# **Entrepreneurial Ecosystem From The Perspective Of Potential Entrepreneurs**

Silvio Paula Ribeiro<sup>1</sup>; Clari Schuh<sup>2</sup>; Nilton Cezar Carraro<sup>3</sup>; Edenis Cesar de Oliveira<sup>4</sup>

<sup>1</sup>Federal University of Mato Grosso do Sul – UFMS <sup>2</sup>University of Vale do Rio dos Sinos – UNISINOS <sup>3</sup>Federal University of São Carlos - UFSCAR

#### **ABSTRACT**

This article aims to identify the resilient attributes of the entrepreneurial ecosystem in the city of Santa Cruz do Sul, Rio Grande do Sul, from the perspective of academics considered in this study as potential entrepreneurs. Specifically, we are interested in verifying which are the resilient attributes of the entrepreneurial ecosystem during the Covid-19 pandemic in the chosen territory. The Survey analytical method was used to build a quantitative approach to the proposed research situation. Obtaining the corpus was based on the application of a questionnaire with potential entrepreneurs. The analysis of the data obtained was based on exploratory factor analysis. From the results, it was possible to identify 9 (nine) resilient attributes, they are: individual actions, success stories, sharing of ideas, talented workers, politics/government, universities, support services, infrastructure, and market opening. Which were classified into three categories: cultural, material and social, with 65.272% of explained variance.

**Keywords:** Ecosystem; Attributes of entrepreneurship; Potential entrepreneurs; Small business.

Date of Submission: 19-05-2023 Date of Acceptance: 29-05-2023

#### I. INTRODUCTION

There is a tendency for entrepreneurs to value local resources as determining factors for entrepreneurial activity (Suresh & Ramraj, 2012). According to Spigel (2017, p. 50) efforts should "focus on the internal attributes of the location and how different configurations of these attributes reproduce and provide resources for new developments that they could not otherwise access".

According to Ribeiro, Sá, De, Tisott and Ott. (2021, p. 02) "studies that address the attributes and interpellations between them become relevant due to the possibility of contributing to the creation of companies and, consequently, to the economic and social aspects of a given location". Even because, for Kantis and Federico (2020, p. 182), "each entrepreneurial ecosystem (EE) follows its trajectory, shaped by its initial conditions, the relative importance of different dynamics, and the process of interaction between dynamics and framework conditions".

Spigel and Tara Vinodrai (2020) addressed how recycling (of people, capital, and ideas within an entrepreneurial ecosystem) affects the dynamics of entrepreneurial ecosystems. Iacobucci and Francesco Perugini (2021) investigated the extent to which entrepreneurial ecosystems have an impact on economic resilience at the local level. Stam and Van (2021) addressed the need to understand the entrepreneurial ecosystem from a systemic perspective. Ribeiro, Sá, De Tisott and Ott (2021) identified the attributes of the entrepreneurial ecosystem from the local perspective.

According to Spigel's (2017) recommendations, one of the ways to contribute to studies on EE is to establish metrics to identify the presence of local attributes to entrepreneurship. According to Roundy, Brockman and Bradshaw (2017, p.12), "the traditional metrics used to measure entrepreneurial activity, such as the number of jobs created or the count of firms founded, can provide a baseline, but do not fully capture the ecosystem health". Spigel (2017) classified the attributes of the entrepreneurial ecosystem into cultural, social and material.

Thus, this article has the general objective of identifying the resilient attributes of the entrepreneurial ecosystem of a municipality located in the interior of Rio Grande do Sul, from the perspective of academics considered by this study to be potential entrepreneurs. Specifically, it is interesting to verify what are the resilient attributes of the entrepreneurial ecosystem during the Covid-19 pandemic in the chosen territory.

For this purpose, a survey-type research method was used with a quantitative approach to the problem. The data obtained was based on the application of a questionnaire aimed at potential entrepreneurs. For data analysis, the Statistical Package for the Social Sciences (SPSS®) software, version 22, was used, supported by

DOI: 10.9790/487X-2505051322 www.iosrjournals.org 13 | Page

exploratory factor analysis. In this way, an attempt was made to gather the attributes of the entrepreneurial ecosystem of the chosen territory into components or groups, from the perspective of Spigel (2017).

This research is justified by the need to consider the relationships between the attributes of local entrepreneurship, as a mechanism for generating employment and income, to contribute to public management by identifying gaps as elements of public policies (Álvarez, Amarós, Urbano & 2014; Aparicio, Urbano & Audretsch, 2016; Spigel, 2017; Iacobucci & Perugini, 2021; Ribeiro, Sá, De Tisott & Ott, 2021; Alotaibi, 2023; Da Silva & Araujo, 2023).

#### II. LITERATURE REVIEW

This topic presents the theoretical framework on the resilient attributes of the entrepreneurial ecosystem, from the perspective of potential entrepreneurs.

### **Entrepreneurial Ecosystem**

For Purbasari, Drahen and Wijava (2019), the entrepreneurial ecosystem occurs through the interaction between different actors (government, infrastructure, politics, access to funding, students, research programs, market, among others). According to Spigel (2017, p. 50), "successful ecosystems are not defined by high rates of entrepreneurship, but how the interaction between these attributes creates regional support that increases the competitiveness of new ventures". Thus, Ribeiro, Sá, De, Tisott and Ott (2021) highlight the importance of improvements in the attributes of local entrepreneurship, a fact that can enhance the development of the activity. In this perspective, Ribeiro (2019, p. 39) states that "entrepreneurs must pay attention to these attributes, with the purpose of identifying and raising new resources to make new investments and, consequently, enhance positive results".

According to Ribeiro, Sá, De, Tisott and Ott (2021, p.70) local entrepreneurship "occurs through the interaction between the needs of microentrepreneurs, supported by local customs, and the fact that local microentrepreneurs are the mentors/negotiators themselves who, with difficulties, seek to use themselves of local infrastructure to attract new companies". However, Spigel (2016, p.141) stated that the attributes of "ecosystems are poorly understood with little conceptual or empirical discussion of how they contribute to the development of successful business ecosystems".

Veciana and Urbano (2008, p. 373) stated that "the concern should be how the context affects – promotes or inhibits – the emergence of entrepreneurs, the rate of creation of new companies, the growth, and development of new companies".

For Subrahmanya (2017, p, 19-20) an entrepreneurial ecosystem has a core of entrepreneurs and potential entrepreneurs. In addition to: Private companies (domestic and multinational); Education and research institutions; positive government support for industry and infrastructure; Financiers of various forms; Developers (accelerators / business incubators / coworking); Technology and business mentors; Exclusive promotion policy for new companies; Favorable climate; Support media; and supporting culture. In studies on the attributes of entrepreneurship from the perspective of the microentrepreneur Ribeiro, Sá, De, Tisott and Ott (2021, p.57) stated that the potential attributes of the activity in the place I investigate are "the stories of entrepreneurs, the networks themselves, incentive policies, mentors/negotiators, local customs and the physical infrastructure of the place".

According to Miller and Acs (2017), the University of Chicago campus is an entrepreneurial ecosystem by presenting available goods, freedom, and diversity of opportunities and fostering entrepreneurship and innovation. Thus, Suresh and Ramraj (2012, p. 95) highlighted that "increasing evidence indicates that environmental factors also play a contributing role in the decision-making process in establishing new ventures". However, Ribeiro (2019, p. 37) stated that "enterprises must pay attention to these attributes, with the purpose of identifying and raising new resources to make new investments and, consequently, enhance positive results".

In this direction, Spigel, Kitigawa and Mason (2020) stated that by using the entrepreneurial ecosystem approach, it is possible to take advantage of the local skills of specialists to create new value, instead of just relying on tax incentives or subsidies to attract new companies. However, Lacobucci and Perugini (2021) stated that the EE plays a relevant role in explaining the resilience of local systems to economic shocks. In this perspective, Aoyama (2009, p. 509) stated that "the survival of entrepreneurial places depends on the understanding of information technology entrepreneurs of the old practices of regional organizations and institutions".

When analyzing the evolution, structure and functioning of support for new companies in Bangalore, India, Subrahmanya (2017, p. 4) states that "entrepreneurs analyze three aspects in entrepreneurial places: accessible markets, human capital/ workforce and the availability of finance". According to Schaeffer, Fischer and Queiroz (2018, p.50) state that "the creation of local conditions is not as direct as it is sometimes announced in political discourse". In the face of local development, Purbasari, Drahen and Wijaya (2019, p. 254) stated that "the ability to identify and manage potential sites in the region requires entrepreneurial qualities and these can be acquired through entrepreneurial ecosystems".

Kantis and Federico (2020) stated that "consequently, each EE follows its trajectory, shaped by its initial conditions, the relative importance of different dynamics and the process of interaction between dynamics and the conditions of local attributes". Wurth, Stam and Spigel (2021, p. 6) highlighted that understanding "the way entrepreneurial ecosystems are studied and used to study entrepreneurship is a requirement when synthesizing the findings and distilling the causal mechanisms that drive the development of entrepreneurial ecosystems". For Spigel (2017) EE tributes can be classified as: cultural, social and material.

## **Cultural Attributes**

Regional cultures influence activities by shaping acceptable business practices and norms (Aoyama, 2009; Garcia, Frederico, Ortíz & Kantis, 2018; Sorenson, 2017; Stephan & Pathak, 2016). Specifically, Spigel (2017, p. 52) states that cultural attributes correspond to "beliefs and perspectives inherent to entrepreneurship in the region and that there are two main cultural attributes of entrepreneurship: attitudes and stories of entrepreneurship".

For Spigel (2017) attitudes correspond to actions taken by individuals from the locality whose purpose is to encourage new investments in local entrepreneurship and the stories of entrepreneurs are the reports of ventures that achieved success in the locality, as a motivating factor for new ventures.

Inácio Júnior, Autio, Morini, Gimenez and Dionisio (2016, p. 30) reports that "the dimension of entrepreneurial attitudes is the main strength of the Brazilian entrepreneurial ecosystem". According to Spigel (2017), attitudes can be understood as the actions of individuals in the locality that aim to leverage new investments in local entrepreneurship. Meanwhile, the stories of entrepreneurs correspond to the reports of enterprises that were successful in the place, as a motivating factor for new enterprises. Specifically, for Spigel (2017b, p. 52-53), "examples of successful local entrepreneurs make it possible to discuss the benefits and possibilities of demonstrating entrepreneurship as a career alternative, for example, for high school students".

"Cultural value" is a means of reducing uncertainties and as an important channel through which more general cultural values can influence entrepreneurship (Stephan & Pathak, 2016). Ribeiro (2019) stated that "local customs" as a means of organizing business fairs can contribute to local entrepreneurship. These findings could be evidenced in Dubey's research (2022).

## **Social Attributes**

Social attributes are the actions promoted by local individuals who are used to the challenges of the activity, a determining aspect for the development of new for-profit activities (Spigel, 2017). Considering the Brazilian EE, Souza, Gerhard, Rovere and Câmara (2015, p. 30) considered that "social elements are more important than personal issues".

Social interactions provide a classification, an order of value from the company to society, and this can contribute to a longer life for the enterprise (Ribeiro, 2019, p. 43). Spigel (2017) classified the social attributes of EE into own networks, investment capital, mentors/negotiators and talented workers.

Indeed, the qualified social attributes offered to local entrepreneurship enhance the EE and, this, can contribute to the development of local companies and, consequently, to the creation of new job opportunities. Whereas, own networks are equivalent to professionals capable of attracting new resources for the development of the local EE and investment capital corresponds to the financial resources available to local entrepreneurship (Spigel, 2017). According to Stam (2015, p.1), mentors and negotiators correspond to a "strong group of entrepreneurs who are visible, accessible, and committed to the region, and who make it an excellent place to start and grow a company". According to Spigel (2017, p. 54), "the availability of qualified workers who are used to working in a risky environment is a key resource for enterprises".

In addition, Spigel and Vinodrai (2020, p. 01) stated that "the ability of regions to produce, attract and most importantly, retain highly skilled workers is a key component of building a sustainable business ecosystem". Talented workers were responsible for the stability of entrepreneurship in Waterloo, Ontario, in the face of a crisis caused by the decline of Blackberry (Spigel & Vinodrai, 2020). The interaction of social attributes with the other attributes of the local EE can optimize the activity from the perspective of the locality.

#### **Material Attributes**

The local EE can contribute with physical infrastructure, support services, universities, politics/governance and market opening. Thus, places that make these resources available can maximize the potential of entrepreneurship from a local perspective (Spigel, 2017). When investigating the topic, Ribeiro (2019, p. 85) stated that "the material resource can be considered as the main attribute of local entrepreneurship, with emphasis on tax incentives for large companies that, in turn, attract medium and small companies".

Physical infrastructure is the physical conditions (waterways, railways, airports, highways, industrial parks and streets) offered to local entrepreneurial activity (Spigel, 2017). In the research by Ribeiro, Sá, De, Tisott and Ott (2021) local infrastructure was identified as one of the determining attributes for entrepreneurship.

It is worth mentioning that, according to (Pugh, Mackenzie & Jones-Evans, 2018), the physical infrastructure of certain places only offers conditions for local entrepreneurship, through the support of cultural and social attributes. In this direction Wurth, Stam and Spigel (2022) agree with this assumption, by proposing a transdisciplinary perspective for research related to entrepreneurial ecosystem practice.

Stam (2015, p. 3), the support services of "specialized professionals (legal, accounting, real estate, insurance, and consulting) must be integrated, accessible, effective and priced appropriately". And for Spigel and Harrison (2017, p. 156), "providing support services to the various sectors of entrepreneurship, to function effectively, these programs must exhibit some level of coordination based on a shared vision". According to Wurth, Stam and Spigel (2021), support services can vary, that is, they can be broad in their purpose of guiding the local conditions of the entrepreneurial ecosystem. And (Acs, Autio & Szerb, 2014; Autio & Levie, 2017) state that supports, even at the national level, should seek favorable conditions for regions to enhance entrepreneurship.

According to Bramwell and Wolfe (2008) universities contribute like EE by emphasizing applied research offering technical knowledge, as a support to entrepreneurship. In this perspective, for Stam (2015, p. 3), "universities can be considered an excellent attribute for the development of talents, technologies and must be connected to the local society". Urbano, Aparicio, Guerrero, Noguera and Torrent-Sellens (2017) stated that the education offered by universities to entrepreneurship corresponds to the most relevant variable in explaining entrepreneurial intention. In this way, (Diaconu & Duţu, 2015; Bussler, Storopoli, Martens & Nassif, 2020), stated that universities become attributes when practicing guidance to local entrepreneurship.

Entrepreneurship policies undergo a transition from increasing the quantity to the quality of entrepreneurship. The perspective should be the transition from entrepreneurship policy to the policy of an entrepreneurial economy (Stam, 2015). The existence of local public policies contributes to the development of the activity by strengthening the EE from the local perspective (Souza, Gerhard, Rovere & Câmara, 2015; Urbano & Álvarez, 2014; Souza, Souza, Pasin & Zambalde, 2016; Ribeiro, Sá, De, Tisott & Ott, 2021).

Regarding market opening, Maícas, Fuentelsaz, González and Montero (2015) highlighted that business freedom is positively correlated with the quality of local entrepreneurship. According to Spigel (2017), market opening corresponds to the conditions that facilitate the opening of new companies in the locality. Ribeiro, Luiz Filho and Silva (2022) when analyzing the contributing attributes of local entrepreneurship, from the perspective of microentrepreneurs, consider market opening as one of the most relevant attributes for the activity.

## III. METHODOLOGICAL PROCEDURES

This research is presented as a survey and with a quantitative approach (Creswell, 2010), a questionnaire was used to collect data and statistical techniques for processing information. As for the focus, it is classified as an exploratory study, aimed at the analysis and classification of the specific attributes of entrepreneurial practice occurring in a region.

However, this article intends to identify the determining attributes of the entrepreneurial ecosystem in a municipality in the interior of Brazil, from the perspective of academics considered by this study, potential entrepreneurs who have the opportunity to attend graduation in Accounting Sciences, Administration, Production Engineering and Executive Secretariat. It is worth mentioning that these courses offer disciplines on the theme of entrepreneurship. The locus of this research is the municipality of Santa Cruz do Sul, located in the state of Rio Grande do Sul, where one of the campuses of the University of Santa Cruz do Sul (UNISC) is located, an institution responsible for offering training in various areas of knowledge, among them, management, which normally provides content focused on entrepreneurial themes.

Other studies (Bramwell & Wolfe, 2008; Ribeiro, 2019; Ribeiro, Sá, De, Tisott & Ott, 2021; Urbano, Aparicio, Guerrero, Noguera & Torrent-Sellens, 2017; Urbano & Guerrero, 2013), have already considered management students as potential entrepreneurs. This fact, which qualifies the data obtained by this research, due to the students being able to evaluate the attributes of the local entrepreneurial ecosystem. Thus, the respondents, through a structured questionnaire, evaluated the attributes of the local entrepreneurial ecosystem. This survey was structured according to Table 1.

**Table 1 – Research Components** 

ITEMS	DESCRIPTIONS	
Theoretical and empirical	Prioritized research that addressed the theme attributes (cultural, social and material) of the	
review	entrepreneurial ecosystem.	
Population	Students in the local courses that offer topics related to entrepreneurship.	
Sample	By accessibility, with 194 (one hundred and ninety-four) respondents.	
	Research questionnaire adapted from Spigel (2017) and Ribeiro (2019). It was divided into	
	three parts: the first with the presentation of the research and the acceptance of the	
Research tool	participants, in the second some characteristics were obtained (gender, age, place of	
	residence and graduation course), finally, in the third part, respondents assessed the	
	attributes of the local entrepreneurial ecosystem.	

Validation	First, by a group of 5 (five) teachers. The specialists analyzed the questionnaire and proposed adjustments.		
Validation	By 10 (ten) students who were not part of the sample.		
Data collection	It took place at the end of the second half of 2020, through the application of a questionnaire, where students, using a scale of 1 (one) to 5 (five), if each local attribute mentioned has contributed to the entrepreneurial ecosystem.		
Data organization	Data were tabulated in Excel spreadsheets. The information was obtained using the SPSS software, version 22.		
Data analysis	Exploratory factor analysis was used.		

Source: Adapted from Creswell (2010).

The data were organized in Excel spreadsheets and, subsequently, the SPSS software, version 22, was used to carry out the exploratory factor analysis. The analysis began with the treatment of data, where outliers, commonalities, asymmetry, and kurtosis were verified. In the exploratory factor analysis, the principal component's extraction method was adopted, with the varimax rotation technique, and the missing values were replaced by the average. According to Hair, Hult, RinglE & Sarstedt (2014), the component analysis model is more appropriate when there is the possibility of reducing factors and the factor analysis provides a clear understanding of which variables can act together and how many variables can be considered as significant in the study.

With the purpose of validating and providing credibility to the study, the Cronbach's Alpha test, the KMO, the Bartlett's Sphericity Test and the explained variance were verified along with the collected data, according to the parameters presented by Hair, Hult, RinglE & Sarstedt, (2014) and Morocco (2010). In the next section of this article, the analysis and discussion of the results are presented.

#### IV. RESULTS ANALYSIS

The participants of this study, after verifying its presentation, agreed to answer the questionnaire freely and spontaneously. Thus, when organizing the data, it was possible to characterize the sample, according to the second part of the research instrument, as shown in Table 2.

**Table 2 – Profile of respondents** 

CHARACTERISTICS	DETAILS	FREQUENCIES	%
	Masculine	80	41,67
GENDER	Feminine	109	56,77
	Not identified	03	1,56
	Up to 20 years	56	29,17
	From 21 to 30 years old	124	64,58
AGE	From 31 to 40 years old	8	4,17
	From 41 to 50 years old	1	0,52
	They did not answer	3	1,56
	Santa Cruz do Sul	99	51,56
	Montenegro	17	8,85
	Vera Cruz	14	7,29
RESIDENCE	Venâncio Aires	12	6,25
	Candelária	11	5,73
	Rio Pardo	10	5,21
	Others	29	15,11
GRADUATION	Management	86	44,79
GRADUATION	Accounting Sciences	106	55,21

Source: Research data.

As mentioned, the variables included in the research were those that meet the aspects of outliers, commonalities, asymmetry, and kurtosis. According to Hair et al. (2014), in relation to commonalities, those with an index above 0.50 should be included, and the kurtosis and asymmetry values should vary between  $\pm$  3. Table 3 presents the excluded variables, with the possibility of highlighting the attributes that have not contributed significantly to the entrepreneurial ecosystem in the researched location.

Table 3 - Variables excluded from the analysis

	1 unit of the first the fi			
GROUP	VARIABLE	COMMONALITIES		
Own networks	The networks themselves are made up of professionals who try to	divided		
	raise funds for local entrepreneurship.			
Necessity	The opening of new companies occurs more because of the needs	divided		
	of entrepreneurs.			
Investment capital	There is availability of financial resources and these have attracted	divided		
	new companies.			
Mentors and negotiators	Mentors and negotiators correspond to local people (social	divided		
	capital/contacts) who attract new companies.			
Local customs	Local customs have been used for new companies.	0,462		
Opportunities	The city offers many opportunities for new businesses.	0,440		

Source: Research data.

The participants of this study, after evaluating the attributes, in the third part of the questionnaire, offered conditions for us to identify the determining attributes of the local entrepreneurial ecosystem from the perspective of potential entrepreneurs. Table 4 presents the relevant attributes.

**Table 4 – Relevant attributes** 

CATEGORIE	SUBCATEGORIES	COMMONALITIES	KURTOSIS	ASYMMETRIES
S				
	Individual actions	,746	-,201	,100
CULTURAL	Success histories	,694	,390	-,570
	Sharing ideals	,728	,041	-,290
SOCIAL	Talented workers	,605	,803	,172
	Government policy	,621	-,056	,067
MATERIALS	Universities	,686	-,100	-,637
	Support services	,589	1,060	-,706
	Infrastructure	,529	-,095	-,400
	Market opening	,677	-,293	-,052

Source: Research data.

Keeping only the significant variables in the study, that is, the determining attributes of the local entrepreneurial ecosystem, as shown in Table 4, the data were considered reliable using the Cronbach's alpha test, whose index was 0.792. In exploratory research, Hair et al. (2014) states that a greater than 0.60 the index is presented as acceptable. To analyze the adequacy of the sample, the KMO test was used, which presented a result of 0.781. For Marôco (2010) a KMO above 0.50 represents a high factorability capability. Furthermore, Bartlett's Sphericity Test was performed, with a significance result of 0.00, which demonstrates the rejection of the probability that the population matrix is identical (Hair, Hult, Ringle & Sarstedt, 2014). Table 5 presents the results of the consistency tests.

Table 5 - Result of the consistency tests of the 11 (eleven) variables

Cronbach's alpha	Bartlett's sphericity	KMO	% Explained Variance	
Cronbach's alpha	Sig.	KMO	% Explained variance	
0.792	0.00	0.781	65.272	

Source: Research data.

The data allowed inferring that the significant variables explain 65.272% of the local entrepreneurial ecosystem, from the perspective of potential entrepreneurs. It is noteworthy that the recommendations by Hair, Hult, Ringle & Sarstedt (2014, p. 115) suggest that the number of factors should be "sufficient to meet a specified percentage of explained variance, usually 60% or more".

Thus, the variables were grouped into 3 (three) components or categories, with an eigenvalue greater than 1 and, as mentioned, with a percentage of explained variance of 65.272. Thus, it is inferred that the set of variables explain 65.272% of the local entrepreneurial ecosystem from the perspective of potential entrepreneurs, undergraduates in management courses at the University of Santa Cruz do Sul. The details of the 3 (three) categories are presented in Table 6.

DOI: 10.9790/487X-2505051322 www.iosrjournals.org 18 | Page

Table 6 – Attributes of entrepreneurship grouped into subcategories and categories

ATTRIBUTES OF THE ENTREPRENEURIAL ECOSYSTEM (EE)					
GUD CA TECODIES	CATEGORIES				
SUBCATEGORIES	CULTURAL (1)	SOCIAL (2)	MATERIAL (3)		
Individual actions	,810				
Success histories	,810				
Sharing ideals	,806				
Talented workers			,737		
Government policy		,765			
Universities			,806		
Support services			,686		
Infrastructure		,644			
Market opening		,786			

Source: Research data.

The answer to the guiding research question of this research, namely: what are the determining attributes of the entrepreneurial ecosystem in the chosen territory? It is found in Table 6. It is pointed out that the respondents attribute to the set of 09 (nine) attributes gathered in 3 (three) categories, as the determinants of the local entrepreneurial ecosystem. In this way, they were gathered and named, as:

- Category 1 (cultural) was formed by individual attitudes, success stories and shared ideals;
- Category 2 (social) had government policies, infrastructure, and market opening;
- Category 3 (material) corresponds to talented workers, universities, and support services.

The results were formed by the 03 (three) categories or components, as already mentioned, however, it is worth noting that the attributes (individual attitudes, success stories and sharing of ideals) of category 1 (one) are classified by Spigel (2017), as cultural. While, the attributes (government policies, infrastructure, and market opening) of category 2 (two) were classified by Spigel (2017) as cultural. Finally, category 3 (three) was formed by talented workers, universities, and support services.

It is noteworthy that the attribute "talented workers" was classified by Spigel (2017) as social attributes; as infrastructure and support service, as material. The justification for the difference in the classification of attributes can be motivated by the fact that the entrepreneurial ecosystem theory is not yet consolidated.

The EE of this research carried out in the municipality of Santa Cruz do Sul, as mentioned, can be explained by 9 (nine) of these, 12 (twelve) attributes of the EE. Cultural was formed by individual attitudes, success stories and shared ideals. Social had government policies, infrastructure, and market opening. And the material corresponds to the talented workers, universities, and support services.

Other research were carried out in various places, for example, (Aoyama, 2009), addressed the EE in two regions in Japan: Hamamatsu and Kyoto. They are known to have a high level of entrepreneurship. The strengths of this sector are constituted by norms and regional culture.

As Garcia, Federico Ortiz and Kantis (2018, p. 215), the determining factors for local entrepreneurship, Province of Santa Fe (Argentina), to be strong are based on "the social, cultural, economic, political and cultural context and regulatory factors. These factors are important both in the process of creating the company and in the previous stages of acquiring motivation and identifying the opportunity, as well as in the growth and development of the company".

When studying the EE of a specific locality, "Camelodromo" of Três Lagoas, from the perspective of microentrepreneurs, it considered that the significant cultural attributes from the local perspective are, above all, the stories of entrepreneurs who were successful and the local customs. The significant social attributes correspond to the networks themselves and the mentors/negotiators. Finally, the material attributes that explain local entrepreneurship are related to infrastructure and incentive policy (Ribeiro, Sá, Tisott & Ott, 2021).

It is noteworthy to note that the interrelationship of the EE attributes occurs differently in Santa Cruz do Sul. In the case of the Camelodromo, it was the microentrepreneurs and in Santa Cruz do Sul, the students of management courses.

Individual actions were another resource identified as potentialized by the EE of the location addressed in this study. Spigel (2017) identifies these attributes as a result of local individuals efforts to promote the establishment of new businesses. And the stories of businessmen who achieved success in the locality also leverage the EE in the research location. According to Spigel (2017) these are used as a motivating factor for new companies.

The sharing of ideals promoted by local society leaders intensifies EE (Stephan & Pathak, 2016). In this way, when considering this relevant resource in the research, it can be stated that in the studied place, ideals are shared in favor of EE.

Inherently, talented workers were also one of the attributes that determined the EE of this research carried out in the municipality of Santa Cruz do Sul. However, in research carried out in the region of Moravia-Silesia, in the Czech Republic, Šebestová et al. (2015), considered the quality of the workforce as the determining resource of local entrepreneurship.

Specifically, the incentive policy offered by the government was one of the attributes identified as determining the EE of this research carried out in the municipality of Santa Cruz do Sul, a result evidenced by García et al. (2018), in the Province of Santa Fé (Argentina) and also by Ribeiro, Sá, Tisott & Ott (2021), when investigating the EE of the "Camelôdromo" of Três Lagoas.

In Ribeiro, Sá, Tisott & Ott's (2021) research, Support, Infrastructure, and market opening services were also identified as determinants of local EE. According to Diaconu and Duţu (2015); Spigel (2017) and Bussler, Storopoli, Martens and Nassif (2020), universities also leverage EE by offering courses, research, and training to the local community.

## V. FINAL CONSIDERATIONS

The general objective of this article was to identify the determining attributes of the entrepreneurial ecosystem of a municipality located in the interior of Rio Grande do Sul, from the perspective of academics considered by this study to be potential entrepreneurs. For that, a survey method was used, with a quantitative approach to the problem, which made it possible to conclude that the attributes were grouped into 03 (three) components and named as:

- Category 1 (cultural) was formed by individual attitudes, success stories and shared ideals;
- Category 2 (social) had government policies, infrastructure, and market opening;
- Category 3 (material) corresponds to talented workers, universities, and support services.

Exposing the significant variables of each of the components, it is inferred that from the perspective of potential entrepreneurs, undergraduates of management courses in the interior of Rio Grande do Sul, that this set of variables represents a percentage of explained variance of 65.272% from the context. It is considered that the 09 (nine) attributes gathered are the determinants of the local entrepreneurial ecosystem.

The variables: own networks, needs, investment capital, mentors/negotiators, local customs and opportunities that had to be excluded from the analysis, as they did not present significant indexes, can be considered as in need of improvement.

The sample is highlighted as limitations of this research, as it belongs to only one region. This fact prevents the generalization of the results. As contributions, it can be said that by gathering the set of attributes of entrepreneurship, identifying and classifying them, from the perspective of potential entrepreneurs, students of undergraduate courses in management, it was possible to identify the determining attributes of the entrepreneurial ecosystem in the perspective of potential entrepreneurs and set the precedent to consider which possible gaps in knowledge should be filled, or even expanded in the practice of training these students.

Another contribution refers to the identification of attributes as articulating mechanisms of success and progress in the generation of companies from a local perspective. It is recommended that future studies address the issue from the perspective of small entrepreneurs and analyze it, for example, through structural equations. A situation that may come to outline the panorama of entrepreneurial practice on one end, the other of the radius of incision of the generation and maintenance of new companies within the municipality.

## **REFERENCES**

- [1]. Acs, Z. J., Autio, E., & Szerb, L. (2014). National systems of entrepreneurship: Measurement issues and policy implications. Research Policy, 43(3), 476–494. https://doi. org/10. 1016/j. respol. 2013. 08. 016
- [2]. Alotaibi, M. Factors affecting Saudi Arabian SME retail e-commerce fulfilment due to Covid-19. Journal of Business and Management. 25(3),18-23. https://doi.org/10.9790/487X-2503021823.
- [3]. Álvarez, C., Amorós, J. E., & Urbano, D. (2014). Regulations and entrepreneurship: evidence from developed and developing countries. Innovar, Bogotá, 24(spe), 81-89.
- [4]. Aoyama, Y. (2009). Entrepreneurship and regional culture: the case of Hamamtsu and Kyoto, Japan. Regional Studies. 43(3), 495-512. https://doi.org/10.1080/00343400902777042
- [5]. Aparicio, S., Urbano, D., & Audretsch, D. (2016). Institutional factors, opportunity entrepreneurship and economic growth: Panel data evidence. Technological Forecasting and Social Change, 102, 45-61.
- [6]. Autio, E., & Levie, J. (2017). Management of entrepreneurial ecosystems. In G. Ahmetoglu, T. Chamorro-Premuzic, B. Klinger, & T. Karcisky (Eds.), The Wiley handbook of entrepreneurship. John Wiley & Sons Ltd.
- [7]. Bramwell, A., & Wolfe, D. A. (2008). Universities and regional economic development: The entrepreneurial University of Waterloo. Research Policy. 37(8), 1175–1187. https://doi.org/10.1016/j.respol.2008.04.016
- [8]. Bussler, N., Storopoli, J., Martens, C., & Nassif, V. (2020). A interação entre as universidades e o empreendedorismo. Desenvolvimento em Questão, 18(52), 194-215.
- [9]. CRESWELL, J. W. (2010). O projeto de pesquisa: métodos qualitativo, quantitativo e misto. 3. ed. Porto Alegre: Artmed.

DOI: 10.9790/487X-2505051322

- [10]. Da Silva, L. A., & Araujo, A. G. The effects of Covid-19 on Formal Employment: Analysis of Work Occupations in Cities in the Northweast Region of Brazil. Journal of Business and Management. 25(4), 01-08. https://doi.org/10.9790/487X-2504010108
- [11]. Diaconu, M., & Duţu, A. (2015). The role of the modern university in supporting the entrepreneurial ecosystem. European Journal of Interdisciplinary Studies, 7(1), 11-24.
- [12]. Dubey, P. (2022). Entrepreneurial Characteristics, Attitude and Self-Employment Intention: A Study of Public and Private Technical Institutes Undergraduates. Journal of Business and Management. 24(1), 21-30. https://doi.org/10.9790/487X-2401042130
- [13]. García, S. I., Federico, J., Ortíz, M., & Kantis, H. (2018). ¿El ecosistema o los ecosistemas? Primeras evidencias de un ejercicio de tipologías sobre ciudades de la Provincia de Santa Fe (Argentina). Revista de Empreendedorismo e Gestão de Pequenas Empresas, 7(3), 215-237.
- [14]. http://www.regepe.org.br/regepe/article/view/1243. Acesso em: 18 jun. 2021.
- [15]. Hair, J., Hult, G. T. M., RinglE, C., & Sarstedt, M. (2014). A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM), Los Angeles: SAGE Publications.
- [16]. Iacobucci, D., & Perugini, F. (2021). Entrepreneurial ecosystems and economic resilience at local level. Entrepreneurship & Regional Development, (33), 689-716. https://doi.org/10.1080/08985626.2021.1888318
- [17]. Inácio Júnior, E., Autio, E., Morini, C., Gimenez, F. A. P., & Dionisio, E. A. (2016). Analysis of the Brazilian Entrepreneurial Ecosystem. Desenvolvimento Em Questão, 14(37), 5–36. https://doi.org/10.21527/2237-6453.2016.37.5-36
- [18]. Kantis, H., & Federico, J. (2020). A dynamic model of entrepreneurial ecosystems evolution. Journal of Evolutionary Studies in Business, 5(1), 182-220.
- [19] Maícas, J. P., Fuentelsaz, L., GonzáleZ, C., & Montero, J. (2015). How different formal institutions affect opportunity and necessity entrepreneurship. BRQ Business Research Quarterly, 18, 246-258. https://doi.org/10.1016/j.brq.2015.02.001
- [20]. Marôco, J. (2010). Análise de equações estruturais. Perô Pinheiro: ReportNumber.
- [21]. Miller, D. J., & Acs, Z. J. (2017). The campus as entrepreneurial ecosystem: the University of Chicago. Small Business Economics, 49(1), 75-95. https://doi.org/10.1007/s11187-017-9868-4
- [22]. Pugh R., MacKenzie N. G., Jones-Evans D. (2018). From 'Techniums' to 'emptiums': The failure of a flagship innovation policy in Wales. Regional Studies, 52(7), 1009–1020.doi:10.1080/00343404.2018.1444272
- [23]. Purbasari, R.: Drahen, P, & Wijava, C. (2019). An Entrepreneurial Ecosystems Approach to Encouraging Local Economic Development through a Village-Owned Enterprises Policy (A Case Study of Indonesian Village-Owned Enterprises (BUMDes). Archives of Business Research, 7(4), 254-264. https://doi.org/10.14738/abr.74.6475
- [24]. Ribeiro, S. P., (2019). Hierarquização de atributos ao empreendedorismo em Três Lagoas MS. Tese apresentada no Programa de Pós-Graduação em Ciências Contábeis da Universidade do Vale do Rio dos Sinos UNISINOS.http://www.repositorio.jesuita.org.br/bitstream/handle/UNISINOS/7960/Silvio%20Paula%20Ribeiro\_.pdf?sequence=1 &isAllowed=v
- [25]. Ribeiro, S. P., Luiz Filho, G., & Da Silva, D. (2022). Avaliação dos atributos do ecossistema empreendedor local. Research, Society and Development. 11(9), e49911930522.
- [26]. (CC BY 4.0) | ISSN 2525-3409 | DOI: http://dx.doi.org/10.33448/rsd-v11i9.30522
- [27]. Ribeiro, S. P., Sá, L. A. F. De, Tisott, S. T., & Ott, E. (2021). Atributos do Empreendedorismo Local na Perspectiva do Microempreendedor: Attributes of Entrepreneurship on Perspective from Micro Entrepreneurship. Desenvolvimento Em Questão, 19(56), 57–73. https://doi.org/10.21527/2237-6453.2021.56.11503
- [28]. Roundy, P. T., Brockman, B. K., & Bradshaw, M. (2017). The resilience of entrepreneurial ecosystems. Journal of Business Venturing Insights, v. 8, n. 11, p. 99-104.
- [29]. Šebestová, Jar., Klepek, M., Čemerková, Š., & Adámek, P. (2015). Regional Entrepreneurship Culture and the Business Lifecycle: Patterns from the Moravian-Silesian Region. Acta Universitatis Agriculturae et Silviculturae Mendelianae Brunensis, 63(6), 2137-2144.
- [30]. Schaeffer, P., Fischer, B. B., & Queiroz, S. (2018). Beyond Education: The Role of Research Universities in Innovation Ecosystems. Foresight and STI Governance, 12, 50-61.
- [31]. Sorenson, O. (2017). Regional ecologies of entrepreneurship. Journal of Economic Geography, 17, 959-974.
- [32]. Souza, D., Souza, J., Pasin, L., & Zambalde, A. (2016). Empreendedorismo e desenvolvimento local: uma análise do programa Microempreendedor Individual em Minas Gerais, Brasil. Desenvolvimento em Questão, 14(37), 262-292.
- [33]. Souza, L. L. F., Gerhard, F., Rovere, R. L., & Câmara, S. F. (2015). Empreendedorismo e criação de novos negócios: fatores-chave do ecossistema empreendedor brasileiro. Revista de Negócios. 20(4), 30-43. http://dx.doi.org/10.7867/1980-4431.2015v20n4p30-43.
- [34]. Spigel, B. (2016). Developing and governing entrepreneurial ecosystems: the structure of entrepreneurial support programs in Edinburgh, Scotland. International Journal of Innovation and Regional Development. 7(2), p. 141-160. https://doi.org/10.1504/IJIRD.2016.077889.
- [35]. Spigel, B. (2017). The Relational organization of entrepreneurial ecosystems. ntrepreneurship Theory and Practice. 41(1), 49-72. https://doi.org/10.1111/etap.12167.
- [36]. Spigel, B., & Harrison, R. (2017). Toward a process theory of entrepreneurial ecosystems. Strategic Entrepreneurship Journal. 12(1), 151-168. https://doi.org/10.1002/sej.1268.
- [37]. Spigel, B., Kitigawa, F., & Mason, C. (2020). A manifesto for researching entrepreneurial ecosystems. Local Economy. 1-14. https://doi.org/10.1177/0269094220959052.
- [38]. Spigel, B., & Vinodrai, T., (2020): Meeting its Waterloo? Recycling in
- [39]. entrepreneurial ecosystems after anchor firm colapse. Entrepreneurship & Regional Development, 33(7-8). DOI: 10.1080/08985626.2020.1734262
- [40]. Stam, E. (2015). Entrepreneurial ecosystems and regional policy: a sympathetic critique. Research Institute Discussion Paper, Utrecht, series 15(07), 1-9. https://doi.org/10.1080/09654313.2015.1061484.
- [41]. Stam, E., van de Ven, A. Elementos do ecossistema empreendedor. Small Bus Econ 56, 809–832 (2021). https://doi.org/10.1007/s11187-019-00270-6
- [42]. Stephan, U., & Pathak, S. (2016). Beyond cultural values? Cultural leadership ideals and entrepreneurship. Journal of Business Venturing. 31(5), 505-523. https://doi.org/10.1016/j.jbusvent.2016.07.003.
- [43]. Subrahmanya, M. H. B. (2017). How did Bangalore emerge as a global hub of tech startups in Índia? Entrepreneurial ecosystem evolution, structure and role. Journal of Developmental Entrepreneurship. 22(1), 1-22. https://doi.org/10.1142/S1084946717500066.
- [44]. Suresh, J., & Ramaraj, R. (2012). Entrepreneurial Ecosystem: Case Study on the Influence of Environmental Factors on Entrepreneurial Success. European Journal of Business and Management. 4(16), 95 - 101. https://www.iiste.org/Journals/index.php/EJBM/article/view/3007.

- [45]. Urbano, D., Aparicio, S., Guerrero, M., Noguera, M., & Torrent-Sellens, J. (2017). Institutional determinants of student employer entrepreneurs at Catalan universities. Technological forecasting and social change. 123, 271-282. https://doi.org/10.1016/j.techfore.2016.06.021.
- [46]. Urbano, D., & Alvarez, C. (2014). Institutional dimensions and entrepreneurial activity: an international study. Small Business Economics, 42(4), 703-716.
- [47]. Urbano, D., & Guerrero, M. (2013). Entrepreneurial universities: socioeconomic impacts of academic entrepreneurship in a European region. Economic Development Quarterly, 27(1), 40-55.
- [48]. Veciana, J. M., & Urbano, D. (2008). The institutional approach to entrepreneurship research. International Entrepreneurship and Management Journal, 4(4), 365-379.
- [49]. Wurth, B., Stam, E., & Spigel, B. (2022). Toward an Entrepreneurial Ecosystem Research Program. Entrepreneurship Theory and Practice, 46(3), 729–778. https://doi.org/10.1177/1042258721998948

DOI: 10.9790/487X-2505051322 www.iosrjournals.org 22 | Page