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Entrepreneurial Ecosystem determining University Entrepreneurship in Durango, Mexico

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ABSTRACT

An entrepreneurial Ecosystem is a group of agents that interact formally and informally to promote a context with favorable conditions that strengthens, develops, and consolidates University Entrepreneurship. The objective of this study is to analyze the Entrepreneurial Ecosystem of University Entrepreneurship in the city of Victoria de Durango. The method used is quantitative, the design is descriptive, explanatory, and correlational; the scope is transversal. A survey was applied to university entrepreneurs in Victoria de Durango. Descriptive and inferential statistics were used for data analysis. The results obtained show a strong relationship between University Entrepreneurship and the Entrepreneurial Ecosystem, indicating the importance of their interaction and impact on the process of entrepreneurial activity. The originality of the study lies in the contribution for those responsible for the different agents of the Entrepreneurial Ecosystem and who jointly make synergy to promote entrepreneurship. Limitations, time and access to the entrepreneurs surveyed.

Palabras clave: entrepreneurship, university entrepreneurship, entrepreneurial ecosystem

Ecosistema Emprendedor determinante del Emprendimiento Universitario en Durango, México

RESUMEN

Ecosistema Emprendedor es un conjunto de agentes que interactúan formal e informalmente para propiciar un contexto con condiciones favorables que fortalezca, desarrolle y consolide el Emprendimiento Universitario. El objetivo de este estudio es analizar el Ecosistema Emprendedor del Emprendimiento Universitario en la ciudad de Victoria de Durango. El método usado es cuantitativo, el diseño es descriptivo, explicativo y correlacional; el alcance es transversal. Se aplicó una encuesta a los emprendedores universitarios en Victoria de Durango. Para el análisis de los datos se usó estadística descriptiva e inferencial. Los resultados obtenidos muestran una relación fuerte entre el Emprendimiento Universitario y el Ecosistema Emprendedor, indicando la importancia de su interacción y repercusión en el proceso de la actividad emprendedora. Originalidad del estudio, radica en la contribución para los responsables de los diferentes agentes del Ecosistema emprendedor y que de forma conjunta hagan sinergia para propiciar el emprendimiento. Limitaciones, el tiempo y acceso a los emprendedores encuestados.


Palabras claves: emprendimiento, emprendimiento universitario, ecosistema emprendedor

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INTRODUCCIÓN

Promoting entrepreneurship is an urgent task, since directing efforts towards the promotion of business activity contributes to economic development, the creation of new job opportunities, well-being and the generation of wealth. Therefore, each component of the entrepreneurial ecosystem is crucial, as they complement each other to establish the necessary conditions for an entrepreneur to carry out their project. These components act as factors that can stimulate or hinder the growth of organizations (Briseño-Aguirre, Saavedra-García, & Velázquez-Rojas, 2024).

Due to the global crisis that affects social, economic and environmental aspects, entrepreneurship becomes crucial as a response to the scarcity of opportunities, high rates of unemployment, inequality and exclusion. It is presented as an alternative to address these problems effectively (Sigüenza-Orellana, Álava-Atiencie, Pinos-Ramón & Peralta-Vallejo, 2022).

To speak of entrepreneurship is to do, it is to create, and it is to stimulate that persuasion for the search and creation of opportunities that will contribute to the development and economic, social and business growth. The promotion of entrepreneurship is one of the main factors that can significantly impact the social and economic development of a country (Jose & Salviati, 2021). In this way, different public and private organizations perceive it as a priority element, so they promote policies that help entrepreneurship and self-employment (Gulnara, Gulnaz, Saltanat and Gaukhar, 2021; Herrera-Valverde, Mora-Esquivel and Leiva, 2020; Huezo-Ponce, Fernández-Pérez and Rodríguez-Ariza, 2020; Haneberg and Aaboen, 2020; O'Brien, Cooney, and Blenker, 2019; Mason, Anderson, Kessl, Hruskova, 2019; Link and Sarala, 2019; Fuster, Padilla-Meléndez, Lockett and del-ÁguilaObra, 2019; Huang-Saad, Duval-Couetil, and Park, 2018).

The knowledge, competencies, skills, and attitudes offered by entrepreneurship make possible its growth and consolidation. Communities such as Silicon Valley, Boston, Berlin, Tel Aviv, London, and Boulder took decades to become advanced and robust innovation and entrepreneurship ecosystems. In this line, each community has the opportunity to become a flourishing ecosystem, showing that ecosystems can grow anywhere, observing that ecosystems are taking off all over the world, and not only in the United States, once their benefits are known; currently, this is also influencing Mexico who is adopting these mechanisms. In this way, ecosystems foster and strengthen innovation,

entrepreneurship, the achievement of social changes, and the increase of employment opportunities. Nations, cities, regions, universities, and others are collaborating to establish entrepreneurship ecosystems as a component of entrepreneurship growth and consolidation. (Ochoa & Valenzuela, 2021). In recent decades, and especially in recent years, universities have implemented new educational methodologies focused on the promotion of business and entrepreneurial skills.

In this way, universities have taken a leading role in local development efforts by identifying this challenge, which focuses mainly on the shortage of employment and the insufficient development of productive sectors in most developing countries. They have evolved from simply providing technical knowledge to becoming key players in local ecosystems that promote entrepreneurship, facilitating information, training and advice at all stages of business development. This is how the entrepreneurial process should be considered as a catalyst for innovative processes (De María, Juárez, Delucchi, Krajnik, & Muiño, 2023).

The concept of Entrepreneurial Ecosystem is the way in which different contextual factors of a social, legal, financial, governmental, and technological nature combine in complex ways to promote or hinder the emergence and development of new ventures. (Isenberg, 2011; Spigel 2017). This vision is most used to study the emergence and development of new businesses. The presence of dissimilar situations has contributed to this; one of them is the large amount of scientific evidence on the impact on the competitiveness of countries (Acz et al., 2018). On the other hand, the evidence that an Entrepreneurial Ecosystem regulates the factors themselves, implicitly, the public policies that are designed to promote, develop and increase the creation of enterprises, which will not impact the economy, if there is no link with a healthy ecosystem (Szerb et al., 2018).

In this line, the results of research on this subject show that it contributes to economic and social development. However, it is a difficult phenomenon to study due to its totally systemic context (Núñez-Álvarez & Leiva, 2020).

In this sense, the University Entrepreneurial Ecosystem has the interconnection between the different factors that make it up, where their way of acting conditions the environment for the adequate development of the initial ideas of entrepreneurs, where Higher Education Institutions are a fundamental element in the promotion of entrepreneurial attitude, favoring and enhancing the business evolution of

a locality; From an evolutionary aspect, it is currently considered important and necessary that the agents promoting learning, knowledge and research intervene as the main actor, generating ways of scientific transfer to the economic environment through the creation of entrepreneurial companies (Benítez & Quiñonez-Mosquera, 2020).

The elements that make up the entrepreneurial environment include financing, entrepreneurial culture, human resources, market strategy, policy, and support services. These components vary by country, making each entrepreneurial ecosystem unique and dependent on individual, social, political, and economic factors (Briseño-Aguirre, Saavedra-García, & Velázquez-Rojas, (2024).

For this there is no agreement or uniform document that indicates the factors that should make up a University Entrepreneurial Ecosystem, this because each locality, city, region has its own characteristics that activate the environment and affect the actors that make it up and with them each ecosystem is different. One of the major groups of determinants of business creation are external or institutional factors linked to the creation, development, consolidation and location of new companies (Aceytuno & De Paz, 2008).

On the other hand, being an emerging field, there are still unanswered questions, including the lack of a commonly accepted definition of the concept (Comeche, 2018). In this context, a series of initiatives have been generated to strengthen the context of entrepreneurship, that is, to improve the quality of the University Entrepreneurial Ecosystem in Durango.

In accordance with the above, interest arises in this research, whose objective is to analyze the Entrepreneurial Ecosystem of University Entrepreneurship in the city of Victoria de Durango, Dgo. Mexico.

METODOLOGÍA

In this case, the problem revolves around the objective of the research: to analyze the Entrepreneurial Ecosystem of University Entrepreneurship in the city of Victoria de Durango, Dgo. Mexico. So, the information that was collected is related to entrepreneurship and university entrepreneurs who graduated from HEIs.

The research approach is quantitative, it is a strategy that concentrates on quantifying data collection and analysis.

The design of the study is descriptive, that is, the information was collected without changing the environment, the researcher interacts with the participants using the survey and correlational when analyzing whether the increase or decrease in one of the variables coincides with an increase or decrease in the other variable (Hernández, Méndez, Mendoza and Cuevas, 2017).

Cross-sectional scope, since the research was carried out in a single period.

Sample

To determine the sample, the formula of finite populations was used, obtaining a total of 152 entrepreneurs graduated from the different specialties of an HEI.

Inclusion criteria

Professionals graduated from different specialties who have created an enterprise.

Survey design

The instrument was designed from each of the factors that were considered to analyze the variables of the Entrepreneurial Ecosystem and University Entrepreneurship these elements are shown in table 1. It has 69 questions, distributed in the sociodemographic characteristics of entrepreneurs and the ventures created by them and the variables of University Entrepreneurship and Entrepreneurial Ecosystem. For the questions, answers were used under the Likert scale, and we worked with mainly nominal data.

Table 1. Study variables and factors

Variable	Factor
University Entrepreneurship	Entrepreneurial_Training
	Liderazgo Universitario
	Entrepreneurial_Career
	Knowledge_Exchange
	Internationalization
University Entrepreneurial Ecosystem	Government
	Legal
	Financial
	Social
	Technological

Source: Own elaboration based on the literature review

The questionnaire was validated using the expert judgment technique, where their contributions allowed the instrument to be strengthened. Subsequently, the reliability analysis was piloted and carried out,

allowing the internal consistency of the instrument to be evaluated. To carry it out, Cronbach's Alpha coefficient (1951) was used, obtaining a Cronbach's Alpha coefficient of .968.

Data analysis

For the final analysis of the data, descriptive and inferential statistics were used, since with it it was possible to obtain numerical estimates that can be used for future research and correlate the current situation versus past and future situations.

The process for checking validity and reliability was carried out through factor analysis and construct validation to measure the correlation between the study variables (Hernández et al., 2017). The analysis was performed with the SPSS V.25 tool.

RESULTADOS Y DISCUSIÓN

The first results presented are the descriptive ones corresponding to the characteristics of the 152 university entrepreneurs studied.

Characteristics of university entrepreneurs

The average age of entrepreneurs is 33.6 years; marital status 32.9%(50) are single, 63.2%(96) are married and 3.9%(6) are common-law, widowed and separated; In terms of gender, 48%(73) are women and 52%(79) are men. With regard to the degree of studies, 11.2%(17) of entrepreneurs have a postgraduate degree. In this same line in table 2 the specialties of these are shown.

Table 2. Graduation specialties of university entrepreneurs

Specialties	Frequency	Percentage	Percentage valid	Cumulative percentage
Administration	13	8.6	8.6	8.6
Business Management	14	9.2	9.2	17.8
Engineer				
Architecture	8	5.3	5.3	23.0
Biochemical Engineer	14	9.2	9.2	32.2
Chemical Engineering	9	5.9	5.9	38.2
Mechanical Engineering	10	6.6	6.6	44.7
Mechatronics Engineering	8	5.3	5.3	50.0
Computer Systems	17	11.2	11.2	61.2
Engineering				

Computer Science Engineer	10	6.6	6.6	67.8
Information and Communication Technology Engineer	10	6.6	6.6	74.3
Industrial Engineering	11	7.2	7.2	81.6
Civil Engineering	8	5.3	5.3	86.8
Electronic Engineering	10	6.6	6.6	93.4
Electrical engineering	10	6.6	6.6	100.0
Total	152	100.0	100.0	

Source: Own elaboration with data from the survey

Where it is observed that the specialty of Computer Systems Engineering is the one with the highest percentage 11.2%(17) of entrepreneurs who created a business, followed by the specialties of Engineering in Business Management and Biochemical Engineering 9.2%(14) respectively, in this same order the Bachelor of Administration 8.6%(13), these specialties are characterized by offering many facilities in resources to undertake.

Another factor of interest in the creation of entrepreneurship by university graduates is their Employment Situation, which shows that 74.3%(113) of these entrepreneurs are dedicated full-time to their entrepreneurship, while 25%(38) are full-time employees in an organization and also have their business and .7%(1) were unemployed which encouraged them to undertake.

The socioeconomic level of entrepreneurs, 92.1%(140), belong to a medium level, 6.6%(10) to a high level and 1.3%(2) to a low level.

This study also shows the importance of the work experience of each of the entrepreneurs studied, where 71.1%(108) have provided their services to an organization while 28.9%(44). In this same sense, the work experience manifested indicates that they have worked in different areas of the organization, in Senior Management 9.2%(14), Sales 25%(38), Production 18.4%(28), Finance .7%(1), Administration 38.16%(58) and in other areas 8.6%(13).

In relation to the turn of entrepreneurship and the specialty of the entrepreneur 39.5%(6) do coincide while 60.5%(92) do not coincide.

Characteristics of the ventures

The enterprises analyzed were created in the period from 2000 to 2019. The analysis shows that in the years 2016, a greater creation of entrepreneurship is concentrated 11.2%(17), followed by 2010 and 2013 with 10.5%(16) respectively, 2014 with 9.9%(15), 2012, 2015, 2018 with 7.2% in each year. This

was due to the support and facilities provided in these periods by the different agents that in some way participated in the process of its creation such as government, financial, social, technological, and legal. These are in consolidated status 58.6%(89), 36.2%(55) in the initial stage, and 5.3 (8) closed.

In relation to the turn of enterprises, 60.5%(92) belong to services, 29.6%(45) to consumption, 7.9%(12) to the industrial sector and 2.0%(3) to the transformation sector. The average number of employees generated by each venture is 5. As far as the seniority of employees in a business is concerned, it shows that an average of 8 years.

Finally, the ventures were created from entrepreneurs' own income 66%(100) and with government programs 34%(52).

Descriptive analysis of the factors of University Entrepreneurship and Entrepreneurial Ecosystem

This section explains the most significant results for each of the variables of this study.

The results show that for the variable University Entrepreneurship the most significant factor is University_Leadership with an average of (3.63 ± 1) , indicating the transcendence and impact that institutional management has in the promotion of entrepreneurship in its graduates as part of their professional training and the commitment of Higher Education Institutions with their community.

Then the Entrepreneurial_Career factor of the university as part of the professional training of graduates with an average of (3.60 ± 1.1) , shows the importance of the participation of educational institutions in activities that promote and promote the entrepreneurial culture in their students, is part of the premise of the leading role that the University acquires, and the position it assumes either by encouraging or limiting entrepreneurial concerns (Montañez-Moya, 2017).

Thirdly, the Entrepreneurial_Training factor with an average of (3.59 ± 0.9) , which shows the level of significance of academic training going further, that is, breaking with the traditional paradigm and stop training professionals to join the labor market as employees and creative entrepreneurs who are self-employed, but also employ and impact socially and economically in their area of entrepreneurial development.

In this same order, the next significant factor is Knowledge_Exchange with an average of (3.51 ± 1) , indicating the university entrepreneurs surveyed that Higher Education Institutions must have a

procedure that allows the crossing of knowledge and ideas, where incubators and science and business parks are used, which facilitates the exchange and strengthening of the knowledge acquired. As well as participation with the external sector through the different linking activities and in turn this strengthens the University's Entrepreneurial Ecosystem (GEM, 2017).

Finally, the Internationalization factor with an average of (3.28 ± 1) , shows the impact of mobility programs on the development of entrepreneurial skills in university graduates.

For the University Entrepreneurial Ecosystem variable, the most relevant factor is the Technological one with an average of (4.52 ± 0.5) , showing that University Entrepreneurship and technology as part of the University Entrepreneurial Ecosystem are currently closely linked. Technology is an essential component in the different activities of the business and is elementary for their growth and development, but it is not always fully exploited or valued appropriately by the entrepreneurial environment, so the opportunity to obtain the best results derived from its use is lost (GEM, 2017).

In this same order of importance, the next factor was the Social with an average of (3.92 ± 0.6) , showing a context of responsibility on the part of university entrepreneurs and the Entrepreneurial Ecosystem itself, aimed at achieving efficiency in the fulfillment of their functions, and the fulfillment of what society needs or demands (Sk, Eijaz & Md. Noor, 2017).

Third, in order of importance is the Legal factor with an average of (3.53 ± 0.7) , indicating the importance of this actor of the Entrepreneurial Ecosystem in the performance of University Entrepreneurship, this is related to public and private institutions that make possible the formalization of ventures, then you have the Financial factor with an average of (3.47 ± 0.8) , which includes both the institutions and the financial systems that university entrepreneurs use to start, develop and consolidate their businesses.

Another factor considered in this study and for this variable is the Government, which averaged (3.02 ± 0.8) , with this the State must fulfill the articulating and investing role to activate innovation processes. The Government within its functions is to become generate the right conditions to promote and strengthen entrepreneurship as part of the University Entrepreneurial Ecosystem, running the investor risk, financing the projects of university entrepreneurs, and creating policies and laws that promote entrepreneurship. (GEM, 2015). These results are shown in table 3.

Table 3. Factors for the variables University Entrepreneurship and University Entrepreneurial Ecosystem

Variable	Factor	Average and σ
University Entrepreneurship	Entrepreneurial_Training	3.56±0.9
	University_Leadership	3.63±1.0
	Entrepreneurial_Career	3.60±1.5
	Knowledge_Exchange	3.51±1.0
	Internationalization	3.28±1.2
University Entrepreneurial Ecosystem	Government	3.02±0.8
	Legal	3.53±0.7
	Financial	3.47±0.8
	Social	3.92±0.6
	Technological	4.52±0.5

Source: Own elaboration based on survey data

Correlation analysis for the factors of the variables University Entrepreneurship and University Entrepreneurial Ecosystem

The coefficient of Eta squared (η^2), shows the association between the factors considered to evaluate the variables considered in a study, in which there is an independent variable and a dependent variable. A strong effect was observed for each of the factors that were used to analyze University Entrepreneurship and University Entrepreneurial Ecosystem.

Analyzing the variable of University Entrepreneurship, the factor with the greatest association is Entrepreneurial_Career with a square Eta of .908, explaining the importance of the development of entrepreneurial skills, active entrepreneurial motivation, promoting opportunities to experience entrepreneurship, support to take the step from business idea to the creation of entrepreneurial initiative through access to business incubation facilities.

Then the factor University_Leadership with a square Eta of .840, shows the importance of universities having a model to coordinate and integrate entrepreneurial activities at all levels, as well as the

promotion of forums, fairs, and academic events that encourage and strengthen the entrepreneurial spirit.

Then the factor Knowledge_Exchange with a square Eta of .836, indicating the commitment of Higher Education Institutions to collaboration and knowledge exchange with industry, the public sector, and society; participation with partnerships and relationships with a wide range of stakeholders, such as the business sector, strengthening the University Entrepreneurial Ecosystem and finally the factors of Entrepreneurial_Training and Internationalization with a square Eta of .714 and .707 respectively.

In this line, Entrepreneurial_Training as part of comprehensive university training, provides the tools to develop entrepreneurial activity. On the other hand, Internationalization is a key part of the entrepreneurial strategy of Higher Education Institutions, mobility that includes teaching and research, as well as international networks are part of the academic strategy in entrepreneurship of universities.

The level of association of each of the factors of the variable of University Entrepreneurship explains its participation in the development consolidation of the ventures created by university graduates where the University is a fundamental pillar within the University Entrepreneurial Ecosystem.

For the variable of University Entrepreneurial Ecosystem, the Legal factor represented with a greater association with a square Eta of .793, which shows the importance of creating policies aimed at promoting sources of financing that may be available to entrepreneurs, as well as fiscal policies that favor the creation of companies; followed by the Financial factor with a square Eta of .757, this result indicates the impact of having organizations with availability of financing and adequate conditions for its granting as well as advice for its employability.

In this order the Government factor with a square Eta of .675, which highlights the importance of government representatives monitoring the development of entrepreneurial initiatives, supervising the ethical and legal behavior of business, promoting activities to create financing opportunities for university entrepreneurs that allow the design of sustainable business plans and their implementation efficiently and effectively and finally the factors of Social and Technological with a square Eta of .546 and .347 respectively.

The corresponding to the Social is reflected in the use of the payment of taxes and benefits by entrepreneurs and collaborators, seeking to finance the improvement of public services of the

communities where they are located and promote a necessary framework to address social problems combining business knowledge with the desire to improve the quality of life of the entrepreneurial community.

On the other hand, a venture must invest in technology and have a constant innovative commitment in all areas of the business that allows it to optimize decision-making and this in turn is an entrepreneurial competitive advantage. These data are shown in table 4.

These results coincide with what Nkusi, Cunningham, Nyuur & Pattinson (2020) expose, who mention the need for access to financing, the government supports through policies that promote entrepreneurship, entrepreneurial education, infrastructure, opening and linkage with markets, simplification of procedures to create companies and protection of intellectual property rights. among the most relevant (Nkusi, Cunningham, Nyuur & Pattinson, 2020; Herrera-Valverde, et al., 2020; O'Brien, et al., 2019; Johnson, et al., 2019; Fuster, et al., 2019; Spigel, 2017).

Table 4. Measures of association between the variables University Entrepreneurship, University Entrepreneurial Ecosystem and their factors

Partnership measures			
Variable	Factor	Eta	
		Eta	cuadrada
University_Entrepreneurship * Entrepreneurial_Training		.845	.714
University_Entrepreneurship * University_Leadership		.917	.840
University_Entrepreneurship * Entrepreneurial_Career		.953	.908
University_Entrepreneurship * Knowledge_Exchange		.914	.836
University_Entrepreneurship * Internationalization		.841	.707
University_Entrepreneurial_Ecosystem * Government		.822	.675
University_Entrepreneurial_Ecosystem * Legal		.891	.793
University_Entrepreneurial_Ecosystem * Financial		.870	.757
University_Entrepreneurial_Ecosystem * Social		.739	.546
University_Entrepreneurial_Ecosystem * Technological		.589	.347

Source: Own elaboration based on survey data

Correlation between the variables University Entrepreneurship, University Entrepreneurial Ecosystem

The existing connection between the variables of University entrepreneurship and University Entrepreneurial Ecosystem is .743, it is a high correlation and is significant because it is less than 0.05.,

this means that, the higher the score of University Entrepreneurship, the higher the score in the University Entrepreneurial Ecosystem. then it can be said that University Entrepreneurship is positively related to the University Entrepreneurial Ecosystem, these results are shown in table 5.

Table 5. Correlation between the variables University Entrepreneurship, Entrepreneurial Ecosystem

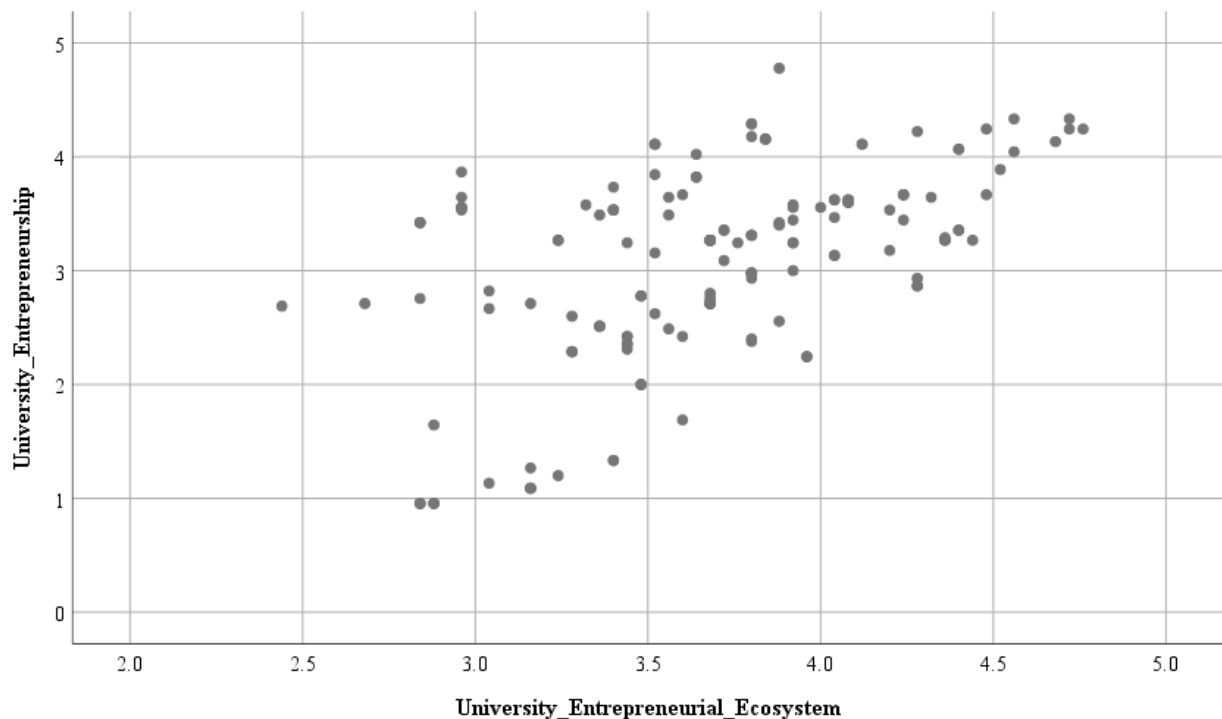
Correlations			
		University_Entrepreneurship	University_Entrepreneurial_Ecosystem
University_Entrepreneurship	Pearson correlation	1	.743**
	Sig. (bilateral)		.000
	N	152	152
University_Entrepreneurial_Ecosystem	Pearson correlation	.743**	1
	Sig. (bilateral)	.000	
	N	152	152

** . The correlation is significant at the 0.01 (bilateral) level.

Source: Own elaboration based on survey data

Figure 1 shows the behavior of the variables University Entrepreneurship, University Entrepreneurial Ecosystem.

Figure 1. Correlation between the variables University Entrepreneurship, Entrepreneurial Ecosystem



Source: Own elaboration based on survey data

CONCLUSIONES

University Entrepreneurship is the ability of university graduates to generate ideas, identify opportunities, define scenarios, and identify appropriate conditions to make them a reality by creating consolidated and sustainable entrepreneurial initiatives; It is a discipline used as a strategy by public and private organizations to combat unemployment, create self-sustainable entrepreneurial initiatives and generate a culture of entrepreneurship in the new generations. This study analyzed the University Entrepreneurial Ecosystem as a determinant of University Entrepreneurship in the City of Victoria de Durango, Dgo.

The results show the relationship of the variable University Entrepreneurial Ecosystem with University Entrepreneurship and the related one with the so-called third mission presented by universities today, which consists of being engines of social and economic development of the community where entrepreneurial activity occurs in an integral and strategic way.

It is determined that the factors Entrepreneurial_Training, University_Leadership, Entrepreneurial_Career_Knowledge_Exchange, and Internationalization are important in University

Entrepreneurship, as part of the training and development of university graduates through the creation, development, and consolidation of the surveyed ventures.

In this same sense, it is strengthened that University Entrepreneurship requires an environment with favorable conditions for its development called Entrepreneurial Ecosystem, for this study the results indicate that this's represented by a Social, Financial, Technological, Legal, and Government environment and a fundamental element the university and according to its level of depth and maturity of the University Entrepreneurial Ecosystem forges a basis for the creation of entrepreneurial businesses.

In this way, the agents that make up the University Entrepreneurial Ecosystem do not work together, that is, in the ecosystem, each agent works on its own with an offer to ventures according to the characteristics of this and the benefits that the institution can obtain. With the study carried out, it has been possible to identify the main agents that promote, strengthen, or contribute to the strengthening of university entrepreneurial activity.

It is found that Higher Education Institutions are important agents within the Entrepreneurial Ecosystem, by training entrepreneurial professionals and thereby contributing to economic and social development, at the municipal, state, and national levels, strengthening the economic and social fabric of their locality. On the other hand, promoting entrepreneurship favors research and innovation through the creation of business projects that allow the labor insertion of the same university students, overcoming the obstacles of the labor environment, and putting into practice the knowledge acquired during their professional training.

Finally, it is considered that the study of University Entrepreneurial Ecosystems is an area of opportunity that is currently booming due to the importance of the subject. This generates the possibility of future comparative studies of the characteristics of the University Entrepreneurial Ecosystems of different countries, or differences between the entrepreneurial ecosystems of public and private universities, which could lead to the creation of a University Entrepreneurial Ecosystem model.

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