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Assessing the acceleration process from the perspective of managers and entrepreneurs: the case of empreendetec

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Abstract

Objective of the study: this study aims to analyze the acceleration process from the perspective of managers and entrepreneurs.
Originality/Relevance: it shows the extent to which what managers proposed was perceived as implemented by entrepreneurs, highlighting divergences and convergences. By considering both perspectives, managers and entrepreneurs, this paper adds to the knowledge on acceleration processes, which usually focuses on a single perspective: either managers or entrepreneurs.
Methodology: this paper is based on a qualitative single case study of an acceleration process, the program EmpreendeTec (fictitious name), offered to students and scholars at a private university in Belo Horizonte, Minas Gerais, Brazil. Data were collected through semi-structured interviews, conducted in 2022, and secondary sources. The data was subjected to content analysis, which facilitated a detailed understanding of the participants' perceptions of the program.
Main results: the results show that managers and entrepreneurs have different views on important aspects of the program, such as the geographical proximity between managers and ventures, access to financial resources, use of available material, and validation of the venture.
Theoretical and managerial contributions: this paper contributes by increasing the understanding of acceleration processes from the perspective of managers and entrepreneurs, presenting a holistic view of the program. It also shows how the consequences of the Covid-19 pandemic affected the program's performance, making key aspects of the program unfeasible, such as collaboration between ventures and the creation of an environment conducive to entrepreneurship.

Keywords: entrepreneurship, acceleration programs, technology-based firms, evaluation.

Avaliação do processo de aceleração considerando a perspectiva dos gestores e dos empreendedores: o caso do empreendetec

Resumo

Objetivo do estudo: Este estudo visa analisar um processo de aceleração sob a perspectiva de gestores e empreendedores.
Relevância e Originalidade: Demonstra se o que foi proposto pelos gestores foi percebido como implementado pelos empreendedores, destacando-se divergências e convergências. Ao considerar ambas as perspectivas, gestores e empreendedores, o trabalho agrega à literatura sobre processos de aceleração a qual tende a privilegiar uma única perspectiva: gestores ou empreendedores.
Metodologia: Por meio de um estudo de caso único de natureza qualitativa, selecionou-se um processo de aceleração cujo programa denominado EmpreendeTec (nome fictício) foi o oferecido a alunos e professores de uma universidade privada em Belo Horizonte, Minas Gerais. Os dados foram coletados por meio de entrevistas semiestruturadas, documentos e fontes secundárias, realizadas em 2022. Os dados foram analisados por meio de análise de conteúdo, permitindo uma compreensão detalhada das percepções dos participantes sobre o programa.
Principais resultados: Os resultados indicam que os gestores e empreendedores possuem visões distintas sobre aspectos importantes, como a proximidade entre gestores e empreendimentos, acesso a recursos financeiros, utilização do material disponibilizado e validação do empreendimento.

Contribuições teóricas e gerenciais: O estudo possui duas principais contribuições: (i) a compreensão de processo de aceleração a partir das perspectivas de empreendedores e gestores, permitindo uma visão abrangente do programa; (ii) a revelação de como os reflexos da pandemia da Covid-19 afetaram o desempenho do programa, inviabilizando aspectos-chave do processo de aceleração, como a colaboração entre empreendimentos e a criação de um ambiente condutivo ao empreendedorismo.

Palavras-chave: empreendedorismo, aceleração, empresas de base tecnológica, avaliação.

Evaluando el proceso de aceleración desde la perspectiva de directivos y empresarios: el caso de empreendetec

Resumen

Objetivo del estudio: este estudio pretende analizar el proceso de aceleración desde la perspectiva de los gestores y los empresarios.
Originalidad/relevancia: en concreto, muestra en qué medida las propuestas de los directivos fueron percibidas como aplicadas por los empresarios, destacando divergencias y convergencias. Al considerar ambas perspectivas, la de los directivos y la de los empresarios, este trabajo se suma al conocimiento sobre los procesos de aceleración, que suele centrarse en una única perspectiva: la de los directivos o la de los empresarios.
Metodología: este trabajo se basa en un estudio de caso cualitativo de un proceso de aceleración, el programa EmpreendeTec (nombre ficticio), ofrecido a estudiantes y becarios de una universidad privada de Belo Horizonte, Minas Gerais, Brasil. Los datos se recogieron mediante entrevistas semiestructuradas, revisión de documentos y fuentes secundarias realizadas en 2022. Los datos fueron sometidos a análisis de contenido, lo que facilitó una comprensión detallada de las percepciones de los participantes sobre el programa.
Principales hallazgos: los resultados muestran que gestores y emprendedores tienen opiniones diferentes sobre aspectos importantes, como la proximidad geográfica entre gestores y emprendimientos, el acceso a recursos financieros, el uso del material disponible y la validación del emprendimiento.
Aportaciones teóricas y de gestión: este trabajo contribuye a aumentar la comprensión de los procesos de aceleración desde la perspectiva de los gestores y los emprendedores, presentando una visión holística del programa. También muestra cómo las consecuencias de la pandemia de Covid-19 afectaron al rendimiento del programa, haciendo inviables aspectos clave del mismo, como la colaboración entre empresas y la creación de un entorno propicio para la iniciativa empresarial.

Palabras clave: iniciativa empresarial, programas de aceleración, empresas de base tecnológica, evaluación.

1 Introduction

Universities play a critical role in the generation and dissemination of new knowledge, including the creation of new ventures (Audy, 2017; Bobsin et al., 2020; Etzkowitz & Zhou, 2017).

Accelerators, defined here as physical spaces that provide resources and financial investment to entrepreneurs, are fundamental to entrepreneurial activity from universities (Clayton et al., 2018; Mendes & Longaray, 2020; Silva et al., 2018).

In general, accelerators act as intermediaries in the entrepreneurial process initiated within universities (Clayton et al., 2018). Their programs focus on the development of various new technological ventures, providing access to networks, capital, mentorship, and entrepreneurial training in a short timeframe (National Association of Entities Promoting Innovative Enterprises [ANPROTEC], 2019; Figueiredo, 2018; Oliveira, 2019; Politis et al., 2019). As a result, accelerators become essential for the development of new ventures, seeking to help them survive the early stages (Etzkowitz & Zhou, 2017; Mendes & Longaray, 2020).

The influence of accelerators on the entrepreneurial process through structured programs has only recently been addressed in research (Clayton et al., 2018; Noronha et al., 2021), illustrated by qualitative case studies (e.g., Castro et al., 2021; Figueiredo, 2018), studies on the entrepreneurial support environment (e.g., Bobsin et al., 2020; Moreira-Silva et al., 2021), or literature reviews (e.g., Noronha et al., 2021; Pedrinho et al., 2020).

In other words, studies usually emphasize the views of those who conceive and are responsible for the program or, alternatively, those who participate in the program (Carmo & Rangel, 2020). For instance, Fernandes (2015) Fernandes (2015) focuses on the perspective of the participants in the accelerator program and suggest to improve the performance of the accelerated ventures. Conversely, Bobsin et al. (2020) evaluate the infrastructure of the university ecosystem, highlighting its characteristics and positive aspects from the perspective of the managers.

Although these studies have contributed to our understanding of the acceleration process, research that assesses such programs from a single perspective, managers or entrepreneurs, tends to reflect the perceptions of this particular set of actors. This becomes problematic because acceleration programs have a "complex design" (Cohen et al., 2019, p. 1796). Consequently, "a variety of relationships may exist between the accelerator and the new venture" (Clayton et al., 2018, p. 17), which may lead to diametrically opposed views.

In other words, emphasizing either managers or entrepreneurs in program evaluations can lead to a partial view and bias. For instance, focusing on aspects related to the entrepreneurs may underestimate the managerial and strategic aspects of the managers and, consequently, of the supporting institutions, such as universities. Conversely, considering only aspects related to the

accelerator institution may not adequately address the demands and situations experienced by the entrepreneurs. Thus, an investigation that accounts both perspectives likely presents results that reflect the complexity and diversity of the actors involved in the acceleration process (Figueiredo, 2018; Moreira-Silva et al., 2021), highlighting their convergences and divergences.

In this context, this paper aims to analyze an acceleration process from the perspective of both managers and entrepreneurs. By considering both perspectives, the resources, products and processes of the programs are evaluated. To do so, we selected the program EmpreendeTec 2021 (fictitious name), associated with a university in Belo Horizonte and the Metropolitan Region, here referred to as University X.

This paper makes the following contributions. First, it advances the understanding of the acceleration process through the evaluation of managers and entrepreneurs, uncovering its processes and outcomes through the convergences and divergences between these actors. Thus, it presents a comprehensive view of the acceleration process, emphasizing the main actors involved, such as managers and entrepreneurs. Furthermore, the case study, conducted in a pandemic context, shows how exogenous factors, such as the environment of restrictive sanitary measures during the acute phases of the Covid-19 pandemic, affect the evaluation of the actors. This situation allows to reflect on acceleration processes conducted in a fully virtual format.

2 Theoretical Background

In recent years, universities have intensified efforts to promote and stimulate entrepreneurship and knowledge transfer. As a result, the academic environment has assumed a pivotal role in encouraging and fostering commercial production within the university context through mechanisms such as incubation and acceleration (Clayton et al., 2018; Etzkowitz & Zhou, 2017).

While incubation and acceleration are often treated interchangeably due to their overlapping characteristics and lack of clear distinctions (Inovação Sebrae Minas, 2021), incubation can be understood as the promotion of environments conducive to the creation of new ventures (Moreira-Silva et al., 2021). These environments allow entrepreneurs to implement their innovation-based initiatives (Santos & Filho, 2014) and support the survival of the venture from nascent idea to first consolidation (Mendes & Longaray, 2020).

Conversely, the acceleration process, which is the focus of this study, is developed by venture accelerators, which are characterized as "time-limited programs of approximately three to six months that support a group of startups in their venture processes and aspirations" (Cohen et al., 2019, p. 1781). In general, venture accelerators facilitate organizational development to overcome early-stage barriers and reach the break-even point (ANPROTEC, 2019).

Unlike the incubation process, which is more closely associated with business at a very early stage embedded in physical environments, acceleration processes are designed to support more established companies (Castro et al., 2021). For instance, new technology-based companies often seek acceleration programs due to a lack of financial resources, making acceleration a means to secure funding through investors (Oliveira, 2019).

Acceleration activities include selection, partner training, mentorship, market access, access to investors, investment funds, infrastructure, and support services (ANPROTEC, 2019; Oliveira, 2019; Silva et al., 2018). The interaction between these actors aims to support the validation process of the venture and facilitate a solid market entry (Castro et al., 2021). In addition, accelerators may host specific ventures in their programs, such as those in the health or agriculture sectors (ANPROTEC, 2019).

Thus, acceleration focuses on investment, usually in exchange for potential equity or shares in the company, and prioritizes the team, founding partners, and employees rather than the individual entrepreneur (Fernandes, 2015). Oliveira (2019) notes that almost all accelerated companies already have a CNPJ, the Brazilian business registration number, and most have commercialized products. Furthermore, acceleration typically includes the provision of technological infrastructure (Etzkowitz & Zhou, 2017).

Despite such resources, accelerated companies are not exempt from new challenges during the entrepreneurial process. Oliveira (2019) points out that 70% of companies have not experienced a previous incubation phase, resulting in gaps in behavioral, psychological, and administrative aspects. In addition, many accelerated companies pointed out that obtaining investment is a major challenge (Oliveira, 2019).

Given the complexity of the acceleration process, authors such as Noronha et al. (2021) and Politis et al. (2019) emphasize the need to evaluate these processes. This importance lies in the potential to reorganize resources according to their respective objectives (Castro et al., 2021;

Moreira-Silva et al., 2021; Wolffenbüttel, 2001), aiding managers in decision-making and contributing to knowledge generation (e.g., Bobsin et al., 2020).

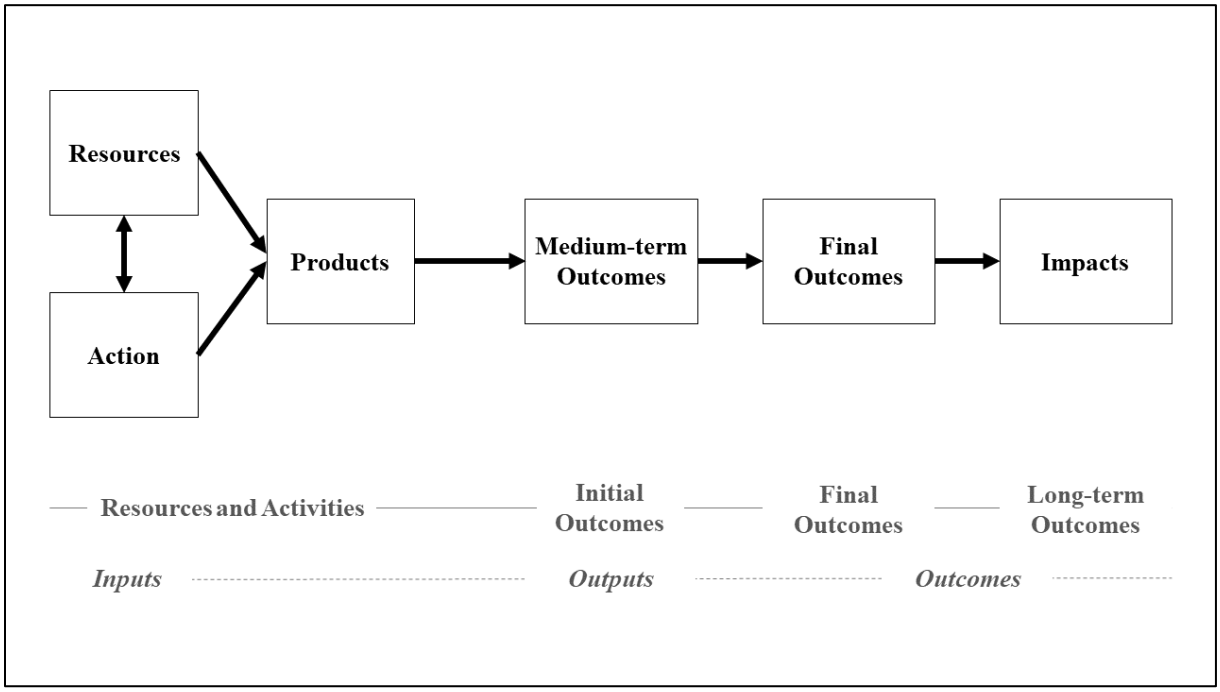
Among the types of evaluation for acceleration programs, the following can be mentioned: (i) the model used by Wolfenbuttel (2001), which focuses on the impact of incubation/acceleration mechanisms at multiple levels - university, firm, and society; (ii) the dynamic capabilities model used by Bobsin et al. (2020), suggesting how organizations can integrate, build, and reconfigure external competencies in changing environments to generate innovative products; and (iii) the logical model, the focus of this study (Ferreira et al., 2007; Millar et al., 2001).

The logical model is a systematization of events or processes "that graphically represent the underlying assumptions or bases on which the performance of one activity is expected to lead to the occurrence of another activity or event" (Millar et al., 2001, p. 73). It outlines the functioning of the program and identify problems and/or deficiencies in processes that may affect the performance of the evaluated mechanism (Ferreira et al., 2007). Thus, the model shows how the program operates, characterizing its processes, beneficiaries, actors involved, and the outcomes that solve the program's target problem (Coelho, 2019; Millar et al., 2001).

Ferreira, Cassiolato, and Gonzalez (2007) present four elements of the logical model: resources, actions, products, and outcomes. Resources are the inputs provided to achieve a goal. Processes/actions are the activities carried out within the program. The products obtained from these activities refer to the specific outputs generated by each action, including the level, type, and objectives of the goods and services provided, as illustrated in Figure 1 (Freitas & Silveira, 2015; Kellogg, 2004).

Figure 1

Sequence of the logical model



Note: Developed by the authors, based on Millar et al. (2001) and Ferreira et al. (2007).

Finally, outcomes are distinguished by their intensity and the audience they affect, and are categorized as intermediate outcomes, final outcomes, and impacts. Intermediate outcomes address the causes of the problem, while final outcomes relate to the achievement of the program's objectives. The third category, impacts, encompasses the social outcomes that result from the intermediate and final outcomes. Thus, outcomes refer to the short- and medium-term consequences of a program, including participant behavior. In addition, impacts represent long-term changes within organizations, communities, or systems, whether these changes are intentional or not (Kellogg, 2004).

The use of the logical model allows the assessment of acceleration processes from the perspective of both managers and entrepreneurs. This holistic perspective suggests a more comprehensive approach to understanding the acceleration process, highlighting both convergences and divergences.

3 Methodology

3.1. Method

To analyze the EmpreendeTec 2021 program, we built a qualitative, single case study based on two factors: i) the recognition that the study of acceleration processes constitutes an emerging field (Cohen et al., 2019; Politis et al., 2019), thereby justifying the use of a qualitative approach given the exploratory stage of the research area; and ii) the need to capture the phenomenon in an integrated manner, encompassing the convergences and divergences between managers and entrepreneurs, as well as the relational context that underpins the acceleration process.

The selected case for this research was the EmpreendeTec 2021 program. Affiliated to a university with several campus in Belo Horizonte and the metropolitan region, EmpreendeTec is currently the most important entrepreneurship promotion program of this institution. It involves students, faculty and staff from different campus in the development of new ventures. Furthermore, the choice of this case is also justified by accessibility: the operation of EmpreendeTec is closely linked to the students and faculty affiliated to the university, who can act both as entrepreneurs and as mentors. This alignment with the objective of the study allows a holistic understanding of the phenomenon by contrasting the responses of both actors.

3.2 Data Collection

Multiple sources were used for data collection. In terms of secondary data, we selected documents, social media, program websites, and newsletters from University X as shown in Table 1.

Table 1

List of Secondary Data

Source	Unit	Quantity
Website	Pages	5
Call for Proposals	Pages	12
Commitment Term	Pages	1
Contract	Pages	16
Interview	Podcast	1
Social Media	Posts	17
Newsletters	Pages	1
YouTube	Live Streams	2

Note: Prepared by the authors

For the primary sources, we conducted eight interviews, which were recorded and transcribed verbatim. We used two interview scripts, one for each category of interviewee listed in Table 2. The interviews took place between August 1 and October 16, 2022, totaling 8 hours and 59 minutes.

Table 2

List of Interviews

Interview	Interviewee	Duration
Interview 1	Entrepreneur – Company 1	95’10’’
Interview 2	Manager 1 – EmpreendeTec	61’55’’
Interview 3	Entrepreneur – Company 2	61’53’’
Interview 4	Entrepreneur – Company 3	53’08’’
Interview 5	Entrepreneur – Company 4	78’06’’
Interview 6	Manager 2 – EmpreendeTec	60’20’’
Interview 7	Manager 3 – EmpreendeTec	66’51’’
Interview 8	Manager 4 – EmpreendeTec	63’53’’

Note: Prepared by the authors

The selection of the interviewees took into account the following aspects: (i) knowledge of the processes related to the case, (ii) involvement in the program, and (iii) relevance to the study. Thus, for the entrepreneurs, four partners from different companies who were founders and/or involved in the company since the beginning of the program were selected. For the managers, two professors who have been involved since the conception of the edition of the program studied were selected, as well as two collaborators who have been involved in the development of the program since its inception, including the selection of participating companies.

Questions for entrepreneurs included: a brief history of the venture; perceptions of the relationship between the venture and EmpreendeTec; main challenges faced; developments during the program execution period; points for improvement regarding the program; links with other ventures; investments received; results obtained from participation, among others. For managers, questions included: history of the program; transition between program editions to the one being studied; main changes and challenges between editions; goals and highlights of EmpreendeTec in

the focus edition of this study; program structure and its relationship with the target audience; communication; main contributions and results of the program, among other topics.

3.3 Data Analysis

Data analysis was carried out in three main steps. In step 1, the analysis began with the transcription of the interviews and the organization of interviewee statements into a unified research corpus (Bardin, 2016). Each interview was organized into thematic blocks. The blocks were divided according to the characterization of the interviewees as managers or entrepreneurs, and the themes were separated according to the content of the answers and aligned with the categories of the logical model, namely: program resources, actions, products obtained from the actions, and the results of the acceleration process. Thus, the understanding of the phenomenon took into account the perspectives of two groups of respondents. The first group refers to the perception of the program managers, and the second group consists of the entrepreneurs who participated in EmpreendeTec 2021.

In Step 2, after organizing the statements, a comparative analysis was conducted between the responses of each group to identify convergences and divergences, highlighting the points of divergence when they occurred, at each stage: resources, actions, products, and results. Thus, the interview blocks were compared according to the characterization, the responses of the managers and entrepreneurs, as well as the themes that encompassed each response.

In this context, if both groups agreed on an issue, they were considered convergent; if they disagreed, they were considered divergent. It is important to note that convergences and divergences were not understood as positive or negative points, but rather whether the agents had similar or opposing opinions on specific points. Finally, a comparative framework was developed for each result. The authors discussed their divergencies until they reached an agreement. .

In step 3, a final report was created, where the analysis can be observed, as well as illustrative statements, based on the blocks of resources, actions, products and results, considering the analysis model.

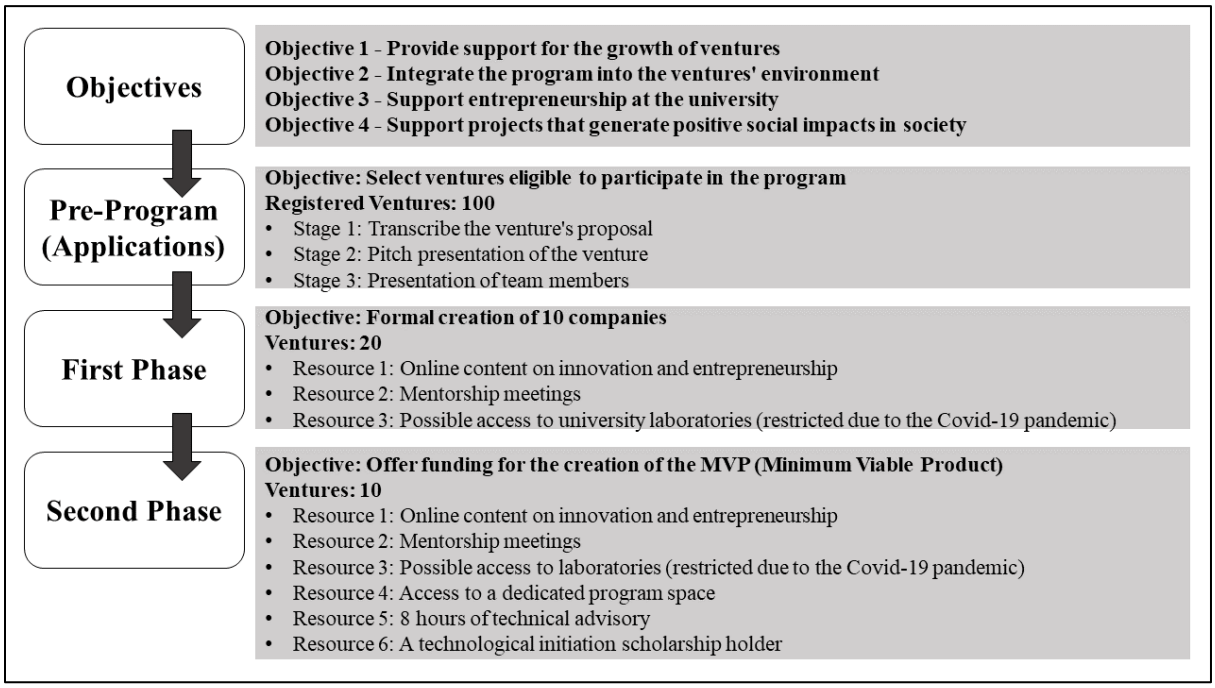
4 Results

4.1 Context

EmpreendeTec, as described in its call for proposals, positions itself as a "Venture Induction Program", but it is in fact an acceleration program, as evidenced by the data collected, including the "Acceleration and Investment Contract" signed between the program and the entrepreneurs. The program was launched through a collaboration between the Pro-Rectorate of Research and Postgraduate Studies and the Technological Innovation Center (NIT) of University X. The 2021 edition, which is the subject of this study, marked the second edition of the program and was conducted remotely due to the Covid-19 pandemic. to secure financial investment at the end of the program and integration into local investor networks, the program attracted approximately 100 applications. Designed to last approximately 90 days, the program was divided into two phases: the first phase included 20 teams, while the second phase included only the remaining 10 teams shown in Figure 2.

Figure 2

EmpreendeTec 2021



Note: Prepared by the authors

The first phase of the program provided the 20 ventures with access to online content on innovation and entrepreneurship. The teams also participated in two-hour mentoring sessions. In addition, this phase included the opportunity to access the university's labs.

The second phase of the program, involving the 10 selected and formalized ventures, again included online content on innovation and entrepreneurship. This phase included a total of 120 hours of mentoring. The program also provided a dedicated physical space, distinct from the access to University X laboratories that was also available during this phase. In addition, eight hours of technical advice from university professors were provided, as well as a three-month Technological Initiation Scholarship for a university student who was not a member of the participating companies, both funded by the program.

4.2 Resources

The first category of the logic model relates to resources, which are the inputs that the program has in terms of human, financial or organizational resources (Kellogg, 2004). EmpreendeTec's resources include a specialized support team for entrepreneurs, a network of university advisors composed of professors and researchers from different disciplines, an external consulting firm, an accounting firm, access to online learning content, a scholarship funded by the program, and an online communication platform.

Table 4

Perception of Entrepreneurs and Managers: Resources

Resources	Convergent	Divergent
Specialist and Advisory Team	Diversity in areas of expertise.	Limited interaction between entrepreneurs and managers (stemming from program ambiguity or lack of initiative from entrepreneurs).
Fellows	Beneficial relationship between ventures and fellows. Limited assistance due to lack of professional experience.	-
External Consulting Firm	-	Limited understanding of participating companies and their sectors (due to lack of process personalization, disorganization, or insufficient venture comprehension).
Accounting Firm	Specific role, limited to "just opening the CNPJ."	-
Online Training and Learning Content	Crucial for venture development.	-
Free and Online Communication Environment	Underutilized.	-
Financial Resources	Non-financial benefits.	Misperception of financial benefit (stemming from misunderstanding of the notice and communications by entrepreneurs or their perception of the "economic investment" value).
Laboratories	Not utilized due to the impacts of the Covid-19 pandemic.	-

Note: Prepared by the authors

The team of specialists provided to the participants, described by one of the entrepreneurs as "highly qualified and with excellent professors" (interviewee 4), was responsible for supervising the ventures - which ranged from four to five companies - and for administrative tasks such as organizing forms, conducting evaluations, and networking with external partners. The network of consulting professors was funded by the program. The advisors were hired based on the specific needs of the ventures, and according to the managers, not all teams needed their help. The depth of knowledge of the professors associated with the program was recognized by both entrepreneurs and managers. However, entrepreneurs noted a lack of close interaction between the program

managers and the ventures, resulting in impersonal activities. Conversely, managers highlighted a lack of initiative on the part of entrepreneurs to fully utilize the designated team.

The program also provided scholarships to participating companies. This was seen as mutually beneficial, as the companies had staff to perform routine tasks, while the fellows gained valuable experience. However, managers emphasized that the Covid-19 pandemic posed a significant challenge to the productivity of the fellows, and their limited work experience constrained their performance, a fact recognized by both groups studied.

According to the entrepreneurs, one of the external companies, a consulting firm, acted disorganized, as it seemed to lack awareness of the different types of ventures, resulting in generalist contents. The managers pointed out that the consulting firm ended up having more contact with the ventures than the program itself, attributing this to a certain lack of organization between the firm and the accelerated ventures. The accounting firm, on the other hand, did not receive attention, and its performance was perceived as limited by both groups of respondents. According to the entrepreneurs, the accounting firm was used by the program only for the generation of the CNPJ (National Registry of Legal Entities), required by the program managers but perceived as an "imposition" (Interviewee 5).

Access to online content was provided through the platform used by University X, covering areas such as logistics, entrepreneurship and innovation - content also developed by the mentors. This content was perceived as crucial for venture development by both entrepreneurs and managers. In terms of the virtual communication environment, it was underutilized, a fact agreed by both groups.

In terms of financial resources, instead of direct financial support, an economic investment was provided to the ventures. According to the managers, economic investment is understood as the provision of "offered benefits, [...] mentorships, technical advice, the scholarship holder [...]" (Interviewee 2). Entrepreneurs reported an expectation of receiving financial resources through the program, but it did not materialize. There was also criticism of the program's lack of initiative in introducing the ventures to networks and investors. Despite the common understanding of the importance of non-financial benefits, the lack of financial benefits became a central theme in the entrepreneurs' evaluation.

Regarding the availability of laboratories, both interviewees expressed the same position, highlighting the pandemic as a significant challenge for the use of this resource. According to the

interviewees, the 2021 edition could have been more productive "[...] if there was the possibility for the team to meet, space for interaction, use of a room [...]" (Interviewee 2).

4.3 Action

According to the logical model, the second category refers to the actions, "the processes, tools, events, technologies, and actions that are an intentional part of the execution of the program, [...] used to provoke the intended changes and results" (Freitas & Silveira, 2015, p. 182). Table 5 summarizes the convergences and divergences in terms of actions.

Table 5

Perception of Entrepreneurs and Managers: Action

Actions	Convergent	Divergent
Entrepreneurship and innovation classes	Lack of specific content, such as regulatory and legal aspects.	Utilization of available online material (resulting from underutilization by entrepreneurs and lack of identification by managers).
Program team monitoring	Communication difficulties between managers and entrepreneurs.	-
	Discomfort with the number of meetings.	-
Workshops	Difficulty in conducting workshops.	-

Note: Prepared by the authors

The first aspect highlighted by the actions is the entrepreneurship and innovation classes, available on a virtual platform. Program team monitoring and workshops were also identified.

Regarding the entrepreneurship and innovation classes, there was disagreement about their use. Managers pointed out the courses as an important action for the development of the companies. However, according to the entrepreneurs, one reason for not using the material was the lack of novelty in the content: "[...] at least 80% of what was there I already knew" (interviewee 5). Another reason was the lack of time. Specific content, such as regulatory and legal aspects requested by entrepreneurs, was not part of this content, a fact recognized by managers and requested by entrepreneurs.

It is important to note that each venture was entitled to 12 hours of mentoring. Participants agreed that the intense routine of virtual meetings with participants caused discomfort for all

involved. According to the managers, detailed meetings took place, but "a month later the same doubts arose" (interviewee 8). Entrepreneurs, on the other hand, emphasized a certain lack of clarity about what the venture should be doing and/or what advice should be sought. The need to carry out activities quickly or to repeat them was mentioned, leading to the feeling that the processes were "a bit loose" (interviewee 1), demonstrating communication gaps between the actors. With regard to the monitoring by the program team, the entrepreneurs pointed to the pressure on the ventures to have revenues by the end of the program, but without what was considered "strategic" support.

Most of the workshops took place online. However, although important for the development of the ventures and the creation of an MVP, the event schedule was fraught with difficulties. Due to the pandemic context, managers expected entrepreneurs to participate in these events, but recognized the difficulty of doing so. Entrepreneurs, in turn, emphasized that the program did not require exclusive commitment from participants, which led to absenteeism because the events took place during venture hours and competed with other routine activities.

4.4 Products

The third category relates to products, which are the outcomes of each activity, ensuring that each activity produces a distinct product (Freitas & Silveira, 2015; Kellogg, 2004). In general, these include the training of participants, non-financial benefits, and partnerships between participating companies. Table 6 summarizes the convergences and divergences with respect to products.

Table 6

Perception of Entrepreneurs and Managers: Products

Products	Convergent	Divergent
Participant training	Recognition of the program's importance in participant development.	-
Non-financial benefits	Knowledge gain and business maturity during program participation.	-
Partnerships among companies	Limited interaction due to the pandemic.	-
	Lack of integration with participants from previous editions.	-

Note: Prepared by the authors

Overall, the entrepreneurs felt empowered after the program, which achieved the goal proposed by the managers. It is important to note, however, that the entrepreneurs pointed out that the focus of the program was on mentorship: "[EmpreendeTec] was not even about acceleration, it was about mentorship" (Interviewee 1).

Regarding the non-financial benefits, and in line with the managers' perception, the participants highlighted that having the EmpreendeTec name in the history of the venture is and will be important for the development of the ventures. This advantage is linked to the market position of the university: "it generates a certain value for the company when we are associated with University X [...] the fact that we participated [...] is highly valued [for participation in other programs]" (interviewee 3).

Regarding partnerships among the participating ventures, the entrepreneurs noted that the program encouraged partnerships but did not take into account the profiles of the entrepreneurs. Despite the managers' efforts to share knowledge among the ventures, for instance, meetings and virtual contacts took place at times when it was not possible to involve all participants. The managers acknowledge the importance of interactivity between companies for better use of the program. However, "the engagement between teams was not as evident as in the 2019 edition" (interviewee 8), which poses a challenge for program management.

4.5 Outcomes

Outcomes are categorized into three types: medium and long-term outcomes, the results of the program, and the impacts and changes within organizations, communities, or systems - venture retention, job creation, intellectual property registration (Ferreira et al., 2007; Kellogg, 2004). Thus, the immediate outcomes were the training of entrepreneurs in topics such as innovation and entrepreneurship and the promotion of ventures in social networks. Medium-term outcomes were business venture validation and the creation of a MVP. Long-term impacts cannot yet be objectively analyzed. Table 7 summarizes the convergences and divergences in terms of results.

Tabela 7

Perception of Entrepreneurs and Managers: Outcomes

Outcomes	Convergent	Divergent
Entrepreneur training	Importance of the program for achieving the desired training.	-
Business Ventures validation	The Pandemic Context as a Barrier to Effective Business Venture Validation.	Perception of what was validated (resulting from a lack of communication or prior explanation of what should be recognized as business venture validation).
Venture continuity	Despite difficulties, revenue expectations remain.	-

Note: Prepared by the authors

Regarding the entrepreneurial training, the managers pointed out that the objective of the program was achieved with different ventures ideas, which characterizes the innovative potential of EmpreendeTec. The entrepreneurs shared the same position, considering that the objective was also achieved: by dedicating more time to the project, they were able to carry out activities that were stagnating. Discussions and mentoring allowed them to "open their minds, move away from assumptions and see more of the reality" (interviewee 5). For the managers, a greater exposure of the companies by University X could have had an impact on the number of program applications, which is still considered low.

In terms of long-term outcomes, the validation of business ventures was cited as a tangible result, despite the difficulties posed by Covid-19's pandemic health activities. According to the managers, the focus of the program was on "acceleration" (interviewee 2), for instance, the generation of marketable products. For the participants, however, the mentoring and advice did not lead to this validation, although it did help them gain a better understanding of the venture. In fact, their ideas were validated, but the venture itself was not "materialized," causing one of the divergences observed during the study. This could be due to the difficulty of measuring the maturity of the ventures, as: "[...] we have to create a program that meets the needs of all these profiles" (Interviewee 8).

It is worth noting that, according to both groups of interviewees, the pandemic context at the time of the program's implementation proved to be a unique obstacle. The distance caused by the Covid-19 pandemic was a significant barrier to team development and effective business venture validation.

Three of the four entrepreneurs interviewed, who now have the university as a partner with a 15% stake in the ventures, continued to operate, but two of these ventures noted difficulties with the cost of keeping the ventures open. In terms of job creation, two of the interviewees reported hiring freelance workers after the program, funded with their own capital. There was no trademark or intellectual property registration during the program or up to the time of data collection for this study, despite the expectation of future revenues.

5 Discussion

By evaluating entrepreneurs' and managers' perceptions of the acceleration process through the logical model (Freitas & Silveira, 2015; Kellogg, 2004), it was possible to observe significant convergences in their opinions. For instance, in the category of resources, which had the highest number of convergences, both managers and entrepreneurs recognized fundamental aspects of the program's operation, such as the diversity of the support team's areas of expertise, the importance of non-financial benefits such as the "win-win" relationship with the designated fellows, and the relevance of the content developed by the program. Even the reservations were convergent, such as the timely performance of the accounting firm and the non-use of laboratories due to the impact of the Covid-19 pandemic.

In fact, the pandemic context is part of the background for other convergent aspects in the remaining categories of analysis, such as both groups' perceptions of the negative influence of the context on the program team's monitoring activities - products, the lack of partnerships among participating companies - and the difficulty of business venture validation - results. It is suggested that the convergences between the groups are related to broader characteristics and general processes of the program. The divergences, on the other hand, seem to be more related to individual aspects of the ventures, as will be discussed below.

In terms of divergences, these occurred in three of the four categories: (i) resources, (ii) actions, and (iii) outcomes. In terms of resources, entrepreneurs mentioned that the support team remained distant and had little understanding of the ventures, while managers reported that the

teams' pursuit of available support was erratic. This highlights one of the major challenges in evaluating incubation and acceleration programs: managing the differences and particularities of the ventures (Clayton et al., 2018; Noronha et al., 2021).

The broad scope of EmpreendeTec increased this divergence, as it received proposals from ventures of different types. As the managers argue, the access of different ventures to the program demonstrates a certain innovative potential, but also creates a need for specific knowledge about each venture. In addition, it is argued that the high heterogeneity of the participating ventures complicates the relationship between the ventures, creating integration barriers in addition to those already known, such as the difference in the maturity of the ventures.

Regarding resources, one of the fundamental aspects of acceleration programs, the access to investment (Clayton et al., 2018; Etzkowitz & Zhou, 2017; Mendes & Longaray, 2020) became a point of divergence due to the different perceptions of the desired "financial investment" and the realized "economic investment". It is argued that the divergence in this aspect was due to the difficulty in perceiving the monetary value of the resources from the program and transferred to the ventures, such as the fellows. Thus, it was seen that the economic investment was relevant and fundamental to the operation of the venture, but the financial investment, considered one of the pillars of the acceleration process (Noronha et al., 2021), is highly desired by the entrepreneurs when they participate in the program and is linked to their personal goals, which ultimately affects their overall evaluation of the program.

In the second category, action, entrepreneurs emphasized that the materials provided had little relevance to their own ventures, because they reproduced knowledge they already had, and did not support them strategically, an activity expected in an acceleration process (Silva et al., 2018). Venture owners acknowledged that the content provided was underutilized, which could be linked to a tiring schedule of virtual events.

At this point, it is necessary to reiterate how the program was carried out under the sanitary restrictions imposed by the Covid-19 pandemic. Widely recognized by managers and entrepreneurs as an obstacle to the operation of the program, it is possible to observe that the sanitary restrictions became an obstacle to the achievement of one of the critical objectives in an incubation or acceleration program, namely, to create a favorable environment for entrepreneurship (Moreira-Silva et al., 2021; Santos & Moraes Filho, 2014; Silva et al., 2018), whether through the physical environment or through the interaction between ventures.

In addition, there were difficulties in accessing investment networks, which hampered meetings and negotiations (Etzkowitz, 2004; Pereira et al., 2018), ultimately catalyzing the conflict between financial and economic investments mentioned above. This contingency points to the difficulty of operationalizing acceleration programs mainly through digital means (Noronha et al., 2021), highlighting the role of a favorable entrepreneurial environment as a key aspect in the evaluation of acceleration programs.

Finally, the divergences regarding the results of the validation of business venture ideas or the validation of the businesses ventures themselves showed that the immediate result of the acceleration process, such as the registration of a CNPJ, the National Registry of Legal Entities, is also embedded in a relational context between managers and entrepreneurs, for instance, it is influenced by how the objectives outlined by the acceleration program are communicated to the participating entrepreneurs.

It is noteworthy here that the ventures entered EmpreendeTec without an activated CNPJ and, for the most part, without sales records, a fact that is different from what is expected for acceleration programs (Oliveira, 2019). It is suggested that the pressure for rapid formalization and sales registration accentuated conflicts between entrepreneurs and managers, leading to dissatisfaction among participants. Thus, the robust market entry predicted by Castro et al. (2021) did not occur, which also affected the evaluation of the acceleration process and resulted in the closure of one of the ventures, reinforcing the number of ventures that do not survive such programs, as presented by Oliveira (2019).

These o facts - the lack of investment, the non-formalization of companies and the lack of sales registration - point to contingencies that can distance the program from its initial objective, which is to accelerate companies. Thus, it is argued that actions are necessary to prevent incubation programs from becoming uncharacterized.

6. Contributions

6.1 Theoretical Implications

In terms of theoretical contributions, this study analyzes an acceleration process by contrasting the perspectives of managers and entrepreneurs. As a result, it provides an integrated view of the resources, processes, actions, and outcomes of an acceleration program (Ferreira et al., 2007; Millar et al., 2001) with reduced bias. This perspective provided the opportunity to

understand not only what was offered to participants, but also the impact of resources, processes, and actions during the venture's journey in the acceleration program that influenced the outcomes achieved by the ventures. Thus, aspects such as the divergences identified in the study when contrasting the perceptions of entrepreneurs and managers demonstrate the complex relational dynamics of acceleration programs (Clayton et al., 2018). Important factors to the actors involved in the acceleration process, such as business venture validation and the provision of financial resources, gain complexity beyond the mere prevailing opinions of each actor.

In addition, it shows that the specificities of the Covid-19 pandemic critically affected the relationship between managers and entrepreneurs, especially in the lack of creation of a favorable environment for entrepreneurship and access to investment networks (Pereira et al., 2018; Silva et al., 2018), which was reflected in the overall evaluation of the program. In this regard, it is argued that acceleration programs are unlikely to be more efficient when implemented in a fully digital or virtual environment (Noronha et al., 2021).

6.2 Managerial Implications

In terms of practical contributions, the data presented in this study point to a better use of acceleration programs with a more limited scope, suggesting a review of programs that favor highly heterogeneous ventures. It has been pointed out that the specificity of ventures and their different characteristics are fundamental points for structuring and evaluating acceleration programs with a heterogeneous group of participants (Clayton et al., 2018; Noronha et al., 2021). Programs with heterogeneous ventures may have greater difficulties in integrating and performing the participants (Politis et al., 2019), without the possibility of fostering connections among the ventures during the early entrepreneurial journey, generally recognized as a difficult period for the survival of the venture, where close and similar actors to the entrepreneur are fundamental (Global Entrepreneurship Monitor, 2023).

In addition, critical aspects related to the acceleration of investment should form the basis of the programs. This reflection allows extending the same reasoning to the use of digital tools and online content. The connection and proximity with the companies, especially those in their early stages, seems to remain crucial for their development. It is suggested that programs should be clear about the nature of the investment to be used, defining values and guidelines for access to resources before the program begins. Furthermore, the use of online tools only for specific activities, without

discarding the physical connection between entrepreneurs, managers and other participants, seems to be crucial for the good development of the programs.

In terms of results, short-term products, such as the pursuit of CNPJ registration, may also affect the evaluation of the program. The option of accepting companies that are not yet formally registered and have not yet established operations can affect the evaluation of the acceleration process, as it has a finite and dynamic execution time. In addition, the expectation of long-term results is reduced, since the ventures face enormous difficulties in sustaining themselves immediately after the end of the acceleration program. Therefore, it is suggested that acceleration programs, once they aim at the commercialization of products and services derived from participating ventures, give preference to those ventures that are already formalized and have some commercialization history, even if in the initial phase.

7 Limitations And Suggestions For Future Studies

This study analyzed the acceleration process of EmpreendeTec, an acceleration program linked to a private university, from the perspective of the managers and entrepreneurs. On the one hand, a significant convergence between managers and entrepreneurs was observed. On the other hand, using a logical model (Freitas & Silveira, 2015; Kellogg, 2004), it was demonstrated that divergence between actors occurred in three of the four categories, namely (i) resources, (ii) actions, and (iii) results.

Nevertheless, this study has some limitations. First, it highlights the use of a single case, represented by EmpreendeTec, which is specific to the context of the studied region. In this sense, contextual aspects such as the recent history of the program studied, which started in 2019, may contribute to exacerbate the divergences between managers and entrepreneurs. In addition, the cross-sectional nature of the study did not allow the observation of long-term outcomes, a factor that may also influence the final evaluation of the acceleration process. Furthermore, although the logical model was used to collect observations from entrepreneurs and managers, it is known that other analytical models are possible, leading to different and complementary results.

As a suggestion for future studies, it is recommended that similar studies be replicated in other contexts and programs at the national and international levels to gather comparative data on the needs of ventures in programs of this type. In addition, it is suggested that important questions raised during the study could form the basis for future research questions, such as: To what extent

should acceleration programs offer financial and economic investment to the ventures studied? What aspects of a conducive entrepreneurial environment can be online without having a negative impact on accelerated ventures? In the emerging field of research on the mental health of entrepreneurs, it is possible to ask: are early-stage entrepreneurs subject to digital fatigue, a fact that gained prominence after the Covid-19 pandemic, a potential generator of negative impacts on their ventures?

CRediT Authorship Contribution Statement

Contribution	P. G. Claro	S. F. L. Rezende	J. P. M. Silva
Contextualization	X	X	X
Methodology	X	X	X
Software	X		
Validation		X	X
Formal Analysis		X	X
Investigation	X		
Resources			
Data Curation		X	X
Original	X		
Revision and editing		X	X
Viewing	X		
Supervision		X	X
Project Management			
Obtaining Funding			

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