access potentially people belonging to the study population. In Barcelona, Spain, we had the support of the Chamber of Commerce, the City Council, the Autonomous University of Barcelona, Emprendedoria Barcelona Activa and the Rovira i Virgili University. In Mexico we had the support of the National Chamber of Commerce, the National Institute of Entrepreneurship and the Autonomous Popular University of the State of Puebla.

The data were collected between February 1 and April 30, 2019. 253 responses were received, of which 143 from Mexico and 110 from Spain. This means a power of the general sample of 99.9%; being the power of the subsamples of 96.9% for Mexico, 90.7% for Spain; obtained through the software G*Power (Faul et al, 2009). The power indicates the probability of rejecting the null hypothesis when it is false. In social sciences, power levels above 80% are required (Cohen, 1998).

The survey investigated respondents’ self-perception about their
entrepreneurial intent, subjective social norms, their entrepreneurial attitude, their self-perception about their creativity skills, and their self-perception about their disruptive innovation capacity. All items were measured using a Likert scale of 7 points. Entrepreneurial intent and its background, namely subjective social norms and personal attitude towards entrepreneurship, were measured by adapting the scales developed by Aldrich & Martínez (2001) and Rueda et al., (2013).

In order to measure the self-perception of creative ability, it was elaborated from the ideas developed by Zhou & George (2001), with the objective of determining the degree to which certain creative behaviors are presented in the person, incorporating items referring to the production of creative ideas (Amestoy, 1991; Zampetakis et al, 2011). In order to measure self-perception of disruptive innovation capacity, a scale was elaborated from the ideas of Dyer et al, (2011) and Christensen et al, (2015), all served as antecedents and the experience of the authors for the design of the questionnaire used in this research was conclusive.

The statistical analysis of the data to test the hypotheses was carried out by using techniques based on models of structural equations. Given that, in our study, the number of available observations is relatively small, with variables of unknown distribution (absence of normality), and that the study is posed with a markedly exploratory and predictive character, the Smart PLS 3.2.7 program has been used for the estimates (Ringle et al, 2015).

5. Results and discussion

To begin the analysis of the obtained results, Table 3 shows that H1, H3 and H6 can be accepted at 1% and H4 at 5%. On the other hand, the H2 hypothesis is only significant at 10%, and the H5 hypothesis must be rejected.

Table 3
Hypothesis contrast

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>b Standardized</th>
<th>Statistic t (bootstrap)</th>
<th>p Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1. Personal Attitude towards Entrepreneurship -&gt; Entrepreneurial Intention</td>
<td>0.505</td>
<td>5.624 ***</td>
<td>0.000</td>
</tr>
<tr>
<td>H2. Subjective Social Norms -&gt; Entrepreneurial Intention</td>
<td>0.085</td>
<td>1.482 *</td>
<td>0.069</td>
</tr>
<tr>
<td>H3. Subjective Social Norms -&gt; Personal Attitude towards Entrepreneurship</td>
<td>0.430</td>
<td>8.000 ***</td>
<td>0.000</td>
</tr>
<tr>
<td>H4. Self-perception of Creativity Skills -&gt; Entrepreneurial Intention</td>
<td>0.221</td>
<td>2.113 **</td>
<td>0.018</td>
</tr>
<tr>
<td>H5. Self-perception of Skills in Disruptive Innovation -&gt; Entrepreneurial Intention</td>
<td>0.043</td>
<td>0.426</td>
<td>0.335</td>
</tr>
<tr>
<td>H6. Self-perception of Creativity Skills -&gt; Self-perception of Skills in Disruptive Innovation</td>
<td>0.868</td>
<td>33.077 ***</td>
<td>0.000</td>
</tr>
</tbody>
</table>

R²(Entrepreneurial Intention) = 0,583;
R²(Personal Attitude towards Entrepreneurship) = 0,185;
R²(Self-perception of Skills in Disruptive Innovation) = 0,754;
Q²(Entrepreneurial Intention) = 0,360;
Q²(Personal Attitude towards Entrepreneurship) = 0,140;
Q²(Self-perception of Skills in Disruptive Innovation) = 0,510;
***p<.01; **p<.05; *p<.10

Source: Author’s own
The evidence obtained from the study shows that the variable Personal Attitude towards Entrepreneurship has a positive and significant impact (at a confidence level of 99%, $p < 0.01$) on Entrepreneurial Intention (H1). Thus, it is confirmed that personal attitudes and expectations about entrepreneurship, based on individuals’ own beliefs, drive their entrepreneurial intention (Tsordia & Papadimitriou, 2015 and Sabah, 2016). Some of these attitudes are motivation, creativity, leadership, decision making and critical thinking (Quispe et al, 2022).

In contrast, the Subjective Social Norms variable has a very moderate impact on Entrepreneurial Intention (H2), since the parameter estimated is only significant at a 90% confidence level ($p < 0.1$). Consequently, very weak evidence has been found about the intention to undertake is influenced by social opinions towards the enterprise and entrepreneurs (Bosma & Schutjens, 2011), and what the reference groups may think about the behaviour and decisions of the entrepreneur, influences the intention to undertake (Ozaralli & Rivenburgh, 2016; Ajzen, 1991). This contrasts with the evidence obtained in some studies (Tsordia & Papadimitriou, 2015; Sabah, 2016); but coincides with the results obtained by Liñán & Chen (2009) and Rueda et al, (2013).

In relation to the H3 hypothesis, the relationship between the Subjective Social Norms variable in its incidence on the Personal Attitude towards Entrepreneurship variable is positive and statistically significant at a confidence level of 99% ($p < 0.01$).

A result that shows that the attitude towards entrepreneurship is modulated by social pressure or opinions of the reference groups of entrepreneurs; that is, entrepreneurs make their own decisions and forge a certain attitude towards entrepreneurship, but this is influenced by the opinions of society internalized by the entrepreneur. This aspect coincides with the findings obtained in the studies by Liñán & Chen (2009), Rueda et al, (2013), Tsordia & Papadimitriou (2015) and Sabah (2016).

The Self-perception of Creativity Skills has a positive and significant impact on the Entrepreneurial Intention (H4), at 95% ($p < 0.05$), in this way evidence is obtained that the creativity of entrepreneurs influences their intention to undertake, becoming an indispensable ability to start a new activity (Fillis & Rentschler, 2010; Schmidt et al, 2012).

The H5 hypothesis, which analyses the impact of the Self-perception of Skills in Disruptive Innovation on Entrepreneurial Intention, is not significant, and there is no evidence that the innovative skills of entrepreneurs influence their intention to undertake.

Finally, there is evidence that the Self-perception of Creativity Skills positively and significantly affects 99% ($p < 0.01$) on the Self-perception of Skills in Disruptive Innovation (H6), confirming that creativity is a precursor variable of innovation (Frederiksen & Knudsen, 2017).

6. Conclusions

In today’s globalized and highly competitive economy, entrepreneurs must continuously think about how they expand and improve the value they offer. Basing their approach on a creative idea that promotes disruptive innovation and suits the needs of society.

On regards to the causal relationships raised in our model, the empirical evidence obtained confirms that the intention to undertake is directly
and positively influenced by the personal attitude towards entrepreneurship. On the contrary, there is no significant direct effect of the subjective norm on the intention to undertake. The explanation of this circumstance could be due to the fact that entrepreneurs are governed to a greater extent by their own expectations and reasoning when showing their entrepreneurial intention.

In relation to the effect of creativity and disruptive innovation on entrepreneurial intent, the empirical evidence obtained confirms that self-perception about the creative abilities of entrepreneurs positively affects their intention to undertake. It seems logical that entrepreneurs must initiate new projects based on innovations in order to have chances of success in the market, but it is not necessary the entrepreneurs who have developed that innovation. However, it can be stated that self-perception about the creative abilities of entrepreneurs affects self-perception about their disruptive innovation abilities, confirming that creativity is a precursor variable of innovation.

In the evidence obtained when analyzing potential entrepreneurs in Mexico and Spain, a relatively similar behavior was observed, fruit of the growing uniformity of thought, generated by economic globalization; highlighting some observations: Mexican entrepreneurs present a greater relationship to the influence of the entrepreneurial attitude on entrepreneurial intention. And the variable Subjective Social Norms, presents a slight incidence on the entrepreneurial intention in the Mexican entrepreneurs, not being significant for the Spaniards.

In addition, the Subjective Social Norms variable has a greater incidence on the Personal Attitude towards entrepreneurship variable among Mexican entrepreneurs; thus, social pressure exerts a greater influence on the determination of the entrepreneurial attitudes of Mexicans. On the other hand, Spanish entrepreneurs rely more on their creative capacities to develop their projects than Mexican entrepreneurs do, and this has a different impact on their respective entrepreneurial intentions.

In this way, the results obtained raise important management implications, given that the attitude and intention to develop an entrepreneurial project are determined by the perception of the opinions of reference groups or subjective social norms. It is evident the need to develop communication and training campaigns aimed at society as a whole in order to promote a better opinion of the entrepreneurial process, as well as, to generate actions that allow the development and inclusion of creativity and disruptive innovation as part of the entrepreneurial process.

References bibliographic


emprendimiento y su relación con el empleo, la educación y el desarrollo local [Conferencia]. VII Congreso Nacional e Internacional de Administración, Buenos Aires, Argentina.


