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# Navigating innovation partnerships: challenges and opportunities in startup-corporate collaborations

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#### Abstract

**Objective of the study:** This study will thoroughly investigate the interaction pathways between startups and corporations in Brazil to identify how their partnerships lead to the creation of innovative technology evaluation models.

**Methodology/approach:** The study utilized a qualitative approach that involved conducting 18 exploratory interviews with Brazilian startup founders. The data was collected through semi-structured interviews and analyzed using content analysis based on Bardin's techniques.

**Originality/Relevance:** The novelty of this study lies in its unique focus on examining the dynamics between startups and corporations exclusively from the perspective of startups, offering a fresh and insightful lens on the challenges and opportunities inherent in their collaborative relationships.

**Main results:** The results of the research reveal three non-probabilistic routes of interaction between these entities.

**Theoretical/methodological contributions:** The study addresses a theoretical gap in understanding the relationships between startups and corporations, particularly in Brazil. While the literature acknowledges the importance of such partnerships for innovation, there needs to be more comprehensive insights into the interaction pathways and the creation of new technology evaluation models resulting from these collaborations.

**Social /management contributions:** This article's social and managerial significance lies in its influence on the interrelations between these organizations and the adoption of innovative practices through their partnerships, ultimately fostering value creation.

*Keywords:* relationship, engagement, startups, corporates, entrepreneurship



#### Resumo

# Rotas estratégicas de colaboração entre startups e corporações no desenvolvimento de projetos de inovação

Objetivo do estudo: Este estudo investigou os caminhos de relacionamento entre startups e corporações no Brasil para identificar como suas parcerias levam à criação de modelos tecnológicos inovadores.

Metodologia/abordagem: O estudo utilizou uma abordagem qualitativa que envolveu a realização de 18 entrevistas exploratórias com fundadores de startups brasileiras. Os dados foram coletados por meio de entrevistas semiestruturadas e analisados por meio de análise de conteúdo baseada nas técnicas de Bardin.

**Originalidade/Relevância:** A novidade deste estudo reside em examinar a dinâmica entre startups e corporações olhando a partir da perspectiva das startups, oferecendo uma visão nova sobre os desafios e oportunidades inerentes às suas relações com grandes corporações.

Principais resultados: Os resultados da pesquisa revelam três rotas não probabilísticas de interação entre esses agentes.

Contribuições teóricas/metodológicas: O estudo aborda uma lacuna teórica na compreensão das relações entre startups e Corporações no Brasil. Embora a literatura reconheça a importância de tais parcerias para a inovação, é necessário que haja uma visão mais abrangente sobre os caminhos de interação e a criação de novos modelos de avaliação tecnológica resultantes destas colaborações.

Contribuições sociais/de gestão: O significado social e gerencial deste artigo reside na sua influência nas relações entre essas organizações e na adoção de práticas inovadoras por meio de suas parcerias, promovendo, em última análise, a criação de valor.

Palavras-chave: relacionamento, engajamento, startups, corporates, empreendedorismo

# Resumén

# Navegando las asociaciones de innovación: desafíos y oportunidades en las colaboraciones startup-corporativas

**Objetivo del estudio:** Este estudio investigará en profundidad las vías de interacción entre startups y corporaciones en Brasil para identificar cómo sus asociaciones conducen a la creación de modelos de evaluación de tecnologías innovadoras.

Metodología/enfoque: El estudio utilizó un enfoque cualitativo que implicó realizar 18 entrevistas exploratorias con fundadores de startups brasileñas. Los datos fueron recolectados a través de entrevistas semiestructuradas y analizados mediante análisis de contenido basado en las técnicas de Bardin.

Originalidad/Relevancia: La novedad de este estudio radica en su enfoque único en examinar la dinámica entre startups y corporaciones exclusivamente desde la perspectiva de las startups,



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ofreciendo una lente nueva y reveladora sobre los desafíos y oportunidades inherentes a sus relaciones de colaboración.

**Principales resultados:** Los resultados de la investigación revelan tres rutas no probabilísticas de interacción entre estas entidades.

**Contribuciones teóricas/metodológicas:** El estudio aborda una brecha teórica en la comprensión de las relaciones entre startups y corporaciones, particularmente en Brasil. Si bien la literatura reconoce la importancia de dichas asociaciones para la innovación, es necesario contar con conocimientos más completos sobre las vías de interacción y la creación de nuevos modelos de evaluación de tecnologías resultantes de estas colaboraciones.

**Contribuciones sociales y de gestión:** La importancia social y de gestión de este artículo radica en su influencia en las interrelaciones entre estas organizaciones y la adopción de prácticas innovadoras a través de sus alianzas, fomentando en última instancia la creación de valor.

Palabras clave: relación, compromiso, startups, corporaciones, emprendimiento

# Introduction

Interactions between startups and large corporations give rise to various forms and dynamics in their relationships. Given the demand for innovation in the business environment, companies aiming to stay relevant in the future (Oliva & Kotabe, 2019), find it impractical for a sole entity to have all the essential resources and capabilities for innovating across the innovation process (Noviaristanti et al., 2024). In this way, startups often view corporations as ideal partners, aiming to leverage their established business models. Conversely, corporations seek agility in developing technology-based products to meet customer demands. Understanding the practical pathways emerging from this interaction is crucial for fostering a balanced relationship for startups. In this way, analyzing the factors that contribute to successful collaborations, such as alignment of goals, effective communication, and shared taking risks are fundamental to success factors for these partnerships.

Corporations have the resources, scale, power, and established routines required to execute proven business models efficiently (Weiblen & Chesbrough, 2015). Moreover, startups may lack these attributes but compensate with innovative business models, organizational agility, and a penchant for taking risks. These complementary dynamics foster collaboration between startups and large corporations on innovation projects, enhancing the competitiveness and profitability of both parties in the market (Chesbrough, 2006).

One way to enhance a company's innovation activities is to incorporate the capabilities of a startup or use open innovation practices to create new capabilities (Martins et al., 2022). Thus,



startups and corporations emerge as ideal partners, each bringing unique strengths to the table. Also, programs with Open Innovation (OI) have an "outside-in" path and an "inside-out" path for ideas to get to the market (Chesbrough & Tucci, 2020). Outside-in startup programs have emerged as an important vehicle for established firms to access innovations from startups (Kurpjuweit & Wagner, 2020).

Moreover, corporates have a strategy to identify and source emerging opportunities capable of "driving innovation" (Joseph et al., 2021). However, collaborative efforts in OI between startups and large corporations stumble in numerous cases because of misaligned objectives and differing business methodologies (Usman & Vanhaverbeke, 2017). Consequently, the article has explored the effectiveness of different open innovation models in achieving these goals, which is important to provide strategies for startups to overcome these challenges and build more productive relationships. Also, efforts towards open innovation require a transformational experience (Bagno et al., 2020). Although many of the considered corporations report having introduced "startupfriendly procedures" the vast majority of companies still need to be educated about OI (Onetti, 2021). This underscores the pressing necessity to delve into, especially from the startup's standpoint, tactics for forging mutually advantageous partnerships. It's crucial to thoroughly consider the relationship's dimensions from the startup's perspective. Therefore, undertaking the proposed research is not just important but essential, particularly for Brazil, where fostering entrepreneurship can yield significant economic gains. In this way, we defined our research question: "What are the identifiable routes or patterns in the evolving relationships between startups and corporations?" Thus, our research focuses on identifying evolving relationship patterns between startups and corporations and how these patterns can serve as strategic references for startup entrepreneurs seeking successful collaborations with large companies.

To address this gap, we conducted a systematic literature review to identify critical studies in the field. Subsequently, we formulated a research protocol based on prominent authors' insights. Employing a qualitative approach, we conducted exploratory interviews with semi-structured data collection analysis following Bardin (2016) methodology. Based on our research questions, we have identified three non-probabilistic routes in which startups can collaborate with corporations. The first route involves a mutually beneficial partnership where both entities work and grow together. The second route involves a deeper relationship that could potentially lead to the



corporation acquiring the startup. Finally, the third route, with more challenges, involves startups seeking resources or investments to help scale their business models.

Also, this study offers crucial insights for individuals seeking to establish a partnership with corporations and thrive in new ventures within a competitive and volatile market. Demonstrating how entrepreneurs navigate challenges and leverage opportunities provides valuable perspectives and motivation for aspiring entrepreneurs aiming for success.

# **Theoretical Reference Framework**

#### **Strategic Intent**

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Innovations are crucial for competitive advantage in business (Bańka et al., 2023). In this way, corporations need to rethink corporate innovation strategies (Kantis et al., 2023). Also, corporations should work with startups, but first, they must clarify their strategic intentions and clarify the criteria to be a potential stakeholder (Kohler, 2016; Neumann et al., 2019). Partnerships between startups and established companies have become increasingly important in recent years (Gutmann & Lang, 2022). Firms have tried various approaches to managing their acceleration efforts, but the differences between startups and established firms present a challenge for collaboration (Cunha et al., 2023).

However, truly benefiting from such partnerships is challenging and requires them to attract as well as sustain both agents (Prashantham & Madhok, 2023). Successful collaboration needs a close understanding of technology to reach common goals (Bertin & Mavoori, 2022). Additionally, startups were born in an uncertain environment searching for partners to leverage the business (Ries, 2011). Also, startups have been seen as a major driver of innovation and change (Palmié et al., 2021) and they produce innovations in competitive environments by collaborating with larger companies (Korpysa, 2021).

# **Risk and Decision-making**

Startups are characterized by uncertainty, lack of resources, rapid evolution, immature teams, and time pressure, among other factors. (Klotins, 2017). This means the smaller the company, the fewer resources it normally controls (Bărbulescu et al., 2021). Furthermore, startups need a disciplined process of exploring, validating, and refining the business concept as an



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essential first step in developing a successful entrepreneurial venture (Aulet, 2017). Additionally, having a project with a large corporation improves the Startup's credibility in the market (Kohler, 2016). Partnerships between large corporations and startups for innovation occur in uncertain circumstances, often without clear objectives, relying on serendipity for creativity (Donada & Nogatchewsky, 2023). It seems the understanding of this relationship is non-equal, asymmetric firms' interactions to develop and commercialize innovation (Dizdarevic et al., 2023).

Corporations and startups exhibit inherent asymmetry in co-creation due to contrasting characteristics in strategy, culture, structure, and decision-making, shaping their respective realms differently (Allmendinger & Berger, 2020; Rigtering & Behrens, 2021; Nobari & Dehkordi, 2023). According to research on "Innovative Companies and the Covid-19 Pandemic" by Fundação Dom Cabral in partnership with the National Association for Research and Development of Innovative Companies - ANPEI (FUNDAÇÃO DOM CABRAL; Núcleo de Inovação e Empreendedorismo. ASSOCIAÇÃO NACIONAL DE PESQUISA E DESENVOLVIMENTO DAS EMPRESAS INOVADORAS., 2020), startups are part of the partnership strategy of large companies that are looking at the medium and long term development of new businesses.

# Lack of Resources & Mortality

Traditional corporations differ from startups, as the former have more resources and operate in a mature market. In comparison, the latter operate with fewer resources and seek to validate their model in a new market (Unterkalmsteiner et al., 2016). In this way, startups need an intentional environments to support them and minimize setbacks (Capatina et al., 2023). After the initial phases, startups advance by securing agreements and testing business models efficiently for sustained growth (Damasceno et al., 2023). Also, business model experiments can help reduce uncertainty (Das et al., 2022), and with product advancement and sales challenges, creativity, flexibility, and perseverance are essential (Pal, 2023). In addition, flexibility, continuity, and long-term growth are vital for corporations in working with startups (Kantis et al., 2023).

For startups to grow sustainably, they look to corporations to test their business models (Giardino et al., 2014). In addition, a large number of companies are created, most of them never succeed or even survive (Reddy et al., 2024). For example, more than 90% of them fail due to "self-destruction," and they do not have discover a competitive market (Giardino et al., 2014). According to the NASSCOM, approximately 50% of startups die before the seed stage funding





(Klonowski, 2020). For Kohler (2016) many others fail because they spend a lot of money and time building the wrong product or launching it too late. These issues contribute to a high mortality risk in the first years of activity (Moroni et al., 2015). In this way, business support mechanisms, such as acceleration programs are found to be positively associated with business survival (Giourka et al., 2021). Moreover, startups need to work long hours and do lots of pilots to identify product-market fit, validate Minimum Viable Product (MVP), and articulate a winning business model that is repeatable and scalable (Blank, 2014).

#### Grow to scale-up

Partnerships with significant corporations offer startups vital resources and infrastructure for scaling, while corporations benefit from access to cutting-edge technologies and expanded market reach (Corvello et al., 2023). Additionally, corporate investors are crucial in assimilating new technologies and innovative processes acquired from startups (Benkraiem et al., 2023).

For Terho et al. (2015), the founding team must lay a solid foundation for growth, and scale can significantly influence the venture's success. Moreover, startups must secure an appropriate amount of capital to drive growth (Hyun & Seob, 2022). In Addition, Startup's growth can be positively affected by access to corporate resources. According to Kohler (2016), this access is related to knowledge of business and processes necessary to create and resize the Startup. One corporate characteristic of promoting innovation is providing resources or investments in startups (Weiblen & Chesbrough, 2015). Furthermore, as startups need financial resources to grow, they resort to an extensive search to obtain them and turn to established corporate companies. Innovative firms facing financial constraints could lose their skilled workforce to startups, potentially benefiting the latter (Liu & Shao, 2022).

Startups must be prepared for the market demand and, thus, be able to scale the product. Even if much work is needed, the entrepreneur and his team must lay the groundwork for a scalable enterprise (Picken, 2017). For Kanbach & Stubner (2016), the venture stage refers to the maturity level of the Startup. In addition, startups can become suppliers of large corporations and thus have a satisfactory financial gain. Increasing sales revenue opens up the possibility of sustainable growth (Bonzom & Netessine, 2016) and fostering mutually beneficial relationships (Espíndola et al., 2023). For startups in the beginning stage, finding and maintaining talented people is a big



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challenge (Durai & Viji, 2022). Also, human capital with a high level of domain knowledge can play an essential role in the development (Chung, 2023).

However, the appropriation potential is critical for small companies when talking about human capital, which larger companies can appropriate since they are more vulnerable and less skilled to defend themselves in this relationship (Katila et al., 2008).On the other side, inflection points present opportunities for change. Startups have disrupted industries with technology, overcoming incumbent inertia (Crittenden et al., 2019). Moreover, after starting the partnership between the agents, startups provide technology quickly, and corporations seek this technology, with great agility, to innovate in developing new services or products. Innovation speed needs agility, and startups make big firms agile (Schuh & Studerus, 2023). For corporations, the only sustainable advantage is continuous innovation faster than rival organizations (Toivonen, 2015), as major industries are at a strategic inflection point in their business cycles and are looking to create different ways to sustain growth. Consequently, industries are evolving rapidly due to technological advances (Crittenden et al., 2017).

#### **Competitive Advantages**

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In the context of globalized economies, corporations view the creation of disruptive innovations and the cultivation of transient competitive advantages as imperative strategies. These opportunities are essential to sustain market competitiveness (Weiblen & Chesbrough, 2015). According to Herring (2014), disruptive innovations and transient competitive advantages are opportunities seen as the only way out in globalized economies to remain competitive in the market. Startups can produce a rapid prototype, which explains the surprising success of these organizations. Moreover, many well-established companies have also turned their expectations to the lean startup method to promote and boost their innovation projects (Yordanova, 2021). In this way, corporations can accelerate or even discover new business models using technology developed by startups. However, they need help absorbing startup technology (Katila et al., 2008).

Established companies are slower to innovate, making them more inclined to establish relationships with startups. Furthermore, established organizations have embraced the concepts forged through experimentation, with the assurance that such methodologies can enhance corporate entrepreneurship (D'Angelo et al., 2023). Entrepreneurship relies on spotting and seizing opportunities (Bettenmann, 2023). Also, the entrepreneurial process involves internal and external



actions, fulfilling customer needs, and courageously adopting a new business approach (Salimi et al., 2023; Tian et al., 2019).

As a result, the company created new procedures for pursuing exploratory innovations, enabling it to monitor external opportunities and threats that could have medium to long-term impacts (Kitsuta & Quadros, 2022). In this way, startups can help corporations in their innovation journey, while large companies aim to promote innovation by removing possible gaps. For looking only at the gap, if the partnership between startups and corporations promotes new revenues through technology, agile methodology, and speed without running into internal issues, it will reduce the innovation gap (Weiblen & Chesbrough, 2015). One strategy to reduce the gap is design thinking for innovation. This is effective in larger corporate environments, but the hierarchical structure can hinder its success (Kwon et al., 2021). Also, this strategy is why partnering with startups can be beneficial for corporations. In addition, when corporations have a relationship with startups, it is possible to rejuvenate the corporate culture through startups (Kohler, 2016).

# Building a Sustainable Competitive Advantage with Corporate Entrepreneurship

According to Weiblen & Chesbrough (2015), using startups as a creative resource outside the company is a form of corporate entrepreneurship as the digital transformation process can be overwhelming for established companies as managers encounter a myriad of new opportunities (Putra et al., 2023). Moreover, Corporate Entrepreneurship (CE) has a positive impact on profits and growth (Urbano et al., 2022; Hooi, 2024) as corporations usually promote a program that integrates external knowledge and should focus on fostering a close relationship between ventures and startups (Möllmann, 2023). In addition, CE supports sustained competitive advantage (Amberg & McGaughey, 2019; Ha et al., 2021). Moreover, it is essential to develop employees for entrepreneurial ventures (Sarasvathy, 2021).

Establishing trust and maintaining transparency are key elements in crafting a positive brand image and reputation, providing startups with visibility comparable to larger entities (de Andrade & Pinheiro, 2023). Furthermore, larger corporations stand to enhance community trust by fostering relationships with startups (Guizani et al., 2023). For Wolcott & Lippitz (2007), two dimensions and four models derived from corporate entrepreneurship and innovation projects that need engaged leadership with startups. The evolution of leadership is crucial for navigating digital transformation (Duwe, 2022). Moreover, corporations can promote innovation projects such as



the Startup Program, where companies use startup technology through corporate-sponsored platforms to leverage products or services.

The theoretical framework highlights the importance of collaborating with corporations and exploring new business opportunities. However, this approach comes with challenges, such as defining strategic intent and dealing with startups seeking resources to stay on the market. Moreover, startups need to develop competitive advantages to grow, scale up, and continue these partnerships. This section also emphasizes the role of leadership in promoting successful corporate entrepreneurship through strategic decision-making.

#### Method

#### **Research Question and procedures**

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To start our research, we defined our main question: "What are the identifiable routes or patterns in the evolving relationships between startups and corporations?". After that, we defined secondary questions to map the characteristics of the relationship. We divided into four blocks, and in the first one, we explored how to start the relationship between startups and large corporations. Also, the other objective was to explore why startups pursue partnerships with large corporations. Then, we tried to understand the current relationship models and assess the focus and impact of these characteristics in the relationship. The investigation produced valuable insights into how established pathways can serve as strategic orientations for aspiring startup entrepreneurs, enabling successful journeys and partnerships with corporations.

#### **Protocols based on SLR**

We developed a semi-structured protocol, adhering to the Systematic Literature Review (SLR) guidelines as outlined in the Okoli (2015) framework. According to this guide, a comprehensive literature review involves four key steps. The first step is planning, where the research identifies the objective, that is the research question, contributing to the definition of the protocol. The second stage is selection, involving the identification of articles and a crossreferencing of relevant authors on the chosen theme. At this point, we conducted the analysis, and exclusion criteria were applied to narrow down the articles most closely aligned with the theme. In the third stage, we analyzed the empirical data and evaluated the relevance of selected references. The final step, the fourth one, involves the synthesis of conclusions and executing the review.



Following our research question, we accessed Scopus and Web of Science databases and obtained articles based on the keywords "startups and companies". The search yielded 5,580 texts. After that, we selected the following categories: "Business Management, Accounting, and Engineering", focusing on the period from 2014 to 2024. In this stage, old articles were kept, provided they were related to the topic and were part of the search in setting up the research objectives. Following the extraction stage, we defined the keywords "Engagement, Framework, Innovation, and Ecosystem" to verify the abstracts and titles of the articles with one citation from the databases. Still in the extraction phase, after carefully reading 75 abstracts, the SLR was performed with 58 scientific references.

After we defined the articles, crossed between the relevant authors, and analyzed the empirical data, we confronted the relevant references. Then, we extracted the most significant elements on the subject to answer the research question. Moreover, we applied a questionnaire, the purpose of which was to guarantee the quality of the research.

# Criteria to define the interviewees

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The criteria for selecting interviewees are startups that have had or currently have relationships with large corporations; participants should be the Founder/CEO or hold a management/leadership position. Finally, there were a total of 18 participants.

In assembling the questionnaire, we created four blocks highlighting similarities or elements in the articles, each focusing on identifying patterns in the evolving relationships between startups and corporations. The primary aim of the first block was to pinpoint the starting point of the relationship between startups and large corporations.

A secondary objective was to explore why startups pursue partnerships with large corporations. This block identified six key elements: strategic intent, credibility, growth, mortality, business model acceleration, and dependence. The second block aimed to clarify the purpose of the relationship and reveal further benefits obtained from interactions between the entities. Here, we identified five elements: innovation, technology, culture, speed, and innovation gap. The third block sought to outline current relationship models and assess the focus and impact of these relationships on their evolution. It listed four internal, external, hybrid, and leadership elements to shed light on the different partnership focuses and forms between corporations and startups. Finally, the last block aimed to present the characteristics of such relationships, exploring aspects



like investment presence, the startup's role in promoting innovations beyond the corporation's core business, and its access to markets through corporate channels. This block detailed eight elements: with investments, without investments, enterprise maturity, market access, growth and return, program structure, relationship maintenance, and program outcomes.

These elements collectively provide insights into how established routes can serve as strategic guides for startup entrepreneurs seeking successful routes and collaborations with large companies.

We detailed the data of the interviewees in Table 1, including their main educational background, their field of expertise, and their position in the startup. Since we did not have permission to disclose their names, we assigned them a number followed by the letter "I." In Table 2, we included the qualifications of the startups, the kind of startup, where the startup is, the current city, and the duration of the interviews.





# Table 1

# Respondents' Qualifications

#	Main Academic / Educational Background	Field of Expertise	Position at the Startup
I1	Technology	Software Engineering	СТО
I2	Electrical Engineering with MBA	Big data	Founder
I3	Civil Engineering with MBA	Innovation	Founder
I4	Electrical Engineering	Innovation	Founder
15	Communication, IT specialization and Law	Innovation	Founder
I6	Industrial Engineering with specialization in	Logistic	Founder
	Logistics, lean, and PhD in the final stage		
I7	No Higher Education	IT/Payments	CEO
18	Business Administration/Management and	Big data	Co Founder and
	specialization in Hospital Administration		C00
I9	Technology, specialization in Business	Innovation	Founder
	Administration/Management, Marketing and		
	Finance		
I10	Advertising, specializing in Marketing.	Marketing/Research	Co Founder and
			C00
I11	Communication, specialization in Marketing and Finance	Finances/Payments	Founder
I12	Electrical Engineering and Doctor of Electrical	Finances/Payments	Founder and CEO
113	Electrical angineering with MRA in Technology	Tachnology	CEO
113	Mathematica, with a spacialization in	Incurance	CEU Foundar
114	Mathematics with a specialization in Mathematics	Insurance	Founder
I15	Accounting with MBA in Logistic	Supply chain	Founder and CEO
I16	Industrial Engineering	Finances/Banking*	Founder
I17	Business Administration	Human Resources	Founder and CRO
I18	Communication and Journalism, a specialist in	Marketing/Agency	Founder
	Domestic Violence		





# Table 2

Qualification of startups and interview duration

#	Type of Startup (current)	Hub or current city	Duration (in minutes and seconds)
I1	Marketplace	Cubo/SP/BR	72,47
I2	Martech	Inovabra/SP/BR	46,43
I3	Marketplace	BC/Canada	76,58
I4	Customer experience	Inovabra/SP/BR	50,31
I5	Legaltech and Venture Studio	Toronto/Canada	63,49
I6	Logitech	SP/Betim/Fortaleza/BR	33,36
I7	Fintech	Porto Digital/PE/BR	96,41
I8	Healthtech	Cubo/SP/BR	87,17
I9	Construtech and Venture Building	Rio de Janeiro/BR	49,08
I10	Martech	Cubo/SP/BR	46,56
I11	Fintech	SP/BR	35,52
I12	Fintech	Inovabra/SP/BR	20,36
I13	Edtech	SP/Campinas/Poços de Caldas/BR	61,14
I14	Insurtech	Inovabra/SP/BR	60,49
I15	Marketplace	Inovabra/SP/BR	37,26
I16	Retailtech	Inovabra/SP/BR	34,17
I17	HR tech	Cubo/SP/BR	31,13
I18	HR tech	Porto Digital/PE/BR	40,16

To conduct taxonomy on the elements, we utilized content analysis. Bardin (2016) explains that this method involves inferring information from the data collected in interviews, translating it, and converting it into a model. The current framework includes the pre-analysis phase, material exploration phase, phase of processing results obtained, and interpretations. Furthermore, we employed Iramuteq's software to code the analytical corpus to facilitate the categorization of text segments. This software computes the Classification Hierarchical Descending (CHD). The CHD divides the text into segments (Brígido V. & Justo, 2013). These text segments are categorized based on their respective vocabularies and distributed according to the frequency of shortened forms. Moreover, the software arranges the data analysis into a CHD dendrogram through matrix analysis to depict the relationships between the classes.

We prepared the "textual corpuses" files that corresponded to the research protocol questions. Each textual corpus consists of 18 responses referring to each interviewee. Each text





has, on average, 2,233 words. Based on CHD analysis, we organized the order of greater representativeness of each class and verified if there was a relationship between the classes. In addition, a nomenclature assigned to each class referred to the interviewees' statements.

#### Results

In our study, we utilized the Descending Hierarchical Classification (CHD) with the Reinert Method for text analysis. Through CHD's classification. We established for this article and combined two classification criteria: first, arranging the classes from highest to lowest percentage for quicker identification of the most representative categories; second, grouping classes by similarity and theoretical relevance based on similar percentages and characteristics. This approach led to a cut-off scale with three bands: The Perspective of the Most Likely Events (events with over 19% frequency), The Perspective of Average Frequency Events (events with 12.5% to 18%), and the Perspective of Opportunistic Events (events with less than 12% frequency). This examination unveiled a more coherent integration of interview texts, forming clusters based on term proximity and resulting in the emergence of these three distinct groups. We summarize these groups as follows.

#### The Perspective of the Most Likely Events

In this section, we analyze the most frequent events (over 19%) occurring when startups and corporations enter a relationship. We begin by presenting the entrepreneurs' motivations, which corroborates Klotins (2017), who states that startups are small organizations created to develop and bring an innovative product or service to market. Creating and validating a business model are essential events that help establish trust with corporations. As Kohler (2016) states, having a project with a large corporation improves the startup's credibility in this highly competitive market. For Aulet (2017) and Blank (2014), a startup needs a disciplined process of exploring, validating, and refining the business concept as an essential first step in developing a successful entrepreneurial venture. Partnerships play a significant role in market expansion, paving the way for startup growth. Startups also focus on achieving "market fit" and closing initial deals with corporations to sustain their business. To develop new sustainable models, startups often engage in co-creation activities and collaborate with internal corporate departments. This process is highly dependent on corporate culture, regulations, and procedures. Although corporate leadership may follow a structured alignment process with defined timelines, some relationships



last longer than others due to shared objectives. According to Weiblen and Chesbrough (2015), if the partnership between startups and corporations can generate new revenues through technology, agile methodology, and speed without encountering internal control and strategic direction issues, it will reduce the gap between these two worlds. Speed and innovation gaps are often the primary drivers for maintaining long-term company relationships. Partnerships are also formed to increase process efficiency despite the challenges arising from methodological differences between startups and corporations. Furthermore, events such as governance rules within large corporations may hinder the absorption of new processes developed with startups, leading to a loss of efficiency in project execution.

However, it's the events related to corporate programs, particularly 'corporate accelerators,' that play a pivotal role in the formation of these relationships. According to Moroni et al. (2015), incubators are responsible for assisting the development of their business plan in the short and medium term. Acceleration refers to a change in speed over time, intensifying the link between startups and corporations without direct financial sponsorship, typically financed internally by relevant departments. Although financial investments are scarce, startups require partners to sustain growth and operate in the market with limited capital. According to Kohler (2016), startups see the sponsor, or the corporation, as a potential distribution channel partner to rapidly expand their company. Despite securing capital, startups may face mortality concerns as their business models evolve. Giardino et al. (2014) state that they go bankrupt without even reaching market potential. Thus, entrepreneurs often change and adjust, preserving the essence of the original model. Entrepreneurs demonstrate a capacity for continuous adaptation, adapting the original model to new market demands. This dynamic of evolution was mapped and categorized as The First Non-Probabilistic Route.

# The Perspective of Average Frequency Events

In this section, we highlight the events found in the CHD analysis between 12.5% and 18%. Events related to strategic intent begin when entrepreneurs partner with corporations to seek support in validating the business. We found the lean startup methodology, a scientific approach to creating and managing startups, used to validate the entrepreneurship proposal, focusing on the validation process of this new model. In recent years, the lean startup methodology has been popularized as the scientific method applied to startups. According to Yordanova (2021), many



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well-established companies have also turned their expectations to this method to promote and boost their innovation projects, activity processes, performance, and management. Initially, corporations are only willing to partner after the market has validated the process. Startups then explore other customers and segments to validate their model. According to the authors Kanbach and Stubner (2016), some phases that startups go through in validation range from the ideation phase to scale-up, in which the startup already has a client portfolio and the product is validated for scaling. Events from the CHD analysis showed that only after building cases do corporations consider starting a relationship with startups, an essential attribute for starting a relationship. Credibility is necessary for startups to build cases in the market, as stated by Kohler (2016). In addition, the certainty of credibility emerges from initial projects with corporations after several partnerships in the market. In addition, entrepreneurs use these cases to define the customer segment strategy, and with the corporation's support, the growth stage begins.

To increase the customer journey, startups collaborate with corporations to create new models and opportunities, adapting to feedback from users of the product or service. This adaptability and assertiveness, as Picken (2017) mentions, are key characteristics of startups, enabling them to continually launch new products and transition to the scaling stage to sustain growth. Although startups are known for involving unproven and high-risk markets and require significant investments before a viable product emerges, most businesses are structured in stages to minimize risk and limit investment until critical milestones are reached. According to Bonzom and Netessine (2016), flexibility in conducting programs with startups is essential, as well as their continuity and growth in the medium and long term. In addition, events related to system innovation to facilitate the hiring of startups involve entrepreneurs reviewing payment and contract processes to maintain relationships. In addition, corporations have extended payment terms, causing startup cash flow problems.

Consequently, investment is another critical aspect for business continuity, with entrepreneurs initially relying on bootstrapping and angel investors. Weiblen and Chesbrough (2015), producing disruptive innovations and transitory competitive advantages are opportunities seen as the only way out in globalized economies to remain competitive. For this to happen, angel investors, venture capitalists, startup incubators, co-working spaces, and government-funded support schemes are needed to help capital flow to startups. Oftenly, events such as demo days do not offer funding but only opportunities for presentations. Furthermore, platform interactions



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within relationships have led to new business opportunities, with some corporate-related events maintaining a partnership, such as a joint venture or acquiring a startup.

Katila et al. (2008) state that companies in the startup ecosystem also face two dilemmas. The first is the need for financial resources to grow; the second refers to the potential danger of appropriating the intellectual capital developed by large companies. Moreover, this tension occurs when the financial resources for investment are captured. One of the critical points in this process is choosing a potential partner, which involves looking at the risks of this relationship in corporate companies' appropriation of these workers. In this way, this dynamic of evolution was mapped and categorized as The Second Non-Probabilistic Route.

#### The Perspective of the Opportunistic Events

We now present the events found through the CHD analysis that we call opportunistic events, as they are unrelated to the SLR or contrary to it. The literature has already widely documented the importance of creating and validating a business model for successful partnerships between startups and corporations. Given the consensus on this event, in this part of the study, we dedicate ourselves to investigating how events arising from interviews with startups that are not mapped by the literature affect the relationship between startups and corporations.

A point explored as important for the startup's credibility is having cases with large companies, as it is through cases that they win new customers and can validate themselves in the market (Kohler, 2016). Smaller and cheaper projects can serve as a gateway for the startup, allowing it to demonstrate its capabilities and build a relationship of trust with the large company. Since many companies cannot obtain cases with corporations, the startups mentioned this as one of the barriers and associated it with the difficulties of the startup's growth. Since a startup is a small company, it is held hostage by the demands of corporations, for example, to charge lower prices to guarantee the project. In addition, this abusive practice emanates mainly from the size and power of large companies.

Another significant event that surfaces in the context of startup growth is the 'entrepreneur's dilemma '. This dilemma, characterized by the entrepreneur's unwavering belief in their developed model, can inadvertently lead to missed opportunities. This event, in contrast to the literature that advocates flexibility in conducting programs with corporations, can hinder the continuity and growth of startups in the medium and long term (Bonzom & Netessine, 2016).



In addition, the event about startups being bold, giving up control in exchange for investments, and losing team members contradicts Katila et al. (2008), who describe that the potential for appropriation is very critical for small companies when it comes to intellectual capital, which larger companies can appropriate, since they are more vulnerable and less skilled at defending themselves in this relationship. Corporate events that seek to incorporate startup technologies face the challenge of discontinuing these solutions after acquisition. Besides creating barriers to innovation, this practice contradicts the literature that points to open innovation as an essential strategy for capturing value (Usman & Vanhaverbeke, 2017). Furthermore, the lack of agility in large corporations and the slowness in collaboration processes with startups contribute to innovation gaps and compromise corporate innovation.

In addition, events related to the dynamics of political games within corporations often prove to be an obstacle to innovation. Resistance to change, the defense of personal interests, and the bureaucracy intrinsic to large organizations can stifle innovative initiatives, especially those originating from startups. After all, innovation often challenges the status quo and threatens established interests, generating friction and making it difficult to implement new ideas. Thus, the so-called 'corporate DNA' limits the emergence of new business models and, in this way, blocks innovation projects if the model is different from the company's core.

Toivonen (2015) argues exactly the opposite, mentioning that corporations should increase the pace of innovation projects and launch new products and services resulting from projects faster than rival organizations. Kohler (2016) mentions that corporate accelerators offer a powerful approach to stimulating innovation in business ventures; however, these corporate accelerators need to be designed effectively to add value to startups and create innovation benefits for large corporations. In this context, an emerging and opportunistic event called the 'startup zoo' occurred. This term refers to an artificial environment that can limit new business models depending on the characteristics and purposes involved in the programs developed between the agents. To group all these events, The Third Non-Probabilistic Route was mapped.

# Discussion

After conducting the CHD analyses, we have integrated the crucial insights into a comprehensive map with three routes. This map offers a detailed overview of the agents' relationships, clearly representing the complex dynamics at play. We established three nonprobabilistic routes. The first route was based on the perspective of the most likely events. The



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second route was based on the perspective of average frequency events. The third route was based on opportunistic events.

# First Non-probabilistic Route

Startups identify their motivation for entrepreneurship as a passion for solving a specific problem, a desire for independence, or the opportunity to make a positive impact. They create projects that start from new ideas, exploring different models and opportunities in adverse conditions, according to reports obtained through research. This information corroborates Aulet (2017) and Blank (2014), who state that startups seek to develop a rapid process of validation and refinement of the business concept. These new solutions offered were based on solutions developed in other countries or came from a 'pain' that the entrepreneur himself experienced, which could be a personal or professional challenge that they felt compelled to solve. Whether due to a limitation in the corporate world or after observing the market, entrepreneurs decided it was time to start their own business. The entrepreneur's experience in other businesses helps to develop new businesses due to knowledge from previous experiences.

Picken (2017) confirms that the entrepreneur and his team establish the foundations for a scalable company. In addition, the research reveals that entrepreneurs are concerned with providing a better customer experience using technology to optimize processes. To create and validate their new model, startups seek support in partnerships with large corporations to gain their trust. However, the intention of establishing these relationships with large corporations at the beginning of the entrepreneurial process is not a planned or defined strategy before the validation process. This proposition suggests that startups should seek partnerships with corporations in the early stages, when they are starting their model and trying to establish themselves in the market. Research shows that this is not a linear or deliberate process. The statements reveal the use of lean startups, a strategic approach that involves continuous testing and correction. Information that collaborates with Blank (2014), who mentions that the startup needs to work long hours and do many pilots to identify the product-market fit, validate the Minimum Viable Product (MVP), and articulate a winning business model that can be repeated and scalable.

One of the key challenges startups faces is structuring a governance process that allows them to leverage their potential in a faster and more organized manner. In this context, the strategic use of the lean startup methodology becomes crucial. When startups interact with corporations,



they rely on their assistance to streamline internal processes. This strategic collaboration installs confidence in the startups' ability to navigate the challenges of the entrepreneurial journey and underscores the significant role of corporations in their growth.

In addition, the startup uses lean startup pivoting, a process in which the startup adjusts its business model based on continuous feedback and learning. This is a key aspect of the lean startup methodology, allowing startups to adapt to changing market conditions and customer needs. According to Järvinen et al. (2014), contemporary software development ideologies - such as Scrum, Kanban, Lean production, and DevOps - allow new products and services to be developed quickly, without the need to finalize the process, that is, without launch a "finished" product to the market for testing purposes. Within this process, it is possible to create new self-sustaining business models through co-creation with the corporations' internal teams. An important characteristic here is adaptability, being assertive in launching new products and repositioning the offering according to the market.

The fact that the technology product has a concise life cycle requires the startup to continue adjusting the products to avoid mortality and then focus on meeting customer demands. The corporation uses the resources of startups, thus contributing to improving and promoting innovation internally. The evolution of this model is the "backbone" of the innovation process. For Crittenden et al. (2017) although technology is clearly at the center of the startups' business model, partnerships with other companies, especially large corporations, are an essential component for leveraging business.

However, as mentioned previously, it is not only technology that generates innovation, but also attempts to do things differently from the "status quo" and, consequently, obtain better results, feeding back into the innovation process. In this way, it is a system that feeds back into itself, generating new ideas and models with corporations. They learn by applying lean startups more effectively; in this route, common characteristics are mainly involved in the relationship between startups and corporations.

# Second Non-probabilistic Route

Disruptive innovations are the desire of most startup entrepreneurs to promote new markets, often being at the forefront of this movement, with the opportunity to scale, develop new products, and develop new segments such as "business to consumers" - B2C or sales to the end



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consumer. On the other hand, large corporations have more resources at their disposal and operate in a mature market (Unterkalmsteiner et al., 2016). Therefore, startups are more decisive, that is, they are not afraid of taking risks and, therefore, practice innovations. The corporation also wants to innovate, but the people who work there are afraid that innovation will contribute to taking their jobs. Thus, contrary to Yordanova (2021), corporations end up not considering startups as tools to promote and drive innovation projects.

Entrepreneurs play a crucial role in convincing corporations to adopt the solutions offered by startups. A key aspect of this journey is the need to listen to customers. Engaging with them helps entrepreneurs refine their business model and adapt it to diversify their product portfolio. Herring (2014) in The Economist magazine, wrote an article titled "Testing, Testing", which confirms startups can swiftly produce a prototype, which explains their remarkable success. This ability of startups to accelerate or even unearth new business models using technology developed by startups is a testament to their value for corporations.

Applying the methodology for creating startups within the corporate environment can also bring results to startups. As the startup adjusts and launches new products and services, through pivots and finding the market fit, transparency is key. Weiblen and Chesbrough (2015) identify two common models, with an external focus (outside-in): Corporate Venture Capital and Startup Programs (initialization), the latter having emerged recently. Using CVC, the startup can receive invitations for participation and partnerships, even being acquired by large corporations. Entrepreneurs strive to maintain the startup by adapting the business model, thus avoiding mortality. However, if a proposal for sale or spin-off of the business occurs, this is conducted transparently by the entrepreneurs. This transparency is crucial in maintaining trust and ensuring a smooth transition. As a result, new technologies have emerged, and they have brought new products to offer to customers.

However, initiatives with startups are, in some way, blocked by corporations due to conflicts of interest. This occurs due to the misalignment of expectations. Corporations aim to generate profits for shareholders and when large companies buy startups, conflict occurs. After the purchase by the corporation, it was found that the corporation had no intention of accelerating the project, that is, it was discontinued shortly thereafter. This contradicts the position of Toivonen (2015), who mentions the importance of increasing the pace and developing innovations before rivals.



The consequence of this is the results of these programs with startups that end up being acquired, in part or in full, by large companies. Corporations should develop the idea of being more "open source" (opening process) and innovative, as this would bring about a change in the market. This is one of the barriers encountered when working with large corporations, as some segments are not prepared to implement the technology offered by startups. This point contradicts Weiblen and Chesbrough (2015) who report that startups produce disruptive innovations and temporary competitive advantages that can be captured by corporations. Even with all the efforts of entrepreneurs to adapt to the market, many technologies die along the way.

Because of this, startups need to understand that if they want to sell their product or project to a corporation, this is a financial transaction with the potential to help the entrepreneur in other initiatives. However, it's not just about the financial gain. The relationship between startups and corporations can be a mutually beneficial one, leading to growth and innovation for both parties. Therefore, it is recommended that the sale be completed in the period after the early stage and before the scale-up so that entrepreneurs can apply these financial resources to other projects. Kohler (2016) confirms that startup and corporate teams ideally move forward with pilot projects, partnerships, or acquisitions. After this stage, this relationship can evolve into a corporate acquisition or a startup joint venture partnership.

# **Third Non-probabilistic Route**

Startups are significant drivers of innovation and change. They create projects based on new ideas. These projects explore different models and opportunities even in adverse conditions. In creating and validating these new models, startups often seek support through partnerships with large corporations (Palmié et al., 2021).

However, this process needs to be more mature due to the short time for experimentation and evolution of the innovation model. In addition, it is possible to obtain other gains, such as developing a structured governance process and assertive service to customer demands. In addition, startups are decisive because they are not afraid to take risks and practice innovations. However, the understanding of this relationship is of unequal and asymmetric interactions between companies to develop and commercialize innovation (Dizdarevic et al., 2023) since the corporation also wants to innovate but encounters resistance from the people who work there.



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In the innovation process, it's crucial for startups to listen to their customers. Successful collaboration requires a deep understanding of technology to achieve common goals (Bertin & Mavoori, 2022). Conversations with customers help entrepreneurs build and adapt their business models with different solutions to expand their product portfolio. However, initiatives with startups can face obstacles from corporations due to conflicts of interest, often stemming from misaligned expectations. Intentional environments are crucial for the development of startups, offering the necessary support to minimize obstacles and ensure a solid start (Capatina et al., 2023). Startups should prioritize forming strategic partnerships and improving their business models to achieve sustainable growth after establishing them (Damasceno et al., 2023).

Understanding co-creation dynamics is essential for successful collaboration between startups and corporations. Differences in strategies, cultures, organizational structures, and decision-making processes create an asymmetry that impacts this partnership, resulting in divergent approaches to innovation, risk management, and resource allocation.

Having visibility during an acceleration process with a large company can lead to new opportunities for partnerships. For startups, entering the market is crucial for testing and confirming their business models. They need to be adaptable and responsive to customer needs to succeed. At the same time, large companies must also provide some level of flexibility, as payment terms longer than 90 days can threaten the cash flow of startups. Startups are characterized by uncertainty, lack of resources, rapid evolution, immature teams, and time pressure, among other factors (Klotins, 2017). Therefore, companies are expected to review contracts and payment terms in a different flow from that of a corporate supplier.

When accepting investors, startups should consider more than just financial values. Planning the right moment coherently can facilitate the IPO without compromising the momentum for other rounds of investment. The entry and exit of the venture begin to be designed as the startups need more investment to continue growing.

Therefore, this route requires the entrepreneur to receive a large volume of investment through corporations or venture capital to leverage the model. It is recommended that this route be followed when scaling the solution.

To summarize these three routes (see Figure 1), we defined a map with non-probabilistic paths.



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#### Figure 1

#### Navigation Map



Source: Elaborated by authors.



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# Conclusion

This article delved into three non-deterministic routes to provide entrepreneurs with a navigational tool, a map, to assist in deciding which path to take when collaborating with large companies. By doing so, it seeks to clarify the process of relationships between startups and corporations from the perspective of startup entrepreneurs. This clarity is essential for entrepreneurs to define how these relationships can be developed, considering criteria such as the startup's stage, the focus of the relationship, key characteristics, observed gains for each route, and the necessary processes to traverse them. Moreover, the article outlines how these established routes serve as strategic references for startup entrepreneurs seeking to develop ventures through collaboration with large companies, providing valuable insights for startup strategy and ensuring its sustained presence in the market.

The study has potential limitations. The first is related to sampling and cultural bias, as the studies focus on Brazilian startup founders in the interview sample might introduce a geographical bias. The findings may be somewhat representative of the global startup landscape, limiting the generalizability of the results. The second one is that the study's reliance on 18 exploratory interviews might be considered a relatively small sample size. These could impact the comprehensiveness and diversity of perspectives, potentially overlooking specific nuances in the relationships between startups and corporations. The third, semi-structured nature of the interviews and the subsequent content analysis may introduce subjectivity in interpreting responses. Different analysts may interpret data differently, potentially influencing the study's outcomes. A possible conflict of interest can be finding the semi-structured nature of the interviews and content analysis can introduce subjectivity in interpreting responses. As the researcher have no pre-existing biases or assumptions about the topic, this can be minimized.

Finally, the study identification of non-deterministic routes is based on our interpretation of events and possibilities. While this adds flexibility, it also introduces an inherent level of subjectivity and uncertainty in categorizing the routes.

For future studies, we recommend conducting similar studies in different cultural contexts to understand how cultural factors influence relationships between startups and corporations. In addition, analyzing the intricacies of startup-corporation dynamics in particular sectors reveals industry-specific obstacles, possibilities, and developments. Furthermore, quantitative data can complement qualitative findings to establish statistical relationships, identify patterns, and



quantify the impact of various factors on the success of startup-corporation collaborations. Finally, the identified routes will be refined, specific case examples will be examined within each route, and the success factors and challenges associated with each will be delineated.

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