

Research Article

Entrepreneurial attitude and culture in university graduate entrepreneurs of the Victoria de Durango municipality

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Abstract

Objective of the study: Analyze the entrepreneurial attitude and culture in university entrepreneurs in the Victoria de Durango municipality, Mexico. **Methodology/approach:** The unit of analysis was 152 university entrepreneurs, they were studied using a mixed approach: quantitative through a questionnaire and through a statistical analysis with a structural and qualitative equation model through interviews. **Main results:** The main findings show that the entrepreneurial attitude and the entrepreneurial culture are significantly related, influencing the development of university entrepreneurship; where the most significant factors are "Opportunity" and "Innovation", which shows that they are entrepreneurs with initiative to identify opportunities in the market, but not only that, but the innovation component is added, which shows that they are professionals who seek to break with a traditional scheme and have a more proactive vision to offer products with greater added value that could ensure their permanence in the market. **Theoretical/methodological contributions:** This work is relevant because it allows us to know the motivations that graduates of public Higher Education Institutions (HEIs) have to create entrepreneurship and what are the main elements that influence the decision to undertake. **Relevance/originality:** The results offer information on the motivations, needs and obstacles faced by entrepreneurs and that could be used to outline selective public policies to encourage the growth of university entrepreneurship as a strategy to promote qualified employment. **Social/management contributions:** Studying the entrepreneurial attitude and culture of university entrepreneurs allows the creation of companies with high technological and technological content. innovation in products and processes.

Keywords: Entrepreneurial Attitude; Entrepreneurial Culture; University Entrepreneurship; Victoria de Durango; México.

Actitud y cultura emprendedora en los emprendedores universitarios del municipio Victoria de Durango

Resumen

Objetivo del estudio: Analizar la actitud y cultura emprendedora en los emprendedores universitarios en el municipio Victoria de Durango, México. **Metodología/enfoque:** La unidad de análisis fueron 152 emprendedores universitarios, se estudiaron mediante un enfoque mixto: cuantitativo mediante un cuestionario y mediante un análisis estadístico con un modelo de ecuaciones estructurales y cualitativo a través de entrevistas. **Resultados principales:** Los principales hallazgos muestran que la actitud emprendedora y la cultura emprendedora se relacionan significativamente influyendo en el desarrollo del emprendimiento universitario; donde los factores más significativos son la "Oportunidad" y la "Innovación", lo que demuestra que son emprendedores con iniciativa para identificar oportunidades en el mercado, pero no solo eso, sino que se agrega el componente de innovación, lo que muestra que son profesionistas que buscan romper con un esquema tradicional y tienen una visión más proactiva para ofrecer productos con mayor valor agregado que podría asegurar su permanencia en el mercado. **Aportes teóricos/metodológicos:** Este trabajo es pertinente porque permite conocer las motivaciones que tienen los egresados de Instituciones de Educación Superior (IES) públicas para crear emprendimientos y cuáles son los principales elementos que influyen en la decisión de emprender. **Relevancia/originalidad:** Los resultados ofrecen información sobre las motivaciones, necesidades y obstáculos que enfrenan los emprendedores y que pudieran utilizarse para delinear políticas públicas selectivas para incentivar el crecimiento del emprendimiento universitario como una estrategia de fomento al empleo calificado. **Contribuciones sociales / de gestión:** Estudiar la actitud y cultura emprendedora en los emprendedores universitarios permite la creación de empresas con alto contenido tecnológico y de innovación en productos y procesos.

Palabras-clave: Actitud Emprendedora; Cultura Emprendedora; Emprendedorismo Universitario; Vitória de Durango; México.

INTRODUCTION

Since the 1970s, studies on entrepreneurship have been increasing and diversifying (Espíritu, 2011; Audretsch & Keilbach, 2004; Wennekers, 2005). Entrepreneurship has been studied from different disciplines such as psychology, economics, and sociology. In different parts of the world, actions have been incubated to promote entrepreneurship and contribute to economic progress through the creation of companies, mainly Small and Medium-sized (SMEs); and support young people with specific programs for the development of their own business, based on the assumption that entrepreneurs create jobs, favor competitiveness, modernization and technological change (Cruz & Justo, 2017; Penfold & Vidal, 2011; Acs & Mueller, 2008; Van Praag & Versloot, 2007; Aulakh et al., 2000).

In Latin America, in an increasingly widespread way, governments and the business and educational spheres (especially Universities) are carrying out actions to promote an entrepreneurial attitude and culture, through programs that promote new ventures through multidisciplinary education and specific research projects for the creation of companies from different sectors (Penfold & Vidal, 2011; Dapena, 2015).

Unlike Latin America, entrepreneurship in Europe has been conceived as a constant public policy in most countries because its importance as a detonator of innovations, competitiveness and economic and social growth has been demonstrated (Thurik & Wennekers, 2004). In this same line, entrepreneurship is considered the main factor that contributes to the socioeconomic development of a local territory, unfortunately, Latin American ventures have high failure rates during their first 5 years of operation (Zapata-Molina et al., 2022).

Entrepreneurship is a difficult activity, it requires tenacity, conviction, skill and, above all, confidence in what is done. Different countries are creating institutional efforts to make university professionals see entrepreneurship as an opportunity for social growth, rather than through the traditional route of obtaining a job (Villarán & Golup, 2010).

Today, some governments are emphasizing the development of productive projects through universities, promoting and encouraging entrepreneurship in their students; thus, university students and graduates will be able to generate innovative ventures that contribute and transform the entrepreneurial culture, where the unemployment rate is declining, and this growth serves so that entrepreneurs have the necessary conditions to create their own company and make this a life project (Aulakh et al., 2000; Dapena, 2015).

Mexico is considered the second-best country to undertake in Latin America, the entrepreneurial population is made up of 5 thousand 883 people, who are between 30 and 59 years old; only 522 are young people between 18 and 29 years of age. There are more registered male entrepreneurs with 66% against 34% women (National Institute of Geography and Statistics (INEGI), 2019).

Mexico ranks 23rd among the 54 nations analyzed by the Global Entrepreneurship Monitor (GEM) indicator (2018-2019). 49.9% of Mexican men and 41.2% of women consider that they have the necessary knowledge, skills, and experience to start a business or company. For each person who undertakes out of necessity, 2.9% do so for an opportunity to improve. 56% undertake motivated by an opportunity to improve their income or quality of life (INEGI, 2019).

In Mexico, the current situation of young people to get a secure job is not very encouraging, the highest level of unemployment was reached in 2019 (García, 2019). According to data from the National Institute of Statistics and Geography (INEGI), the unemployment rate was 3.6% in relation to the Economically Active Population (PEA). Regarding the generation of jobs, it is not proportional to the

number of graduates from Higher Education Institutions (HEIs), which has an impact on the employment rate in this area of the population (INEGI, 2019; Homs, 2017).

Therefore, entrepreneurship is a way to achieve economic security during and at the end of university studies. Entrepreneurship allows self-employment and the production of innovative goods and services (Canales et al., 2017). In this sense, the entrepreneurial culture is related to socio-economic factors of the environment such as the labor market, education, and roles in society. In the case of the entrepreneurial attitude, it is related to working conditions, the need to improve their job position and obtain social recognition, as well as contextual, cultural, social, economic, and personal issues (Pedrosa, 2015; Turró et al., 2014).

The objective of this article is to relate the entrepreneurial attitude and culture in university graduate entrepreneurs in the Victoria de Durango municipality. This research is pertinent because it allows us to know the motivations that graduates of public Higher Education Institutions (HEIs) to undertake. This information is useful to understand if in the municipality of Durango there are actions that promote an entrepreneurial culture and what are the main elements that influence the decision to undertake. This study was based on the Theory of Planned Behavior (TBP) proposed by Ajzen (1991), where the entrepreneurial attitude is studied considering personal and social factors, this theory of a social-cognitive nature has been successfully applied in different areas.

The TBP establishes a coherent and applicable theoretical framework, which allows predicting entrepreneurial intention considering not only personal factors, but also social ones (Krueger et al., 2000). The TBP is made up of three components that define the intention towards: attitude towards the behavior, subjective norm, and perceived behavioral control. These elements predict the entrepreneurial attitude in a more direct way. The attitude towards the behavior component is referenced by a set of behavioral beliefs that links behavior to various results in the entrepreneurial field, that is, the attitude is a series of emotions that places the entrepreneur in a positive or negative state of mind, which leads to having a different behavior and way of thinking depending on its state of mind, which applied to entrepreneurship can promote entrepreneurial behavior or cause loss of interest to undertake.

The study was carried out using a mixed approach, that is, qualitative and quantitative, the first through semi-structured interviews and the second with a survey of 152 university graduate entrepreneurs. The main findings show that the entrepreneurial attitude and the entrepreneurial culture have a significant relationship and influence the creation of university graduate ventures. Emphasizing that the factors that have the most weight in each of the variables are "Search for Opportunities" and "Innovation". The least significant factor is "Risk taking" of the entrepreneurial attitude variable, being contradictory in relation to the Theory of Planned Knowledge that emphasizes this element. However, there is a justification, the economic stability of the entrepreneurs analyzed, due to seniority and the beginning of their ventures, allows us to explain why "Risk taking" is not a significant variable.

The article is divided into five sections, the first presents the characteristics of the Victoria de Durango Municipality; the second exposes the concept of entrepreneurial attitude and culture and university graduate entrepreneurship; the third one explains the applied methodology; the fourth the analysis of results and finally, the fifth one presents the general conclusions of the study.

THEORETICAL FRAMEWORK

Classic authors such as Weber (1977) have presented writings, from the economic context, where they showed their interest in entrepreneurial behavior as an influence of the social context.

According to this author, entrepreneurs are innovative and independent, whose role as business leaders constitutes a source of formal authority (Espíritu, 2011). Another author who inspired the study of the entrepreneur from the social sciences was McClelland (1965), with his book called "The Achieving Society", and with his subsequent works he was a pioneer in the study of entrepreneurs from a psychological point of view (Espíritu, 2011). Theorists such as Schumpeter (1934) argue that the entrepreneur is an agent that promotes social and economic change and that promoting entrepreneurship generates business dynamism, which contributes to the generation of innovations and economic growth (Licht & Siegel, 2006).

Entrepreneurial development is seen as an ally in the face of the demand for jobs and the insufficient capacity of governments and companies to generate them, hence, in different countries there are programs that promote entrepreneurship, through the creation of Small and Medium Enterprises (SMEs) through different support and financing schemes (Urbano & Álvarez, 2014). Entrepreneurship has become a central objective to accelerate the economic and social progress of nations (Vivel Búa et al., 2008). In Europe, for example, the promotion of entrepreneurship became important in the 1990s (Thurik & Wennekers, 2004). The trend has been similar in other developed countries, such as Japan, Canada, and the United States. Latin America and the Caribbean countries have not been an exception in this process and have also been incorporating the promotion of new ventures (Angelelli, 2005).

A brief context of entrepreneurship

To analyze the concept of "entrepreneurial attitude and culture" it is important to first define what is meant by "undertaking" or "entrepreneurship" and the dimensions it encompasses. For Shane and Venkataraman (2000), entrepreneurship is a process of discovery, evaluation and exploitation of opportunities that entail starting a new business offering a product or service to consumers. The entrepreneur is the person who discovers, evaluates and exploits said opportunity (Félix et al., 2017).

The term undertake is defined as "to undertake, to start something that involves work or presents difficulties", therefore, to undertake is applied to the person who has the initiative and decision to start businesses or undertake companies" (Espíritu, 2011, p. 31).

"Entrepreneurship" is the ability that people must create innovative ideas and make them tangible, it involves creating or transforming a product or service into something more attractive and with greater competitive advantages; it also includes, in some cases, the planning and management of projects to achieve objectives (Hernández et al., 2010).

The word undertake is sometimes used as a synonym for business creation. However, although it seems that it is the same, the fact of creating a company does not make us entrepreneurs, nor does every entrepreneur have to create a company. For this author, being an entrepreneur implies a way of thinking, beliefs, a state of mind, a set of behaviors characterized by innovation, flexibility, and creativity (Espíritu, 2011).

Entrepreneurship is interpreted from an economic vision and a cultural vision. The economic vision conceives entrepreneurship as a factor of economic development; the cultural vision where cultural factors such as beliefs, customs and values have a decisive impact on the development of enterprises (Berger, 1991). That is why "entrepreneurship is framed within an individual and collective nature, where factors such as creativity, imagination, the energy to change a situation and the will to develop it join the leadership capacity to motivate and create synergy with "the others" involved, which make possible the development of a project that was initially an idea" (Gutiérrez, 2006, p. 10)

In this sense, Romero-Matínez & Milone (2016), make a journey through different authors on the importance of entrepreneurship in the economy of a country, they conclude that entrepreneurship is an engine of innovation and growth that reflects the vitality of its economy. Entrepreneurs create jobs, favor competitiveness, economic growth, and modernization of the economy (Hoskisson et al., 2011; Bird et al., 2012; Carlsson et al., 2013, as cited in Romero-Matínez & Milone, 2016).

It is interesting to note that to undertake it is not only necessary to create a new product or start a new company, but also means to innovate or improve an existing product in the market, what matters is to focus on satisfying a need (Hernández, 2010). Various factors affect entrepreneurial activity in a society, among them we can find education, financing for new ventures and the economic and political stability of nations. Some studies show that education is a very important factor in building an entrepreneurial attitude and influences the intentions of entrepreneurs (Fernández-Laviada et al., 2011).

Roth and Lacoa (2009), indicate that when a person with entrepreneurial potential or with a high attitude towards entrepreneurship is recognized, this person is linked to conditions and affinities for change and innovation, as well as a clear ability to renew themselves in the face of adversity and a series of convictions about their possibilities of exercising control over their emotional behavior. It should be considered that having a high entrepreneurial attitude or not will depend on other personal factors that may be subjective or social and that have a positive or negative effect on the way an individual approaches the possibility of undertaking (Durán-Aponte & Arias-Gómez, 2016).

Entrepreneurial attitude

The term "entrepreneurial attitude" is sometimes related to "entrepreneurial spirit" some authors even consider them synonymous, but basically, they focus on the entrepreneurial intentions of individuals that are influenced by social norms and regulatory, legal, economic and financial factors (Romero-Matínez & Milone, 2016).

Entrepreneurship is "the purposeful activity of an associated individual or group of individuals committed to starting, maintaining, or expanding a business unit that is oriented toward earning profits for the production and distribution of economic goods or services" (Duarte, 2013, p. 2). It is also seen as a behavior to manage resources to carry out productive activities (Quintero, 2007).

The entrepreneurial attitude can be favored by educational processes; however, it is also an aspect of the personality of each individual. So, education has the challenge of forming the academic and personal skills of future entrepreneurs (Duarte, 2013). Universities are vehicles that through targeted programs promote entrepreneurial attitudes because the attitude towards entrepreneurship includes values that must be nurtured by situations that encourage it (Pedrosa, 2015).

For Kantis et al. (2004), the entrepreneurial attitude is related to the need for personal development and fulfillment, as well as the desire to contribute to society. The entrepreneurial attitude implies autonomy, self-confidence, assertiveness, creativity, optimism, and confidence.

A person with an entrepreneurial attitude must be optimistic, proactive, persistent, and creative, which is more related to their personality (Durán-Aponte & Arias-Gómez, 2016).

According to Krueger et al. (2000), the reasons that favor the creation of companies can be an economic reward, personal independence, personal or family security, recognition, or the need for investment in a personal patrimony. On the other hand, there are obstacles, among which are the economic risk, the initial capital

needs, tax burden, lack of time and knowledge to start a business or fear of failure (the opinion of family and friends is an obstacle on the creation of enterprises) (Fernández-Laviada et al., 2011).

In addition, the entrepreneurial attitude is positively influenced by the willingness of individuals to change, with effort (effort that includes time and money), with the achievement of personal goals and objectives, the skills to discover business opportunities, sociodemographic characteristics, business heritage, as well as the beliefs and attitudes in which the person operates. But there are also factors that negatively influence the entrepreneurial attitude such as risk and their economic and social situation, to mention a few (Durán-Aponte & Arias-Gómez, 2016).

In the text by Romero-Martínez and Milone (2016), it is explained that the creation of new businesses can occur for two reasons: 1) by opportunity when the individual considers it a source of benefits, both material and immaterial; and 2) out of necessity when the individual opts for entrepreneurship because he cannot find what he is looking for in the labor market (Romero-Matínez & Milone, 2016).

Durán-Aponte and Arias-Gómez (2016), propose some dimensions of the entrepreneurial attitude: 1) Optimism seen as the positive response to adversities related to the business to start, has to do with confidence in achieving its goal and avoiding problems without fear. 2) Proactivity seeking to do in the best way what is undertaken; that is, aim for excellence and commitment. 3) Persistence includes recognizing mistakes, learning from them, and persisting in the objective, seeking solutions to adverse situations. 4) Creativity and innovation having an imaginative and creative attitude that facilitates functioning, satisfying needs and finding answers to new problems (Durán-Aponte & Arias-Gómez, 2016).

Angelelli (2005) states that certain factors can also encourage or hinder the entrepreneurial attitude and the emergence of entrepreneurial projects in a country or region, classifies them into social and economic conditions, culture, the educational system, structure and productive dynamics, the entrepreneur's networks, the factor market, and regulations and policies. Governments are a strategic actor for the development of entrepreneurial activities. The set of rules and policies that affect the creation of companies (taxes, procedures for the creation of companies and initiatives and programs to promote entrepreneurship) they affect, for example, business opportunities and access to them, the acquisition of business vocations and skills, and market entry (Ma et al., 2017; Angelelli, 2005)

Espí et al. (2007), propose three factors that define an entrepreneurial attitude:

- a) sociodemographic factors such as age, gender, parental occupation, professional experience, contact networks and cultural background;
- b) psychological factors such as personality, perseverance, independence, competitive attitude, self-confidence, and adaptation to change;
- c) situational factors, they are related to the actions to create a company, such as unemployment, few opportunities for job growth, interaction with a business situation, undertaking out of necessity or opportunity

Therefore, the entrepreneur is not only the product of upbringing, personality, and psychological factors, but is the result of the mixture of elements typical of culture, family, work experiences and economic situations that, together with variables such as persistence, optimism, creativity, and proactivity are configured to promote entrepreneurship (Durán-Aponte & Arias-Gómez, 2016). In short, entrepreneurial activity can be innate to the individual, it can be learned, but it can also be promoted through an entrepreneurial culture that emerges as a social practice of a well-implemented public policy.

Entrepreneurial culture

The entrepreneurial culture includes "the study of the sources of opportunities, the processes of discovery of opportunities, their evaluation and exploitation, and the people who discover, evaluate and innovate them" (Alemány et al., 2011). Culture has a profound impact on all facets of the entrepreneurial spirit of societies (Licht & Siegel, 2006). Culture "can exercise its effect on the levels and forms of entrepreneurship and on personal traits relevant to entrepreneurship" (Licht & Siegel, 2006, p. 17)

Before continuing, let's define the term "culture"; "Culture refers to the complex of meanings, symbols and assumptions about what is good or bad, legitimate or illegitimate that underlies the prevailing practices and norms in a society" (Bourdieu et al., 1975; Markus & Kitayama, 1994). Culture is a key concept in the social sciences, which evokes the existence of a set of values, habits and customs that characterize a social group linked to a certain territory, a nation, or a State, etc. (Betrones & Silva, 2009). In this sense, Hofstede (1980 as cited in Betrones & Silva, 2009, p. 3) defines culture as an aggregation of shared values, beliefs and expected behaviors. "Culture, as a web of meanings, houses in society and its members perceptions, assessments, prejudices, which guide their actions and decisions, and their ways of coexistence".

In terms of entrepreneurship, entrepreneurial culture is a way of thinking and acting that generates values and attitudes prone to arouse, assume and promote ideas and changes (Moreno et al., 2011). As mentioned above, entrepreneurship can be interpreted from two visions, an economic vision, and a cultural vision, which offers two different perspectives. The first and most studied, conceives entrepreneurship as a factor of economic development in which cultural factors such as beliefs, customs and values have a secondary impact on the possibilities of undertaking. Meanwhile, the cultural vision emphasizes cultural factors as decisive for the development of enterprises (Berger, 1991). That is why entrepreneurship is framed within an individual and collective nature (Gutiérrez, 2006). For Hernández and Arano (2015, p. 36):

entrepreneurial culture is defined as a way of thinking, reasoning and acting, linked to the search for a business opportunity, that can result in the creation, improvement, realization and renewal of value in the broadest sense of the term; that is, not only economic value but also social value, and not only value for their owners, but also for all interest groups linked to them such as employees, suppliers and society in general, a strengthened and growing business generates job opportunities not only for people hired as part of the company's staff, but it also generates growth in another business such as that of suppliers, developing a chain of opportunity and wealth generation.

Some authors relate the concept of entrepreneurial culture to the concept of "creative destruction" of Schumpeter, others explain it as the search for opportunities, the creation of new companies or the generation of new innovative projects. However, in general terms, the entrepreneurial culture includes the study of the sources of opportunities, the processes of discovery, evaluation and exploitation of these, and the people who discover, evaluate, and innovate them (Hernández, 2010).

As for the importance of entrepreneurial culture, it can be analyzed from various spheres, for example, education, organizations, and the public policies of the countries that can promote it. The importance of promoting entrepreneurial culture among university students is highlighted with the intention of awakening in them a business vision that provides them with tools for decision-making in the face of the desire to open a company (Hernández, 2010).

Entrepreneurial culture encompasses the set of values, beliefs, qualities, competences, knowledge of a person or social group to manage or comment on a professional project (Acosta et al., 2014). It can be defined as "the set of symbols, attitudes, skills, meanings,

forms of communication and social organization, aimed at creating and developing ideas that are transformed into relevant projects that create value and generate benefits" (Borrayo Rodríguez et al., 2019, p. 75). The entrepreneurial culture requires initiative and willingness to change to materialize ideas and actions in a creative and innovative effort (Acosta et al., 2014).

From the business side, an organization with a solid entrepreneurial culture encourages individual and collective initiative, autonomy, and participatory decision-making that influences successful projects for the organization (Moreno et al., 2011).

Regarding government policies, in some countries employment, education and economic policies are based on a philosophy of entrepreneurial culture, to develop better and new job opportunities and companies, to have a better development at a competitive level in their country (Hernández, 2010).

In Latin America and the Caribbean, the promotion of entrepreneurial culture is being installed on the agenda of the media through television programs on entrepreneurs and ventures that are broadcast in several countries in the region; there are also spaces on this subject in the graphic media. An interesting example is the business plan contest organized by Dinero magazine in Colombia since 2000. The awards given to young entrepreneurs and dissemination have helped spread the entrepreneurial spirit among the young population of that country. Contests for entrepreneurs have also been held in El Salvador, Argentina, Suriname, and Peru, among other countries, or in Mexico with the creation of INADEM (Kantis et al., 2004).

The development of an entrepreneurial culture requires a lot of work at the micro and macro level, it requires dissemination actions by strategic actors, such as the government and universities, but also if it is accompanied by an entrepreneurial attitude on the part of those involved, it can be a virtuous combination to overcome the obstacles of entrepreneurial activity (Kantis et al., 2004).

University graduate entrepreneurship

Entrepreneurship is a global process present in all countries, which has developed since the existence of man, who has explored and worked to always procure a livelihood (Montiel-Méndez & Soto-Macié, 2020). Entrepreneurship is a process in which ideas are transformed into initiatives, it requires special capabilities, such as the ability to lead, innovate, explore new markets, search for and identify opportunities, and introduce products and/or services taking into account the needs of the context (Crespo-Martínez et al., 2022).

University graduate entrepreneurship has been considered as one of the possible strategies to respond to the crisis of young people to find a decent job and therefore achieve their agency towards the construction of opportunities to generate employment, reduce the high rates of youth unemployment and find solutions to the educational-labor trajectories of young people through the creation of jobs and employment that correspond to them.

The study of university graduate entrepreneurship within the framework of the changes imposed by phenomena such as globalization, also allows us to locate it as a model that adjusts in a particular way to change and crisis. University graduate entrepreneurship is the discipline with the capacity to generate, transform and apply knowledge, for the renewal of resources and contexts, through the creation of entrepreneurial initiatives (Ojeda, 2020).

In this context, HEIs are the main trainers of human resources, in charge of promoting an entrepreneurial attitude in their students, according to a versatile environment, proposing new academic strategies and administrative conditions that promote university graduate entrepreneurship. An important function of universities

is to foster in university students that they can be entrepreneurs, as well as provide the necessary tools (Krauss, 2011). The important thing is that, throughout the educational process, the individual is provided with theoretical-practical tools, the skills to be an entrepreneur, with a strategic basis and a vision of sustainability (Ojeda, 2020).

In this sense, Bienkowska and Klofsten (2018), states that university graduate entrepreneurship was born with the objective of including higher education centers in the economic development of the regions in a broader way, which has led to universities also determining their role and scope in the promotion and development of the entrepreneurial culture; Although some only focus on deepening skills for entrepreneurship, the most common is to find universities that educate for business creation

University graduate entrepreneurship allows HEIs to build knowledge and develop habits, attitudes to generate work oriented towards the creation of entrepreneurial initiatives aimed at personal improvement, to the evolution of the environment and society, at the same time solving and satisfying the needs presented by the community where it develops, with a sense of responsibility and social ethics as well as their interaction and importance within the organizational context where they develop (Bienkowska & Klofsten, 2018)

In this same line, the benefits of universities today are to promote entrepreneurship, considering that one of the concerns of universities is to contribute and promote the development of entrepreneurs through the implementation of various strategies (Daniel, 2021).

University graduate entrepreneurship is a key factor for the emergence of companies, since being an entrepreneur is linked to being innovative, an issue that is subscribed as a cultural fact where the human being achieves his development as an individual, while the business environment ends up providing benefits for their personal and professional growth. Entrepreneurship is developed from different authors over time, which has generated changes in its conception, deriving complements in the theory that have allowed us to talk about being an entrepreneur, entrepreneurial culture, entrepreneurial spirit, business education, entrepreneurial profile, and business ability. The personal characteristics of university entrepreneurial students focus on vital force, the desire to excel and progress, the ability to identify opportunities, the prospective vision towards the future, creative and innovative ability, acceptance and propensity for change, initiative, confidence in one's own faculties, positive mental attitude towards success, commitment, perseverance, perseverance, among others (Falla et al., 2020).

In addition, the enterprising university student must have basic skills such as determination, the ability to make decisions and the questioning of everything, which will be within the cognitive skills; emotional competencies; motivational competencies; and communication, leadership and management, and adaptability, such as interpersonal skills. They are key business skills that should be promoted in university students; the first four characteristics are drivers of other identified competencies and dispositions; but these are important for curriculum planners and developers at universities, because they determine the scope of the programs and their form of instruction (Hynes & Richardson, 2020; Hui-Chen et al., 2014).

In addition to the above, associating the entrepreneurial culture in the university environment as an advantage to the growth of the professional in training, as well as advantages and disadvantages of those who dare to participate in academic and other business tasks (Tuarez, 2022). In the same way, Thursby et al. (2018) states that students who have attended entrepreneurship programs have greater skills, with more positive perceptions of multidisciplinary capabilities, necessary to operate in a business technological environment. A constantly changing society demands that

organizations have the capacity to adapt, that they examine their way of proceeding considering the constant changes in the needs of the context. Modifications that occur in a specific reality can be described as change, to the extent that they alter the situation and generate responses that are different from the existing ones.

Organizations are groups of people who have and pursue similar goals and purposes. Organizations are the result of the way people think and act and present a change when people change their way of thinking, act and interact in the environment where they operate. In a context of uncertainty, university graduate entrepreneurship as a multi and interdisciplinary process requires transformative interactions to create new results for society. Its materialization in the creation of new products and services is the most visible part of a complex system where different actors, contexts, capacities, and resources intervene (Hernández, 2018).

In short, university graduate entrepreneurship is a discipline that generates entrepreneurial initiatives, which are organizations that satisfy the needs demanded by society and common and team interests of each of the members that make them up, promoting social and economic well-being in the environment where they develop. University graduate entrepreneurship generates entrepreneurial initiatives by university graduates, which are organizations that do not sustain themselves, they need different organizations belonging to the public and/or private sector to complement their actions and consolidate in the market.

Once the literature review has been carried out and considering the contributions of the different authors, the following hypothesis is proposed for the present study: "The Entrepreneurial Attitude and the Entrepreneurial Culture have an impact on university graduate entrepreneurship.

METHODOLOGY

In the field of research there are three approaches from which a study can be managed: quantitative, qualitative, and mixed (Hernández et al., 2010). The focus of this research is mixed, according to Hernández (2014), this type of approach measures and estimates the magnitudes, in this case of the variables "entrepreneurial attitude" and "entrepreneurial culture", a delimited and concrete study problem is posed, the literature is reviewed, a theoretical framework is built, the hypotheses are defined and tested to accept or discard them, data collection is based on measurement, the data obtained is the product of the application of a measurement instrument, which are analyzed with statistical methods. Interpretation is an explanation of how the results fit into existing knowledge (Creswell, 2013).

The research design will be correlational to the extent that the existing relationships between the analysis factors of the "entrepreneurial attitude" and "entrepreneurial culture" variables of university graduate entrepreneurs and the ventures generated in the city of Victoria de Durango.

The scope of this research is descriptive, seeking to specify properties, characteristics, and important features of the phenomenon, event, community, context, or situation being analyzed (Hernández et al., 2017). In this research work, the dimensions of "entrepreneurial attitude" and "entrepreneurial culture" and their elements are being considered. This study also presents a correlational design to the extent that the existing relationships between each one of the entrepreneurs graduated from a public Higher Education Institution in the city of Victoria de Durango are to be established.

For Hernández Sampiere and colleagues, design is the method or tactic that is carried out to obtain the information that is required in an inquiry, to respond to the problem statement. This research presents a cross-sectional design because the information was collected in a single period, its purpose will be to describe the

variables and analyze their incidence and relationship at a given time, where the behavior of the dimensions of entrepreneurial attitude and entrepreneurial culture will be observed (Hernández et al., 2017)

It also includes an explanatory design because it seeks to investigate the causes of a social event, by seeking to identify the dimensions under study of university graduate entrepreneurs. In addition to this, with the results a better understanding of the phenomenon to be studied will be achieved (Hernández et al., 2017)

It is an empirical investigation, supported by the analysis to show something ignored, unknown or to prove a supposition. It is based on the concentration of antecedents that are analyzed and studied to establish its meaning (Hernández et al., 2017).

Finally, it is a deductive study, since it is a reasoning strategy used to deduce logical conclusions from a series of premises or principles. In this sense, it is a thought process that goes from the general (laws or principles) to the (phenomena or concrete facts) (Hernández et al., 2017).

Object of study: Victoria de Durango municipality

This section describes the main characteristics of the municipality under study in terms of demographics, economics, and the most important HEIs

Demographic characteristics

The state of Durango is considered the fourth largest in Mexico, it represents 6.29% of the Mexican territory with 1,754,754 inhabitants. It has an area of 123,317 Km², it is divided into 39 municipalities; It borders to the north with the State of Chihuahua, to the northeast with Coahuila, to the southeast with Zacatecas, to the south with Nayarit and to the west with Sinaloa (INEGI, 2014). The municipality of Victoria de Durango is the capital of the state and at the same time the most populated with 654,876 inhabitants; followed by the municipalities of Gómez Palacio and Lerdo with 342,286 and 153,311 inhabitants, respectively (INEGI, 2014). Said municipality represents 37.3% of the state population and 7.5% of the state's surface. Regarding climate, according to the climate chart of the National Institute of Statistics and Geography (INEGI, 2018), 40% of the territory has a dry and semi-dry climate, 34% has a very dry climate, 11% has a warm sub-humid climate and in the remaining territory the climate is humid temperate.

The population distribution is 69% urban and 31% rural; the average schooling is 9.1 years, little more than completed secondary school. Of every 100 people aged 15 and over, 61.6% have completed basic education and only 18.2% completed higher education. Despite these data, Durango has a competitive position at the national level, since only six out of 100 people are illiterate, this represents 4.3% (INEGI, 2018).

Economic characteristics

Durango has a participation of 1.2% in the national GDP, it occupies the 26th place of state participation (INEGI, 2019; SPTS, 2019). The main sectors of activity in the State are tertiary activities (commerce and other services) with 59.1%, followed by secondary activities (manufacturing, extractive industry, and construction) with 31%, and finally with 9.9% are activities primary (agricultural activities). The employed population in the second quarter of 2019 was 768,946 people, made up of 474,281 men (61.7%) and 294,665 women (38.3%), compared to the same quarter of 2018, it reflects an increase of 848 people. 71% are subordinate and paid workers, the rest are self-employed (20.1%), employers (5.5%) and the rest unpaid workers (3.4%) (INEGI, 2019).

The strategic productive sectors of the state are framed in mining, metal-mechanics, agriculture-industry, wood products and auto parts manufacturing. As for the potential sectors of the region, there are research activities, renewable energy, information technology and logistics. In 2016 Durango ranked 22nd according to the State Competitiveness Index (ICE) with a value of 45.37. This index measures the ability of an entity to increase its competitiveness in terms of attracting investment and ability to retain specialized human capital. According to the results of the National Occupation and Employment Survey (ENOE) for the period April-June 2019, the tertiary sector absorbs the largest number of jobs with 58%, which represents 445,961 people of total employment in Durango. Microbusinesses are the ones that generate the most jobs (INEGI, 2019). The primary sector is the second generator of employment with 103,265 people, which represents 13.4%; the secondary sector employs 215,715 people (28.1%) and, finally, 4,005 people did not specify the sector where they are employed (0.5 percent) (INEGI, 2019).

Public higher education institutions

Higher education is one of the effective and important elements in the society of all times. Public HEIs contribute to the formation of human capital, which strengthens the social and economic development of countries. In the specific case of Mexico, there are many public HEIs, whose creation has been aimed at covering two important elements in this matter, coverage and quality. There are 9 federal and 34 state public universities, 266 technological institutes, 114 technological universities, 62 polytechnics, 23 state public universities with solidarity support and 888 institutions divided into 12 subsystems throughout the country (Martínez Orencio et al., 2015).

The state of Durango has 13 public higher education institutions, among which the National Technological Institute of Mexico / Technological Institute of Durango and the Juárez de Durango University (UJED) can be highlighted due to their age and educational offer.

Technique and instrument

For the qualitative part, face-to-face interviews were conducted, using an interview guide with open and closed questions to find out aspects such as: the factors that gave rise to entrepreneurship, strengths, weaknesses, risks, and opportunities during the process of creating your company to have a first approach with university graduate entrepreneurs. The interview guide is made up of 30 questions which were taken from the work carried out by Lechuga Nevárez (2020), who relied on the Theory of Planned Behavior (TBP) for its design, of which seven questions were considered for the aspect of the factors that gave rise to the entrepreneurship, where it was asked: What did you do before starting a business? How and when did the idea of building your own company come about? For aspects of strengths and weaknesses, ten questions, among which are mentioned: What advantages does your business have compared to others like yours? What does your business contribute that is different from what your competition does? How many people collaborate with you to carry out the activities that the company demands? Do you have problems with your staff? What are the most frequent problems with your staff? In relation to the risk aspect, six questions were considered, such as, what was the most difficult thing for you when you started your entrepreneurial project? Tell us about an experience of maximum fear and one of satisfaction that you have lived on your way as an entrepreneur and seven questions for the aspect of opportunities, it was asked what mistake do you think an entrepreneur should avoid? Do you think failure is part of the process of every entrepreneur? What skills do you think an entrepreneur should constantly train? with the aim

of contextualizing entrepreneurship through daily life experience in relation to the behavior, motivations, and characteristics of the entrepreneur.

Regarding the quantitative, a survey was used to collect the information, understood as a technique to retrieve information.

The instrument used to retrieve the information was a questionnaire. The instrument is divided into two sections, the first of which corresponds to the general data of graduate university graduate entrepreneurs, and the second was designed based on the operationalization of variables, where the two dimensions "entrepreneurial attitude" and "entrepreneurial culture" were considered, with a total of 50 items, using a Likert scale with the following values from 1 to 5, where 1 indicates "totally disagree", 2 "somewhat disagree", 3 "neither agree nor disagree", 4 "somewhat agree" and 5 "totally agree". It is worth mentioning that both instruments have not been tested in other research works, since the perspective and objective of the study is different

The population that was considered for this study are 250 university entrepreneurs graduated from a public Higher Education Institution in the city of Victoria de Durango, Durango, conceptualizing population as the set of subjects or things that have one or more properties in common, are found in a space or territory, and vary over time (Vara, 2015).

The sample consisted of 152 university graduate entrepreneurs, which was calculated using the formula for finite populations, obtaining, with a reliability level of 95% and a margin of error of 5%, with a probability of occurrence of the phenomenon of $P=Q=50$. A random probabilistic sampling was used, according to Hernández et al. (2014) in which the elements are randomly chosen from the population, where everyone has the same probability of being selected. For the qualitative part, 30 university graduates were interviewed.

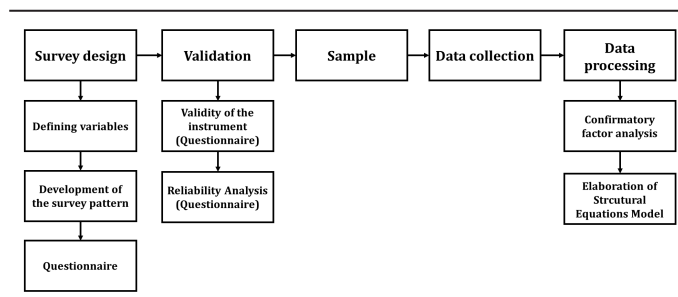
Techniques for information processing, analysis and obtaining results

Various statistical procedures were applied to the data obtained to obtain results that allowed the objectives planned in the investigation to be met. The data was analyzed with the SPSS v24 program, considering a probability value of less than 0.05, which is statistically significant. And for the confirmation of the proposed hypotheses AMOS v24. For the qualitative analysis, the Excel and SPSS v24 tools were used to categorize the information.

A confirmatory factorial analysis was carried out seeking to determine if the number of factors used and their loads correspond to what was expected according to the TBP about the data, that is, that the factors used for the study of each variable are associated with a data subset of the study variables. Confirmatory factor analysis generates a level of confidence to accept or reject the hypothesis. This process is shown in Figure 1.

Figure 1

Methodological course of the study



Note: Elaborated by the authors.

To carry out studies similar to this research, where several variables are to be analyzed in parallel by means of statistical analysis, the use of Structural Equation Models (SEM) is common. These models work with observable or measurable variables (defined as those that have an input value) and latent or unobserved variables (conceptualized as those that do not have a value as such, but can be used as a concept), leading to a stronger correlational analysis, strengthening the correlations used and more accurate estimates of the factors used in the model.

In general, SEMs allow, firstly, to create models based on the degree to which the variables can be measured (Fornell, 1995). Later, it incorporates unobservable variables (latent variables). Establishes relationships between multiple observable variables. It arranges and tests the theoretical-hypothetical model with the empirical data, which allows confirming and explaining said model (Kaplan & Haenlein, 2010).

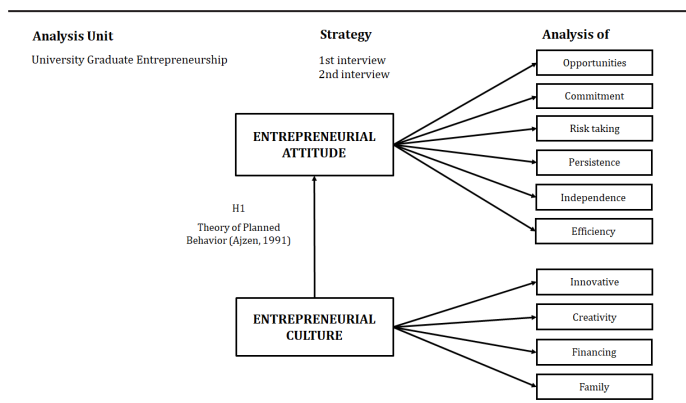
Likewise, this technique shows the statistical indices; goodness of fit (χ^2), root mean square error of approximation (RMSEA), the absolute fit, given by Chi-square Chi-square ratio / degrees of freedom, the comparative fit, explained by the Comparative fit index (CFI), Tucker-Lewis index (TLI), Normalized fit index (NFI), Parsimony normed fit index (PNFI), which are elements that show the level of fit of the structural model.

RESULTS AND DISCUSSION

The average age of university entrepreneurs is 33.7 years. Age allows us to infer that there is some socioeconomic freedom that makes it possible for them to decide to run the risk of undertaking. Regarding gender, 48% (72) women and 52% (80) men, which suggests that male university students are the ones that are developing the most enterprises in this region. 63% are married and 34% single, the marital status of entrepreneurs can encourage the search for new opportunities, in this case it is the married who generate the most entrepreneurship.

The proposed theoretical - hypothetical model of "entrepreneurial attitude" and "entrepreneurial culture" is explained as follows: for the analysis of the entrepreneurial attitude, the factors of "Opportunities", "Commitment", "Risk taking", "Persistence", "Independence" and "Efficiency" were considered; Regarding the entrepreneurial culture, "Innovation", "Creativity", "Financing" and "Family" were taken into account, these variables were defined from the reviewed literature. The model is shown in Figure 2.

Figure 2
Proposed theoretical model



Note: Elaborated by the authors.

The confirmatory statistical analysis through the SEM technique generated results that are shown in Table 1, where the goodness-of-fit indicators of the final model are good. With these results it is

possible to determine that there is a statistically significant direct effect of each of the factors of the Entrepreneurial Attitude and the Entrepreneurial Culture.

Table 1

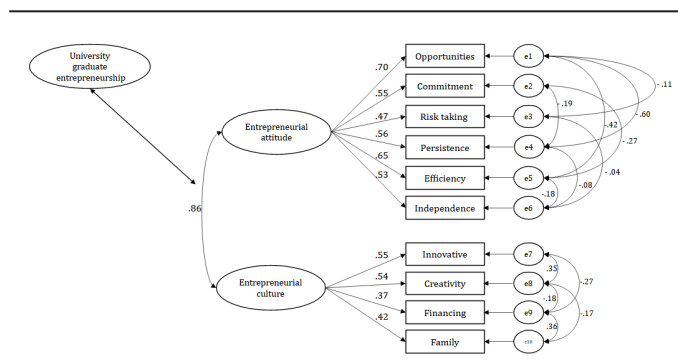
Fit statistics

Statistic	Code	Criterion	Value obtained	Acceptability level
Absolute Fit				
Chi-square Ratio	X2	Sig. > 0.05	.466	
Chi-square / degrees of freedom	χ^2 / gl	Less than 3	54.2/21	Acceptable
Comparative Fit				
Goodness of fit index	GFI	≥ 0.90	.903	Acceptable
Tucker-Lewis index	TLI	≥ 0.90	.912	Acceptable
Normalized Fit Index	NFI	≥ 0.90	.924	Acceptable
Parsimonious fit index Corrected for parsimony	PNFI	Close to 1	.901	Acceptable

Note: Elaborated by the authors. Sig. = Significance.

On the other hand, the factorial loads that allow establishing the correlation between the variables and the factors (Garson, 2022) show that the closer they are to one, the greater will be said correlation and weight of influence and explanation for each one, empirically it is established that the factor loadings must be between 0 and 1. The factor loadings for this study are shown in Figure 3 and Table 2.

Figure 3
Adjusted theoretical model



Note: Elaborated by the authors. RMSEA = .021

It is observed that for the latent (exogenous) variable, the observable (endogenous) variables considered for analysis, the observable variable "Opportunities" is the one with the greatest factorial weight (.70) over the latent variable entrepreneurial attitude, which explains that the analyzed university graduate entrepreneurs created their entrepreneurial initiatives based on the search for an opportunity and not only a need, this speaks of a previous investigation to choose the type of business, where there is a demand to satisfy and that can be translated into solid businesses and quality products.

In hierarchical order, the observable (endogenous) variable "Efficiency" is the one that has a significant factorial weight (.65) in the entrepreneurial attitude to start one's own business. This shows the importance for the entrepreneur of the optimal use of the resources available to undertake, including material resources and human capital.

Table 2
Standardized regression weights of the adjusted model

Observable variable	Latent variable	Factorial weight
Opportunities	<--- Entrepreneurial Attitude	.696
Commitment	<--- Entrepreneurial Attitude	.546
Risk taking	<--- Entrepreneurial Attitude	.466
Persistence	<--- Entrepreneurial Attitude	.563
Efficiency	<--- Entrepreneurial Attitude	.653
Independence	<--- Entrepreneurial Attitude	.531
Innovative	<--- Entrepreneurial Culture	.554
Creativity	<--- Entrepreneurial Culture	.542
Financing	<--- Entrepreneurial Culture	.373
Family	<--- Entrepreneurial Culture	.421

Note: Elaborated by the authors.

The observable variables considered as determinants by a large majority of respondents were "Persistence" (.56) and "Commitment" (.55), which means, insisting and persevering in achieving their objectives, strengthened the creation, development and consolidation of their businesses and a degree of responsibility that generates credibility and trust in the associates of the company and with society. In addition to the above, the idea of having "personal independence" (.53), where the freedom to organize work and not having bosses was also a factor valued by the surveyed entrepreneurs, personal independence is linked to economic independence; in this case, owning your own business contributes to achieving said independence.

The observable factor with the least factorial weight for the latent variable Entrepreneurial Attitude was "taking risk" (.47), which indicates that age and socioeconomic security strengthened the development of entrepreneurship, meaning they faced the obstacles and contingencies that they had to face during the entrepreneurship process.

For the analysis of the latent variable Entrepreneurial Culture, 4 observable variables were considered: "Innovation", "Creativity", "Financing" and "Family". The factor that had the most factorial weight is "Innovation" (.55), followed by the "Creativity" factor (.54), which explains that the degree of innovation of the entrepreneurial project makes it possible for entrepreneurship to be at the forefront and represents a strength in the face of constant competition in this globalized world. That is, the ventures have an innovative content that could influence their permanence and success in the market and that is somehow linked to the search for new opportunities and not only to the creation of companies out of necessity, the search for new opportunities encourages the creation of innovative products and/or services, also taking into account that they are university students, they use their knowledge to consolidate cutting-edge businesses.

The literature explains that when the entrepreneur is innovative, he explores the limits of his abilities and experience, regardless of the activity he is engaged in, when a person dedicates himself or explores areas that are outside of what he normally does or knows, he enters a dimension in which he can be very successful, since he does things differently. Following creative thinking combined with seeking high performance in business makes the entrepreneur consider what is happening in the environment and adapt to the most changing environments in society (López et al., 2013).

In this same order, the observed factor "Family" presented a representative factorial weight (.47), which indicates that for the entrepreneurs analyzed, contributing to the strengthening of the family, and having their support is very important and transcendent in each of the activities they carry out. Since entrepreneurs seek new opportunities, having family support, especially at an economic level, contributes to the creation of robust companies and with the possibility of overcoming the initial stage of an organization, where in many cases there are no immediate profits.

The observed factor that had the least weight was "Financing" (.37), which indicates that for the group of businessmen-entrepreneurs analyzed, the financial issue was not significant or determining, which suggests that most of the ventures were solved with their own resources. The interviewees explained that the most common sources of financing they had access to are financial resources obtained from friends and family, their own savings, and lastly, access to some type of credit.

Financing is one of the main obstacles to creating a company or business, since without financial resources it is impossible to undertake. However, in this case, the family support network, friendship, and own resources were important to overcome this obstacle. 90% of the entrepreneurs surveyed did their business with their own resources (own savings or from the family network) and only 10% with resources from government support programs. Since, as is well known, the requirements in relation to guarantees, economic situation, savings and others limit the possibilities of obtaining a loan, even though the entrepreneur may have a productive capacity (Chagerben et al., 2017).

Finally, the existing correlation between the Entrepreneurial Attitude and Entrepreneurial Culture variables is shown with an estimated value of .857 greater than the recommended value >0.05 , which indicates the strength and trajectory of a linear correspondence and the proportionality between the two variables analyzed, that is, if the values of the analysis factors of the variable "Entrepreneurial Attitude" decrease, so do those of the variable "Entrepreneurial Culture" and vice versa. That is, if any of the values of the factors used to evaluate the variables "Entrepreneurial Attitude" and "Entrepreneurial Culture" have any change, this will affect the behavior of both. This result is shown in Table 3.

Testing the hypothesis

The Root Mean Squared Approximation Error (RMSEA) = 0.021 \leq 0.05, this establishes that the relationships between the factors and the proposed hypothesis have significance. The analysis carried out to verify the proposed hypothesis begins with the study of each one of the constructs, the analysis carried out between the "Entrepreneurial Attitude" and the "Entrepreneurial Culture" have a correlation of .857 being >0.05 (minimum recommended value) and a Tucker Lewis index value = 0.912 (>0.90 minimum recommended value), so the hypothesis is confirmed and accepted, this result is shown in Table 3.

H1: The Entrepreneurial Attitude is correlated with the Entrepreneurial Culture that impacts university graduate entrepreneurship. Showing that there is a strong dependency between both variables, which influences the development of university graduate entrepreneurship.

Table 3
Correlations of the fitted model

Latent constructs	Factorial weight
Entrepreneurial Culture <--> Entrepreneurial Attitude	.857

Note: Elaborated by the authors.

The most important factors that explain the Entrepreneurial Attitude and the Entrepreneurial Culture are "Opportunity" with an estimated value of .70 and "Innovation" with an estimated value of .55 respectively. This result indicates a change of attitude on the part of the surveyed entrepreneurs, a metamorphosis occurred, where the entrepreneur broke with a traditionalist scheme of undertaking, had a proactive vision, which perhaps at the time, once the opportunity was detected or found, it took longer to develop it, but it evolved and in the drive to achieve their dream, being committed, persisted and with self-trust to take a risk, which allowed to become independent and consequently to create more solid ventures. In addition to the above, they innovated, because they were not satisfied with just covering an existing need, but rather sought to provide added value.

According to the professional profile of the university graduate entrepreneurs under study, the results show that the largest number of companies created were in the Computer Systems Engineering specialty with a value of 11.1%, followed by the career of Business Management and Biochemical Engineering with 9.2% respectively; Engineering in Administration with 8.5%; Industrial Engineering with a total of 7.2%, Mechanical Engineering, Information Engineering, Information and Communication Technology Engineering, Electronic Engineering and Electrical Engineering 6.6% each; Chemical Engineering 5.9%, finally Architecture, Mechatronic Engineering and Civil Engineering with 5.3% respectively. These results can be explained given the nature and material requirements that each of the enterprises need for their creation.

In the case of companies created by graduates of Computer Systems Engineering, the use of Information and Communication Technologies (ICTs), computer equipment and a good business idea can lead to the creation of a successful company. Failing that, those specialties such as Architecture and Civil Engineering, it may be that the number of resources necessary to make possible the creation of a business are greater due to their nature and characteristics, which hinders the development of the venture.

CONCLUSIONS

The objective of this study was fulfilled since it allowed to relate the entrepreneurial attitude and culture in university graduate entrepreneurs. University graduate entrepreneurship is related to the capacity that university graduates must create ideas, identify opportunities and define the appropriate scenarios and conditions to turn them into reality through the process of creating consolidated and sustainable entrepreneurial initiatives; that allows them to be self-employed, act with commitment, responsibility and, motivated to become independent and self-sufficient, job creators generating a dynamic of benefit for all involved. The most important factors that explain the Entrepreneurial Attitude and Culture are "Opportunity" and "Innovation". This result indicates a change of attitude on the part of the surveyed entrepreneurs, a metamorphosis occurred, where the entrepreneur broke with a traditionalist scheme of entrepreneurship and had a proactive vision.

University graduate entrepreneurship is the result of an attitude, it is a know-how by doing it. The results obtained determine the importance of the Entrepreneurial Attitude and Culture in the development of university graduate entrepreneurship, each of the factors analyzed have a significant weight in these two variables, which suggests that Public Higher Education Institutions establish different mechanisms to promote and strengthen them during their professional training.

The results obtained allow us to determine that the proposed hypothesis is accepted, the values obtained are within the acceptable ranges, and at the same time it is possible to fulfill the objective planned at the beginning of this study.

It's interesting that the most important factors that explain the entrepreneurial attitude and the entrepreneurial culture as a whole are "Opportunity" and "Innovation", which shows that they are entrepreneurs with initiative to identify opportunities in the market, but not only that, but also the innovation component is added, which shows that they are professionals who seek to break with a traditional scheme and have a more proactive vision to offer products with greater added value that could ensure their permanence in the market.

In this sense, good efforts should be made by the governments regarding the regularization of existing public policies to promote entrepreneurship, observing what other countries are doing to achieve entrepreneurship objectives, leaving aside those that have not been well directed or that have used traditional strategies that instead of promoting and strengthening entrepreneurship, hinder it. Delineating selective public policies to encourage the growth of university graduate entrepreneurship could be a strategy to promote qualified employment and the creation of companies with a high technological content and innovation in products and processes.

The main limitations of this work were the insufficient financial resources for the field work and the time dedicated to making the entrepreneur aware of the importance of participating in this type of study.

For future research, it would be interesting to study university graduate entrepreneurship from comparative studies with conglomerates of graduate university entrepreneurs, with university entrepreneurs not yet graduated, and with empirical or unprepared entrepreneurs considering other factors, which show different results, but which enrich the study constructs, which would offer a range of information to know the performance and behavior of entrepreneurs depending on the type of venture.

The subject of Entrepreneurial Attitude and Culture in university graduate entrepreneurship is so broad that this study is a watershed for future lines of research such as: comparative study of entrepreneurial culture in university graduate entrepreneurs from public and private institutions; the entrepreneurial culture of university graduate entrepreneurs with a gender perspective; motivation as a factor of entrepreneurial attitude and culture in university graduate entrepreneurs from higher education institutions; The entrepreneurial spirit stems from the entrepreneurial attitude and culture in university graduate entrepreneurship and the entrepreneurial intention and entrepreneurial culture in university entrepreneurs from public institutions.

Conflict of interest statement

The authors declare that does not exist an interest conflict.

Authors' statement of individual contributions

Roles	Contributions	
	Chavarría JH	Lechuga-Nevárez MR
Conceptualization	■	■
Methodology	■	■
Software	■	■
Validation	■	■
Formal analysis	■	■
Investigation	■	■
Resources	■	■
Data Curation	■	■
Writing - Original Draft	■	■
Writing - Review & Editing	■	■
Visualization	■	■
Supervision	■	■
Project administration	■	■
Funding acquisition	■	■

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