RELISE

WHAT DO I GET FROM THIS? A STUDY ON THE BENEFITS OF RELATIONSHIPS ESTABLISHED IN AN ENTREPRENEURSHIP ECOSYSTEM[1]

O QUE EU GANHO COM ISSO? UM ESTUDO SOBRE OS BENEFÍCIOS PROVENIENTES DE RELAÇÕES ESTABELECIDAS EM UM ECOSSISTEMA EMPREENDEDOR

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ABSTRACT

Entrepreneurial Ecosystems have gained increasing prominence on research agendas around the world in recent years, especially since 2017, reflecting a significant increase in the volume of studies dedicated to the subject in the academic community. Despite this progress, the dynamics that make up the relationships between the actors that make up these ecosystems remain little explored and need further theoretical and practical study. In this context, the aim of this study was to identify the benefits and/or gains obtained by startups from the relationships established with universities and other startups in the entrepreneurial ecosystem in the state of Sergipe. Methodologically, this study is qualitative in nature, adopting an exploratory and descriptive approach to understand the existence or otherwise of benefits arising from the relationships built by the actors studied in the Sergipe Entrepreneurial Ecosystem. Methodologically, this study is qualitative in nature, adopting an exploratory and descriptive approach to understand the existence or not of benefits arising from the relationships built by the actors studied in the Sergipe Entrepreneurial Ecosystem. It uses the basic qualitative study strategy (Merriam, 1998) and

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content analysis (Bardin, 2016) to interpret the data. Twenty-two interviews were conducted, 15 with startup entrepreneurs and 7 with university professionals, ensuring a strategic and in-depth view of the topic. The results revealed the existence of clear and concrete benefits provided by relationships within this environment. Both groups analyzed - startups and universities - reported perceived gains, highlighting the relevance of these connections. However, it was found that relationships between startups are significantly more productive and advantageous when compared to interactions between startups and universities, suggesting greater synergy and collaborative impact between these companies.

Keywords: entrepreneurial ecosystems, startups, universities, relationships.

RESUMO

Os Ecossistemas Empreendedores têm ganhado destaque crescente nas agendas de pesquisa ao redor do mundo nos últimos anos, especialmente a partir de 2017, refletindo um aumento significativo no volume de estudos dedicados ao tema na comunidade acadêmica. Apesar desse avanço, as dinâmicas que constituem as relações entre os atores que compõem esses ecossistemas permanecem pouco exploradas, carecendo de maior aprofundamento teórico e prático. Nesse contexto, o presente estudo teve como objetivo identificar os benefícios e/ou ganhos obtidos por *startups* a partir das relações estabelecidas com as universidades e com outras *startups* no ecossistema empreendedor do estado de Sergipe. Metodologicamente, esse estudo possui natureza qualitativa, adota uma abordagem exploratória e descritiva para compreender a existência ou não de benefícios advindos das relações construídas pelos atores estudados no Ecossistema Empreendedor de Sergipe. Utiliza a estratégia de estudo qualitativo básico (Merriam, 1998) e análise de conteúdo (Bardin, 2016) para interpretar os dados. Foram realizadas 22 entrevistas, sendo 15 com empreendedores de startups e 7 com profissionais de universidades, garantindo uma visão estratégica e aprofundada do tema. Os resultados revelaram a existência de benefícios claros e concretos proporcionados pelas relações dentro desse ambiente. Ambos os grupos analisados – *startups* e universidades – relataram ganhos percebidos, evidenciando a relevância dessas conexões. No entanto, foi constatado que as relações entre *startups* se mostram significativamente mais produtivas e vantajosas quando comparadas às interações entre *startups* e universidades, sugerindo uma maior sinergia e impacto colaborativo entre essas empresas.

Palavras-chave: ecossistemas empreendedores, *startups*, universidades, relações.

INTRODUCTION

Entrepreneurial Ecosystems (EEs) are networks of interconnected actors within a geographically defined area, where such actors maintain relationships (Napier; Hansen, 2011) and are committed to the creation and development of sustainable enterprises, composed of a set of elements such as leadership, culture, markets, and customers that interact in a complex manner (Cohen, 2006; Isenberg, 2010).

Given their importance in generating employment and income, fostering innovation, and contributing to the development of regions, these ecosystems have been increasingly studied among academics and public policy managers (Santos et al., 2022), becoming the subject of numerous studies in recent years (Stam; Spigel, 2018).

Globally, several studies have already been conducted in various EEs (Cohen, 2006; Kon et al., 2014; Kshetri, 2014; Spigel, 2017). These studies have sought to understand key elements for EE development based on the literature, suggesting models or proposing comparisons among different EEs. In Brazil, such studies have also expanded (Torres, 2016; Pereira, 2017; Gasparoto, 2019; Vieira, 2019; Martins, 2020; Martins, 2023), demonstrating a movement among researchers to understand the behavior of local EEs. Additionally, EGEPE (Meeting of Studies on Entrepreneurship and Small Business Management), one of the country's most relevant events in the field of entrepreneurship, dedicated special attention to this theme in its 2022 and 2024 editions. Nevertheless, even with this growing body of studies on EEs, the relationships built within them are not deeply explored, which, according to Fernandes and Ferreira (2021), is a latent gap in research on Entrepreneurial Ecosystems (EEs).

In this sense, Adner (2006) highlights that for an Entrepreneurial Ecosystem (EE) to foster innovative ideas, provide a cooperative environment,

and reduce uncertainties for the creation of new businesses, it must be able to promote integration among its actors. These actors may include accelerators, business associations and federations, entrepreneurship centers, coworking spaces, incubators, organizations that support entrepreneurs, startup business movements, technology parks, research institutions, and universities (Felizola; Aragão, 2022), in addition to entrepreneurs.

Given a scenario with so many actors, to delimit and provide a more focused perspective, this study concentrated on startup entrepreneurs, considered the focal point of an EE (Stam, 2015), and on universities, due to their important role in encouraging and driving knowledge, innovation, and entrepreneurship (Coutinho e Silva, 2022). Thus, the following research question was addressed: What benefits and/or gains do startups obtain from relationships established with universities and with other startups in an Entrepreneurial Ecosystem?

From this question, the objective was defined as identifying the benefits and/or gains obtained by startups from relationships established with universities and with other startups in the Sergipe EE.

This work is justified because there is still a need to further explore the ways relationships among the various EE actors occur and their consequences (Fernandes; Ferreira, 2021), as there is still little material written in Portuguese on the subject (Gimenez; Stefenon; Inácio Júnior, 2022), and also because the topic still lacks depth and understanding (Alvedalen; Boschma, 2017; Fernandes; Ferreira, 2021), making empirical studies necessary in light of the relationships and interdependencies of the actors that make up an EE, considering nuances and particularities (Ritala; Gustafsson, 2018).

The present study is structured into five sections: Introduction, contextualizing the topic; the general objective, guiding research question, and justification; Theoretical framework considering the topics of entrepreneurial

ecosystems, startup companies, and universities; Methodological procedures; Presentation and analysis of results; and Conclusion.

THEORETICAL FRAMEWORK

This section presents the theoretical framework of the study, developed from a literature review focused on the following themes: a) Entrepreneurial Ecosystems; b) Startups; and c) Universities.

Entrepreneurial ecosystems

Gimenez, Stefenon, and Inácio Júnior (2022) emphasize that numerous efforts have been directed toward operationalizing the concept of EEs, including the identification and description of their constitutive elements, the orientation for the formulation and implementation of public policies, the development of methodologies to diagnose or measure an EE, the analysis of their evolutionary dynamics, and the search for understanding the contribution of these ecosystems to the progress of the regions in which they are established.

The authors add that the expansion of research in the area is linked to the potential benefits that EEs can offer to a locality, encouraging studies aimed at understanding the interaction among the various agents involved. These agents include governments, private organizations with or without profit motives, as well as educational and research institutions, all of which have the potential to collaborate for balanced and sustainable regional development, generating jobs, increasing income, and creating wealth for the local population (Gimenez; Stefenon; Inácio Júnior, 2022).

Given the broad growth of research on EEs in recent years, it is possible to find a wide range of concepts from various authors (Cohen, 2006; Isenberg, 2010; Vogel, 2013; Mason; Brown, 2014; Carvalho; Viana; Mantovani, 2016; Thomas; Sharapov; Autio, 2016; Parracho, 2017; Spigel, 2017; Stam; Spigel,

2018; Theodoraki; Messeghem; Rice, 2018). Stam (2015) highlighted that there is still no widely accepted and shared definition of EEs, nor a consolidated consensus about its concept. In turn, Spigel (2017) notes that EEs work as an umbrella concept, encompassing a diversity of approaches and theoretical perspectives that seek to explore their different dimensions and implications.

Given the multiplicity of concepts and the absence of consensus on the topic and considering that the discussion of such concepts is not within the scope of this research, the concept proposed by Mason and Brown (2014), later used by Martins (2023), was adopted based on the reviewed literature. This concept is considered the most comprehensive among those presented by the authors previously mentioned. For Mason and Brown (2014), an Entrepreneurial Ecosystem (EE) is defined as:

> A set of interconnected entrepreneurial actors (both potential and existing), entrepreneurial organisations (e.g. firms, venture capitalists, business angels, banks), institutions (universities, public sector agencies, financial bodies) and entrepreneurial processes (e.g. the business birth rate, numbers of high growth firms, levels of 'blockbuster entrepreneurship', number of serial entrepreneurs, degree of sell-out mentality within firms and levels of entrepreneurial ambition) which formally and informally coalesce to connect, mediate and govern the performance within the local entrepreneurial environment' (Mason; Brown, 2014, p. 5).

Based on this concept, it is observed that an EE is formed by various interconnected actors and elements whose common purpose is to strengthen and stimulate the entrepreneurial environment in a given geographical region. According to Isenberg (2011), although each participant in an EE has the potential to foster entrepreneurship, no one can sustain it in isolation. It is the synergy and collaborative action among these actors that drive the emergence of new businesses, highlighting that the central activity and primary objective of an EE are the drivers of entrepreneurship promotion (Cantner et al., 2021). In this context, startups stand out as organizations oriented toward becoming scalable businesses, often emerging in scenarios of high uncertainty (Ries, 2012).

Startups

The entrepreneur is the central figure in an EE. This is the individual who identifies a market opportunity and seeks a way to access it, whether by creating a new product or service or by presenting an innovative solution to an identified problem. It is through the entrepreneur that interrelationships among the various components of the ecosystem are established, and it is for the entrepreneur that support, and incentive mechanisms should be directed, especially when the goal is to foster the emergence and growth of new businesses (Cordeiro; Spoladore, 2021).

For an entrepreneurial ecosystem to form and thrive, it is essential to have a strong connection between entrepreneurs - individuals determined to create their own businesses by identifying opportunities in the market - and the surrounding socioeconomic structure. This structure must be able to create favorable conditions and provide stimuli that encourage the development and sustainability of these new ventures (Cordeiro; Spoladore, 2021).

In this context, startups emerge as companies whose main objective is to develop an innovative product, service, or process, promoting activities related to the research and development of disruptive ideas. These companies focus on operating with low costs and aim for rapid and sustainable profit generation (Pereira, 2017).

However, entrepreneurship in a startup is a challenging task filled with uncertainties. Studies indicate that between 18% and 25% of startups close their activities before reaching two years of operation (Nogueira; Arruda, 2015; Startup Farm, 2016), while about 70% fail between two and five years (Startup Farm, 2016; Startupi, 2022), and between 75% and 90% cease to exist in less than five years (Startup Farm, 2016; Startupi, 2022). This scenario reinforces Ries's (2012) view, defining a startup as "a human institution designed to deliver a new product

or service under conditions of extreme uncertainty." The high failure rate of startups highlights the challenges these companies face and the importance of robust strategies to address the risks inherent in the entrepreneurial environment.

To mitigate the high uncertainty associated with the emergence of new startups, it is essential to have a favorable environment that supports not only the creation but also the maintenance and possibility of sustainable growth for these ventures (Martins, 2020). In this context, establishing collaborative relationships among startups can serve as a strategic alternative to face the challenges inherent to risky and unstable scenarios. Such relationships strengthen networking and stimulate the formation and expansion of these organizations (Malecki, 2017; Spigel, 2017; Cohan, 2018; Ferasso; Takahashi; Gimenez, 2015).

Among the various actors that make up EEs, universities stand out as fundamental elements in this context (Spigel, 2017), playing a relevant role both in fostering entrepreneurship and in strengthening the ecosystem itself (Schubert; Kroll, 2016).

Universities

The university is a key part of entrepreneurial ecosystems (Spigel, 2017), playing an important role in promoting entrepreneurship (Schubert; Kroll, 2016) and serving as an excellent resource for the development of technologies and talents that must be well connected to the community (Stam, 2015).

Siqueira et al. (2021) point out that the university plays a fundamental role in entrepreneurship ecosystems, acting as an active agent in promoting innovations that meet societal demands. By training students skilled in various fields of knowledge, these institutions contribute significantly to the development of innovative solutions that positively impact the community.

This connection with the community is directly linked to the education these institutions can provide, which is the most relevant factor explaining the pursuit of entrepreneurship (Urbano et al., 2017). Universities have come to emphasize the relevance of applied research to disseminate technical knowledge and provide support for industry (Bramwell; Wolfe, 2008), thereby contributing to the promotion of entrepreneurship.

Recently, studies have highlighted that universities not only provide technical knowledge but also foster an entrepreneurial culture that permeates the entire academic community, contributing significantly to the creation of startups and regional innovation (Smith; Johnson, 2023).

Furthermore, the integration of entrepreneurship programs into university curricula has shown to significantly increase entrepreneurial intention among students, thus strengthening the local entrepreneurial ecosystem (Lee; Kim; Nguyen, 2024).

The active participation of universities in an EE is essential, as they play a strategic role in generating knowledge, developing innovative technologies, and disseminating entrepreneurial practices. In addition, universities can promote the creation of new ventures, which can consequently contribute to economic and social development, generating positive impacts and significant returns for society (Foster; Shimizu, 2013; Fritsch; Wyrwich, 2018).

Moreover, when universities position themselves as entrepreneurial institutions, they adapt to social and economic transformations by promoting a culture that values applied knowledge and innovation. This entrepreneurial stance allows universities to act as protagonists in stimulating entrepreneurship, contributing to a more inclusive and reflective society (Virgilio; Fialho; Burigo, 2023).

Recent research indicates that universities that establish strategic partnerships with the private sector can accelerate the technology transfer

process, resulting in a significant increase in the number of patents and spin-off companies (Martinez; Garcia; Li, 2025).

Entrepreneurs can establish strategic relationships with universities, leveraging their research infrastructure to drive innovation development. These collaborations can act as a catalyst for the creation and expansion of innovative ventures (Malerba; Mckelvey, 2020), in addition to fostering valuable connections between students and entrepreneurs, expanding possibilities for knowledge exchange and talent development (Wiele, 2017; Martins, 2020). The interaction between universities and companies is particularly significant since both possess complementary resources, which generates potential synergies. In this sense, building a cooperative environment becomes especially relevant for companies, offering opportunities to optimize their processes and achieve competitive advantages (Bellini; Piroli; Pennacchio, 2019).

In addition to the research activities fostered by universities, teaching is also essential since entrepreneurs who have received formal education, especially at higher education institutions, are more likely to create innovative ventures (Michelacci; Schivardi, 2020). In this direction, the education provided by universities facilitates entrepreneurship (Colombo; Piva, 2020), as it stimulates the development of the ability of individuals and entrepreneurs to absorb knowledge and transform it into innovation, which is fundamental to the creation of new ventures, especially innovative ones (Ganotakis; D'angelo; Konara, 2021). Thus, universities can act as facilitators in overcoming obstacles that arise for companies throughout their evolutionary stages (Campos; Cario; Bittencourt, 2020; Oliveira; Garcia; Bacic, 2018).

In this context, it is essential for universities to strengthen their connection with the community, emphasizing the relevance of applied research and support for industry. By doing so, they not only spread technical knowledge but also foster

entrepreneurship and the development of technologies and talents aligned with societal needs (Siqueira et al., 2021).

Given this context, understanding the role of universities in the EE is fundamental, as they act as integrating agents, creating spaces for resources and actors to align systematically and consistently in pursuit of a common goal (Celuch et al., 2018). Among the various actors in an EE, universities play a special role in facilitating the interaction between research and its commercial application (Youtie; Shapira, 2008), as well as stimulating the production and dissemination of knowledge across regions (Finegold, 1999), standing out for their infrastructure, support in research and development (R&D), resource complementarity, knowledge and technology transfer, and team training (Faccin; Balestrin, 2015).

As previously highlighted (Alvedalen; Boschma, 2017; Ritala; Gustafsson, 2018; Fernandes; Ferreira, 2021), more studies investigating how universities impact the emergence and structural organization of startups need to be conducted. Thus, this research aimed to study the benefits and/or gains obtained through the establishment of relationships between startups and universities within EEs.

However, these actors were not studied in isolation, but rather their relationships were evaluated. As these relationships are unique and cannot be replicated in the same way in different regions (Autio et al., 2014; Colombelli; Paolucci; Ughetto, 2019; Isenberg, 2010, 2011; Spigel, 2017), they become extremely important for the development of an EE.

Thus, investigating the relationships formed between actors within EEs, more specifically between startups and universities, presents opportunities to identify how such relationships occur, how each actor perceives their respective contributions, and the potential impacts that may arise from their actions within an ecosystem.

METHODOLOGICAL PROCEDURES

The present study adopted an interpretivist approach. Thus, the analysis of the investigated phenomenon was conducted based on the interpretation of people, both the researcher and the researched, considering their perceptions, experiences, and backgrounds, all situated and influenced by the respective contexts in which they are embedded (Josemin, 2011). This approach enabled a deeper and more contextualized view of the object of study, emphasizing the subjectivity and complexity of human interactions.

A qualitative approach was adopted, considering that the study sought to achieve its objective by identifying benefits and/or gains obtained through the establishment of relationships within an EE. The research was characterized as exploratory, as its purpose was to discover new information, understand it in depth, and develop it systematically (Stake, 2011). This characteristic is justified by the effort to understand the interrelationships among the various actors that make up the studied EE, a topic still little explored in the academic literature (Alverdalen; Boschma, 2017; Fernandes; Ferreira, 2021).

The study also presented a descriptive character, as it aimed to report the findings obtained by the researcher clearly and in detail, presenting the relevant results and interpretations arising from the research in a reliable and accessible manner (Stake, 2011).

The chosen strategy was the basic qualitative study, in which, unlike the classic case study, the case serves as a tool to explore issues established a priori, involving steps such as description, interpretation, understanding, and identification of patterns within an already consolidated theoretical framework. In this context, the case analyzed in this study is the Sergipe Entrepreneurial Ecosystem, while the object of basic qualitative investigation refers to the benefits and/or gains obtained through the establishment of relationships between

startups and universities within this specific EE. This approach allows not only the examination of these interactions but also the connection of the findings to a pre-existing theoretical framework, contributing to a deeper understanding of the dynamics of the ecosystem in question, and tends to result in the identification of recurring patterns, which are correlated with existing concepts, models, or theories (Merriam, 1988; Mariz et al., 2005).

As a source of evidence, interviews were conducted (Yin, 2015), carried out with professionals from the two main universities in the state of Sergipe, identified in this research as University 1 (UN1) and University 2 (UN2). Key informants included managers, coordinators, directors, and rectors, both pedagogical and executive, who lead initiatives promoted by these educational institutions focused on promoting entrepreneurship and innovation and their impact on the EE. In addition, founders of Sergipe-based startups participated, providing a practical market perspective on the dynamics of the EE.

The data collection procedure was carried out using semi-structured interview scripts, which provide greater flexibility and depth. In total, 22 interviews were conducted: 15 with startup entrepreneurs and seven with university professionals. The volume of interviews conducted is consistent with the observation by Nascimento et al. (2018), who highlight that when the interview script is well prepared and appropriate to the context, the point of saturation is generally reached with up to 15 interviews. Tables 1 and 2 below present data relating to the interviewees.

The interviews were conducted either in person or virtually, according to the interviewees' availability, and recorded with their authorization, using prior consent obtained through the signing of the Free and Informed Consent Form (FICF). Two different types of research scripts were prepared (R1 and R2), with R1, composed of 21 questions, applied to startup managers and R2, Composed of 12 questions to university representatives.

Table 1 - Data from interviews conducted with university professionals

Professional	Format	University	Degree
E1	In person	University 1	Master's
E2	In person	University 2	Specialization
E3	In person	University 1	PhD
E4	Google Meet	University 2	Master's
E5	In person	University 2	PhD
E6	In person	University 1	PhD
E7	Google Meet	University 1	PhD

Source: Prepared by the author (2025)

Table 2 - Data from interviews conducted with startup entrepreneurs

Professional	Format	Year Founded	Sector	Stage
ES1	In person	2000	Health	Traction
ES2	In person	2018	Education	Traction
ES3	In person	2021	Education	Operation
ES4	In person	2022	Health	Operation
ES5	Google Meet	2019	Agribusiness	Traction
ES6	Google Meet	2020	Social	Ideation
ES7	In person	2020	Social	Operation
ES8	In person	2021	Condominiums	Operation
ES9	In person	2021	Education	Traction
ES10	In person	2017	Security	Traction
ES11	In person	2018	Education	Traction
ES12	In person	2021	Health	Traction
ES13	In person	2018	Education	Traction
ES14	In person	2019	Logistics	Traction
ES15	Google Meet	2004	Entertainment	Scale

Source: Prepared by the author (2025).

The typification used to determine the stage of the startups followed the model proposed by ABStartups (2019), which outlines the phases of ideation, operation, traction, and scale. Ideation is the moment to start putting the idea into practice and validating the startup. Operation consists of seeking out the market, customers, and expanding operations, when the possibility of acceleration and incubation programs should be considered. The traction phase concerns the growth of the startup, particularly through investments. Finally, the scale phase occurs when the startup achieves 20% growth for three consecutive years in revenue or number of employees (Abstartups, 2019).

Content analysis was adopted as the data analysis methodology, which, according to Bardin (2016), consists of a personal and rigorous interpretation carried out by the researcher based on the collected information.

The interviews conducted were transcribed with the support of the audio transcription feature of Microsoft Office 365. To ensure the accuracy of the transcriptions, all interviews were fully listened to while simultaneously following the transcripts, to ensure that the audio content was faithfully recorded.

To facilitate the visualization and processing of information for content analysis, Microsoft Excel 365 software was used. The data were organized into separate spreadsheets for each question, with participants' answers arranged in rows. For each question, the answers were analyzed, categorized, and coded, seeking better systematization and facilitating data presentation. Finally, the data were interpreted based on the defined coding, and the results were analyzed in light of the literature presented in the theoretical framework of this study.

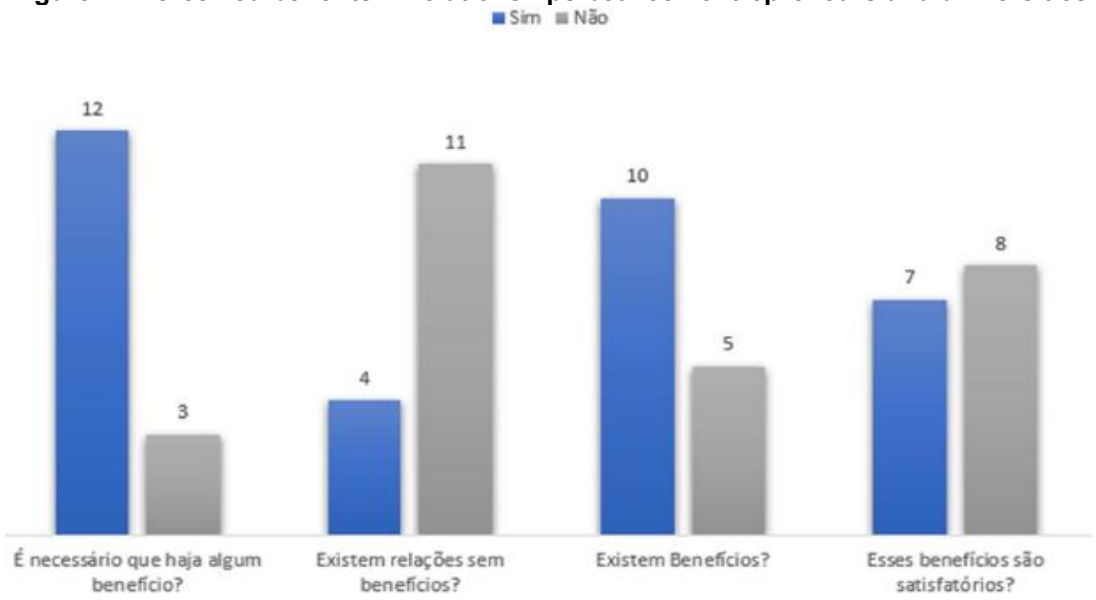
PRESENTATION AND ANALYSIS OF RESULTS

The interactions established between universities and startups have the potential to generate significant benefits and foster advances that drive the development of new businesses. These gains can materialize through research and development initiatives, facilitated access to technological and academic infrastructure, incentives for the creation of innovative solutions, or by forming networks of connection and strategic collaboration (Malerba; Mckelvey, 2020). These relationships stimulate the development of the EE, where academic knowledge and entrepreneurial practice complement each other, promoting value creation for both actors and for the economic environment in which they operate.

Perceived benefits: relationships between entrepreneurs and universities

Based on the assertion by Malerba and McKelvey (2020), targeted questions were developed to explore the perceptions of the entrepreneurs interviewed regarding the benefits arising from their relationships with universities. The proposed questions were as follows: I) In your view, in order to establish a relationship with a university, is it necessary for some type of benefit or advantage to exist for your startup? Please comment on your perceptions; II) Do you identify relationships with universities where there is no benefit or gain? Please comment on your perceptions; III) Do you perceive benefits or gains when establishing relationships with universities? Please comment on your perceptions; and IV) Do you consider these benefits or gains satisfactory? Please comment on your perceptions. Figure 1 is intended to facilitate the observation and understanding of these answers:

Figure 1 - Perceived benefits in relationships between entrepreneurs and universities



Source: Prepared by the authors (2025)

Legend: Blue: yes; Grey: No. É necessário que haja algum benefício? Is it necessary for there to be some benefit?; Existem relações sem benefício; Are there relationships without benefit?; Existem benefícios? Are there benefits?; Esse benefícios são satisfatórios? Are these benefits satisfactory?

It is clear that, almost unanimously, the interviewees pointed out that it is essential for startups to have some benefit when establishing relationships with universities. The responses converged on the identification of specific benefits, such as knowledge:

> Those who are developing a startup don't have much time, nor much money. So, if you are going to spend time and effort interacting with the university, there must be some return, not necessarily financial - maybe it's much more about learning [...]. If there was someone at the university willing to provide mentorship [...], even if it's just knowledge I'm gaining, for me that is worth gold. (ES1)

> Yes, because there is the factor of knowledge return. When the university organizes an event, it fosters the entrepreneur's ideas; it's not only about the financial aspect, but also about expanding the range of topics, bringing other themes about startups. (ES7)

> For example, I have some shortcomings in accounting, in understanding certain things, how it works. An extension course that would help manage my business financially, look into investments, or decide when it's time to expand, would be much more beneficial. (ES8)

> Yes, it's necessary. Not for my business in particular, but I need it for some projects I have. I have a project that involves people from the university and people from the company so we can transform this into some projects for society, for underprivileged populations - programming and electronics resources, to connect people from the community, from the poorest populations, and we create a project that includes these people. I believe in that. I see many young people eager to learn who don't have access. I think this partnership must start from the university, not the company. (ES10)

Some entrepreneurs emphasized connections and networking:

> At the university, there are many events and activities that bring people together, and all of this is an opportunity for any company. In the events, there might be space to talk about your company, to attract clients, potential clients, and to promote [the startup]. (ES4)

> Mainly networking. I think every startup needs some kind of gain. But within the limitations that already exist, I think stimulating networking within the university would already be good. Generating talks, connections. (ES6)

> In my startup, there needs to be a clear return, whether networking or financial, which usually comes as a consequence, but I need to feel there is a return. Knowledge is also important, but I only go to an event if I need to learn something there. (ES11)

> Look, the first return we look for is networking. It's about those connections. That's how we start doing business. When you're running a company, what matters in the end is whether you closed a deal. So, if you don't bring people together and bring together good people who want to do something, who have a purpose, you can't generate jobs or development. (ES14)

Others pointed out that the main benefit was access to labor, as observed below:

> For a long time, for about three years, I had a lot of interaction with universities because my startup worked with internships, so we had to have that relationship, including legal and contractual, with these educational institutions. (ES2)

> I believe so, [...] the startup is bringing in students themselves so they can collaborate in the startup's development and, in doing so, generate possible first jobs or internships [...]. You have people with enormous intellectual capacity, and yet the labor is inexpensive. (ES3)

> Yes, it's necessary to have a relationship with universities, but maybe not in the way most people understand as a benefit. I count as a benefit the recruitment of labor, for example. So, for me, it's important to maintain connections with universities to ensure outstanding students can be directed to us so we can recruit and keep them in the state. (ES15)

However, most entrepreneurs emphasized that the benefits do not necessarily need to be direct or immediate, and there was a tendency to see mutual gain as important and inherently linked to these relationships, reinforcing the perception that both sides - startups and universities - should benefit from the relationships established. This view is clearly evidenced in the following statements from interviewees:

> What happens is that the win-win in a startup doesn't often come in the form of monetary compensation, but in the dissemination of that knowledge. (ES8)

> I think that in the relationship between startups and universities, the gain must be on both sides. (ES3)

> I think it [the relationship] can happen regardless of [the benefit], because whether you like it or not, in every exchange we're talking about collaboration; a startup is about collaboration, exchange of

> information. So when that's happening, you are getting something in return. (ES13)
>
> Every relationship must be win-win. (ES12)

This concept that relationships generate mutual benefits aligns with the prevailing perception that there are no relationships entirely devoid of some kind of advantage. Among the interviewees, eleven stated they believe all relationships bring some type of benefit. In this context, there was unanimity among those eleven entrepreneurs in affirming that there are always gains involved, even if indirect.

From this perspective, the connections and interactions between the various agents involved in relationships with universities - including professors, students, coordinators, other entrepreneurs, or even potential clients - were highlighted as the main benefits identified by the interviewees (ES5, ES6, ES8, ES10, ES13). Furthermore, more general responses emerged, such as statements that "there is always some kind of benefit" or that "there is no relationship without any kind of benefit" (ES1, ES2, ES4, ES7, ES15). Chart 3 presents the entrepreneurs' perceptions of the benefits obtained from relationships with universities.

Given the above, it is reinforced that the most relevant perceived benefits are associated with networking, the acquisition of qualified labor, and access to specialized knowledge. Despite this, a dichotomy in these perceptions emerges, as some entrepreneurs acknowledge the existence of such benefits but argue that they are not directly provided by universities. In this sense, it can be interpreted that, for the most part, entrepreneurs seek the support and validation of academic institutions but do not receive them proactively. Thus, the benefits end up being an indirect and occasional consequence of these relationships, often originating during the entrepreneurs' own undergraduate studies.

Chart 03 - Entrepreneurs' Perceptions: Benefits Obtained through Relationships with Universities

Interviewee	Comments from interviewed entrepreneurs
ES1	From the university, I never received any benefit, that's a fact. Except for interns, who are good students and such, but in terms of a direct relationship with the university, never.
ES2	In my view, the gain is only from relationships. Many times, when seeking to build relationships with people in these institutions, I'd say that 50 to 60 percent of people were receptive, heard the proposal, and had initial meetings, but there were very few with whom I was able to actually make an agreement and, after doing so, execute any action.
ES3	I think for my startup, the best benefit was the intellectual potential of the students and the lower investment required, because they are still undergraduate students, still in training, but with enormous intellectual potential. Another thing [...] that I see as a big difference for us, as a startup incubated within a university, is that we constantly receive visits from other entrepreneurs, professors, or coordinators.
ES4	It would be being in contact with people I want to have as my clients in the future.
ES5	This relationship hardly exists. At some moments, it did, because I was able to advertise the brand. But these were very specific occasions. Just in terms of advertising, very superficial.
ES6	I think the main benefits are more social, from the academic environment. The opportunity to meet professors and students who can generate learning.
ES7	Knowledge, relationships; for my startup, it's about connections and connections are relationships. So, relationships are the day-to-day interactions with people, having those contacts, having space in some university, space with the university's own agents. I think that would be very positive for us. I don't see that today.
ES8	So, there have been benefits. As I say, these are isolated actions, but they do happen. What I would like is a more connected action with the market itself. [...] So, I think when it manages to fulfill its role, which is knowledge production, promoting meetings between people and businesses, very good results emerge.
ES9	For my startup, in the case of UNIT, the creation of the Innovation Center allowed me to have some advantages. For example, practically, I do some recording of courses. I don't pay to use the space. So, if I had to pay, for example, to rent a place for the recordings, I would surely have a much higher expense for my startup [...]. The other is networking.
ES10	Aside from networking, no. No other type.
ES11	Well, there's always some contribution, you know? From the connections that are made. But I'd say the most direct was the fact that UNIT became our client.
ES12	When we established the relationship with UNIT's HR, I believe that access to coordinators and departments within the institution to promote our service became easier. [...] Now we have more opportunities to develop projects with the students, so I believe this was a benefit.

Chart 03 - Entrepreneurs' Perceptions: Benefits Obtained through Relationships with Universities – continuation

Interviewee	Comments from interviewed entrepreneurs
ES13	The training of the workforce. So today, training, as an employer brand. So I think that was very valuable.
ES14	So the real benefit would be that for the students themselves, right? As I mentioned, our development team is made up 100% of UFS students. Our benefit is the workforce. We can't deny that the university plays an important role in this regard. But it's not the university that is introducing people to us, we are the ones seeking out people at the university.
ES15	The creation of the UNIT game development course. That is a real benefit, even if indirect. This closer relationship with the university, being able to better guide the course, like deciding on the syllabi, helps ensure professionals are better trained for the market, and that's good for us.

Source: Prepared by the authors (2025).

As for satisfaction regarding these benefits, opinions were divided. Of the fifteen interviewees, seven considered the benefits satisfactory, while eight expressed dissatisfactions. Even among those who rated the benefits as satisfactory, there was a common perception that universities could play a more active and comprehensive role. Suggestions include promoting more events and meetings to foster connections, offering more advanced infrastructure resources such as well-equipped laboratories and up-to-date technologies, and supporting startups in promoting their brands. Other suggestions involved encouraging the formation of strategic partnerships, facilitating access to entrepreneurship-related knowledge, and attracting ecosystem actors, especially potential investors. Some of these perceptions can be observed in the following statements:

> I think the university could do much more. I think it should foster more events, maybe programs, something that encourages especially those investing in startups. (ES7)
>
> I think it could do more. I think it tries. But I don't think it knows how to do it. Rarely do I see things that are really well targeted. When the institution hosts an event, it draws the student's attention. Now, it needs to draw the entrepreneur's interest, show what kind of business can be developed there. (ES11)
>
> There needs to be more talk about startups. The university is leaving businesses aside. We see this, for example, in the business administration course. So I think today, in the administration course, there is a lot of theory and little practice. Here in Sergipe, we have a

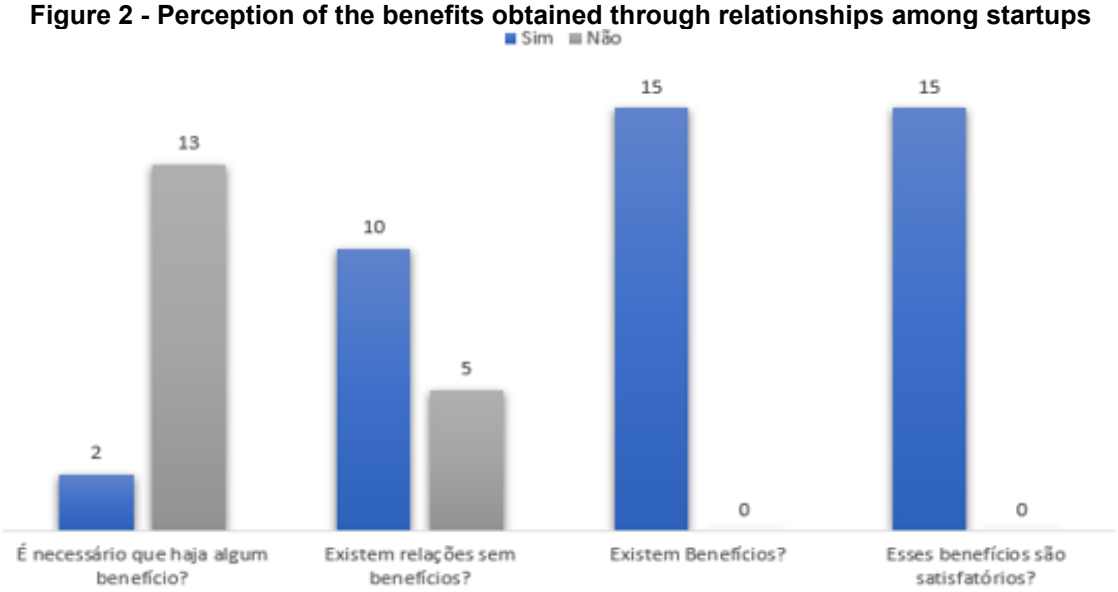
> group of startups, a community, and this group has never been invited. I don't know, maybe for a course, to present their businesses, to get students involved in practice. So I think that sums it up well. It's a lot of theory and little practice. (ES12)

Given this scenario, it can be said that universities have considerable potential to act more actively and strategically within the ecosystem analyzed, getting closer to entrepreneurs and strengthening the connections established with them. It is undeniable that the university plays a fundamental role in society, especially regarding its core activities of teaching, research, and extension. However, it becomes imperative that academic institutions promote more effective interaction with the entrepreneurial community, forging closer ties with startups and the market in general. This approach can not only benefit entrepreneurs but also enhance the university's contribution to the region's economic and social development.

Perceived benefits: relationships among startup entrepreneurs

The entrepreneurs interviewed were asked about their perceptions regarding the benefits obtained. On this occasion, the focus was directed at analyzing the benefits acquired through the interactions and relationships established among startup entrepreneurs. Figure 2 illustrates these perceptions:

Figure 2 - Perception of the benefits obtained through relationships among startups



Source: Prepared by the authors (2025).

Legend: Blue: yes; Grey: No. É necessário que haja algum benefício? Is it necessary for there to be some benefit?; Existem relações sem benefício; Are there relationships without benefit?; Existem benefícios? Are there benefits?; Esse benefícios são satisfatórios? Are these benefits satisfactory?

When analyzing the figure, it becomes clear that, regarding relationships among startups, the scenario is different. The vast majority of interviewees stated that it is not necessary for there to be any benefit in the relationships between startups. Apparently, there is a culture in the studied entrepreneurial ecosystem where relationships built among startups have a more collaborative character, aiming to facilitate the development of other startups, especially when the relationship takes place from a more experienced entrepreneur to one with less experience. This can be observed in the following statements:

> There doesn't need to be a return. I think that from the moment you are in an environment with other startups facing the same challenges - when I talk about facing challenges, like not having knowledge, struggling, searching for service providers - you notice that in the relationship itself, there is already a win-win element. (ES8)

> When I make myself available, for example, to pass on knowledge to a startup, to teach them how to pitch, to help them build their OKR, that is a gain, an exchange, without necessarily requiring something in return. I've already shared coworking space with another startup. I

> benefited because I paid half the cost of the incubator, the coworking space. So, there are relationships that bring a gain and there are relationships without a tangible gain. (ES9)
>
> I believe it's a matter of humanity. If you can make a company succeed, you do it. You start helping a project so that at some point, the person can stand on their own. We have to foster this. (ES10)
>
> There doesn't need to be [...]. Usually, with other startups, I have much more peace of mind in saying that my gain is much more productive knowledge than from the university, because people are having practical experiences, sharing difficulties [...]. The gain happens inevitably because the other side also wants to contribute. The other side doesn't have time to waste just talking. (ES11)
>
> No. Given the position we are in today, we have much more to offer. So, whenever I seek relationships in the local market, it's to try to assist, to support those who are starting out. (ES15)

From these statements, it is clear that there is a collaborative culture among startup entrepreneurs in the ecosystem studied. It is almost a consensus that the relationship should be mutually beneficial, or "win-win," as mentioned by some interviewees.

When asked about the existence of relationships without any benefits, ten out of the fifteen entrepreneurs interviewed responded affirmatively, indicating that such relationships do exist. This perspective proved to be associated with the behavior of more experienced entrepreneurs, who often make themselves available and present to support the development and learning of younger or less experienced entrepreneurs. This scenario is evidenced by the following statements:

> Some startups that we have relationships with end up using a lot of my knowledge [...]. So, I have colleagues from other startups with whom we end up collaborating, providing our expertise for that startup, you know? (ES3)
>
> I have a consultancy once a week with someone who already has experience from another startup. Whenever we can, we sit down, validate, buy a coffee, and end up reaching conclusions that I would probably have to schedule a mentorship or pay for something to happen. (ES9)

> Today, there are some smaller startups that we talk to, that we help. We chat easily [...]. I think that by fostering the ecosystem, you end up fostering your own company. The idea is to create a tech hub in Sergipe. (ES10)
>
> So, the ecosystem works this way. If we are at a higher level, we help those at a lower level [...]. And then we keep sharing information. And in this way, we are also fostering. (ES14)

Broadly, these statements reinforce the spirit of collaboration among entrepreneurs. Those who stated that relationships exist without benefits justified their positions by relating them to the stage the startup finds itself in or the knowledge level of the entrepreneurs involved. In contrast, interviewees who argued that there are no relationships without benefits reiterated the idea of “win-win” relationships, where both parties gain advantages.

Regarding the perception of concrete benefits arising from these interactions, the response was unanimous: all interviewees agreed that relationships among startups generate significant benefits. Moreover, in general, they stated that these benefits are considered satisfactory. Among the main benefits mentioned by entrepreneurs are networking, forming partnerships, exchanging knowledge, accessing technologies, tools, and methodologies, mentorships, connecting with angel investors, sharing experiences, accessing potential customers, establishing business partnerships, and recruiting qualified professionals and labor.

Based on the results presented, it can be interpreted that relationships among startups are perceived as significantly more productive and effective compared to interactions between startups and universities, which showed a lack of greater proximity and were considered by many interviewees as having low contribution and few benefits.

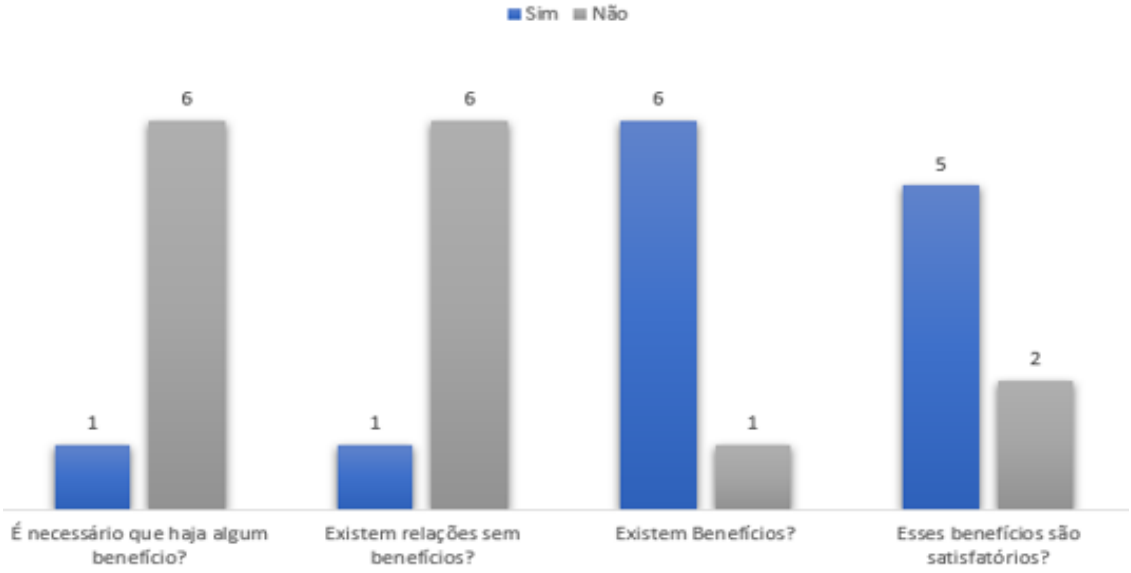
However, to ensure a more balanced analysis, this research also sought to explore the perspective of agents connected to universities. Therefore, their

perceptions were investigated, as well as the contributions they believe they make. These perspectives are detailed below.

Perceived benefits: relationships between universities and startups

Following the previously adopted standard, the questions were repeated but now focused on representatives of the analyzed universities. The perception of interviewees regarding the need for there to be some benefit for the existence of relationships between universities and startups was predominantly negative; that is, almost all stated that it is not necessary for the institution to derive any benefit from establishing relationships with startups. Only one interviewee (E3) answered affirmatively, noting that in their view, there needs to be some kind of gain, but not necessarily for the university- for society as a whole. Figure 3 shows these perceptions:

Figure 3 – Perception of the benefits obtained through relationships between universities and startups



Source: Prepared by the authors (2025)

Legend: Blue: yes; Grey: No. É necessário que haja algum benefício? Is it necessary for there to be some benefit?; Existem relações sem benefício; Are there relationships without benefit?; Existem benefícios? Are there benefits?; Esse benefícios são satisfatórios? Are these benefits satisfactory?

It can be seen in Figure 3 that almost all respondents reported that it is not necessary for the university to receive any benefit from its relationship with startups. To broadly highlight the opinions of the interviewees, chart 4 describes their statements.

One comment that stood out was from interviewee E1, who drew attention to a specific difficulty faced in the creation of startups within the scope of university UN1. According to this person, the barrier is related to an internal intellectual property policy, which imposes a high percentage of university participation in the businesses generated. However, the exact percentage of this participation was not disclosed. With respect to identifying relationships in which there is no type of benefit, only one interviewee (E2) mentioned that such situations may occur. This perception is illustrated in the following statement:

> I had a relationship with a startup where we took the product, established a relationship with a group, entered into a contractual agreement for delivery, and it did not flourish. The startup said that the product was not mature, it was pivoting, and this damaged the relationship [...]. How can I have a startup inside here that we are monitoring, validating, and in the first relationship with the university, the startup does not deliver what it promised it would deliver. So it was a relationship that bore no fruit. But that's the risk. (E2)

Chart 4 - Perceptions of university professionals: Benefits obtained through relationships with startups

Interviewee	Comments from the interviewed university actors
E1	No. The only thing I think hinders the relationship between startups and universities today, once they are developed by the federal university, is the intellectual property issue. The percentage, as far as I know—I'm not sure about the new innovation policy at UFS—is very high for intellectual property participation. So, I think this 'gain' for the university actually ends up hindering the relationship between it and the startup that was developed at the university. The startup is very concerned about this percentage. I think this percentage needs to be reconsidered so that it is as minimal as possible. Patents are fine. But regarding startups, I think this should be reconsidered.
E2	No. When we talk about interactions between university and startups, it should be good for both. There's no point in bringing an early-stage startup into a group where only the startup will benefit. It has to be good for both sides. What will the startup gain and what will the university gain? How can both benefit from this partnership together?
E3	I think so. I don't know if it's a return for the University, but I think it's a return for society. The University has a public function, to give back to society. I don't think it necessarily has to be that the startup has a product or generates an innovation that will be used by the university. I don't think so, but I think the university, because it has a public objective, these startups should indeed have some public intent, some social or environmental impact.
E4	No. I believe in a win-win relationship. When I say that, it doesn't necessarily have to be a material or financial gain, but rather recognition, improving reputation, strengthening the image.
E5	The gain is how you make the knowledge you develop, create, and work with inside the university applicable in reality to solve a problem and bring wealth and financial or non-financial gains to society. So, what is the university's gain? It's the way you make tangible what you taught. Make tangible what you created [...]. We are training people who create and solve problems. So, there must be a return for society.
E6	No. I think the main gain from establishing relationships with startups is that the university can contribute to the education of these people.
E7	I think it's inevitable [...]. These young people, they are all university students, young university students. They will eventually come back to draw from this source [...]. So this relationship doesn't end. There will always be some need to seek information they don't have, or the need to bring ideas that can be incubated or developed at the university to gain, because the university is very welcoming and does not create prejudice or barriers. The university is a space for that. So this relationship, as they develop business models, they enter the market, and soon new possibilities will arise, and they come back to talk. Do you understand? This has been happening.

Source: Prepared by the authors (2025).

The other interviewees highlighted that there is always some kind of gain involved, whether in the form of recognition for the institution, administrative or

research benefits, the development of technologies and innovations, returns to society, or even financial returns, either directly or indirectly.

Furthermore, the research participants shared their perceptions regarding the existence of concrete benefits arising from the relationships between universities and startups. Six out of seven interviewees confirmed that they identify benefits from these interactions. In this regard, the answers reiterated what had already been mentioned previously, maintaining a line of reasoning like that presented in the earlier section. Regarding satisfaction with the perceived benefits, five of the seven interviewees emphasized that these benefits are indeed remarkable and satisfactory.

It was possible to identify a significant difference in concerns regarding what is considered satisfactory for public and private educational institutions. Interviewees from UN2, a private institution, emphasized brand strengthening as a key point, while interviewees from UN1, a public institution, pointed out the difficulties related to obtaining and maintaining resources aimed at creating and developing startups. These challenges are associated with the need to provide evidence of results to regulatory and oversight bodies.

Despite the differences in the challenges faced by these institutions, it is clear that both share a common concern: generating social impact, by offering significant returns to society. At the same time, they demonstrate alignment in their commitment to fostering entrepreneurship and encouraging the development of entrepreneurial initiatives.

CONCLUSIONS

This research aimed to identify the benefits and/or gains obtained by startups from relationships established with universities and with other startups in the Sergipe Entrepreneurial Ecosystem (EE). The interviewed entrepreneurs highlighted that, in relationships among startups, the perception of benefits is

widely evident. Unanimously, all participants stated that these relationships generate benefits and that these are considered satisfactory. Among the main benefits mentioned by the interviewees are: the exchange and/or sharing of knowledge, experiences, technologies, work tools and/or methodologies; the creation of opportunities for the formation of partnerships, business relationships, and commercial ties; easier access to markets, customers, qualified labor and/or investors; mutual collaboration among entrepreneurs; in addition to networking and mentoring initiatives, which stand out as enriching practices for the development and strengthening of startups.

Regarding the benefits arising from interactions between startups and universities, the perception of the interviewed entrepreneurs was more measured. Although the majority recognized the existence of benefits, the perception that these benefits are not entirely satisfactory also prevailed. Among the main benefits identified were networking with professors, coordinators, and/or students, as well as access to qualified labor and specialized knowledge. The benefits related to labor and knowledge corroborate the view of Ganotakis, D'Angelo, and Konara (2021), who highlight the fundamental role of the university in developing individual capabilities, enabling the knowledge acquired to be applied in the creation of new ventures and innovations. However, it is observed that these benefits are considered less significant when compared to the gains arising from relationships among startups.

Among the interviewees from universities, most highlighted that they perceive benefits for the institutions when relationships with startups are established, and that these benefits are considered satisfactory. For these interviewees, the vision of these gains is mainly focused on the social impact of entrepreneurship. The main benefits identified include the creation of new startups, the emergence of new ideas and innovations, strengthening the institutional image, and increasing the university's recognition. This perception

aligns with what Cordeiro and Spoladore (2021) state, emphasizing that entrepreneurship in an EE plays a relevant social role, promoting positive impacts in society and bringing both economic and social benefits.

In this sense, the prevailing view among all interviewees is that there are benefits derived from establishing relationships between startups and universities in the Sergipe EE. It was clear that the prevailing perception is that all relationships generate some type of benefit. This perspective reinforced the idea of a “win-win” relationship, both among startups and between them and universities (and vice versa). Based on these observations, it can be concluded that the relationships established between the actors analyzed are productive and that, in most cases, there is a perception of specific and tangible benefits for both groups interviewed, whether startups or universities.

Scientific production, by its very nature, always faces limitations and challenges during its execution. This research is no exception and presents its own constraints. The first limitation refers to the object of study, the Sergipe Entrepreneurial Ecosystem. Being an ecosystem, there is a wide range of potential actors that could be analyzed, even within the defined boundaries, making it difficult to conduct a deeper and more comprehensive analysis.

Another limitation stems from the adopted boundaries, which selected exclusively startups and universities. In this regard, two aspects deserve attention: 1) By restricting the analysis to universities, other Higher Education Institutions (HEIs), such as colleges, university centers, and institutes, were excluded; and 2) By considering only startups and universities, the perspectives of other ecosystem actors, such as incubators, accelerators, technology parks, government agencies, investors, among others, were not included.

These limitations pave the way for further research, highlighting the importance of continuing to explore the topic, given the relevance of entrepreneurship and entrepreneurial ecosystems to economic and social

development. Considering the results of this research, new possibilities arise to expand the study of this theme. Thus, the following suggestions for future research are presented: I) Use this research as a basis for carrying out new studies in other EEs; II) Investigate the benefits generated by other EE actors; III) Develop a scale capable of measuring the impact of the benefits derived from relationships between EE actors. It is worth noting that the suggestions presented may be applied in both qualitative and quantitative research, and can be developed in different contexts, such as local, regional, or national.

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