Identifying Obstacles in Building Corporate Accelerators: A Systematic Literature Review

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Abstract

The proliferation of corporate accelerators to drive innovation has garnered attention from scholars and practitioners. This study delves into the distinctive challenges corporate accelerators face compared to traditional accelerators. While prior research has highlighted obstacles related to organizational context, resource supply, and aims, a fragmented understanding remains of how corporate accelerators can address these issues effectively. This paper's primary aim is to identify and synthesize knowledge about the hurdles encountered by corporate accelerators and the competences essential for overcoming them. Through a systematic literature review, the study explores the interplay between exploration and exploitation competences throughout the corporate accelerator lifecycle. It addresses key research questions concerning challenges in facilitating corporate accelerators and the competencies necessary to surmount these obstacles. The findings contribute to the theoretical understanding of corporate accelerators and organizational ambidexterity, emphasizing the need to balance exploration and exploitation for innovation. The study offers actionable insights for organizations managing accelerator programs, highlights the role of organizational ambidexterity, and serves as a valuable resource for future research in this evolving field.

Keywords: Corporate Accelerators, Competences, Ambidexterity, Systematic Literature Review

1 Introduction

1.1 Practical Relevance

The rise of corporate accelerators has gained significant attention from both researchers and practitioners as an innovative way for corporations to foster innovation and stay competitive (Ford et al., 2010; Kanbach, 2016; Heinemann, 2010). While corporate accelerators offer similar assistance to traditional accelerators, they differ in their primary objectives and target participants (Harima, 2020). Corporate accelerators motivate and assist their employees in creating new enterprises that could evolve into new business divisions or spin-offs. In contrast, traditional accelerators aim to foster independent startups across a more diverse range of industries (Ford et al., 2010; Cohen, 2013). Nevertheless, to achieve their objectives, corporate accelerators must overcome various obstacles, such as finding the optimal design of the parental organization's structure and uniqueness, sourcing the right startups, and effective configurations LETIONS between the role of context, resource supply, and aims of the corporate accelerator (Hornberger et al., 2022). Previous studies have shown that corporate accelerators face challenges related to their context, resource supply, and aims and the need for a unique and effective organizational structure. These challenges are particularly relevant for corporate employees, who are accustomed to the routine and may have difficulty engaging with startups (Hornberger et al., 2022). However, existing knowledge about the barriers faced by corporate accelerators is relatively fragmented, making it difficult to gain an overview of what has been learned and to identify future research directions. In addition, previous research has mainly focused on identifying these difficulties without exploring how business accelerators can address them. In essence, there is a lack of knowledge about the capabilities required by corporate accelerators to address the issues identified in the literature. Therefore, understanding the obstacles that corporate accelerators face and the capabilities they need to overcome them is essential for these programs' success.

1.2 Research Aim and Questions

This thesis aims to identify and synthesize knowledge about the obstacles that corporate accelerators encounter, and the relevant

competences needed to overcome these obstacles. By focusing the paper on corporate accelerators, this study aims to show the importance of balancing explorational and exploitational challenges and competences to ensure organizational ambidextry (Müller et al., 2019). The thesis will address the following research question:

How do corporate accelerators effectively balance and coordinate exploration and exploitation competences throughout their lifecycle to overcome challenges?

We will address the following sub-questions to answer our research question:

- What are the challenges in facilitating corporate accelerators?

- Which competences do corporate accelerators need to overcome these obstacles?

By addressing these research questions, this study conducts a systematic literature review to enhance the understanding of challenges faced by corporate accelerators throughout their lifecycle, identify essential exploration and exploitation competences for overcoming these challenges, and establish a framework emphasizing the importance of balancing and coordinating these competences for fostering innovation and value creation. This paper seeks to contribute to the theoretical fields of corporate accelerator and organizational ambidexterity literature. It aims to offer a more robust understanding of the relationship between competences and corporate accelerator success.

Overall, the paper provides actionable insights for organizations managing accelerator programs and highlights the role of organizational ambidexterity. Additionally, it serves as a valuable resource for future research, helping determine the relevance of further exploration in this field.

The study concludes that by addressing these research questions, future studies can contribute to a deeper understanding of the complexities of managing corporate accelerator programs and provide valuable insights for corporations and practitioners in startup environments and formal network organizations. In addition to advancing the theoretical understanding of corporate accelerators, this study provides guidance for corporations seeking to design and implement successful accelerator programs. Managers of formal networks could benefit from these findings when developing their programs and activities to make them more attractive to entrepreneurs. In contrast, entrepreneurs could use this study to decide whether to join a formal network or evaluate different networks.

2 Conceptual Background

2.1 Corporate Accelerator

While corporate accelerators provide nearly all the assistance that traditional accelerators offer, they differ in their primary objectives and target participants. Corporate accelerators encourage and support their employees to build new businesses that may become new business units or spin-offs (Ford et al., 2010). For example, the SAP Accelerator program specifically supports the development of startups in the technology sector that can align with SAP's strategic interests (Gutmann et al., 2019). In recent years, accelerator programs have received increasing interest from corporations (Kanbach & Stubner, 2016). Corporate accelerators are defined as fixed-term, cohort-based programs that usually consist of seed capital, mentorship, connections, sales, and other support mechanisms (Cohen, 2013; Freiling & Harima, a). The program usually finishes with a pitch event or "demo day" where the startups pitch the corporate sponsor, stakeholders, clients, and investors for further investment or partnership (Heinemann, 2015; Freiling & Harima, b).

Prior studies have revealed corporations' several motivations to facilitate corporate accelerators. One motivation is innovation: The cooperation between startups and corporations triggers innovation, which leads to new products or disrupts business models (Kohler, 2016). Another motivation is the corporation's brand development, infusing the startup culture into the corporation or extending the customer relationship through the startups (Gutmann et al., 2019). Therefore, corporate accelerators play a vital role in helping corporations grow sustainably and stay competitive.

To reach those objectives, however, corporate accelerators must overcome some obstacles in facilitating corporate accelerators. Previous studies have indicated that corporate accelerators encounter obstacles related to the effective configurations between the role of context, resource supply, and aims of the corporate accelerator (Kanbach & Stubner, 2016; Nesner et al., 2020). Additionally, the literature identified finding the optimal design of the parental organizations' structure and uniqueness as an obstacle (Hornberger et al., 2022). Corporate employees used to work in their routine and are not exposed to much change, so engaging and reaching out to startups is difficult. The other difficulty is sourcing the right startups due to the difference between large firms and startups, which leads to a lot of conflict potential (Hornberger et al., 2022).

According to scholars, it is crucial to distinguish between two kinds of corporate accelerators. The first type, financial corporate accelerators, aims to speed up the emergence of new ventures. In contrast, the second type, strategic corporate accelerators, focuses primarily on accelerating the strategic alignment between startups and established companies (Hornberger et al., 2022). Both financial and non-financial metrics are deemed to be important outcomes in a strategic corporate accelerator (Hornberger et al., 2022). There is a common tendency to confound outcomes with outputs due to output-based metrics that display an increased focus on economic and rather hard than soft outcomes, which may contradict the strategic intent of strategic corporate accelerators (Hornberger et al., 2022). As a result, a lack of research suggests appropriate approaches to measuring success in the context of business accelerators. (Hornberger et al., 2022).

Although researchers have addressed several types of obstacles, the findings on challenges in the corporate accelerator literature are fragmented. A large number of studies on this subject focused primarily on different types of corporate accelerator models (Dempwolf et al., 2015; Moschner et al., 2019), the benefits of corporate accelerators from a corporate and startup perspective (Gutmann et al., 2019) or the motives behind the corporate engagement with startups in launching a corporate accelerator (Urbaniec & Żur, 2021). Therefore, the current literature calls for

synthesizing knowledge about obstacles that corporate accelerators encounter.

Existing research on corporate accelerators has explored their role, impact, and key success factors in promoting innovation and growth within parent companies (Co-hen, 2013; Crişan et al., 2021). Moreover, limited knowledge exists about the challenges and barriers faced by business accelerators in running their programs and the skills and capabilities required to address these issues (Hornberger et al., 2022).

This lack of understanding limits our ability to manage corporate accelerator programs effectively. To address this research gap, this study aims to investigate the challenges and obstacles associated with running these programs and identify the necessary skills and abilities to overcome them. The research questions derived from this aim will be presented in the introduction, offering a clear and focused direction for the study's goals and scope.

Previous findings have encouraged further research in several areas. Firstly, the structure and variety of the parental organization and its environment are important in finding the optimal design (Hornberger et al., 2022). Secondly, exploring the effects of seed accelerators on regional ecosystem evolution and entrepreneurial activity (Hochberg, 2016). Thirdly, evaluating the outcomes of public/private partnership programs aimed at supporting innovative startups (Clarysse & Bruneel, 2007). Additionally, most of the research focuses on the corporation's perspective, not the startup's. Besides, previous studies tended to reveal obstacles without elaborating on how firms can overcome these obstacles. Therefore, the present research calls for a holistic view of obstacles that firms could face in facilitating corporate accelerators and relevant competences that allow them to overcome these obstacles (Hornberger et al., 2022).

2.2 Organizational Ambidexterity

Organizational ambidexterity refers to an organization's ability to simultaneously pursue and balance the exploitation of existing capabilities and the exploration of new opportunities (Raisch & Birkinshaw, 2008). This balance is critical for organizations to sustain their competitive advantage over the long term by adapting to

changing market environments and technological advances (Birkinshaw & Gibson, 2004).

Companies that effectively manage ambidexterity can create new business opportunities while leveraging their current capabilities. This capability is essential for companies to succeed in dynamic and uncertain environments where the ability to adapt to change is essential (Iii et al., 2009).

The context of organizational ambidexterity is conversely appropriate for corporate accelerators because these programs are designed to foster innovation and growth within established organizations (Birkinshaw & Gibson, 2004). To remain competitive in today's fast-paced business environment, organizations must be able to both explore new business opportunities and exploit existing ones (Gibson & Birkinshaw, 2004). Corporate accelerators provide a structured approach to innovation by bringing together internal and external stakeholders to identify and develop new ideas, products, and services (Cohen & Hochberg, 2014).

At the same time, companies must maintain their core business operations and leverage their existing resources and capabilities to remain profitable and meet current customer needs. Organizational ambidexterity provides a framework for balancing these competing demands by allowing companies to simultaneously explore new opportunities while leveraging their existing strengths (Birkinshaw & Gibson, 2004).

By incorporating organizational ambidexterity into their accelerator programs, companies can foster a culture of innovation that is closely aligned with their overarching strategic goals (Raisch & Birkinshaw, 2008). This enables them to identify and seize new growth opportunities and improve their existing business operations (Volberda et al., 2013; Freiling & Harima, 2019c). This leads to a more agile and adaptive approach to decision-making and resource allocation, enabling organizations to respond more effectively to emerging trends and market shifts (Jansen et al., 2005).

Embracing organizational ambidexterity within corporate accelerator programs also facilitates a deeper understanding of the dynamic interplay between exploitation and exploitation, which is essential for maintaining a balanced and sustainable innovation pipeline (Gibson & Birkinshaw, 2004). This balance allows companies to leverage the startup mentality of rapid experimentation, learning, and adaptability while leveraging the resources, expertise, and established networks of their parent organizations (Müller et al., 2019).

Organizational ambidexterity is an appropriate framework for defining the challenges and competences required to facilitate a corporate accelerator, as it involves balancing the need to leverage existing capabilities and resources with the need to explore and develop new ones, which is a key aspect of corporate innovation and entrepreneurship (Müller et al., 2019). Corporate accelerators aim to create new business opportunities through rapid experimentation and collaboration with external startups while leveraging the existing resources and capabilities of the parent company (Müller et al., 2019). This requires managing and integrating different innovation activities and processes involved in exploration and exploitation (Müller et al., 2019).

3 Methodology

3.1 Research Design

To address the research questions, this study adopted the systematic literature review (SLR) approach, which facilitates a comprehensive and transparent examination of the existing literature on corporate accelerators, their challenges, and competences (Booth, 2016). The SLR is a methodologically consistent and replicable technique that synthesizes empirical evidence from multiple sources and provides an in-depth understanding of a particular phenomenon (Kitchenham & Charters, 2007). Applying the SLR approach is well suited for this study, as it allows for a thorough understanding of the barriers and challenges faced by corporate accelerators and the skills and competences required to overcome them.

3.2 Data Selection and Collection

The scope of literature considered for this study is defined by inclusion and exclusion criteria. Inclusion criteria include English-language articles published in high-impact journals and conference papers published by established organizations after

2003. Exclusion criteria include a geographic focus on a particular region or country. These criteria ensured that the selected articles were of high quality, directly relevant to the research question, and provided insights into current practices and challenges in business accelerators. By establishing explicit inclusion and exclusion criteria, the risk of bias in the review process is minimized, and the validity of the findings is enhanced (Tranfield et al., 2003).

The PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) framework guides the research process in this SLR, which consists of four stages (Figure 1).

The first step was identification. The Google Scholar and Semantic Scholar databases are used to search for relevant literature using a combination of keywords such as "corporate accelerator", "startup collaboration", "corporate entrepreneurship", "organizational learning", "corporate venturing", "startup engagement", "new venture", and "open innovation". The search strategy is iteratively refined to ensure the comprehensive inclusion of relevant literature. A total of 65 papers were initially identified, excluding those without available PDF files. Reasons for not having a PDF file available were a paywall, a required university VPN login, or technical errors. Mendeley was utilized during the initial literature search and organization stage, allowing for the efficient management of references and extracting relevant articles.

In the second phase, the screening process began with the review of titles, abstracts, and full texts to identify the most relevant articles for analysis. Two researchers conduct The screening process independently, and any discrepancies are resolved through discussion or consultation with a third researcher. In the first iteration, the number of papers was reduced to 50 based on titles, and in the second iteration, after reviewing abstracts and conclusions, 45 papers remained.

The third phase, the evidence-based assessment, was conducted by extracting key findings on barriers and capabilities related to business accelerators from the selected studies. A standardized data extraction form was used to ensure consistency and reliability in the data collection process. The full papers were read, and 40 were selected for analysis.

Finally, the selected studies were synthesized and analyzed to answer the research questions, and the implications of the findings for theory and practice in the con-text of corporate accelerators were discussed. Of the 40 selected papers, 32 were used in the final study.

Overall, the combined use of Mendeley, Microsoft Excel, and Microsoft Word served as highly effective technical tools for maintaining an overview of the literature and managing the analysis process in this systematic review. These tools facilitate a consistent and efficient research process that allows for extracting relevant information and synthesizing valuable findings to address the research question. By streamlining the organization, management, and analysis of the literature, Mendeley, Microsoft Excel, and Microsoft Word enabled a comprehensive exploration of the research topic.
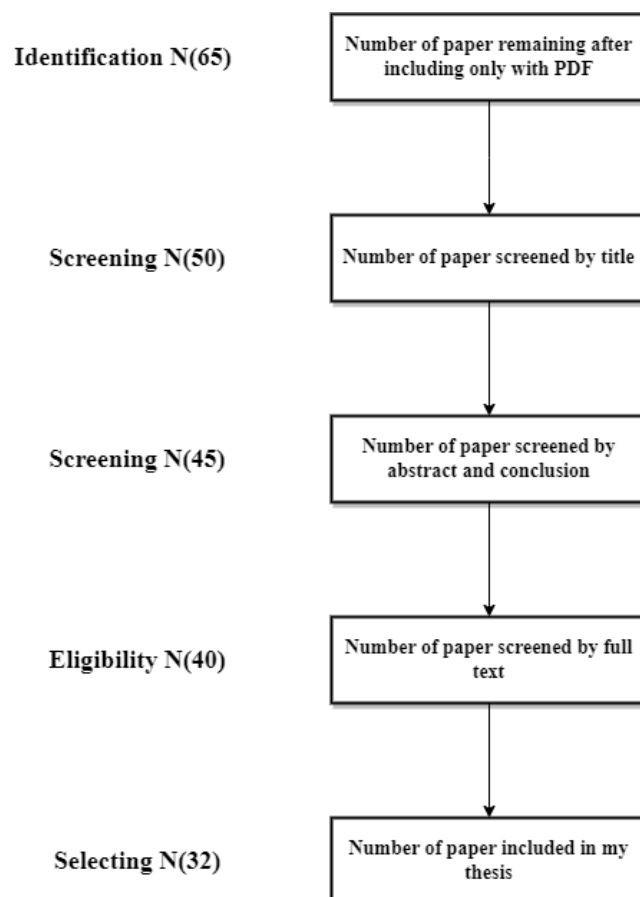

Figure 1: PRISMA Diagram

3.3 Data Analysis

Applying organizational ambidexterity as a theoretical and analytical lens in the data analysis involves examining the challenges and competences needed to facilitate corporate accelerators from the perspective of balancing exploration and exploitation. Exploration refers to the search for new opportunities, risk-taking, and experimentation, while exploitation involves refining and improving existing processes, efficiency, and control (Gibson & Birkinshaw, 2004). The process model developed in the study addresses the challenges corporate accelerators face at each stage, considering how they balance exploration and exploitation activities.

To develop this process model, an iterative analysis was conducted. Firstly, the papers were analyzed for challenges and competences related to corporate accelerators, and the most promising ones were collected in a Microsoft Word sheet. Similar challenges and competences were combined, and second-order challenges and competences were formulated to create a more structured overview. In the next step, these challenges and competences were categorized into exploration and exploitation, following the principles of organizational ambidexterity (Birkinshaw & Gibson, 2004). Microsoft Word was employed for this data extraction and analysis phase, with a Microsoft Word table created to summarize and categorize the findings from the selected papers.

Subsequently, first-order challenges representing the lifecycle of a corporate accelerator were formulated. Lastly, the corporate accelerator lifecycle challenges framework was combined with the explorational and exploitation competences to highlight the organizational ambidexterity aspect. This integrated framework captures the various stages and challenges corporate accelerators face and emphasizes the importance of balancing exploration and exploitation competences throughout the program (Heinemann, 2015; Hornberger et al., 2022). The resulting framework serves as a valuable tool for understanding and navigating the complexities of managing corporate accelerator programs, offering practical insights for practitioners and policymakers alike.

In the data analysis, we inductively derive five main challenges faced by corporate accelerator
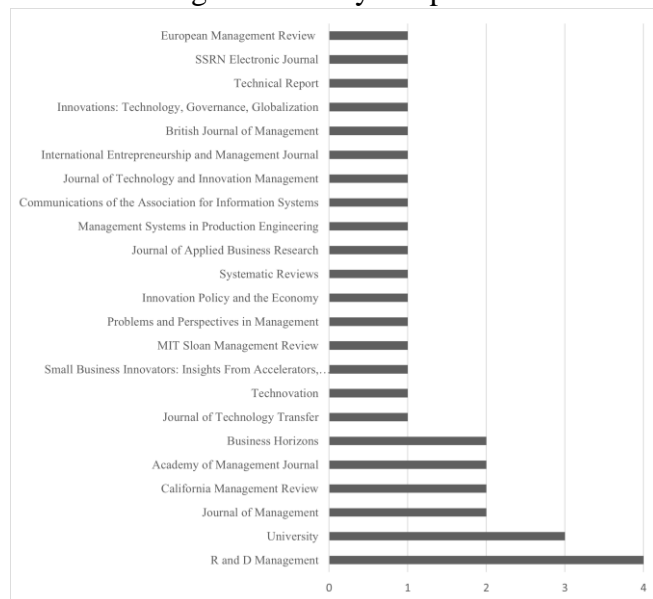

Figure 2: Number of papers published by journals

programs: (1) program design challenges, (2) selection challenges, (3) integration challenges, (4) corporate-startup challenges, and (5) evaluation challenges. These challenges encompass various aspects of corporate accelerator programs, from designing and selecting startups to integrating and evaluating the program's success. Detailed explanations of each category will be provided in the results section, discussing how they relate to exploration and exploitation processes in the context of corporate accelerators.

4 Findings

In our study, we conducted a systematic literature review to identify and analyse the existing research on corporate accelerators. Our aim was to gain insights into the current state of research, identify research gaps and directions for future re-search, and provide a comprehensive understanding of the topic.

Our final set of literature consisted of 28 papers, with the majority of journals pub-lished by R&D Management, followed by the Journal of Management, California Management Review, and Academy of Management Journal. By selecting papers from 2003 to 2022, we aim to provide a comprehensive and up-to-date under-standing of the research on corporate accelerators.

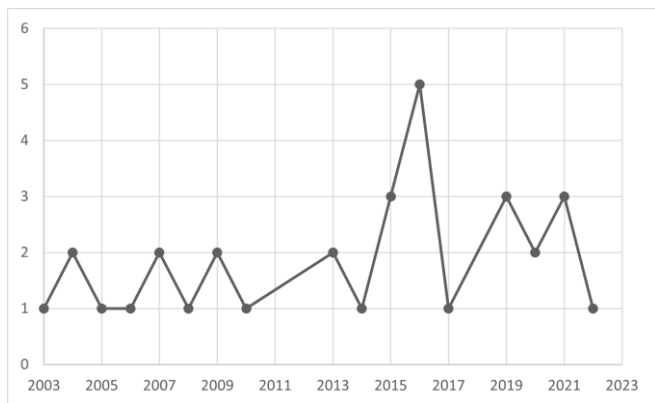We used bibliometric analysis to identify the most cited papers, authors, and jour-nals in the field.

Figure 3: Number of papers published by year

Figure 2 shows the distribution of journals in our final set, with R&D Management having the highest number of papers, followed by the Journal of Management, California Management Review, and Academy of Management Journal.

We also analyzed the year of publication of the selected papers, as shown in Figure 3. The figure shows that most papers were published in 2016, with five papers, followed by three in 2015, 2019, and 2021. This reflects the growing interest in corporate accelerators and the increasing number of studies conducted in recent years.

Finally, we analysed the types of publications included in our final set of litera-ture, as shown in Figure 4. The figure reveals that most of the papers appeared in academic journals, with just five papers being published in conference proceedings and only one paper as a technical report. This reflects the fact that academic jour-nals are the primary outlet for research on corporate accelerators.
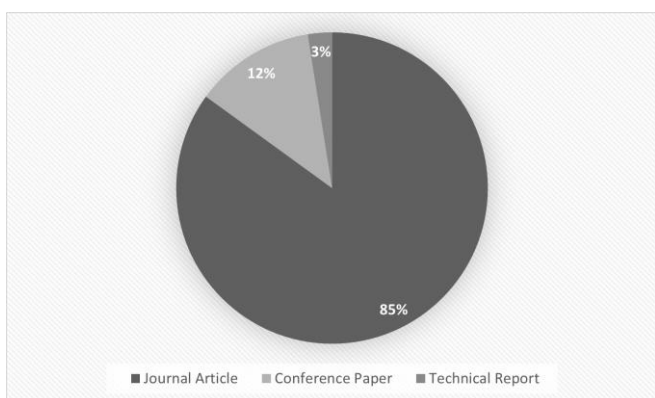

**Figure 4: Percentage of journal types**

Overall, our systematic literature review provides a comprehensive understanding of the existing research on corporate accelerators, their objectives, obstacles, and their impact on innovation and competitiveness. The bibliometric analysis sheds light on the most cited papers, authors, and journals in the field, while the publication year and type analysis provide insights into the trends and directions of research.

5 Results

5.1 Challenges

5.1.1 Program Design Challenges
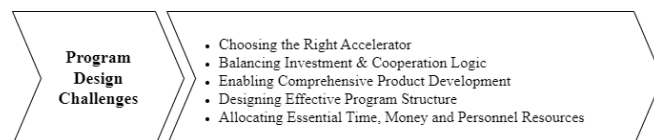
Program design challenges in corporate accelerators are critical issues that require careful consideration due to their impact on these programs' overall effectiveness and success. Several second-order challenges contribute to these overarching concerns, which we will discuss in detail in this section.

One of the most critical challenges is accelerator selection, which involves choosing the right type of accelerator that aligns with the company's goals and objectives for successful outcomes (Kohler, 2016; Moschner et al., 2019). Companies should evaluate their strategic goals and match them with the appropriate accelerator model to maximize value creation. According to (Nesner et al., 2020), companies can work with a corporate accelerator, an independent accelerator, an independent corporate accelerator, or a university accelerator, depending on their time, resources, and goals.

Another challenge is finding the right balance between investment and collaboration within a program, as it can be difficult to effectively balance the investment and collaboration logic (Gutmann et al., 2019; Kanbach & Stubner, 2016). Companies must find the right balance between financial support and cooperation to foster innovation and growth among startups. Designing a program that achieves holistic acceleration is also critical, as it aims to accelerate startups' product and strategic business development (Heinemann, 2015; Ur-baniec & Żur, 2021). This requires a comprehensive approach that considers product

development and the broader strategic context of the startups involved.

Program design is another second-order challenge that companies need to address by choosing the suitable duration, content, and format of the program to ensure the success of both the startup and the company (Clarysse & Bruneel, 2007; Demp-wolf et al., 2015). A well-designed program that meets the needs of both parties is critical to maximizing the benefits of the accelerator (Dempwolf et al., 2015). Finally, resource allocation is a significant challenge in corporate accelerators, as ensuring the availability of necessary internal resources such as time, capital, and personnel is critical (Gibson & Birkinshaw, 2004; Jansen et al., 2005). Efficient resource allocation is critical to successfully implementing and managing accelerator programs, including finding the optimal balance between allocating resources to the accelerator and maintaining core business activities (Raisch & Birkinshaw, 2008).

5.1.2 Selection Challenges

The process of selecting startups for corporate accelerators presents numerous challenges that can impact the success of both the startups and the parent company. This section discusses key selection challenges, including identifying the right startups, establishing clear selection criteria, ensuring product complementarity, balancing diversity and compatibility, and avoiding conflicts of interest and favoritism.

Identifying the right startups is crucial for corporate accelerators, as they need to align with the parent company's strategic goals and create value (Wei-blen & Chesbrough, 2015). Startups should potentially contribute to the company's existing portfolio and drive innovation in the target area (Urbaniec & Żur, 2021). Moreover, this can be challenging due to the large number of applicants and the difficulty in predicting their future performance (Cohen, 2013).

Creating explicit criteria and a transparent procedure is vital for choosing the appropriate

startups (Clarysse & Bruneel, 2007). An adequately structured selection method can ensure that the chosen startups align with the company's strategic objectives and generate value (Del Sarto et al., 2020). Nevertheless, devising such a method can be difficult, particularly when confronted with numerous applicants and evaluating their potential with only limited information available (Becker & Gassmann, 2006).

Product complementarity refers to the extent to which a startup's product or ser-vice complements the firm's existing portfolio in the target area (Ford et al., 2010). Ensuring product complementarity is crucial because it allows corporations to leverage startup innovations and enhance their offerings (Gibson & Birkinshaw, 2004). However, determining product complementarity can be challenging due to the dynamic nature of startups and established firms (Korpysa, 2021).

Another crucial challenge is balancing diversity and compatibility when selecting startups (Müller et al., 2019). While diversity among startups can lead to more incredible innovation and learning opportunities, compatibility is essential for smooth integration with the parent company (Jansen et al., 2005). Striking the right balance between diversity and compatibility can be challenging, as it requires consideration of multiple factors such as technological expertise, market focus, and organizational culture (Moschner et al., 2019).

Finally, conflict avoidance is a critical aspect of the selection process. Corporations must avoid conflicts of interest and favoritism when selecting startups (Drover et al., 2017). Conflicts of interest can arise when firms are involved in multiple projects or have competing interests, leading to biased decision-making (Lichtenthaler, 2009). Conversely, favoritism can lead to the selection of less qualified startups due to personal connections or preferences (Dempwolf et al., 2015). Avoiding these issues is essential to maintaining the credibility and fairness of the selection process (Nesner et al., 2020).

5.1.3 Integration Challenges

Corporate accelerators play a critical role in fostering innovation by working with startups and integrating them into existing business models. Consequently, the integration process is often fraught with challenges. This section focuses on the integration challenges in corporate accelerators, drawing on the available literature to discuss three second-order challenges: product integration, real-world implementation, and startup integration.
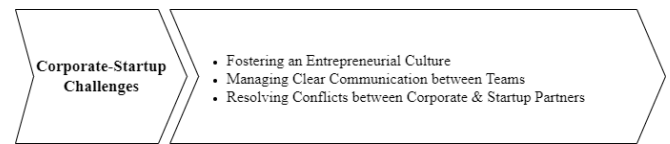
One of the key challenges in corporate accelerators is integrating the startup's product with the company's existing software and ecosystem (Weiblen & Chesbrough, 2015). This includes ensuring that the startup's products meet the corporation's high standards for reliability and security (Gutmann et al., 2019). In addition, it may require aligning the startup's technology with the corporation's strategic goals and innovation priorities (Moschner et al., 2019). According to Becker & Gassmann, 2006, a successful product integration process can create significant leverage through the knowledge transfer of ideas between the startup and the parent company.

Another challenge corporate accelerators face is managing a program that provides actual implementation to the startups, leading to tangible benefits during the program (Cohen, 2013). This may include providing access to resources, mentorship, networking opportunities, and facilitating collaboration between the startup and the parent company (Crișan et al., 2021). Real implementation is critical for startups to gain market traction and validate their business models, and it has been found to be a key determinant of startup survival (Del Sarto et al., 2020). However, ensuring true implementation requires a careful balance between providing support and avoiding micromanagement that can stifle startup autonomy and creativity (Kanbach & Stubner, 2016).

Integrating startups into parent company operations is complex because startups often have different cultures, work styles, and expectations (Hornberger et al., 2022). For example, startups tend to have more flexible and informal work environments that value adaptability and experimentation, while established companies often prioritize structure, hierarchy, and risk management (Urbaniec & Żur, 2021). This difference in work styles and cultures can create challenges when trying to integrate

startups into the larger organization, as both parties need to find common ground and adapt to each other's values and expectations (Urbaniec & Żur, 2021).
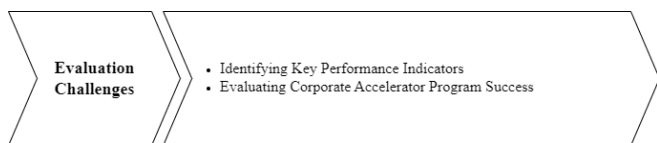
5.1.4 Corporate-Startup Challenges

Corporate startup challenges play a significant role in the successful integration and collaboration of startups and established corporations within corporate accelerators. These challenges can be categorized into several second-order challenges, each discussed in detail below with relevant sources and examples.

One of the challenges in corporate-startup collaborations is infusing the entrepreneurial mindset and culture of startups into the corporation to reduce bureaucratic inflexibility (Weiblen & Chesbrough, 2015). For example, corporations may struggle to adapt to the fast-paced decision-making processes standard to startups, leading to missed opportunities and slower innovation (Urbaniec & Żur, 2021). By incorporating an entrepreneurial mindset, companies can embrace a more agile and innovative approach to problem-solving and decision-making. Cultural differences between the parent company and startups can lead to communication challenges and misunderstandings (Drover et al., 2017). For example, a startup may prefer informal communication channels, while the corporate partner may require a more structured approach. This can lead to miscommunication and hinder collaboration (Gutmann et al., 2019). Managing expectations and ensuring clear communication between corporate and startup teams is essential for successful collaboration.

Another challenge is managing conflicts of interest between the corporate partner and startups (Becker & Gassmann, 2006). For example, a startup may prioritize rapid growth and market penetration, while the corporation may focus on maintaining its existing market position and protecting its intellectual property (Ford et al., 2010). In such cases, both parties must find a balance between

their strategic goals to ensure a successful partnership.

5.1.5. Evaluation Challenges

Addressing evaluation challenges is critical to understanding corporate accelerators' impact on the corporation and participating startups. Evaluation challenges revolve around identifying key performance indicators (KPIs) and comprehensively assessing the program's success in achieving its intended outcomes. This section provides an overview of key evaluation challenges in corporate accelerators, including KPI identification and program evaluation, and provides examples and resources to support the discussion.

Identifying appropriate KPIs that capture the benefits of the corporate accelerator program can be challenging. It is essential to select KPIs that accurately represent the desired outcomes and impact of the program on participating startups and the corporation (Crișan et al., 2021). For example, a corporation may focus on KPIs related to the number of startups that successfully scale their business, while a startup may prioritize KPIs related to market penetration (Weiblen & Chesbrough, 2015).

Evaluating the success of a corporate accelerator program is complex because success can be defined in many ways, including financial returns, strategic partner-ships, and product development (Drover et al., 2017). Measuring the success and impact of the program on both the corporation and startups requires a comprehensive evaluation framework that considers the diverse goals and expectations of all stakeholders involved (Moschner et al., 2019).
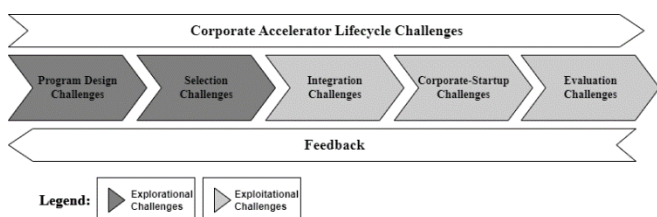

Figure 5: Corporate Accelerator Lifecycle Challenges

For example, a corporate accelerator might consider the extent to which it has facilitated strategic partnerships between the corporation and startups. In contrast, a startup might evaluate the program based on how much it has helped them develop and bring their product to market (Clarysse & Bruneel, 2007).

5.1.5 Corporate Accelerator Lifecycle Challenges

The Corporate Accelerator Lifecycle Challenges Framework addresses critical issues at each stage of the corporate accelerator lifecycle. Organizations can develop more effective and successful programs by systematically addressing these challenges.

Initially, Program Design Challenges involve selecting the appropriate accelerator type, balancing investment and collaboration, providing holistic acceleration, designing effective programs, and allocating resources. These aspects ensure alignment with the company's goals and maximize value creation.

Subsequently, Selection Challenges emphasize identifying suitable startups, establishing clear selection criteria, ensuring product complementarity, balancing diversity and compatibility, and avoiding conflicts of interest and favoritism. Addressing these challenges enables companies to select startups that align with their strategic goals.

Following this, Integration Challenges address product integration, real-world implementation, and startup integration. Overcoming these challenges facilitates the seamless incorporation of startups into the parent company, promoting growth and development.

Next, Corporate-Startup Challenges involve infusing the entrepreneurial mindset, managing cultural differences, and resolving conflicts of interest. Addressing these challenges enables corporations and startups to collaborate effectively, fostering innovation and value creation.

Afterward, Evaluation Challenges focus on identifying appropriate KPIs and comprehensively assessing program success. By addressing these challenges, companies can measure their accelerator programs' impact and make necessary adjustments to enhance outcomes.

Lastly, feedback plays a crucial role in the corporate accelerator lifecycle, enabling organizations to learn from their experiences, iteratively improve their programs, and maintain ambidexterity. Addressing challenges related to obtaining unbiased feedback, processing and analyzing feedback, and implementing changes based on feedback allows organizations to adapt their corporate accelerator programs and maintain relevance in a dynamic business environment.

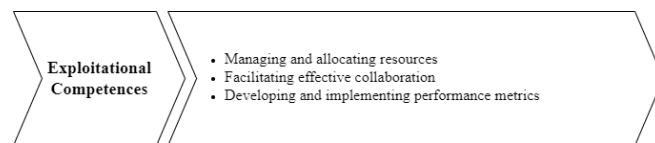### 5.2 Competences

5.2.1 Explorational Competences

Explorational competences enable corporate accelerators to identify, select, and support startups with high potential for innovation by discovering new opportunities, building new relationships, and developing new competences. Key exploration competences encompass environmental scanning, opportunity identification, and network building.
Environmental scanning involves monitoring the external environment for emerging trends and technologies that could significantly impact the parent company's industry (Cohen, 2013). By staying informed about market developments, corporate accelerators can better position themselves and the startups they support to respond to changing industry dynamics and evolving customer needs (Hornberger et al., 2022).

Opportunity identification is essential for recognizing promising startups that align with the parent company's strategic goals and have the potential to create value through collaboration (Kanbach & Stubner, 2016). Corporate accelerators should clearly understand the parent company's strategic objectives and actively search for startups that possess the skills, technologies, or business models that can contribute to achieving these goals (Moschner et al., 2019).

Network building is crucial for establishing and maintaining relationships with key stakeholders, such as investors, mentors, and industry experts, who can support the startups' growth and innovation (Kohler, 2016). By building strong networks, corporate accelerators can connect startups with the resources, expertise, and guidance they need to develop and scale their businesses. Furthermore, these networks can facilitate

knowledge exchange and collaboration between startups and the parent company, enabling both parties to learn from each other and adapt to new market conditions (Moschner et al., 2019).

5.2.2 Exploitation Competences

Exploitation competences involve optimizing and leveraging existing resources and relationships to achieve success in the corporate accelerator program. They focus on efficiently using resources, retaining startups, and transferring knowledge from startups to the parent organization. These competences include resource allocations, collaboration management, and performance measurement.

Resource allocation is essential for managing and allocating resources, such as funding, technology, and expertise, to meet the startups' needs and strategic objectives (Crișan et al., 2021; Gutmann et al., 2019; Kanbach & Stubner, 2016). By efficiently allocating resources, corporate accelerators can support startups, allowing them to focus on growth and innovation (Crișan et al., 2021; Gutmann et al., 2019; Kanbach & Stubner, 2016).

Collaboration management involves facilitating practical cooperation between startups and the parent company while balancing cooperation and competition (Kohler, 2016). Establishing a productive collaboration allows both parties to benefit from each other's strengths, fostering knowledge transfer and creating synergies that can drive innovation and growth (Weiblen & Chesbrough, 2015).

Performance measurement is crucial for developing and implementing appropriate performance metrics that capture the value created by the accelerator program and enable continuous improvement (Kohler, 2016). By monitoring and evaluating the performance of both the program and the participating startups, corporate accelerators can identify areas for improvement, assess the effectiveness of their interventions, and

make data-driven decisions to enhance the overall success of the program (Kohler, 2016).

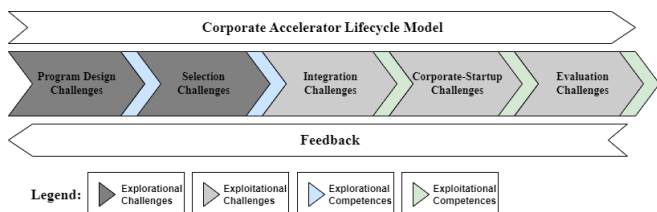### 5.2.3 Corporate Accelerator Lifecycle Model

Figure 6: Corporate Accelerator Lifecycle Model

The proposed framework presents a corporate accelerator lifecycle model, which combines all stages of the corporate accelerator lifecycle challenges, incorporating integrated feedback as well as exploration and exploitation competences. In this comprehensive framework, exploration competences, such as environmental scanning, opportunity identification, and network building, are crucial during the initial stages of the accelerator process, particularly in the program design and selection phases. They enable corporate accelerators to identify, select, and support startups with high innovation potential.

Conversely, exploitation competences, including resource allocation, collaboration management, and performance measurement, become more relevant in the later stages of the accelerator process, such as integration, corporate-startup collaboration, evaluation, and feedback. These competences help corporate accelerators leverage the resources and knowledge available within the parent company to support the growth and development of the startups.

The final step of the corporate accelerator lifecycle is feedback. Feedback is crucial, enabling organizations to learn from their experiences and iteratively improve their programs. Feedback can be collected from various sources, including startups, mentors, investors, and other stakeholders involved in the accelerator program.

In this context, organizational ambidexterity refers to a corporate accelerator's ability to pursue both exploration and exploitation activities simultaneously, ensuring a balance between discovering novel opportunities and refining existing capabilities. It is essential to balance

exploration and exploitation competences throughout the corporate accelerator lifecycle. By fostering the ability to both explore new opportunities and exploit existing resources, ambidexterity enables corporate accelerators to address challenges effectively and create a sustainable innovation pipeline.

According to Birkinshaw & Gibson, 2004 building understanding at all company levels is crucial for successfully implementing ambidexterity. Ensuring that employees across the organization comprehend the importance of ambidexterity and the top management's initiatives will empower them to make informed decisions about where to focus their efforts, ultimately contributing to the organization's ambidexterity.

In conclusion, the proposed diagram illustrates the importance of integrating exploration and exploitation competences in addressing corporate accelerator lifecycle challenges and highlights the role of organizational ambidexterity in balancing and coordinating these competences to drive innovation and value creation.

5.2.4 Recommendations

The findings of this systematic literature review highlight the importance of balancing and coordinating exploration and exploitation competences in corporate accelerators to overcome the identified challenges and drive innovation and value creation. When designing or refining a corporate accelerator program, organizations should first consider the need to achieve an optimal balance between these competences to foster successful collaborations and outcomes.

Striking the right balance between exploration and exploitation is crucial for corporate accelerators. Drawing from the literature on organizational ambidexterity, potential risks may arise if corporate accelerators only concentrate on either exploitation or exploitation. For instance, an overemphasis on exploration can lead to a cycle of unrewarding exploration and potentially self-destructive behavior, reducing the speed of improving existing skills and processes and hurting the firm's ability to compete (Majken et al., 2016). While an excessive focus on exploitation may harm a firm's ability to compete in the long term as it can lead to complacency, potentially self-destructive behavior,

and reduced ability to switch to exploitation (Majken et al., 2016).

Organizations should carefully assess their specific contexts to address this challenge and determine the optimal combination of exploration and exploitation activities required to achieve their innovation objectives. By doing so, they can design more effective corporate accelerator programs that enhance innovation capabilities and create value for all stakeholders.

Recommendations for future research based on the identified research trends and gaps include:

1. Exploring the relationship between corporate culture and the success of corporate accelerators. This can help determine how a company's culture influences the ability to integrate startups and foster innovation, providing insights for organizations looking to improve their accelerator programs.

2. Assessing the long-term impact of corporate accelerator programs on the parent company's innovation capabilities and financial performance. This can help organizations understand the return on investment for these programs and inform decisions on resource allocation and strategic focus.

3. Investigate the balancing acts or risks associated with concentrating on either exploration or exploitation competences in the context of corporate accelerators. This will enable a more comprehensive understanding of corporate accelerators' capabilities and provide actionable insights for organizations seeking to design and manage effective and sustainable accelerator programs.

Based on the results and recommendations, the following research questions could serve as inspiration for future studies:

1. How can corporate accelerators effectively leverage their networks to support startups while managing the potential risks and challenges related to favoritism and conflicts of interest?

2. How do industry-specific factors (e.g., regulatory environment, market dynamics) influence the balance between exploration and exploitation activities in corporate accelerators, and how can they adapt to different industry contexts?

By focusing on these research questions, future studies can contribute to a more holistic understanding of corporate accelerators' capabilities and provide valuable guidance for organizations seeking to design and manage effective and sustainable accelerator programs.

6 Conclusion

6.1 Limitations

The emergence of corporate accelerators as a key component of innovation ecosystems has attracted considerable interest from academics and practitioners alike. In this study, we conducted a comprehensive review of the literature and data on corporate accelerators to better understand the challenges they face and the competences they need to overcome them. Our results confirm that the study of corporate accelerators is still in its initial stages and is often a byproduct of research in related fields, such as entrepreneurship and innovation, where research is more prevalent (Dempwolf et al., 2015). While we have identified key trends, gaps, and research questions for future studies to improve our understanding of these programs, it is important to note the limitations of this review.

In particular, the literature search was conducted using a limited number of databases and search terms like "corporate accelerators", which may have resulted in relevant studies being missed. In addition, the review focused primarily on journal articles and conference papers that are published in English, which may have excluded valuable evidence from other sources, such as book chapters and practitioner reports in other languages. Finally,

the review only covers the literature published between 2003 and 2022, which limits the scope of more recent publications that could provide valuable insights into the topic.

6.2 Research Contributions

Despite its limitations, this systematic literature review provides valuable insights into the current state of research on corporate accelerator programs. It offers a comprehensive overview of key concepts, including exploration and exploitation competences, organizational ambidexterity, and the lifecycle model of corporate accelerators. Additionally, it identifies gaps in the literature, such as the role of corporate culture and leadership, variations in accelerator models, and the long-term impact of corporate accelerators on innovation performance. These gaps highlight the need for further research in these areas, essential for enhancing our understanding of corporate accelerators and their management.

One of the significant contributions of this review is the presentation of a new framework that outlines the corporate accelerator lifecycle, demonstrating the different stages and challenges that a corporate accelerator may face while facilitating its program. This framework shows how exploration and exploitation competences can help overcome these challenges, providing practical benefits for corporations considering starting a corporate accelerator unit. Furthermore, it serves as a guideline for existing corporate accelerators to proactively avoid obstacles and improve their overall effectiveness with the proposed competences.

To address the identified gaps, future research can explore the role of external partners, such as universities or other accelerators, in supporting the success of corporate accelerator programs. There is a need for further research into how these partnerships can be used to maximize the impact of these programs. In addition, more research is needed to understand the impact of business accelerator programs in specific geographical or industry contexts. More needs to be done to better understand how these programs work and how they affect outcomes in different regions and industries.

By addressing these research questions, future studies can contribute to a deeper understanding of

the complexities of managing corporate accelerator programs, providing valuable insights for corporations. This review advances the theoretical understanding of corporate accelerators and offers guidance for corporations seeking to design and implement successful accelerator programs.

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