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Faculty of Business Economics

Master of Management

Master's thesis

Equity-Based Startup Engagement by Mid-sized Companies: An Exploratory Analysis of Indirect CVC

Phuong Vu Thuy Anh

Thesis presented in fulfillment of the requirements for the degree of Master of Management, specialization Strategy and Innovation Management

SUPERVISOR :

Prof. dr. Yannick BAMMENS

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This dissertation would not have been possible without the professional and personal supports that I received throughout the journey. I would like to take this opportunity to acknowledge and thank the people who helped make it possible.

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Executive Summary

1. Research purpose

Innovation is crucial for firms to remain competitive in today's fast-changing environment. While large corporations frequently engage in Corporate Venture Capital (CVC) to access startup-driven innovation, mid-sized firms—despite their economic importance—face significant challenges. Limited financial resources, talents, VC expertise, and network access often constrain their ability to invest in startups directly by themselves, i.e. direct CVC. As an alternative, some mid-sized companies adopt an indirect CVC approach by becoming Limited Partners (LPs) in external VC funds. This model offers a promising avenue for mid-sized incumbent firms to access a broad spectrum of emerging technologies and startups, while also diversifying investment risks—without incurring the substantial upfront capital requirements and operational complexity associated with managing an in-house CVC unit. However, academic research on this approach remains scarce.

This thesis aims to address that gap by exploring "*How mid-sized companies overcome size-related constraints when setting up equity-based collaborations with startups*", with a particular focus on indirect CVC. In doing so, it also examines following sub-questions:

(1) To what extent do non-financial characteristics influence mid-sized firms' willingness to adopt indirect CVC?
(2) What concerns do mid-sized firms associate with indirect CVC, and how do these concerns affect their decision-making?
(3) *What outcomes do mid-sized firms achieve from engaging in indirect CVC, and how do these outcomes shape their innovation strategy?*

2. Research Methodology

This study adopts an analytic induction approach to refine a provisional model proposing the Corporate LP strategy as a potential solution for mid-sized firms facing constraints in equity-based startup engagement. This approach suits the study's exploratory nature, allowing the researcher to build on the nascent yet evolving body of knowledge on mid-sized firms' CVC practices. A series of in-depth interviews with managers from mid-sized firms and VC experts provided diverse perspectives, enabling a robust challenge of the model's assumptions. Interviews will be conducted and responses will be coded simultaneously, mirroring the grounded theory approach. While time constraints limited the ability to carry out a fully iterative process, this thesis aims to refine and enrich the provisional model by integrating practical insights and addressing the research questions.

3. Findings and contributions

By addressing the above-mentioned research questions, this study makes valuable contributions to the literature. First, it expands the CVC literature, which has traditionally focused on direct CVC activities by large corporations in the mature United States market (Weiblen & Chesbrough, 2015; Röhm, 2018), by highlighting the underexplored segment of mid-sized firms, the growing relevance of the European CVC landscape, and the strategic potential of indirect CVC. Through examining the size-related constraints, family-related characteristics, the concerns, and the outcomes associated with indirect CVC, it develops a model illustrating how these factors shape mid-sized firms' decisions to take LP positions in VC funds.

Specifically, interview results reveal that mid-sized firms often face two main groups of constraints that directly impact the likelihood of adopting an indirect CVC approach: (1) limited financial resources, and (2) interrelated limitations in talents, VC expertise, and networks. Between these two constraints, the lack of talent, expertise, and network resources was the most significant factor driving firms toward indirect CVC, gaining the strongest support across the interviews. Financial capital, in particular, is sensitive to economic volatility and acts as a moderating factor. In times of economic downturn, firms experience tighter budgets, making them more cautious with high-risk investments like CVC. However, a scarcity of financial resources does not automatically push firms toward indirect CVC, as some may pause their CVC activities and focus on their core businesses.

Interestingly, non-financial characteristics, especially risk aversion, commonly found in family businesses, also influence indirect CVC decisions by mid-sized firms. While traditionally risk-averse, many German mid-sized firms are perceived to be more open to risk, particularly under newer generations of leadership, who show a greater willingness to explore innovation and partnership through indirect CVC.

The interviews further confirmed the concerns that negatively impact the willingness of mid-sized incumbents to take LP positions in VC funds: reduced control over investment processes, misalignment of strategic goals, and limited direct interaction with portfolio startups. To diminish these concerns, multiple mechanisms were outlined and grouped into four main themes, namely: (1) engagement enhancement via VC-led networking events; (2) added-value services such as strategic consultancy; (3) increased investor involvement in decision-making processes; and (4) more tailored investment strategies. While all of the mechanisms address the concerns in "misalignment of strategic goals" to some extent, only by involving corporate investors in the investment process, the reduced control concern could be diminished.

Regarding the outcomes of indirect CVC—strategic, financial, and alliance-based—differ from those of direct CVC which were explored by previous scholars. Rather than learning directly from startups, indirect CVC yields benefits through exposure to VC firms' networks, expertise, and deal flow. Moreover,

VCs typically commit a financial returns outcome and offer alliance opportunities with startups including co-pilot, venture clienting, co-investments and acquisition. If a mid-sized firm's goals align with what VC partners can offer, indirect CVC becomes a mutually beneficial solution for corporates, VCs, and startups alike.

Secondly, this study contributes to Teece's (2007) dynamic capabilities theory by highlighting the role and outcomes of indirect CVC. Particularly, indirect CVC can enhance firms' sensing capability by enabling more effective scanning of market trends and emerging technologies, thanks to the VC's capabilities and networks. Furthermore, the findings are consistent with previous empirical research by Lee & Kang (2015) and Enkel & Sagmeister (2020), which suggest that CVC investments serve as an external learning mechanism to enhance firms' dynamic capabilities, especially *sensing* capability in identifying new technologies, markets, and complementary innovations for internal R&D.

Last but not least, the study extends Myers's (1977) real-options theory (ROT) by illustrating how initial indirect CVC investments help reduce technological and market uncertainty, allowing firms to make more informed and strategically sound direct investment decisions later on. The study reveals that corporate LPs may gain access to co-investment or direct investment opportunities in follow-on funding rounds, sometimes offered by the VC firms. Notably, corporate LPs who were in the investment committee during the initial funding round may hold a competitive advantage, as they are already familiar with the startups, technologies, market dynamics and their performances. This sequential investment behavior aligns with ROT which suggests that firms make small initial investments to acquire information and reduce uncertainty, before committing to more substantial follow-on investments (Van de Vrande & Vanhaverbeke, 2013).

4. Critical considerations

Practical implications

VC experts recommend that first-time mid-sized investors can begin with an indirect CVC approach to gain knowledge, build networks, and internal capabilities as a cost-effective solution. Once equipped with sufficient expertise and resources, they can start their own direct CVC programs for greater control and strategic alignment. This phased approach is expected to help them address the size-related constraints, reduce risks while maximizing benefits.

For startups, the findings highlight the unique perks mid-sized firms offer, including direct access to leadership and collaboration opportunities such as venture clienting or pilot projects. Successful corporate–startup engagement requires patience and mutual understanding. On one hand, mid-sized firms may want to avoid over-controlling startups, on the other hand, startups may consider learning corporate goals and governance. Establishing a common language of innovation—grounded in respect

for each partner's strengths—will improve communication, reduce misalignment, and strengthen the long-term viability of the CSE.

For VC funds, understanding the specific constraints and concerns of mid-sized corporate LPs is essential for designing attractive fund offerings. This study identifies three different concerns as the principal barriers to indirect CVC adoption. To mitigate these concerns, VC funds may consider (1) host regular networking events that facilitate direct interaction between corporate LPs and portfolio startups; (2) offer value-added services—such as tailored strategic advice, innovation workshops, and support in establishing in-house CVC units—that align fund activities with corporate objectives; and (3) involve corporate LPs in pitch evaluations and investment committees where the mid-sized investors may have a degree of influence over the investment decision. This last mechanism, though practiced by one VC firm in the study, directly tackles the reduced control concerns and facilitates the leverage of corporate investors' industry expertise.

Limitations and future research

This study has several limitations, primarily due to its qualitative nature and limited sample. First, the study's interview sample was limited in size and scope. Only three mid-sized corporate representatives and five VC representatives participated, with the latter group being slightly overrepresented. This imbalance may have resulted in findings that are more reflective of the VC perspective. Additionally, corporate participants had only recently launched their CVC initiatives, limiting the ability to assess outcomes. Future research could adopt longitudinal designs to track performance over time.

Second, the study focused on Germany, which restricts generalizability. Comparative research across different countries could reveal how national contexts influence CVC practices. Third, the analytic induction method, while effective for theory-building, was time-intensive. Time constraints and referral bias may have affected the neutrality of the study. Therefore, broader and more diverse sampling is encouraged in future studies.

Lastly, the provisional model developed in this study has not been empirically tested. Future research—both qualitative and quantitative—can validate and refine this framework, possibly incorporating more moderating factors. Additionally, the mechanisms that VC funds implement to address mid-sized firms' concerns deserve further study on their impacts overtime, as do comparisons between indirect equity collaborations, i.e. indirect CVC and non-equity models like venture clienting in terms of learning outcomes and strategic alignment.

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List of Abbreviations

CSE	Corporate-Startup Engagement
CVC	Corporate Venture Capital Corporate Venture Capitalist
DV	Dependent Variable
EIB	European Investment Bank
GP	General Partner
IP	Intellectual Property
IV	Independent Variable
IVC	Independent Venture Capital
LP	Limited Partner
M&A	Mergers and Acquisitions
OI	Open Innovation
R&D	Research and Development
RBV	Resource-based View
SEW	Socio-emotional Wealth
SME	Small and Medium-sized Enterprises
VC	Venture Capital Venture Capitalist

I. INTRODUCTION

Innovation has become an inevitable path for organizations across industries. In today's fast-evolving economic and technological landscape, firms are urged to innovate to sustain competitiveness, relevance, and growth (Tidd & Bessant, 2018). No longer confined to the realm of large multinationals or tech pioneers, innovation now manifests in various forms across companies of all sizes and sectors. Among the most prominent drivers of innovation today are startup ventures—young, agile, and often disruptive firms that introduce new technologies, business models, and market perspectives (Spender et al., 2017). Rather than perceiving startups solely as competitive threats, many incumbent firms are increasingly seeking ways to collaborate with them, recognizing their potential as a source of innovation.

These collaborations take different forms, ranging from corporate accelerators and hackathons to equity-based partnerships such as Corporate Venture Capital (CVC). CVC, in particular, has gained traction among large corporations as a strategic vehicle to access emerging technologies, gain market intelligence, and benefit from tacit knowledge spillovers (Dushnitsky & Lenox, 2005a; Chemmanur et al., 2014). Through CVC investments, incumbents can establish stronger ties with startups, while simultaneously capturing both financial and strategic returns (Wadhwa & Kotha, 2006).

While the CVC landscape is well-documented in the context of large corporations, much less attention has been given to mid-sized companies, even though they play a critical role in national economies. In the European context, mid-sized firms—defined in this thesis as companies with annual revenues between EUR 50 million and EUR 1 billion—serve as the backbone of industry, driving employment, export, and regional development (OECD, 2023). These companies often have deep-rooted legacies, many of them being multi-generational family businesses with strong customer relationships and niche expertise (De Massis et al., 2018). Yet, this legacy is not immune to external pressures.

Increasingly, mid-sized firms face the need to transform and innovate to stay competitive in the game. Rapid technological changes, globalization, digital transformation, and intensifying competition from both large players and nimble startups have placed unprecedented demands on their adaptability (Battistini et al., 2013). Standing still is not an option; innovation is not only necessary, but urgent. However, compared to large corporations, mid-sized firms face unique challenges in adopting equity-based innovation tools, especially direct CVC investment.

While direct CVC offers numerous strategic advantages, such as strong alignment with corporate objectives, close relationships with portfolio companies, and enhanced opportunities for synergy and knowledge spillover (Ladnar & Zureck, 2019), it also presents significant challenges. Establishing and managing direct CVC programs demands substantial capital and specialized venture capital (VC) expertise, which new entrants may lack (McNally, 1997). The process is resource-intensive, requiring significant managerial time and effort throughout the investment process (Casseli, 2010; Klonowski, 2022; Souitaris & Zerbinati, 2014). Furthermore, firms without a strong visibility in the venture

ecosystem may struggle to access high-quality deal flow, weakening their competitive position (McNally, 1997).

For mid-sized firms, these barriers are particularly pronounced. Their relatively smaller scale compared to large corporations often means limited financial resources, talent, networks, managerial capacity, and structural capabilities to manage startup engagement effectively (Weiblen & Chesbrough, 2015). In addition, implementing an effective CVC strategy requires not only extensive resources but also deep understanding of the venture landscape, talent retention strategies, and the organizational know-how to structure investment teams and processes (Strebulaev & Wang, 2024).

Alternatively, some mid-sized companies are turning to an indirect CVC approach—namely, taking Limited Partner (LP) positions in external VC funds managed by independent VC firms (Park & Steensma, 2012; Gutmann, 2022). This model allows them to leverage the expertise, networks, and financial acumen of professional VCs, gain exposure to a broader range of startups and technologies, and share investment risks with other LPs. Importantly, it enables them with access to the venture ecosystem without the need to build an in-house CVC team or bear the full operational and financial burden.

While this indirect approach appears increasingly appealing for mid-sized firms seeking equity-based engagement with startups, academic research on the topic remains notably scarce. For such reasons, exploring indirect CVC investments in the context of mid-sized incumbents is both academically relevant and practically valuable for business leaders navigating size-related constraints in engaging with startups.

This study aims to addresses the above-mentioned gaps by investigating "*How mid-sized companies overcome size-related constraints when setting up equity-based collaborations with startup ventures"*, with a particular focus on the adoption of indirect CVC. In doing so, it also examines following sub-questions:

1) *To what extent do non-financial characteristics influence mid-sized firms' willingness to adopt indirect CVC?*
2) *What concerns do mid-sized firms associate with indirect CVC, and how do these concerns affect their decision-making?*
3) *What outcomes do mid-sized firms achieve from engaging in indirect CVC, and how do these outcomes shape their innovation strategy?*

By focusing on mid-sized companies in Europe, this research not only enhances academic insight into equity-based corporate-startup engagement but also provides practical implications for mid-sized business leaders seeking to innovate through external partnerships. In a time where innovation is no longer a luxury but a necessity, understanding the pathways available to mid-sized firms becomes both timely and essential.

This thesis aims to furnish a thorough academic foundation on CSE, CVC, and mid-sized companies, along with an outline of relevant perspectives and discoveries related to these areas. Moreover, we will undertake qualitative research utilizing an analytic induction methodology to derive a preliminary model. Our approach includes interviews with managers and experts from mid-sized companies and venture capital firms, which will provide new insights and help us evaluate the significance of the academic perspective. This will enable us to identify any shortcomings and better understand how these companies navigate their limitations.

By addressing these research questions, this study makes three key contributions to the literature. First, it expands the corporate venture capital (CVC) literature, which has traditionally focused on direct CVC activities by large corporations in the mature U.S. market (Weiblen & Chesbrough, 2015; Röhm, 2018). In contrast, this study highlights the underexplored segment of mid-sized firms, the growing relevance of the European CVC landscape, and the strategic potential of indirect CVC. By examining the motivations, such as size-related constraints and non-financial considerations, the concerns, and the outcomes associated with indirect CVC, it develops a model illustrating how these factors shape mid-sized firms' decisions to take LP positions in VC funds.

Second, the study offers new insights into the nature of mid-sized firms by exploring the influence of family-related dynamics. Family firms take up a majority of mid-sized firms, according to KPMG (2022). Thus, it is assumed that mid-sized firms also exhibit the inherent risk-aversion rooted in family firms. However, this research reveals a more nuanced picture. Some family-owned firms, particularly those managed by younger generations in Germany, show greater openness to risk in support of innovation.

Third, this study builds on Teece's (2007) dynamic capabilities theory and Myers's (1977) real-options theory (ROT). Thereby, it contributes to the literature by highlighting how indirect CVC can enhance firms' sensing capability by enabling more effective scanning of market trends and emerging technologies. In addition, it extends ROT by illustrating how initial indirect CVC investments help reduce technological and market uncertainty, allowing firms to make more informed and strategically sound direct investment decisions later on.

In order to systematically address the research questions, this thesis has been designed with five main parts. First, in the introduction part of the thesis, we state the problem statement of this research, describing the research background and gaps in the literature that this study will address, followed by the research objective and research questions. Second, the literature review part reviews existing literature relevant to this study, discussing various perspectives on corporate-startup engagement, Corporate Venture Capital, mid-sized company landscape, and their challenges in setting up collaborations with startups. Third, the methodology part discusses the qualitative approach of in-depth interviewing employed in this study. The chapter also discusses the procedures for recruiting research participants, data collection, and analytic methodologies. Fourth, the results part elaborates on the findings of this study using data collected through a qualitative approach and uses the results to answer

the research questions. And finally, in the discussion part, we summarize the research conclusions by evaluating the contributions of this research from the theoretical and methodological viewpoints and identify the implications for business management practices. We will also discuss the limitations of this study and provide useful insights and recommendations for future research.

II. LITERATURE REVIEW

2.1 Corporate-startup engagement (CSE)

2.1.1 Increasing level of engaging with startups

Corporate-startup engagement (CSE) has emerged as a critical mechanism for enhancing corporate innovation and adaptability in today's fast-paced, technology-driven environment. While alliances between corporations and small firms have existed for decades, gaining scholarly attention as early as the 1990s (McNally, 1997), CSE has more recently emerged into a distinct research and practice domain. This evolution reflects the increasing strategic importance of such collaborations, which are now seen as essential to corporate innovation agendas (Jha et al., 2024).

CSE aligns closely with the open innovation concept, which underscores the value of external collaborations in supporting a firm's internal research and development. As firms face shorter technology cycles and growing pressure to innovate, relying solely on in-house capabilities is no longer sufficient. Chesbrough (2006) defines open innovation as "the use of purposive inflows and outflows of knowledge to accelerate internal innovation, and expand the markets for external use of innovation, respectively." In this model, firms are encouraged to leverage both external and internal ideas, as well as external pathways to market, to maintain competitiveness.

CSE illustrates what Chesbrough (2006) refers to as outside-in open innovation—the process of gaining external ideas and expertise to enhance internal innovation efforts. While startups bring fresh perspectives and experimental approaches, corporations contribute scale, resources, and market access. By engaging with startups, corporations gain access to new technologies, business models, and creative talent, which can complement their often rigid and process-heavy innovation pipelines.

The rise of digital technologies has further accelerated the need for open innovation and, consequently, CSE. Digital transformation has disrupted traditional industries and reshaped how firms compete, organize, and deliver value. A McKinsey (2019) report suggests that firms leading in digital innovation consistently outperform their peers in revenue growth and productivity. However, many corporations struggle to adapt, lacking both the speed and cultural agility of startups. As a response, they increasingly seek strategic partnerships with startups to close this gap.

Historically, industries like pharmaceuticals and tech led the way by acquiring startups to secure intellectual property and talent. More recently, this approach has broadened into structured partnerships, co-creation efforts, and equity-based collaborations. A 2014 KPMG survey found that 88% of corporate respondents saw startup collaboration as integral to their innovation strategy. By early 2015, nearly one-third (32 out of 103) of European accelerators were operated or sponsored by corporates, indicating a clear shift toward institutionalized forms of engagement (Nesta, 2015). Or more

recently, almost half (47 percent) of Belgian companies are actively engaging with startups, according to Antwerp Management School (2025).

One significant manifestation of this trend is the growth in corporate venture capital (CVC), a formalized and equity-based type of CSE. From 2013 to 2021, CVC deal volumes grew nearly fivefold, reaching approximately $174 billion globally (CB Insights, 2023). In Europe, nearly half of the top 100 corporations are now active in venture investment, with Germany emerging as a leading hub (Mocker et al., 2015). These investments allow corporations not only to access external innovations but also to shape and guide startup development in ways that align with their strategic goals.

The growing strategic importance of CSE is increasingly recognized at the board level, with many corporations now highlighting partnerships with startups in their annual reports as evidence of innovation leadership and long-term vision (McKinsey, 2020). By embracing open innovation through corporate-startup engagement, firms not only expand their innovation boundaries but also cultivate dynamic capabilities necessary to thrive in uncertain and rapidly evolving markets.

2.1.2 Definition and forms of CSE

The concept of Corporate Startup Engagement (CSE) has been studied for decades, with McNally (1997) referring to it as "large firm-small firm collaboration" to describe partnerships between corporations and startups. As implied by the term, CSE involves collaboration between two fundamentally different entities: a large, established corporation and a smaller, newer venture. These two parties engage in specific functional activities aimed at fostering innovation (McNally, 1997; Weiblen & Chesbrough, 2015).

Incumbents refer to established companies that have been operating in an industry for a significant period. They typically have well-developed business models, market presence, and customer bases. Startups are newly established companies, often characterized by innovation, high growth potential, and a scalable business model. They are usually in the early stages of development and may seek funding from investors, including venture capitalists and corporate investors, to accelerate growth and expand their operations.

CSE activities can take various forms, including contractual, equity-based, or informal agreements. These often involve relationships with vertically or horizontally related firms and are commonly implemented through marketing agreements, joint ventures, and collaborative R&D initiatives (McNally, 1997). Such collaborations have the potential to provide a sustainable competitive advantage for both corporations and startups, yielding higher performance outcomes than either entity could achieve independently.

The terminology used to describe this phenomenon has evolved over time, creating a degree of

inconsistency in the literature. Terms such as "collaboration," "partnership," "cooperation," and "engagement" are frequently used alongside "corporate" and "startup." Examples include "Corporate Engagement with Startups" (CEWS) (Weiblen & Chesbrough, 2015), "Corporate-Startup Collaboration" (CSC) (Steiber & Alänge, 2020), "Corporate-Startup Partnerships" (McKinsey, 2020), and "Corporate-Startup Cooperation" (Molly et al., 2019). While these terms are conceptually aligned, their variation has introduced challenges in identifying and consolidating relevant literature.

Weiblen and Chesbrough (2015) conceptualized CSE as the combination of entrepreneurial activity with corporate capability, where both parties capitalize on each other's strengths. Corporations contribute resources, scale, market influence, and operational expertise, which enable them to execute proven business models efficiently. Conversely, startups bring innovative ideas, agility, high-risk tolerance, and ambitions for rapid growth (Weiblen & Chesbrough, 2015). The author observes that in the context of startup growth in number and viability, large companies are adopting more lightweight models to engage with startups in large quantities. According to Weiblen & Chesbrough (2015), there are four ways for incumbents to engage with startups to enhance innovation. Each model serves different objectives and requires different ways of management for a successful implementation.

The "corporate venture capital" (CVC) model involves equity investments in startups, enabling corporations to gain deep insights into emerging technologies and markets while maintaining strategic influence. However, startups may face reduced flexibility and limitations on exit strategies. The "corporate incubation" model focuses on nurturing internal innovations that do not fit existing business models. These initiatives are supported through funding and resources in a startup-like environment, often leading to spin-offs or reintegration into the company. Both models require long-term commitment and equity involvement, typically engaging with a limited number of startups.

In contrast, "outside-in startup programs" involve sourcing external innovations by collaborating with multiple startups simultaneously, fostering rapid experimentation. For instance, AT&T Foundry develops proofs-of-concept within 12-week cycles. Meanwhile, "platform startup programs" use a different approach, where startups build products using corporate technologies, expanding the corporation's ecosystem. SAP's Startup Focus program is an example, encouraging startups to develop on its HANA database platform. These two models involve shorter term commitment without equity participation, allowing firms to process and move quickly.

In the same vein, Molly et al. (2019) identified twenty distinct forms of CSE which vary in terms of time and capital commitment, ranging from network events to acquisition (Figure 1). Hackober et al. (2019) further categorized these forms into four main groups: event-based, program-based, equity-based and mergers and acquisitions (M&A)-based. The event-based engagements, such as hackathons, require minimal governance and commitment. These events enable corporations to engage with multiple startups simultaneously, making them an accessible entry point for collaboration. The program-based collaborations, such as incubators and co-development projects, which often involve more structured

processes and negotiations over intellectual property (IP). These programs foster deeper engagement and provide startups with access to resources and mentorship while allowing corporations to explore and overcome innovation shortcomings (Hackober et al., 2019).

Equity-based collaborations form the third category, including initiatives such as corporate venture capital (CVC) investments and joint ventures. These engagements demand a higher level of financial investment, stricter governance, and typically involving fewer startups. As a result, it enables knowledge spillover to incumbents but usually comes with a more difficult integration of startups' new technologies into the incumbents' businesses (Hackober et al., 2019). Finally, mergers and acquisitions (M&A) represent the fourth type, which entails the highest level of commitment, integration and financial amount. M&A-based collaborations allow corporations to fully absorb the whole startups into their operations, providing the greatest potential for long-term value creation and strategic alignment. However, there are still remaining crucial issues regarding the post-acquisition. Each of these categories reflects varying degrees of commitment and equity involvement, enabling firms to tailor their collaboration strategies to meet their innovation goals effectively.

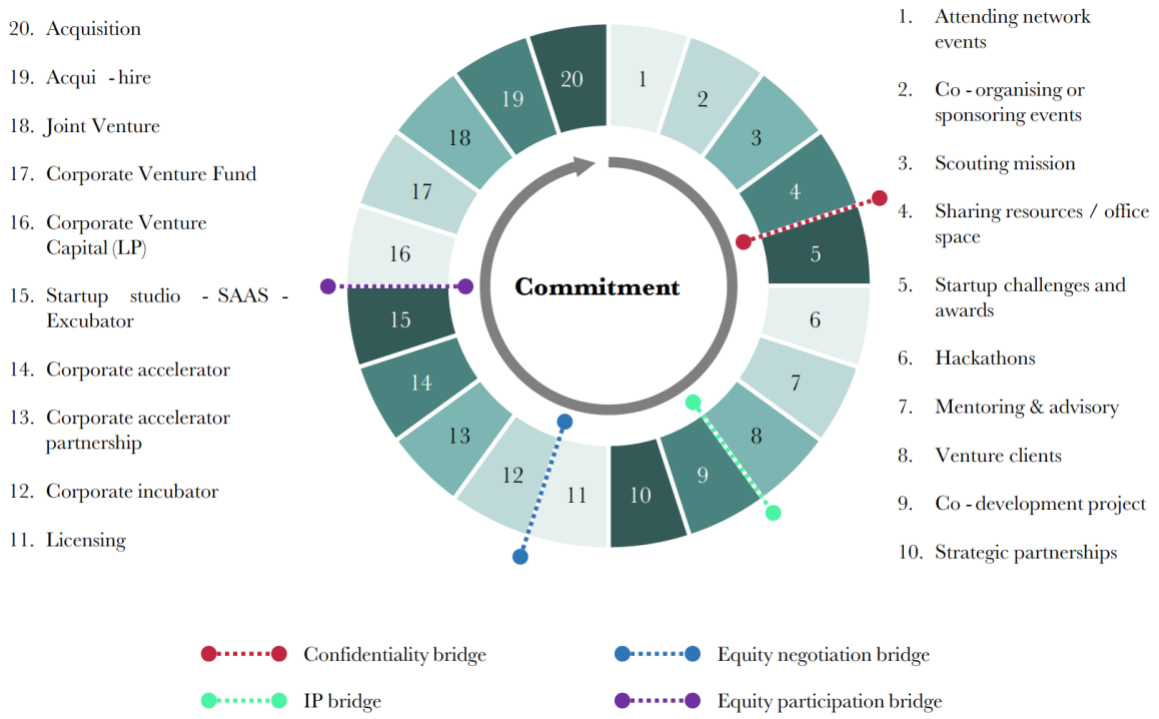

Figure 1: Forms of Corporate-Startup Engagement (Molly et al., 2019)

There is no "best" model for engaging with startups; companies need to select an approach that aligns with their strategic objectives and organizational characteristics (Onetti, 2021; Weiblen & Chesbrough, 2015). Notably, firms may implement multiple engagement models simultaneously to access diverse forms of entrepreneurial innovation without contradiction (Weiblen & Chesbrough, 2015). More

importantly, a successful collaboration requires a thorough understanding of both the corporation's and the startup's needs, a strategic approach to bridge missing gaps, as well as navigate through differences and challenges to foster a mutually beneficial partnership (Weiblen & Chesbrough, 2015; Molly et al., 2019).

2.1.3 Motivation for engagement

Incumbents and startups are distinctly different organizations (Weiblen and Chesbrough, 2015). Large companies possess substantial resources but tend to respond more slowly to environmental changes (Weiblen & Chesbrough, 2015), whereas startups are naturally entrepreneurial and agile but encounter resource constraints such as funding, marketing expertise, manufacturing capabilities, and managerial skills when addressing the challenges of scaling (Braune et al., 2019; Riepe & Uhl, 2020; McNally, 1997). Each side has what the other one lacks. Therefore, entering into partnerships has the potential to realize many benefits of complementary strengths for both sides (Weiblen & Chesbrough, 2015).

2.1.3.1 From incumbent's perspective

From the incumbent's perspective, strategic motivations form a key rationale for incumbents to collaborate with startups in addition to financial ones. These motives revolve around enhancing innovation, business agility, and competitive positioning in dynamic markets.

By forming an alliance with startups, large companies can gain an up-to-date window on new technologies without having to attempt to research them inhouse, an option which may not have been cost-effective (Baty, 1990; Botkin and Matthews, 1992; McNally, 1997; Molly et al., 2019), and can become far more responsive to new developments (Olleros and MacDonald, 1988; Lawton Smith et al., 1991; McNally, 1997). Supporting this, surveys conducted by Oxford Research (2019) and 500 Startups (2017) found that 70% and 92% of respondents, respectively, cited this as a key motive. Partnering is often considered to be quicker and less costly than internal development for the large firm since the new ventures will have already developed the idea or product to some extent. Risk and uncertainty are thus reduced (McNally, 1997).

Collaboration with small entrepreneurial firms can also enable large companies to explore new products and markets (Baty, 1990; McNally, 1997; Molly et al., 2019). These partnerships enable incumbents to find significant growth sectors, developing new markets, discovering new ways of doing business and securing first-mover advantages, especially in fast-paced markets (Molly et al., 2019). In practice, nearly half of corporate executives pursued collaborations to reach new customers and collect market information (500 Startups, 2017).

Among corporate employees, through working with startups ventures, they may acquire new skills, knowledge and entrepreneurial mindset that are necessary for the innovation and transformation of the

company (Molly et al., 2019; Oxford Research, 2019; 500 Startups, 2017). In addition, corporations can take this chance to quickly access highly skilled talents from startups (Molly et al., 2019). Other motives were also mentioned include exploiting non-core resources, increasing brand awareness, developing ecosystems, gaining foreign market entry, and sourcing acquisition targets (Molly et al., 2019; McNally, 1997; Oxford Research, 2019; 500 Startups, 2017).

Lastly, by closing an investment deal, incumbents can attain financial targets such as sales growth or profits (Molly et al., 2019). However, only 15% of top-level management of large Nordic corporations consider these as their key motives (Oxford Research, 2019).

2.1.3.2 From startup's perspective

Partnerships with large companies are particularly significant for new ventures, as they can provide the necessary resources and support to overcome their inherent constraints and achieve their potential (McNally, 1997). A core motivation for startups in these collaborations lies in gaining access to the incumbent's vast resources, enabling them to address critical gaps in their operations.

One of the most fundamental needs for startups is funding. Limited financial resources often hinder the growth and success of young ventures, particularly those requiring substantial investment in R&D, such as technology firms. Raising capital is a persistent challenge for startups, and partnerships with large companies can provide essential financial support. However, startups seeking partners with strong strategic alignment often prioritize corporations with mutual interests over purely financial backers (Molly et al., 2019). Interestingly, financing is not the top motive for startups entering these partnerships. According to McKinsey's 2020 survey, access to funding ranks below other strategic reasons, such as leveraging corporate resources and expertise.

Key motivations include access to technical resources and development capabilities, insights into customers and industry trends, and entry into new markets (Tobias et al., 2020). Large companies possess established distribution channels, extensive support systems, and robust advertising networks that startups can leverage to scale their operations efficiently. These collaborations enable startups to expand their reach and develop a vertically integrated organizational structure without requiring the significant capital, experience, or skills typically necessary for such an undertaking (McNally, 1997).

Moreover, startups often lack the business knowledge needed to commercialize products effectively or optimize production processes (McNally, 1997). Collaborating with large companies provides startups with critical management expertise, guidance, and mentoring on refining operational strategies, navigating complex business environments, and ensuring that innovative products successfully reach the market (McNally, 1997). In particular, mid-sized firms and their owners are often led by individuals with entrepreneurial experience. Having faced similar challenges and key decisions in their own journey, they can empathize with and understand the issues and choices that startups may encounter (Molly et

al., 2019).

In addition to these functional benefits, close engagement with well-known corporations enhances the reputation and credibility of smaller, lesser-known firms (Molly et al., 2019; McNally, 1997). Such partnerships help startups overcome the liabilities of newness, making them more attractive to prospective investors and business partners. This increased credibility is particularly valuable when approaching additional investors, negotiating business deals, or preparing for an initial public offering.

2.1.4 Theoretical framework

The business environment has become increasingly dynamic, driven by intensifying competition and rapid technological advancements. This ever-changing landscape demands that firms respond swiftly and strategically. Scholars in strategic management have long sought to address the fundamental question: "What is the inherent source of enterprise-generated future cash flows?" (Teece, 2014), or more precisely, "What underpins a firm's sustainable competitive advantage?"

2.1.4.1 Resource-based view theory and Dynamic capabilities

The resource-based view (RBV) theory provides an important framework for explaining and predicting the basis of a firm's competitive advantage and performance (Barney et al.2011; Slotegraaf et al. 2003; Vorhies and Morgan 2005 as cited by Kozlenkova et al., 2014). Its key concepts include resource heterogeneity and immobility, which explain how unique, inimitable bundle of resources, capabilities, and routines help firms sustain competitive advantage. A resource or capability is considered to generate a sustainable competitive advantage for the firm need to satisfy the VRIN criteria - valuable, rare, imperfectly imitable, and non-substitutable (Barney, 1991).

However, according to Teece (2014), while the possessing of VRIN resources is valuable, it is not sufficient to generate long-term enterprise value. Building on the RBV, in 1997, Teece et al. introduced the dynamic capabilities framework, emphasizing the key roles of external resources, environmental conditions as well as entrepreneurial leadership. He defined dynamic capabilities as "the firm's ability to integrate, build, reconfigure internal and external competencies to address rapidly changing environments" to achieve innovative forms of competitive advantage. Teece (2014) further explained the core organizational process of dynamic capabilities. While ordinary capabilities mainly focus on "operating – administrating – governing" activities to improve business efficiency and can be relatively imitable, dynamic capabilities emphasize "sensing – seizing – transforming" to adapt to customer needs and technological and business opportunities, which are inimitable and result in innovation within organizations.

Sensing refers to a firm's ability to recognize and interpret signals from its external environment. This involves actively scanning for new market trends, shifts in customer needs, technological advances, and

changes in the competitive landscape. It can be done through internal R&D activities, exogenous science and technology, interactions with customers and suppliers, and the capability to maintain an updated understanding of industry and market shifts to search beyond technical and market areas. By effectively sensing these changes and disruptions, firms can detect emerging opportunities as well as potential threats.

Seizing is the firm's ability to respond quickly and effectively to the opportunities identified through sensing. This capability requires a proactive approach that makes optimal use of the firm's current resources and competencies. Seizing involves mobilizing resources, investing in capabilities to innovate, and engaging in activities to optimize those opportunities and capture value. The process of seizing involves three key activities: designing, implementing, and committing. Designing involves organizational efforts to plan and establish new structures and processes, including product development, business models, and internal processes. Implementing is about selecting decision-making protocols to implement the designed structures and considering the choices of suppliers and platforms providing complementary products and services regarding various options. Finally, organizations commit to implementing designs through strong leadership, clear communication, and an understanding of the importance of non-economic factors (Teece, 2009).

Transform refers to the firms' continuous "asset alignment, co-alignment, realignment, and redeployment" activities of tangible and intangible assets (Teece, 2007). The author extensively explores the skills needed in the "transforming" process, highlighting the adoption of decentralized organization structures, the embracement of open innovation, and practical knowledge management through learning and knowledge transfer. This also includes the significance of governance structures that foster learning and new knowledge creation. The transforming process is crucial for organizations as it helps reconfigure existing resources to align them to the latest strategies and fill existing gaps within the organizational resources through building and assessing new resources.

To summarize, the dynamic capabilities perspective adds nuance to the traditional RBV theory by highlighting the organizational and managerial competences to enable an enterprise to achieve competitive advantage and maintain it in the long run (Teece, 2007). With rapidly technological changing economics, strong dynamic capabilities allow firms to successfully ride the waves of change by renewing and leveraging their valuable and difficult-to-replicate resources (Teece, 2014).

However, Collis & Anand (2019) argue that making the commitments necessary to pursue any dynamic capability involves tradeoff as any traditional product market strategy (Porter, 1996 as cited by Collis & Anand, 2019). In other words, firms cannot do everything at the same time. Such tradeoff is the classic exploration-exploitation or ambidexterity challenge (O'Reilly and Tushman, 2004). Implementing a new combination of activities to develop dynamic capabilities to adapt and innovate, involves a tradeoff with maintaining and strengthening foundational operational capabilities to achieve the efficiency needed for consistent and effective market performance (Collis & Anand, 2019). This challenge will be further

explored in the next section to see how firms can achieve ambidexterity.

2.1.4.2 Ambidexterity challenge

Tushman and O'Reilly (1996) emphasized the necessity of organizational ambidexterity, which involves simultaneously exploiting existing resources and exploring new opportunities. Exploitation focuses on short-term efficiency and incremental improvements in established markets, while exploration prioritizes long-term experimentation and flexibility in emerging technologies and markets. O'Reilly (2013) highlighted that, under conditions of uncertainty and intense competition, organizational ambidexterity—when supported by sufficient resources—positively correlates with enhanced innovation, improved financial performance, and higher survival rates. Similarly, March (1991) emphasized the importance of a firm's ability to effectively balance and integrate both exploitation and exploration to achieve sustained competitive advantage, though this remains a significant challenge for many organizations. He argued that since these activities compete for limited resources, one often undermines or displaces the other, making it difficult for firms to excel at both simultaneously.

However, according to O'Reilly et al. (2013), ambidexterity can be achieved through three primary approaches: contextual, sequential and structural methods. Contextual ambidexterity operates at the individual level and can be achieved by "building a set of processes or systems that enable and encourage individuals to make their own judgments about how to divide their time between conflicting demands for alignment and adaptability" (Birkinshaw & Gibson, 2004 as cited by O'Reilly et al., 2013). In contrast, sequential and structural ambidexterity involve changes to a firm's structure.

Sequential ambidexterity happens when firms switch their organizational structures as innovations evolve. This approach is based on the assumption that the rate of change in markets and technologies proceeds at a pace that permits firms to choose organizational alignments sequentially. Alternatively, given the increasing complexity, rapid pace of change, and the time needed to develop new products and services, O'Reilly & Tushman (2008) suggest that firms can simultaneously engage in exploration and exploitation by creating separate structural subunits - an approach known as structural ambidexterity. The exploration and exploitation functions will be managed by separated, autonomous subunits ensuring that distinctive processes, structures and cultures in each unit are not overwhelmed by the other (Tushman & O'Reilly, 1996; O'Reilly & Tushman, 2013). Despite these differences, the subunits are aligned and tightly coordinated by the senior management team to facilitate resource sharing (Smith and Tushman, 2005).

Among the three approaches, structural and contextual ambidexterity seems to gain the most traction from scholars (Jansen et al., 2013; Kauppila, 2010). Jansen et al. (2013, as cited by O'Reilly & Tushman, 2013) demonstrated a dynamic integration where design firms initially employed structural ambidexterity to drive exploration and exploitation, later transitioned to contextual ambidexterity, and eventually reverted to structural ambidexterity over time. On the other hand, Kauppila (2010) suggested

a synthesized model through "structurally separate exploration and exploitation partnerships and an ambidextrous organizational context of a focal firm". Kauppila's approach was based on previous proposals of other scholars (Lavie and Rosenkopf, 2006; Rothaermel and Deeds, 2004) who suggested externalizing one of these activities through outsourcing or establishing alliances. This strategy allows firms to address the resource constraints and the competing demands of both activities. For example, while internal units focus on the exploitation, firms can rely on external partnerships for exploration purposes.

Although there are still many arguments surrounding this approach regarding the difficult integration of external knowledge (Raisch, 2009), studies on exploration showed the importance of external acquisition of knowledge and the risks of obsolescence through internal knowledge sourcing (Eisenhardt and Martin, 2000 as cited by Raisch, 2009). Furthermore, researchers have found that interorganizational partnerships, such as corporate venturing and strategic alliances, can enable both exploitative and explorative knowledge processes (O'Reilly & Tushman, 2013; Rothaermel and Deeds, 2004).

In summary, achieving organizational ambidexterity remains a critical yet complex challenge for firms striving to balance the tradeoff between exploration and exploitation. To manage this tension, firms can adopt contextual, sequential, or structural approaches—each offering different mechanisms for navigating competing demands. Notably, structural and contextual ambidexterity have received significant scholarly attention, with emerging strategies also highlighting the role of external partnerships in overcoming resource constraints. Rather than managing exploitation and exploration solely within the organization, knowledge can be acquired externally through interorganizational relationships.

In regards to interorganizational relationships, resource dependence theory (RDT) is a primary theoretical perspective explaining firms' motivation in forming partnerships to acquire resources, hence reducing uncertainty and interdependence (Hillman et al., 2009). This theory will be further discussed in the next section.

2.1.4.3 Resource dependence theory

While the RBV theory focuses on the internal strengths of a firm, resource dependence theory (RDT) focuses on its external environment. One important assumption of the RDT is that firms cannot be fully self-sufficient with regards to strategically critical resources for survival. Therefore, it depends on other organizations within its environment to learn and acquire needed resources and competencies such as management skills, technical know-how, capital and even reputation (Pfeffer and Salancik, 1978; Teece, 1986; 1992 as cited by Mc Nally, 1997). This explains firms' strategies and behaviors in joining inter-organizational relationships and networks to secure critical resources and reduce environmental uncertainty. At the same time, the theory also argues that the goal of an organization is to minimize its dependence and ensure survival.

Both RDT and RBV are theories that focus on firms' recourse. However, each theory lights a different point of view, internally and externally, which could be synthesized to become a complete picture. Hillman et al. (2009) suggested that integrating RDT with RBV may offer insights into: (1) how organizations specify resource needs and (2) how organizations obtain these valuable resources. In the same vein, recently, a study by Öztürk and Bağış (2025) showed that these two theories are complementary. RDT contributes to RBV theory by explaining how resources and capabilities can be obtained and developed through dependence relationships. At the same time, RBV concepts of firms' resources, dynamic capabilities and managerial capabilities offer insights in managing the relational dependencies in RDT. With today's competitive conditions, ever-changing technologies and current volatile economics, assessing both internal and external relationships are critically required for firms to survive and become superior in competitions.

These findings from RBV, DC, ambidexterity and RDT highly align with the previously explored incumbents' motivations in engaging with startup ventures which were explored in section 2.1.3. In recent years, startups have emerged as valuable partners and sources of innovation for incumbents. Among potential collaborators such as regional firms, academic institutions, and technology partners, startups represent a uniquely promising source of knowledge (Dushnitsky & Lenox, 2015). Far from being perceived solely as disruptors, startups are increasingly viewed as engines of corporate innovation. By collaborating with startups, corporations can access new technologies, knowledge, and competencies, explore novel products and markets, and drive business transformation (Weiblen et al., 2015). In other words, through CSE, incumbents can acquire the resources in need and build their essential capabilities for innovation and sustainable growth.

Teece (2007) stresses that enterprises with robust dynamic capabilities exhibit high levels of entrepreneurship, not only adapting to business ecosystems but also shaping them through innovation and collaboration with external entities. In the same manner, Weiblen and Chesbrough (2015) observes that large companies have increasingly sought to become more entrepreneurial by effectively sourcing and developing new ideas, identifying emerging market opportunities, and monitoring industry trends through external partnerships. This highlights the increasing value of startups as collaborators, offering new technologies and market insights that complement internal capabilities.

This thesis will take a closer look at one particularly impactful form of CSE: equity-based collaboration, i.e. corporate venture capital (CVC) investments. Among various CSE strategies, CVC stands out for its ability to facilitate the transfer of tacit knowledge, context-specific insights deeply embedded in practice and experience, to the firms. By leveraging these investments, corporations not only gain a better understanding of emerging technologies but can also convert these advancements into transformative innovations, thereby strengthening their competitive edge and fostering sustainable growth (Rothaermel, 2023).

In the next section, we will explore real options theory which is fundamental in exploring the important

role of CVC in helping firms tap into emerging new technologies, cope with uncertainty and further establish other forms of collaborations with startups.

2.1.4.4 Real options theory

Real options investments are characterized by sequential, irreversible investments made under conditions of uncertainty (Dixit & Pindyck, 1994 as cited by Adner & Levinthal, 2004). Myers, in 1977, coined the term "real options" and envisioned bringing the theory of financial options to the realm of strategic decision making (Trigeorgis & Reuer, 2017). Since then, the theory has been widely applied in strategy literature (Ceccagnoli et al., 2018). The main concept of ROT suggests that it is better for firms to first make small initial investments, and postpone further investment decisions until the uncertainty has reduced to an acceptable level (Folta, 1998 as cited by Van de Vrande & Vanhaverbeke, 2013). This practice is intended to mitigate the uncertainty through studies on the technological and market feasibility of particular new ideas.

Using the lens of ROT in the context of CVC investments, when sourcing external knowledge, incumbents can first make CVC investments to acquire more information residing outside of the firms (Van de Vrande & Vanhaverbeke, 2013). These early-stage technologies are apparently difficult to evaluate because of technological and market uncertainty. Once firms have learned about the technologies and business opportunities, it has two options to make. One is to terminate the investments or if the technology is promising, a more substantial follow-on investments can be made. These follow-on investments can be in the form of a strategic alliance or acquisition of the startup by the corporate investors to further facilitate the transfer of technological knowledge (Gulati, 1998 as cited by Van de Vrande & Vanhaverbeke, 2013). In this sense, equity-based engagement with startups, i.e. CVC investment can be viewed as a way for established firms to cope with uncertainty related to a new business opportunity.

Several empirical studies have shared similar and complementary findings. Van de Vrande & Vanhaverbeke (2013) found that under high levels of uncertainty, pharmaceutical firms are inclined to make small initial CVC investments in early-stage startups to bring down uncertainty, so that they can further establish stronger ties in a later stage. The study also found that the technology proximity and the later stage investments in startups increase the likelihood of establishing a strategic alliance. Ceccagnoli et al. (2018) suggests that instead of relying solely on R&D alliance, technology licensing or acquisition, pharmaceutical firms may take the wait-and-see approach through CVC investments in early-stage technologies. This CVC strategy would bring more value for firms with three conditions. Firstly, they have weak scientific capabilities which are the abilities to evaluate external technology. Secondly, they try to access distant technologies that are novel to their existing technological domains. And lastly, their innovation pipeline is tilted toward the late-stage development process, where they may have more time needed to nurture CVC investments and make further follow-on collaborations. Further empirical studies in the U.S. Shuwaikh et al. (2024) found complementary results highlighting sector and geographic proximity between corporate investors and investees reduce uncertainty and

CVC-based startups tend to exit via acquisition.

To sum, CVC can be used as a flexible, exploratory tool to manage uncertainty, learn about novel technologies, and enable future collaborations or acquisitions, particularly in contexts of technological distance, internal capability constraints and contextual fit with startups is strong. However, using CVC as a wait-and-see strategy, although helps reduce the risks if the technology does not develop as expected, entails certain limitations. For instance, when the startup's technologies reach a higher certainty and its business model is proven, its value increases accordingly. As a result, the firms will need to commit a higher amount of investment compared to early-stage investments. Or in other cases, during the learning time, the firm's competitor can take a majority equity of the startup.

Conclusion

Theoretical frameworks such as dynamic capabilities, RBV, RDT and ROT underscore the strategic value of engaging with startups, especially via CVC. These partnerships enable corporations to extend beyond their organizational boundaries, fostering innovation, addressing resource constraints, hedging against uncertainty, and enhancing adaptability in an increasingly dynamic and competitive landscape. The diverse forms and motivations behind corporate-startup engagement (CSE) highlight its significance as a tool for strategic renewal and market adaptability. While these collaborative practices are well-documented for large corporations, the unique challenges and opportunities for mid-sized firms remain underexplored. Understanding how these firms can tailor CSE strategies to overcome resource constraints and seize innovation-driven growth opportunities is crucial. In the next section, we will further explore the equity-based engagement with startups, i.e. Corporate Venture Capital, including motives, correlations and facets to better understand its mechanisms, how it helps incumbents achieve strategic and financial goals, as well as its challenges that firms, especially those with limited resources, need to take into consideration.

2.2 Corporate Venture Capital

The term Corporate Venture Capital ("CVC") refers to an equity investment made by large organizations in external startups - relatively new, privately held companies - typically through acquiring a minority stake (Dushnitsky, 2005; Gompers and Lerner, 1998; Molly et al., 2019). CVC, along with alliances, joint ventures, and acquisitions, are external modes of corporate venturing activities focusing on fostering innovation across organizational boundaries through semi-autonomous or autonomous entities (Röhm, 2018; Schildt, 2005). The idea of CVC has been around since the mid-1960s with several waves of high growth and downturns (Gompers et al., 2011; Weiblen et al., 2015). However, it was not until the mid-2010s that CVC started to take off.

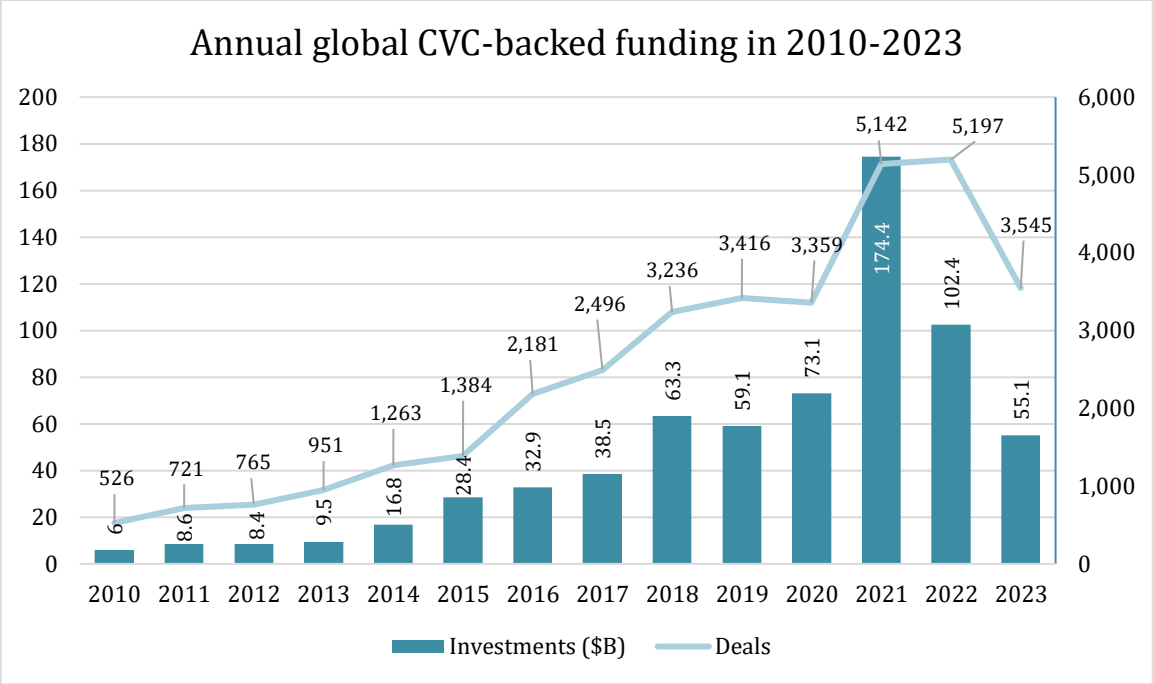

Figure 2: Annual volume of global CVC-backed funding and number of global CVC deals in 2010-2023 (CB Insights)

According to McKinsey (2020), between 2013 and 2019, there was 32 percent year-on-year growth in corporate venture capital (CVC) investments, and three-quarters of Fortune 100 companies have active venture units. Remarkably, there were more than 5,000 deals and around $174B in global CVC funding in 2021 (CB Insights, 2021). The top CVC investing sectors currently are information technology (IT), finance and healthcare (Andonov, 2023).

While there remains strong interest in corporate venture capital (CVC), activity in recent years has been dampened by a combination of factors that have heightened uncertainty and led to increased investor caution. Key drivers of this downturn include geopolitical tensions, persistently high interest rates, elevated inflation, ongoing concerns about startup valuations, and an exceptionally dry exit environment (KPMG Private Enterprise, 2023). Rising interest rates and inflation have significantly increased the cost of capital, leading many corporations to adopt more conservative investment strategies. At the same time, a sharp correction in valuations, along with a marked slowdown in initial public offerings (IPOs) and mergers and acquisitions (M&A), has diminished exit opportunities and reduced investor confidence (PitchBook, 2023). Consequently, some corporate investors face limited liquidity and may lack the cash flow necessary to pursue new deals, further reinforcing a cautious approach. Nevertheless, this challenging environment may also present a strategic opportunity: startups that were previously overvalued or out of reach may now offer more favorable entry points for firms willing to invest despite the downturn or while others remain hesitant (PitchBook, 2023).

Today, CVC initiatives are seen as essential for strategic renewal and creating new business opportunities (Basu et al., 2011). Indeed, corporate venture capital, along with corporate incubators, stands as the most established model for companies to collaborate with startups, thanks to their widespread adoption and market maturity (Weiblen and Chesbrough, 2015).

2.2.1 Motives for investment

Corporate venture capital (CVC) traces its origins to 1914, when DuPont president Pierre S. du Pont invested in the then-emerging General Motors, blending strategic and financial motives in a way that would later define modern CVC practices (CB Insights, 2017). This success inspired industry titans such as 3M, Boeing, Ford, and GE to follow this investment model, driving the first wave of the CVC era.

VCs are limited partnerships that pool and manage capital provided by entities such as pension funds or wealthy individuals (Dushnitsky & Shapira, 2010). They invest in early-stage, innovative, and high-growth start-up companies and aim for financial gain on exit like an IPO or acquisition (Cumming, 2012). However, CVCs' approach differs from traditional VCs in that corporate investors are typically motivated by both financial returns and strategic objectives. Key motives for such investments from corporate perspectives are as follows;

2.2.1.1 Access to new technologies

A key reason for CVC investments is access to emerging and disruptive technologies. Startups often lead innovation and offer fresh ideas that can benefit established firms (Kortum and Lerner, 2000; Zingales, 2000; Dushnitsky, 2005). Through CVC, established firms gain a "window" into the technologies and practices of these ventures (Chesbrough & Tucci, 2002). This strategic alignment allows corporations to explore emerging domains and stay competitive in rapidly evolving industries.

Accessing this pool of knowledge also helps incumbents foster breakthrough innovations. Research has consistently highlighted the role of CVC in driving technological advancements. For instance, Chesbrough (2003) proposed that CVC may provide a way to access this pool of knowledge and Ahuja and Lampert (2001) argue that exposure to pioneering technologies significantly increases the likelihood of generating groundbreaking innovations. Survey further supports these claims; McKinsey (2021) through its survey found that the need for faster innovation is the leading reason for engaging in CVC initiatives.

Moreover, CVC investments often enable companies to gain tacit knowledge—valuable insights that are deeply embedded in practice and difficult to document. For example, this knowledge might come from learning firsthand how a startup manages rapid innovation. Such insights help established firms adapt and apply emerging technologies more effectively, driving meaningful innovation (Rothaermel, 2023). Additionally, knowledge spillovers from alliances with innovative startups have been shown to positively impact the parent firm's overall innovativeness (Hagedoorn & Schakenraad, 1994; Ahuja, 2000).

2.2.1.2 Market intelligence

Another critical driver of CVC investment is the acquisition of market intelligence. By engaging with startups, corporations can monitor emerging trends and gain insights into future market dynamics (Dushnitsky & Lenox, 2005a). Surveys conducted by Silicon Valley Bank over multiple years consistently highlight market sensing as a top CVC objective. This proactive approach helps firms identify potential disruptions and emerging opportunities early, allowing them to respond with agility and precision.

By scanning the external environment through their portfolio companies, corporations can also better anticipate shifts in consumer preferences, competitive threats, and technological advancements. Such intelligence is invaluable in formulating strategic decisions that align with evolving market conditions. For instance, firms may use insights from CVC investments to fine-tune their R&D priorities, tailor their product offerings, or even enter entirely new markets.

2.2.1.3 Hedge against uncertainty

CVC investments also serve as a strategic hedge against uncertainty, particularly in industries characterized by rapid technological change. Startups often embody disruptive potential, introducing novel business models, products, or services that could threaten established firms. Through small-scale, exploratory investments, corporations can adopt a real-options approach, effectively "buying time" to observe the startup's trajectory before committing additional resources (Rothaermel, 2023). The more detailed reasoning was previously explored in section 2.1.4.4 about real options theory, with supporting empirical evidences from worldwide pharmaceutical companies and firms in the US.

This method has been successfully applied in dynamic sectors such as nanotechnology and semiconductors, where uncertainty is high, and innovation cycles are fast-paced (Rothaermel, 2023). However, while effective, the real-options approach can incur significant costs, particularly when competitive pressures necessitate rapid follow-up investments. Supporting this observation, 500 Startups (2019) reported that the biggest motivator within the first two years of investment for incumbents is "hedging against rival, disruptive technologies, business models, and startups."

2.2.1.4 Strengthen core businesses and building ecosystems

CVC investments also enable firms to strengthen their existing businesses by fostering ecosystems around their core platforms and products. By investing in ventures that offer complementary products or services, corporations can create synergies that enhance the value of their core offerings (Chesbrough, 2002). For example, a corporation might invest in a startup developing software that integrates seamlessly with its hardware products. Such collaborations not only increase the demand for corporate innovations but also stimulate further R&D efforts (Brandenburger & Nalebuff, 1996). Supporting this, research by Global Corporate Venturing (2015) found that 58 percent of firms cited

ecosystem formation as the primary motivation for engaging in CVC activities.

Further evidence from a longitudinal study by Dushnitsky and Lenox (2005a) highlights the complementary relationship between external CVC and internal R&D. The study suggested that CVC investments focusing on radical, innovative ideas complemented incremental innovations in core technologies driven by internal R&D, thereby creating a balanced approach to fostering both disruptive and sustained innovation within incumbent firms. For such reasons, CVC has been identified as a viable approach to ambidexterity, as investing in new ventures allows the exploration of new technologies and markets, while improving internal exploitative capabilities (Pinkow et al., 2020).

2.2.1.5 Financial returns

While strategic objectives often overshadow financial considerations in CVC investments, financial returns remain an important motivation. Investing in high-risk ventures can yield substantial returns, especially if the startup achieves a successful exit. A Silicon Valley Bank report on CVC (2024) indicates that 38 percent of firms balance strategic and financial gains, although only a small fraction (15 percent) prioritize it as their sole objective.

In many cases, firms are willing to accept lower financial returns—or even financial losses—if the investment advances critical strategic goals. Chesbrough (2002) observes that corporations often view financial returns as secondary to the broader benefits of accessing new technologies or markets. Similarly, Dushnitsky and Lenox (2006) argue that financially driven CVC approaches often encounter structural challenges, such as misaligned incentives, internal conflicts, and incompatible objectives, which can diminish their potential benefits. By contrast, firms that strategically leverage CVC to acquire innovative technologies and complementary assets can unlock significant strategic advantages, ultimately compensating for lower financial returns.

From the perspective of startups, corporate investors often stand out when compared to traditional VCs. In addition to offering value-added services similar to those provided by VC funds, corporate investors bring unique advantages by leveraging their extensive resources, including laboratories, customer bases, supplier relationships, and distribution networks (Dushnitsky and Lenox, 2005). Furthermore, Maula and Murray (2001) highlight that ventures co-financed through CVC programs tend to achieve higher valuations than those supported exclusively by traditional VC funding.

2.2.2 Antecedents and outcomes

While corporate venture capital (CVC) offers numerous potential benefits, a significant proportion of CVC initiatives fail to achieve their objectives. In fact, one-third of CVC programs were discontinued or shut down in the past three years (Strebulaev & Wang, 2024). This aligns with broader findings; a research by Ghosh indicates that as many as 75 percent of venture-backed companies fail to deliver

financial returns to investors (Hoque, 2012).

Additionally, CVC is often perceived as riskier than traditional research and development (R&D) activities (Block and MacMillan, 1993; Vintergaard, 2006). The inherent uncertainty in evaluating novel knowledge and technologies, coupled with the unpredictable progress and extended timelines of venture opportunities, amplifies the risks associated with CVC (Vintergaard, 2006). Firms also face internal challenges, including significant demands on management's time and resistance from core organizational units (Röhm, 2018; Basu et al., 2016a).

Despite these challenges, CVC remains a critical tool for fostering innovation among established firms. Scholars have explored the industry and environmental factors influencing firms' decisions to invest in CVC, as well as the broader outcomes these investments can deliver beyond financial returns.

2.2.2.1 Antecedents

At the industry and environmental level, firms are more inclined to invest in new ventures within industries undergoing rapid technological change (Dushnitsky & Lenox, 2005a; Basu et al., 2001), those characterized by intense competition (Basu et al., 2001), weak intellectual property protection, and where complementary assets are crucial (Dushnitsky & Lenox, 2005a). Additionally, Dushnitsky and Lenox (2005a) suggest that in Schumpeterian environments, where innovation and disruption are pervasive, established firms may opt to leverage the knowledge generated by new ventures to enhance their own innovation capabilities.

Additionally, social networks and peer influence can significantly impact CVC adoption. Gaba and Meyer (2008) highlight that management innovations, such as the adoption of CVC practices, can spread through social networks and influence firms within a corporation's peer group. The popularity of CVC among peers, the status of early adopters, geographical proximity to established CVC units, and the outcomes experienced by prior adopters all act as contagious impulses that increase the likelihood of CVC adoption. Similarly, proximity to prominent venture capital (VC) clusters, such as Silicon Valley or Route 128, further increases the probability of firms engaging in CVC activities, as these regions serve as hubs for innovation and investment (Gaba and Meyer, 2008).

At the firm level, internal factors such as cash flow and absorptive capacity play a significant role in the decision to engage in CVC. Dushnitsky and Lenox (2005a) found that firms with strong cash flows and advanced in-house research capabilities are more inclined to seek external knowledge, as their absorptive capacity allows them to integrate and leverage innovations effectively. Additionally, firms tend to focus on ventures in sectors that are technologically adjacent but not identical to their own. This may happen because they believe they can learn more from ventures that are somewhat different or because top-quality startups may perceive them as direct competitors, fearing the potential misuse or expropriation of their ideas (Dushnitsky and Lenox, 2005a).

Furthermore, Basu et al. (2001) suggested that firms with strong technological and marketing resources, as well as experience in diverse types of venturing activities, tend to engage in more substantial CVC activity. These firms are better positioned to support and benefit from CVC investments, enabling them to maximize the potential value of their involvement with startups.

2.2.2.2 Outcomes

Corporate venture capital (CVC) serves as a valuable tool for fostering innovation, acquiring knowledge, and driving growth. However, its impact is multifaceted, offering both opportunities and challenges for corporations.

1. Strategic outcomes

According to Wadhwa and Kotha (2006), through CVC investments, incumbents can access startups to accumulate knowledge and enhance their own potential to innovate. Evidence from Dushnitsky & Lenox (2005b) suggests that CVC investments can significantly boost innovation rates, especially in industries with weak IP protection. However, Wadhwa and Kotha (2006) argue that the relationship between CVC and innovation depends on the level of involvement between corporate investors and their portfolio firms. High involvement can foster innovation, whereas a greater number of investments with low involvement can lead to diminishing returns. As explained by the authors, high involvement refers to direct engagement at an operational level, fostering integration with corporate business units.

In line with knowledge acquisition, Keil (2004) argues that at the early stages of CVC, firms can acquire knowledge about how to manage CVC investments which is the foundation of their capabilities. However, this knowledge needs to be refined and institutionalized within the organizations through repeated actions in order to become deep and firm-specific knowledge that is difficult to transfer externally. Based on longitudinal case studies of large corporations, Keil (2004) introduced a model demonstrating that corporations can build new capabilities and learn to do it effectively through acquisitive learning and learning-by-doing processes. Additionally, hiring experienced managers from industry peers enhances this learning process (Keil, 2004; Keil et al., 2008).

CVC also facilitates access to valuable external knowledge, particularly from innovative users, such as physicians or academic scientists, who have found the startups. Smith and Shah (2013) proposed that such knowledge offers corporations more practical and innovative insights than other sources of information. Testing this framework within the medical device industry, they found that leveraging such user-driven knowledge through CVC transactions enables corporations to enrich their innovation capabilities. As discussed in the theoretical framework section regarding CSE literature, building dynamic capabilities are crucial to overcome resource limitations and strengthen their competitive positioning. Above mentioned studies show that CVC is not just a financial tool but also a mechanism in knowledge transfer and capability building.

However, Yang (2012) argued that there might be potential inefficiencies in corporate investors' ability to absorb and integrate new knowledge, which negatively impact their innovativeness. This finding aligns with other researchers' finding in which learning does not always improve the learner's effectiveness because firms might learn something incorrect, particularly under complicated and ambiguous conditions, considering new technologies are typically disruptive (Huber, 1991 cited by Yang 2012). Furthermore, while CVC investments provide opportunities for growth in both existing and new business areas, they may hinder a corporation's ability to undergo strategic renewal. Basu and Wadhwa (2013) argued that CVC investments tend to reinforce existing strategies rather than driving a shift away from a corporation's core business. This effect is more pronounced in dynamic environments or when corporations possess strong internal capabilities.

2. Financial outcomes

Besides strategic outcomes, CVC investments can also generate financial returns for corporate investors. While strategic gains should, in theory, eventually translate into financial benefits for incumbents, CVC units often need to achieve specific financial targets to sustain their operations (Basu et al., 2016). Dushnitsky and Lenox (2006) highlight that financial performance, measured through shareholder returns, is influenced by a corporation's ability to balance both strategic and financial goals.

Furthermore, Yang et al. (2009) identify a positive correlation between CVC financial returns and the effectiveness of venture selection and value appropriation—particularly when CVC units adopt an ambidextrous structure (Hill & Birkinshaw, 2014). This dual approach enables them to both leverage the capabilities of their corporate parent and cultivate their own strengths. Similarly, Benson and Ziedonis (2009) find that corporations engaging in frequent venture investments achieve higher returns when acquiring these ventures compared to corporations that invest less frequently. In addition, Zahra and Hayton (2008) establish a positive link between CVC investments and key financial indicators, such as return on equity (ROE) and revenue growth.

However, some studies suggest that CVC investments, on average, yield internal rates of return below the corporate parent's cost of capital, leading to suboptimal financial performance (Allen and Hevert, 2007). Additionally, research indicates that CVCs generally underperform financially compared to their independent venture capital (IVC) counterparts (Dushnitsky & Shapira, 2010). Nevertheless, CVC investors can mitigate this performance gap by prioritizing early-stage ventures and opting for smaller syndicate sizes.

3. Follow-up alliance and acquisition

One of major outcomes of CVC investments is the establishment of non-equity strategic alliances with startups or acquisition between corporate investors and investee companies. These strategic partnership forms can be licensing, research contracts or joint development (McNally, 1997). Dushnitsky and Lavie

(2010), in their analysis of 372 software firms, identified an inverted U-shaped relationship between CVC investments and alliance formation. Building on this, Van de Vrande and Vanhaverbeke (2013) find that corporations make follow-up investments after the official funding rounds to facilitate and ensure technological knowledge transfer if they see potential in the technology. Moreover, their results showed that prior CVC involvement significantly increases the probability of forming a follow-on strategic alliance, particularly when the corporate investor and the venture share considerable technological overlap.

On the other hand, for some established companies, startup acquisition is the motive for them to decide to invest in startups (McNally, 1997; Maula, 2001). Studies show that corporations use CVC activities to make better acquisition decisions by eventually acquiring ventures they invest in (Benson and Ziedonis, 2009; Weiblen and Chesbrough, 2015). For instance, Google Ventures' investment in Nest which was eventually sold to its parent company, Google.

However, research on acquisition outcomes remains mixed. Maula and Murray (2000b) found that only a small fraction of investee companies was ultimately acquired by their corporate investors. In contrast, Benson and Ziedonis (2010) argued that CVC enables established firms to evaluate the potential of innovative startups and assess the feasibility of post-acquisition integration. His study shows that 61 leading CVC investors had prior venture ties with startups they later acquired.

2.2.3 Typology

CVC typologies vary by the structure of it, the personnel it employs and the incentive it offers (Drover et al, 2017). Structure wise, there is substantial variation of CVC types (Hill et al., 2009). According to Strebulaev and Wang (2021; 2024), CVC organizational structure, strategic alignment and understanding of venture norms are critical to CVC success. However, these are often overlooked in practice. For instance, sixty percent of 164 CVC leaders said that the senior executives at their parent companies lacked a venture mindset (Strebulaev and Wang, 2024). They did not understand the norms of the venture space, the nature of startups, or the way they work together, hence leading to misaligned goals and short-term focus. In addition, CVCs are often structured in an ad hoc way with a bureaucratic investment approval process and unclear reporting structures, which can hinder efficiency and innovation (Strebulaev and Wang, 2024). Therefore, it is essential to discuss how firms should structure their CVC investments in the most efficient way possible.

Keil (2000) and British Private Equity & Venture Capital Association - BVCA (2013) distinguished three CVC investment models based on four primary aspects of the fund: purpose, structure, talent and success measures as described in Table 1.

	Corporate/Direct Investment (Balance Sheet)	Internal Dedicated Fund (GP Model)	External Fund (LP Model)
Purpose	Gain direct business and technology experience in emerging areas	Emerging business and technology with more autonomy for step out options	Develop internal VC capabilities whilst gaining market awareness and understanding
Structure	Direct investment, funding each deal, closely related to business divisions and future business opportunities	Corporate acts as LP in a 100% captive fund. Greater fund autonomy	GP external firm LP corporate part investor Decision on investment GP in fund parameters
Talent	Internal corporate talent	Mixture of external VC hired and internal corporate talent	Experienced VCs and potential secondees from corporate
Success measures	Measurement of direct strategic inputs	Primarily financial with a level of strategic exposure	Predominantly ROI
Examples	BP, Bosch, Panasonic	Unilever Ventures, Reed Elsevier Ventures, Bloomberg Beta	Siemens Venture Capital (SVC), Physic (Unilever)

Table 1: CVC models (BVCA, Guide to Corporate Venture Capital, 2013)

The first option – "corporate/direct investment" is when firms set up their own fund. This fund can be set up in a similar way to a traditional venture capital fund or as a subsidiary of the corporation (Keil, 2000). The budget will be deducted directly from the balance sheet and strongly ties with a specific business unit. Its main objective is to support the core business and may give a window to emerging technologies. It will be managed completely by an internal team. For such reasons, it is also called "self-managed fun". This way of structuring CVC programs hinders cumbersome decision-making process and at times may put CVCs at a disadvantage to traditional VC funds.

The second one – "internal dedicated fund" – involves setting up a dedicated fund independently and professionally. In this set-up, there is only one corporation that invests and acts as the limited partner (LP). Therefore, it is also called the single LP model. The management of the fund can involve independent VC (Keil, 2000) or a mix of internal talents and hired VC (BVCA, 2013). Thereby, it holds greater autonomy and may strive for both strategic and financial goals. And the last option - external fund - is when firms choose to invest into funds as LP managed by independent VC firms, which act as general partners (GPs). This arrangement provides the corporation with access to a pool of investments targeted at specific industries or technologies while relying on the expertise of established VC firms for fund management (Keil, 2000). In some studies, it is also called independently managed fund as opposed to self-managed fund, or multi-LP model.

On the other hand, corporate venture capital (CVC) can be broadly categorized into two main forms: externally managed (indirect) and internally managed (direct). In the direct form, corporations invest in and manage startups themselves—either through self-managed funds or ad hoc investments—whereas in the indirect form, investments are channeled through externally managed venture capital (VC) funds (Sykes, 1993, as cited in McNally, 1997). While Sykes classifies dedicated funds as part of the indirect model, the British Private Equity and Venture Capital Association (BVCA) suggests that

dedicated funds often represent a hybrid structure—combining internal oversight with external execution. Asel et al. (2015) further refined these distinctions by defining internal CVC programs as those that invest directly from the corporate balance sheet, and external CVC programs as separate venture entities with fixed corporate commitments, typically staffed by experienced investment professionals—similar to the BVCA's notion of dedicated funds.

These differing classifications underscore the complexity and evolving nature of CVC structures, which can pose challenges for firms looking to initiate their own CVC programs. To ensure conceptual clarity and consistency throughout this study, CVC types are defined as follows: *Direct CVC* refers to investments that corporations make directly into startups, whether through internal division or wholly-owned subsidiary; *Indirect CVC* refers to corporate investments made into external VC funds as limited partner (LP)—regardless of whether this is done via a balance sheet or a dedicated CVC vehicle. For example, if a firm's CVC unit invests in a VC fund that subsequently invests in startups, this arrangement is considered an indirect form of CVC in this study.

In general, each of these structures offers distinct advantages, allowing corporations to choose the approach that aligns best with their strategic goals, resources, and risk tolerance. According to Weiblen and Chesbrough (2015), the most common implementation by large corporations is the separate corporate venture entity that is exclusively funded by the sponsoring corporation, i.e. dedicated fund, thanks to its flexibility, speed, and freedom, especially in the fast-moving venture capital world. However, a recent survey by Silicon Valley Bank (2024) showed a different result: more than 60 percent of CVC investments are made from balance sheets, with around 20 percent invested as a single LP model.

Based on their motivations and capabilities including resources, skills and experiences, firms can choose how they structure their CVC investments (McNally, 1997). It could be either direct, indirect or both of them in parallel. According to McNally's (1997) study on CVC in the UK, although both approaches share the same objective which is to obtain windows on new technologies, each approach has further distinct primary motives. For direct CVC investments, it is identifying new markets while it is learning about CVC process and/or social responsibility for indirect ones. And it is critical to distinguish these two approaches, so that firms can make better decisions on their investments.

As indicated in the introduction section, this thesis will be learning how mid-sized companies overcome their size-related constraints in setting up CVCs and explore indirect CVCs in comparison with direct CVC. Therefore, in the following subsections, we will discuss in detail the characteristics of these CVC types: direct and indirect CVC.

2.2.3.1 Direct CVC investments

Direct CVC investment refers to investments that corporations make directly into startups from their

balance sheet or via an internal dedicated fund. It entails corporations managing their own investment funds and doing the whole investment process by themselves or by their funds. This approach offers several advantages. Primarily, it aligns closely with the corporation's strategic objectives, allowing for targeted investments in specific technologies, markets, or products (Ladnar & Zureck, 2019). The direct involvement facilitates closer relationships with investee companies, enhancing opportunities for synergy, knowledge spillover to better achieve strategic objectives. Additionally, McNally noted that direct CVC can serve as a mechanism for cultural transformation within corporations, fostering innovation and adaptability.

Investee companies can benefit from this investment as well in the form of nurturing and mentoring from the corporate investors (McNally, 1997). Moreover, Maula & Murray (2002) found that CVCs play a strong role in enhancing the credibility of the startup; attracting customers, suppliers and partners; and supporting technological development. These added-values such as industry-specific expertise, technical advice and also the possibility of forming strategic relationships are what make corporate investors stand out from other entities including independent VCs and angel investors.

However, pursuing a direct CVC structure also entails substantial challenges. Managing such investments demands not only significant capital but also specialized venture capital expertise, which many new entrants typically lack (McNally, 1997). In addition, direct CVC investments are highly resource-intensive, requiring considerable time and managerial effort throughout the investment lifecycle—this aspect will be examined further in Section 2.2.4 on the CVC investment process. Firms without an established track record or strong reputation in the venture capital ecosystem may also face difficulties in accessing high-quality deal flow, limiting their ability to compete for promising startups. As a result, the direct CVC approach is generally more suitable for corporations with substantial internal resources and a well-defined strategic rationale for engaging in venture investing.

Interestingly, studies on direct CVC practices in the UK found that companies making direct CVC investments typically invested in growth stage startups operating in medium or low technology industries (McNally, 1997). The author further explained three reasons causing firms to choose this approach. Firstly, corporations typically engage in direct CVC with firms that have already demonstrated proven technologies or products. This aligns with their primary motive of identifying new markets rather than new technologies and ensures that strategic benefits can be realized quickly, thereby justifying the investment to the company's board. Secondly, direct CVC investments often occur with companies with whom the corporation has pre-existing business relationships. Lastly, corporations may struggle to identify opportunities early enough to invest in startups during their initial stages, leading to a focus on growth-stage firms instead.

As of today, updated studies about direct CVC and its practice in particular are scarce. Most studies and surveys are about total CVC investments, both directly and indirectly. In summary, if firms have substantial capabilities, are strategically motivated and target a small number of relevant technologies

and/or markets, direct CVC would possibly be very beneficial for both the firms and startups.

2.2.3.2 Indirect CVC investment

Indirect CVC, externally managed investments, on the other hand, is particularly advantageous for corporations with limited resources, experiences and skills in CVC investing (McNally, 1997). It may also be appropriate for companies motivated by particular strategic aims, such as the opportunity to gain windows on a wide range of new technologies.

Indirect CVC involves firms taking LP positions in external venture capital funds managed by independent venture capital firms. Two out of three surveyed corporate investors take LP positions in VC funds (Palmer, 2022). By relying on the expertise of professional venture capitalists, corporations can gain exposure to a broader range of investment opportunities and benefit from the fund managers' financial acumen. McNally (1997) emphasized that indirect CVC provides a valuable learning opportunity for corporations new to venture capital, allowing them to understand investment mechanisms, develop industry connections, and build legitimacy within the venture capital community. Having developed an understanding of the venture capital process and gaining the necessary experience, companies may then proceed to establish their own internally managed CVC programs. Supporting this finding, Global Corporate Venturing's survey (2022) showed that introduction to VC investing is one of the main reasons for firms to take LPs position in VC funds.

Another significant advantage of indirect CVC is its flexibility. Corporations can participate in syndicated or pooled funds, sharing risks with other investors and gaining access to diverse technologies and industries. This arrangement allows corporations to benefit from the expertise and extensive networks of venture capital firms, increasing deal flow and potential returns. McNally's (1997) survey suggested that one of the advantages of investing in externally managed funds is a superior deal flow, facilitated by independent fund managers who evaluate a significantly larger pool of prospective investment opportunities.

From the perspective of VC funds, indirect CVC serves as a vital source of financing while also bringing industry-specific expertise from corporate investors (McNally, 1997). This collaboration can enhance the fund's capacity to identify and nurture promising startups. The involvement of corporate investors can provide additional value-added benefits, such as access to technical skills, market insights, and potential exit routes through trade sales. However, challenges arise due to the differing expectations and time horizons between corporate investors and traditional venture capitalists (McNally, 1997). corporations may have shorter-term objectives, which can conflict with the long-term nature of venture capital investments. Additionally, venture capital funds may need to manage the risk of corporations exerting excessive influence, which could disrupt the balance of the investment portfolio.

However, indirect CVC has notable drawbacks. It often limits the corporation's contact with investee

firms, which can be a disadvantage for companies with strategic objectives. Additionally, investing indirectly may dilute the alignment between the corporation's strategic goals and the fund's investments, as the fund must also cater to the objectives of other investors. Moreover, McNally's findings suggest that only a minority of startups receiving indirect investments perceive significant value-added benefits. Conversely, the buffering role of the VC fund can protect startups from the 'Big Brother' effect, where excessive corporate oversight might stifle innovation (McNally, 1997).

Despite these challenges, indirect CVC remains a valuable option for corporations. It offers an opportunity to learn venture capital practices, access a broader range of investment opportunities, and mitigate risks through collaboration with experienced venture capital firms. For first-time investors, indirect CVC can serve as a preparatory stage before transitioning to direct investments. While only a few firms felt that indirect CVC had been particularly beneficial, those that did highlighted similar advantages to direct CVC, suggesting a corporate presence can complement venture capitalist expertise for tech startups (McNally, 1997). Indirect CVC clearly presents a potential win-win opportunity, benefiting not only corporations but also VC funds and the investee companies involved. The effectiveness of VC funds can be further enhanced when they are tailored to facilitate meaningful interactions between corporations and startups while aligning with the strategic objectives of the corporation.

2.2.4 CVC investment process

There has been previous literature outlining a well-documented investment process, in which most of them are traditional VC oriented (Vintergaard, 2006; Klonowski, 2010; Röhm, 2018), hence not entirely applicable for the investment practices of CVC. Addressing this gap, Souitaris and Zerbinati (2014) proposed a conceptual model specifically for direct corporate investment, comprising five stages and eight core practices: deal origination, deal screening, evaluation and due diligence, deal structuring and approval, and post-investment monitoring and value creation. In parallel, McNally (1997) contributed to the understanding of indirect CVC by examining the practices of corporate investors in the UK, highlighting how corporations engage in venture investments through external VC funds.

Prior to the execution of the CVC investment process, Strebulaev and Wang (2024) propose six key recommendations for incumbents to design effective direct CVC programs. These include adopting a venture mindset, defining clear strategic objectives, establishing a consistent organizational structure, fostering long-term thinking, empowering investment teams, and selecting an appropriate geographic location for the CVC unit. Similarly, McNally (1997) underscores the importance of organizational strategy and structure, noting that the way firms design their CVC initiatives reflects not only their strategic motives but also shapes decision-making throughout the investment process. These foundational elements should be established before progressing to the operational stages of CVC investing.

Moreover, while some CVC studies omit the exit stage, it remains a critical component of the investment lifecycle, offering insights into overall performance and strategic learning. Taken together, the CVC process can be broadly categorized into pre-investment and post-investment stages, as illustrated in the following figure.

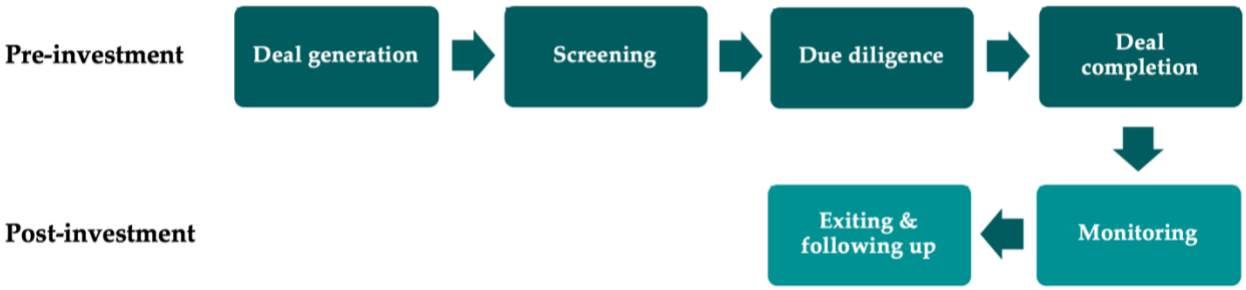

Figure 3: CVC investment process by direct corporate investors

This section will primarily focus on the pre-investment stage of the CVC process, which encompasses deal generation, screening and evaluation, as well as negotiation and deal completion. These stages are particularly relevant to the research question, which explores the constraints that mid-sized firms face when setting up CVC investments.

It is important to highlight that, from the perspective of incumbent firms, the investment process differs substantially between direct and indirect CVC approaches. Once a firm selects its preferred CVC strategy, indirect CVC investors typically begin by identifying a venture capital fund that aligns with their strategic objectives and investment philosophy. In contrast, direct corporate investors undertake the full investment process internally. In the indirect CVC model, decision-making authority is largely delegated to external fund managers. As a result, corporate investors tend to have limited involvement in key stages of the investment process. This may include minimal interaction with startups, the absence of board representation, and little to no influence over which ventures receive funding. Consequently, this model often limits the strategic alignment between the corporate investor and the startups, reducing the firm's ability to shape innovation outcomes.

However, this delegation of responsibility is also where VC firms provide distinct value. Their expertise enables them to generate high-quality deal flow, conduct rigorous due diligence, and actively manage relationships across portfolio companies—capabilities that corporates may lack in-house. The following subsections will examine each stage of the investment process in detail, highlighting the specific challenges encountered under direct CVC models.

2.2.4.1 Pre-investment stage

One of the biggest challenges to firms in setting up CVC programs is deal sourcing. Access to high-

quality, attractive investment opportunities, or deal flow, is essential as a robust pipeline often translates into strong returns (Klonowski, 2022). In indirect CVC, the task of identifying potential investee companies lies with external fund managers, whereas, in direct investments, corporations must actively search for opportunities that align with their strategic objectives (McNally, 1997).

In case of direct CVC, regular communication with their VC peers enables CVC investors to identify new investment opportunities and gain valuable insights into the capabilities of established independent VC firms (Hill et al., 2009). Besides, both Souitaris et al. and McNally observed that firms' connections are a source of deal, either it was from business units or established business relationships. However, as mentioned earlier, corporations without an established reputation in the VC industry and/or first-time corporate investors may struggle to access high-quality investment opportunities. Alternatively, co-investing with venture capitalists is a potentially beneficial way of identifying investment opportunities (Bailey, 1985 cited by McNally, 1997). By joining a syndication network—a collaborative group of investors who co-invest in startups and share insights—corporate investors can also reduce its risk exposure, gain a central position within the VC network, and simultaneously improve its ability to identify new ventures with a strong strategic fit (Yang et al., 2009).

Moving on to the next stage, while independent VCs screen deals by looking at the financial potential (i.e., market potential, the quality of the founding team, the potential for returns, etc.) of prospective investments, direct CVC investors will look for the strategic potential (Souitaris and Zerbinati, 2014). Moreover, McNally (1997) argued that based on their various motives, large firms can have different selection criteria besides strategic alignment. For instance, companies with strategic goals would prioritize product and market characteristics to gain insights into specific markets and technologies. In contrast, those with social responsibility motives—a company invests to be seen as it is aiding economic well-being to a particular region—focus more on the entrepreneur and management team, while financially driven corporations evaluate investees based on entrepreneurial talent, financials, product and market potential.

Besides that, the industrial overlap and the IP regime of a potential portfolio company also play a crucial role in the investment decision making by direct CVC investors (Dushnitsky and Lenox, 2005a; Dushnitsky and Shaver, 2009 cited by Röhm, 2018). In particular, industrial overlap ensures the investment aligns with the firm's strategic objectives, while investing in industries with weak IP protection regimes could help firms significantly boost innovation rates. Together, they increase the likelihood of both financial returns and strategic value from CVC activity. In addition to screening deals for the purpose of making investments, CVCs also provide feedback to the business units on emerging technologies and markets for organizational learning purposes (Souitaris and Zerbinati, 2014).

During the due diligence stage, studies by Souitaris and Zerbinati showed strong reliance on internal technical due diligence regarding the technology's potential and fit (Souitaris and Zerbinati, 2014). This

approach can bring several benefits. For instance, enhancing the engagement between CVC programs and business units, and having potential in reducing information asymmetry and adverse selection thanks to the technical expertise of the business units (Souitaris and Zerbinati, 2014). However, Klonowski (2022) highlighted the importance of having external due diligence to bring a fresh view at the venture, allowing for the identification of new areas of risk that may have been overlooked, although this process could take up to six weeks.

During the screening and due diligence stages, due to the information asymmetry, they can be very complex (Casseli, 2010). Additionally, screening numerous proposals to select viable ventures requires significant time and resources, therefore, rejecting valuable deals and the second-guessing of rejected deals are both issues in the deal selection process (Klonowski, 2022).

When firms have shortlisted ventures, the negotiation of legal terms becomes a crucial yet challenging step in closing deals. Klonowski (2022) highlights that balancing risk and reward—such as valuation and ownership stakes—can be particularly complex. This challenge is amplified when dealing with inexperienced entrepreneurs, as venture capitalists (VCs) often need to guide them through the intricacies of investment processes, potentially prolonging deal closures. In the context of CVC investments, most corporate investors (57%) prefer to follow investment rounds led by institutional VCs, benefiting from the contractual terms negotiated by the lead investor (Strebulaev & Wang, 2021). Among these terms, board rights are identified as critical features, offering CVCs access to strategic information and influence over portfolio companies. However, board rights remain a subject of scholarly debate.

On one side, proponents argue that board representation enhances knowledge flow and strategic oversight. Through board participation, corporate investors can attend discussions, access strategic information, and exert control or influence over venture companies, facilitating knowledge spillovers to parent firms (Strebulaev & Wang, 2021; Gompers & Lerner, 2001, as cited by Röhm, 2018). This aligns with the strategic motives of CVCs to gain insights into emerging technologies and market trends. Conversely, some scholars caution against the risks of board representation. Gompers and Lerner (2001), Masulis and Nahata (2009), and Dushnitsky and Shaver (2009, as cited by Yang, 2012) suggest that insisting on full board membership may foster distrust among entrepreneurs, who might perceive it as an attempt to appropriate knowledge rather than foster collaboration. This distrust can deter promising ventures and undermine strategic partnerships.

In response to these concerns, many incumbents opt for a lower degree of involvement by securing observer board positions rather than full membership. Strebulaev and Wang (2021) found that 77% of incumbents preferred observer roles compared to just 23% holding full board seats. While observer roles involve less direct control, they still grant access to valuable strategic information, enabling corporate investors to benefit from key insights without disrupting the entrepreneurial company's governance dynamics. However, Wadhwa & Kotha (2006) argue that board seats, although providing

oversight, are less action-oriented and lack direct engagement at an operational level. As a result, knowledge creation through gaining an understanding of the tacit and complex components of knowledge that are deeply embedded in start-ups is not fully facilitated.

2.2.4.2 Post-investment stage

Once investments are made, corporate investors need to monitor the relationships, adding value to their portfolio companies and ensure they can achieve their previously set objectives. McNally (1997) distinguishes between direct and indirect CVC investments, noting that the level of communication and nurturing is significantly higher in direct investments. Indirect CVC exhibits minimal interaction with portfolio companies, with limited business relationships or hands-on support. In contrast, direct CVC investments involve greater levels of contact and nurturing activities, facilitated by the absence of intermediaries, VC firms. This increased involvement often leads to strategic business relationships and value creation for later-stage companies, particularly in medium or low-technology sectors. Wadhwa and Kotha (2006) finding supports the observation of McNally, suggesting that high involvement with portfolio companies fosters innovation.

Similarly, Strebulaev and Wang (2021) emphasize the value-added benefits provided by CVC investors during the post-investment stage. They highlight that CVCs often establish commercial relationships between the parent company and portfolio firms, with many startups benefiting from access to sales channels, complementary technologies, and opportunities to become the parent company's first customer. This aligns with McNally's observation that direct CVC investments frequently lead to strategic partnerships.

In relation to knowledge flow, Yang (2012) finds that knowledge outflows from corporate investors to startups significantly improve portfolio companies' performance, especially their likelihood of achieving an IPO. However, the knowledge inflow into corporate investors is converse. There are potential inefficiencies in corporate investors' ability to absorb and integrate new knowledge, which negatively impact their innovativeness. Additionally, the author introduces a nuanced view on governance, emphasizing the dual-edged nature of autonomy and incentive schemes in CVC programs. Autonomy positively impacts corporate investors' innovativeness by allowing CVC managers to explore new technologies and markets. However, excessive autonomy may reduce the transfer of knowledge back to the parent corporation.

Finally, the exiting and possible follow-up partnerships are the final stage in the CVC investment life cycle. Unlike traditional VCs, corporate investors are not likely to fund potential startups in next funding rounds because of a change of direction of the parent company or their strategic goals (Strebulaev and Wang, 2021). The author's study further showed a contrary to past concerns that CVC investments often lead to parent company acquisitions. In fact, modern CVCs prefer to establish commercial relationships with investee companies. For instance, for 85% of CVCs, at least a third of their portfolio companies

developed such ties, with 50% reporting relationships with two-thirds of their portfolios.

Conclusion

CVC investments offer firms with various strategic and financial benefits. While direct investments offer the advantage of tighter control, deeper engagement with startups, and strategic alignment; they demand significant resources, expertise, and management time, which can be a challenge for firms with limited capacity. Conversely, indirect investments provide access to broader networks, pooled expertise, and risk mitigation but often come at the cost of reduced strategic alignment and limited interaction with startups. While the positive impact of CVC on portfolio companies is well-documented, particularly regarding knowledge outflows and improved IPO potential (Yang, 2012), the benefits for corporate investors remain more nuanced such as inefficiencies in absorbing knowledge inflows and the potential for misaligned governance structures.

Despite the robust body of research on CVC, relatively little attention has been given to how mid-sized companies can navigate the constraints of their size when engaging in equity-based collaborations with startups. Questions remain about how these firms can develop the necessary capabilities, balance risks, and choose the right approach to maximize strategic benefits. Mid-sized firms, often resource-constrained compared to their larger counterparts, may face unique challenges in leveraging CVC as a tool for innovation and growth. Addressing this gap, the following sections will explore their specific challenges and potential benefits for startup ventures in the context of corporate venture capital (CVC), corporate startup engagement (CSE) and open innovation (OI). By contextualizing these struggles, this discussion aims to identify possible pathways for overcoming barriers and fostering growth through equity-based engagement with startups.

2.3 The mid-sized firm landscape

2.3.1 Definition and characteristics of mid-sized firm

The definition of mid-sized firms varies across countries. Since this thesis focuses on the European context, it examines the relevance and definition of such firms within European Union (EU) legislation. Medium-sized enterprises play a vital role in the European economy, contributing significantly to both employment and value creation. According to a recent report by the European Investment Bank (EIB, 2024), mid-sized firms—often referred to as mid-caps, middle-sized enterprises, or hidden champions in EU legislation and by international organizations—are defined as enterprises employing between 250 and 3,000 individuals. These firms represent over 17% of total employment and generate 21% of turnover across the EU, underscoring their critical role in promoting economic growth and stability. Mid-sized firms include both privately held and publicly traded companies, although only a small proportion are listed on stock exchanges.

Beyond employee count, other organizations consider additional criteria for defining mid-caps. For instance, the European Commission's Risk Finance Guidelines classify these firms into categories such as "small mid-caps" (enterprises with 250–500 employees and either annual revenues below €100 million or a balance sheet under €86 million) and "innovative mid-caps" (firms meeting specific thresholds of research and development (R&D) or innovation expenditure) (EIB, 2024).

At the national level, for example in Germany, the term "Upper Mittelstand" refers to firms with annual revenues ranging from €50 million to €1 billion (Venohr et al., 2015; BDI, 2021). A majority of them are privately held and family-owned. These firms are recognized for their core values and philosophy which focus on enduring success, cautious financial strategies, and operational stability. Although accounting for only around 0.3 percent of the total number of companies, they hold the largest share (36.88%) in total German exports (German VAT statistics, 2007; Verarbeitendes Gewerbe, 2003; Venohr et al., 2015).

While definitions may vary, the overall principle is that mid-sized firms are characterized as entities operating at a scale larger than SMEs but smaller than those big businesses that dominate the media. They have inherently limited access to capital markets, skilled labor resources, and lack of necessary new knowledge and organizational structures supporting innovation to preempt the disruptive innovation and digitalization (EIB, 2024; Venohr et al., 2015; Pullen et al., 2009 as cited by Brinkerink et al, 2017). At the same time, they also carry unique characteristics that set them apart from SMEs and giant corporations which include resilience, determination (Malshe, 2012) with a long-term value creation and superior customer insights (Kann et al., 2014). These firms, especially Mittelstand, outperformed large and small companies in terms of operational excellence (Malshe, 2012). However, past superiority cannot guarantee future results and is likely to be insufficient to keep pace with the current speed of change (Molly et al., 2019).

These constraints and characteristics have significant implications for strategy management, particularly in fostering entrepreneurship, innovation, and equity-based collaborations, i.e. CVC investment, those are explored in this thesis. For the purposes of this research, the German definition of mid-sized firm, characterized by annual revenues between €50 million and €1 billion, has been adopted. This approach is more appropriate to explore equity-based collaborations, given the innovation potential and strategic positioning of such firms in bridging the gap with large corporations. Furthermore, we believe these mid-caps have a unique capacity to accelerate innovation through engagement with startups, an area where large corporations have already made significant strides via CVC initiatives.

This thesis will incorporate studies on SMEs, and German mid-sized firms, i.e. Mittelstand, in the context of CVC, CSE and open innovation. Furthermore, studies on family firms will also be included as they account for a majority (approximately 70 percent) of mid-sized companies (KPMG International entities, 2022). This broader perspective will enrich the understanding of mid-sized firms, where existing studies remains scarce for this mid-sized business category.

By examining these dimensions, the research aims to provide a comprehensive analysis of mid-sized firms' constraints and potential to overcome innovation gaps and establish impactful equity-based collaborations. For the qualitative research conducted through interviews in later sections, the €50 million and €1 billion annual revenues medium-sized firms will serve as the primary classification criterion to ensure relevance to the study's thematic focus.

2.3.2 Open innovation and CSE by mid-sized firms

The vast majority of open innovation (OI) studies have focused on large enterprises. Not until recently, researchers have increasingly examined the open innovation (OI) among mid-sized firms, SMEs and family-owned businesses (Brinkerink et al., 2017; De Massis et al., 2017; Duran et al., 2014; Spithoven, 2013; Usman et al., 2018; Van de Vrande et al., 2019). While resource constraints present a significant challenge to OI adoption, they also serve as a driver for firms to seek external knowledge and technological expertise beyond their organizational boundaries (Spithoven, 2013). For these reasons, examining the adoption trends, challenges, and potential advantages associated with mid-sized firms provides a critical foundation for the subsequent analysis of their CVC activities in later sections.

2.3.2.1 Adoption trends

Unlike large firms, SMEs and mid-sized firms often lack the absorptive capacity necessary to fully integrate and exploit external knowledge. Nevertheless, evidence suggests that mid-sized firms, particularly in Europe, exhibit strong innovation capabilities, comparable to those of large enterprises (European Commission, 2022). For instance, figures by EIB (2024) showed that mid-sized firms' investment in innovation are almost at par with very large firms (those with more than 3,000 employees) and they are more likely to invest in employee training than both SMEs and large firms. Particularly, German Mittelstand firms have demonstrated significant growth through their innovative strategies and global footprint (Venohr et al., 2015). Furthermore, mid-sized firms tend to achieve considerable revenue from innovation despite not being the largest investors in R&D (European Commission, 2022). In the same line, studies by Lichtenthaler (2008) and Van de Vrande et al. (2009) concluded that mid-sized companies are practicing extensively open innovation activities.

Conversely, despite their long-term orientation, family firms tend to invest significantly less in research and development (R&D) compared to non-family firms (Brinkerink et al., 2017). This underinvestment stems from several factors, including risk aversion, financial conservatism, and concerns about maintaining control over strategic decisions. This reluctance to allocate resources to R&D poses a critical challenge for family businesses, as insufficient investment can hinder their ability to develop innovative products, adopt emerging technologies, and maintain a competitive edge in dynamic markets. As a result, the long-term survival and transgenerational success of family firms may be threatened if they fail to generate sufficient innovative output (Brinkerink et al., 2017). However, empirical study by Duran

et al. (2016) argued that although they invest less in innovation, the conversion rate is higher than non-family firms. Especially, when the CEO is the later-generation.

Furthermore, OI adoption has been shown to enhance innovation performance, particularly when SMEs engage in collaborative relationships with suppliers and other external partners (Minguela-Rata et al., 2014). These collaborations not only improve market responsiveness but also position SMEs as market leaders rather than followers in introducing innovations (Hochleitner et al., 2017). Furthermore, organizational factors, such as cultivating an open culture and fostering knowledge exchange, are instrumental in driving successful OI initiatives (Popa et al., 2017; Pustovrh et al., 2017).

2.3.2.2 Key Challenges

Despite the potential benefits of OI, mid-sized firms, SMEs, and family businesses face challenges that hinder their ability to fully leverage external knowledge and partnerships. These challenges stem from resource constraints, low absorptive capacity, and the reluctance in external collaborations.

One of the most significant barriers to OI adoption is limited resources, not only financial, skilled labor, organizational structures supporting innovation but also technological, network, and market power (Brinkerink et al, 2017; Narula, 2004 as cited by Spithoven et al., 2013). The resource constraints limit firms' ability to engage in sophisticated OI activities such as out-licensing proprietary technologies and corporate venturing (Usman et al., 2018). They typically adopt OI practices focusing on unstructured activities that require minimal investments. For instance, involving employees and customers in the innovation process and leveraging market research are common approaches (Van de Vrande et al., 2009). The reasons could be that these practices often require significant financial investments, formalized contracts, and a structured approach to managing innovation portfolios (Van de Vrande et al., 2009) which is an obstacle to resource-constrained firms.

Moreover, cognitive boundaries imposed by limited financial, managerial, and network resources make SMEs lack the knowledge and awareness of external opportunities (Brinkerink et al, 2017). Therefore, these firms may struggle to identify potential collaboration opportunities, assess the quality and reliability of external partners (Brinkerink et al, 2017; Van de Vrande et al. 2009). Another key challenge within resource constraints is absorptive capacity and knowledge integration. While OI provides access to external knowledge, firms must possess the ability to integrate and apply this knowledge effectively. The absence of appropriate organizational structures to support innovation prevents firms from securing sufficient absorptive capacity for assimilating the knowledge inflow (Barge-Gil 2010; Huang and Rice 2009 as cited by Brinkerink et al, 2017).

Additionally, cultural and organizational resistance to change is another significant barrier. Short-term business outlooks and a focus on core operations often leave SMEs ill-equipped to sustain long-term collaborative practices (Vanhaverbeke, 2017). Moreover, SMEs often struggle with the "not-invented-

here" (NIH) and "not-sold-here" syndrome, where negative attitudes towards absorbing external knowledge – knowledge inflow and towards sharing internal knowledge externally – knowledge outflow (Burcharth and Fosfuri, 2015; Burcharth, Knudsen, and Søndergaard, 2014 as cited by Brinkerink et al., 2017). OI requires firms to collaborate with external entities, which introduces risks related to trust, partner reliability, and knowledge leakage. SMEs and mid-sized firms often lack the legal and strategic expertise to safeguard intellectual property (IP) in collaborative arrangements, making them vulnerable to unintended knowledge spillovers (Spithoven, 2013). Van de Vrande et al. (2009) observes that uncommitted employees and a general resistance to change are among the top factors hampering the successful implementation of a more open model of innovation. In the same vein, Chesbrough and Crowther (2006) also stress the NIH syndrome as a barrier to SME involvement in external R&D.

Similarly, family firms are cautious about external technological collaborations, but due to the preservation of socioemotional wealth. Sharing a certain level of core innovations with external partners increases the threat of knowledge spillovers and involving multiple external partners may dilute the family's strategic control, which is central to their long-term vision (Kotlar et al., 2013; Nieto, Santamaria, & Fernández, 2015 as cited by Brinkerink et al., 2017). Thus, rather than a mere capability constraint, limited engagement in external technology acquisition reflects family firms' strategic decision to protect control and long-term family involvement (Classen et al., 2012 as cited by Brinkerink et al., 2017). This reluctance may limit their ability to exploit new opportunities, particularly in industries where open innovation is critical for success. However, while SMEs and large firms may have short-term business vision (Vanhaverbeke, 2017; Weiblen & Chesbrough, 2015), family firms prioritize long-term growth that may imply a benefit to external partnerships.

Despite these limitations, SMEs and family firms have demonstrated considerable success in generating value through OI, often outperforming larger firms thanks to their unique skills, capital and mindset and bring distinct values to their partners.

2.3.2.3 Potential advantages vs. large enterprises

Studies have emphasized that SMEs exhibit greater organizational flexibility, allowing them to adapt swiftly to changing market demands and integrate external innovations more efficiently than large corporations (Spithoven et al., 2013). Unlike large firms, which often suffer from bureaucratic inertia and rigid hierarchies, SMEs can quickly reallocate resources, adjust business strategies, and establish collaborations with external partners without extensive internal approval processes (Spithoven et al., 2013; Usman et al, 2018). By maintaining a leaner structure, SMEs can also experiment with novel business models and co-creation initiatives with external stakeholders, leading to faster innovation cycles and greater adaptability in competitive markets (Spithoven et al., 2013).

Regarding family firms, they possess many advantages in open innovation compared to large enterprises. Known for cultivating strong, trust-based relationships, they can leverage social and

relational capital to access external knowledge and innovation opportunities (Brinkerink et al., 2017). Their long-term orientation and patient capital allow them to pursue innovation strategies without immediate returns, aligning with sustainable, future-focused goals. Moreover, stewardship theory suggests that family firms prioritize collective interests and are less prone to opportunistic behavior, making them reliable partners in collaborative innovation efforts (Brinkerink et al., 2017).

In terms of engaging with startups for innovation, Weiblen and Chesbrough (2015) also acknowledged SMEs' flexibility as a big advantage over larger firms. Their study shows that startups are somewhat hesitant when working with large corporations due to their bureaucracy, slow decision-making, possible conflicts of interests and restrictions on strategic flexibility, including limitations on pivoting, engaging with competitors, or exiting partnerships. Additionally, in corporate-startup relationships, power is usually skewed in favor of the large corporation. Large corporations may be tempted to replicate startups' innovations internally, posing a risk to smaller firms (Weiblen & Chesbrough, 2015). Therefore, firms with organizational flexibility and long-term relationship mindset may pose as attractive partners that are easier and safer to work with.

Furthermore, smaller firms have a unique advantage when collaborating with startups, particularly in competitive industries where differentiation and agility are crucial (Katila et al., 2022). Unlike large corporations, which often operate within rigid structures and standardized processes, smaller firms can offer startups a more personalized and flexible partnership experience. They can provide hands-on support, tailored mentorship, and direct access to decision-makers without the bureaucratic delays common in larger enterprises. This close collaboration fosters trust and enables startups to receive immediate feedback, customized technical guidance, and strategic alignment that directly addresses their evolving needs. Additionally, smaller firms are less likely to impose restrictive contractual conditions, granting startups greater freedom to pivot and experiment with new ideas. By positioning themselves as approachable and adaptable partners, smaller firms can attract startups seeking developmental resources while also benefiting from the startups' innovative capabilities, creating a mutually beneficial relationship that enhances competitiveness in fast-moving markets (Katila et al., 2022).

In summary, through the studies of SMEs and family firms, it is assumed that mid-sized firms also face notable challenges in adopting open innovation and CSE activities, particularly due to resource constraints, limited absorptive capacity, and cultural reluctance toward external collaborations. However, they also demonstrate distinctive strengths that can offer them competitive advantages over large enterprises, especially in engaging with startups. These dynamics form a critical backdrop for understanding how mid-sized firms navigate CSE activities through mechanisms like CVC, which will be explored in the following sections.

2.3.3 CVC investment by mid-sized firms

While research specifically focused on mid-sized firms remains limited, this section draws on insights from studies of family firms, family-owned Mittelstand companies, and SMEs to infer the potential challenges mid-sized firms may face in adopting CVC. The literature suggests that, in addition to size-related constraints, family-related dynamics also play a significant role in shaping CVC strategies. The following subsections will explore these influencing factors in greater detail and highlight CVC adoption trends among these firms—offering implications that may also apply to mid-sized firms.

2.3.3.1 Family-related effects

Family firms have increasingly become significant players in CVC investments. According to Amore et al. (2021), nearly 30% of all CVC deals in the U.S. between 2000 and 2017 originated from family-controlled firms, totaling €12 billion in investments, compared to €20.9 billion from non-family CVC entities. Several studies have examined how family and Mittelstand firms make CVC investments, demonstrating distinctive approaches to CVC investments compared to their non-family counterparts (Amore et al., 2021; Duran and Mingo, 2022; De Groote, 2023).

Family firms are defined by the European Commission as those with a majority of decision-making rights in possession of the family and at least one family member participates in the business's governance. Therefore, they are also called "family-controlled" firms. However, there is no agreed-upon operational criterion for the degree of family involvement such as percentage ownership required to qualify as a family firm (Classen et al., 2012). According to scholars, family firms are considered risk-averse and therefore, typically spend less on R&D investments than non-family ones (Carney et al, 2015).

To further explain this unique characteristic of family firms, socio-emotional wealth (SEW) theory will be explored. SEW theory's central concept is that socio-emotional values—defined as the "non-financial aspects of the firm that meet the family's affective needs, such as identity, the ability to exercise influence, and the perpetuation of the family dynasty"—add up to the firm's risk appetite (Gómez-Mejía et al., 2007). SEW affects their decision-making process in a way that they may prioritize SEW values over financial pursuit. Furthermore, according to the theory, maintaining ownership and managerial control over their businesses is one of the most critical concerns for family owners (Berrone et al., 2012 as cited by Duran & Mingo, 2022). As a result, family firms avoid initiatives that might dilute such control, for instance, innovation, diversification, or acquisitions (Duran et al., 2016, Gómez-Mejía et al., 2014, 2015 as cited by Duran & Mingo, 2022). The reasoning could be risky activities that involve the **reliance on outside expertise** put the firm at a disadvantage and threaten their control (Carney et al, 2015; Duran and Mingo, 2022).

In the context of CVC, these family-related characteristics may help explain the cautious approach often observed in family firms. This caution may stem partly from the indirect nature of the investment approach, which limits their direct involvement in the investment process and decision-making. By relying on the expertise of VC firms, family firms may perceive a loss of influence over how investments

in startups are selected and managed. A study by Duran and Mingo (2022) on 257 publicly-listed "family-controlled" firms (FCFs) show supporting evidences that family firms are less prone to invest in startups than non-FCFs. Furthermore, family firms also avoid to co-invest with VC firms via syndications, as doing so reduce their level of control over the portfolio companies, which go against their SEW desire to preserve control and influence over business activities (Berrone et al., 2012 as cited by Duran & Mingo, 2022). As a result, they tend to make fewer but larger investments directly in later-stage startups because of a combination of two goals: more control and a lower risk of failure. Family-controlled firms, defined by Duran and Mingo, are similar to the European Commission's definition.

Another empirical study on 300 "family-related" firms in which family members only hold a minority of equity stake collectively (5 to 10 percent) showed a different but complementary finding. Family-related firms seem more open to join CVC syndications with other investors, but choose to collaborate with reputable ones and prefer geographically or industry-proximate ventures, primarily when the parent corporation is led by a family CEO (Amore et al., 2021). This preference is driven by the need to reduce information asymmetries and opportunistic behavior concerns associated with external investments (Sorenson & Stuart, 2001; Bernstein et al., 2016 as cited by Amore et al., 2021).

De Groote (2023) highlights a similar but more focused approach in family-owned Mittelstand firms, where investments in startups are driven by a need to enhance digital capabilities, foster innovation, and strengthen their reputation. The author observes that Mittelstand firms often engage with startups initially through collaborations to build trust before formal investment decisions are made. This collaboration-before-investment approach helps mitigate risks and aligns with the cautious, control-preserving mindset of family firms. In sum, although three different sets of family firm database seem to adopt different CVC strategies, they try to achieve the same goal: to mitigate risks which is rooted in their family or SEW characteristics including maintaining control, preserving reputation to safeguard their identity and long-term influence (Gómez-Mejía et al., 2007).

From the startup's perspective, family-controlled CVC-backed ventures are associated with higher probabilities of successful exits (Amore et al., 2021). This outcome is partly attributed to their syndication practices, which leverage resource complementarities and enhanced monitoring (Gompers & Lerner, 2004; Hochberg et al., 2007 as cited by Amore et al., 2021). Despite their relatively conservative investment strategies, family firms demonstrate a capability to nurture and guide their venture investments towards successful outcomes. This can be an advantage of mid-sized firms when competing as investors in direct CVC deals, especially for a high-quality startup, when many investors want to invest in.

In regards to SMEs' CVC adoption, there are little studies done. This may be because there are not many deals made by SMEs CVC or not many deals are recorded, hence making it difficult to research. Nedeljkovic (2018) qualitative research on 8 European entrepreneurs in information and communication technology fields showed that 37 percent do not prefer SME as their corporate investors, mostly because

they have limited capital and insufficient network size. Considering the resource-intensive CVC investments, it resonates with the finding from the author. The study further shares some trends on CVC adoption by SMEs: early-stage investment focus; targeting adjacent fields and mostly on ad hoc basis.

In the context of mid-sized firms, it is reasonable to assume that they may also exhibit risk-averse behavior in their CVC strategies. As discussed in Section 2.2.3.1 on indirect CVC investments, this approach offers two primary mechanisms for risk mitigation. First, by participating in venture capital funds alongside a pool of other investors, corporate investors benefit from portfolio diversification, thereby reducing their exposure to the failure of individual startups. Second, indirect investments provide access to the expertise of professional VC managers, who possess deep industry knowledge and experience in evaluating early-stage technologies and ventures. This professional support enhances the quality of investment decisions and further reduces the likelihood of failure.

Given these advantages, taking Limited Partner (LP) positions in VC funds can be a viable risk mitigation strategy for mid-sized firms. Specifically, financial risks are spread across a diversified portfolio, information asymmetries are reduced through the due diligence and technical capabilities of seasoned VC professionals, and reputational risks are mitigated by associating with well-regarded VC firms. In this regard, indirect CVC investments offer a practical pathway for mid-sized firms to engage in venture investing while navigating their inherent resource and risk constraints.

However, this approach involves a trade-off that mid-sized firms may take into consideration before adopting it because it goes against their SEW values: limited control over the strategic direction of portfolio startups. By investing indirectly through VC funds, mid-sized firms cede decision-making authority to fund managers, as described in Section 2.2.4-CVC investment process-which may constrain their ability to align investments with their specific strategic goals.

2.3.3.2 Size-related effects

As discussed in Section 2.2.3.1 and 2.2.4 about direct CVC and its process, it is resource-intensive and complex to execute and manage. It demands significant upfront capital, a specialized team with experience, expertise, and network connections to generate deal flow, evaluate opportunities, and negotiate investment terms. Additionally, it requires sufficient human resources to oversee the entire process, maintain relationships with portfolio companies, add strategic value to them, ensure that the CVC program meets its intended objectives, as well as operational costs that come with it.

Given these demands, mid-sized companies—often constrained in financial capital, talent, expertise, networks, and professional organizational structures for innovation—may face considerable challenges if they choose to invest directly in startups. To understand these difficulties in more depth, we will examine each stage of the CVC program execution and management pre-investment process from the

perspective of mid-sized firms. Since there are no previous studies about CVC adoption by mid-sized firms, following challenges are drawn from existing literature about family firms in the US and German family-owned Mittelstand.

One potential challenge for mid-sized firms could be generating deal flow. Unlike large corporations with extensive networks in the venture ecosystem (McNally, 1997), mid-sized firms may lack the same level of visibility and credibility, making it harder to identify and access high-quality investment opportunities. Their relatively limited access to capital markets might also reduce their attractiveness to startups, making it difficult to compete with institutional VCs or large CVC units. Furthermore, existing studies on family firms suggest behaviors that could plausibly apply to mid-sized firms. For example, family firms often favor trust-based relationships (De Groote, 2023), which may constrain their willingness to engage with startups outside of their networks. Similarly, Amore et al. (2021) highlight a preference for geographic and industry proximity in CVC investments, potentially limiting family firms' exposure to broader innovation ecosystems (Basu et al., 2019).

At this stage, mid-sized firms may also face the strategic decision of which investment phase to target—seed, early, or growth stage. Due to limited financial resources, they might be inclined to invest in earlier-stage startups, which typically require lower capital commitments but also carry higher levels of risk. Alternatively, they could adopt an approach observed in family firms, as noted by Duran and Mingo (2022), by focusing on later-stage investments with a smaller number of startups. While this approach may reduce risk, it could also limit their "sensing" capabilities—the ability to scan broadly across emerging technologies and gain insights into market trends—which is often critical for strategic learning and innovation. Additionally, it comes at the expense of missing out on high-growth early-stage opportunities.

Deal screening and due diligence could represent a significant hurdle for mid-sized firms, as they may lack both the specialized expertise and human capital necessary to effectively assess a large volume of potential investments. This stage typically requires evaluating a startup's financial viability, technological promise, and strategic fit (Souitaris & Zerbinati, 2014). Insights from studies on family firms suggest a relevant parallel: due to concerns over diluting family control, these firms often rely on internal resources during the evaluation stage—resources that may not possess deep venture capital expertise (Dushnitsky & Shapira, 2010; Carney et al., 2015). This reliance could result in investment decisions being guided more by personal relationships or intuition than by rigorous analysis, increasing the risk of misalignment. Additionally, as screening and due diligence are resource-intensive processes, firms with limited capacity may struggle to manage the volume and complexity of information, particularly in fast-evolving technology sectors (Wadhwa & Kotha, 2006).

The deal completion phase may also present challenges for mid-sized firms, particularly those with limited experience in venture investing. Klonowski (2022) notes that negotiating deal terms—such as startup valuation, ownership stakes, and governance rights—can be especially complex, and these

difficulties may be exacerbated when working with inexperienced entrepreneurs. In co-investment scenarios, many corporate investors prefer to follow rounds led by institutional venture capitalists, with 57% relying on the contractual terms established by the lead VC (Strebulaev & Wang, 2021). This strategy helps mitigate negotiation complexity but also underscores the importance of having experienced professionals who can manage, negotiate, and support founders throughout the process—capabilities that mid-sized firms may not always possess.

Additionally, deal structuring and governance may pose significant challenges for mid-sized firms, particularly due to the absence of formalized CVC governance mechanisms. While large corporations often establish dedicated CVC units that operate with a degree of independence from core business functions to ensure agility and efficient decision-making (McNally, 1997), mid-sized or family firms may be more inclined to embed CVC activities within existing leadership structures. This integration could result in ad hoc decision-making, slower approval processes, and potential conflicts over strategic investment priorities (Strebulaev & Wang, 2024). The lack of organizational clarity and separation may therefore hinder their ability to execute CVC investments in a timely and effective manner.

In sum, due to their size, mid-sized firms often face struggles in establishing and operating their CVC programs. Constraints in financial resources, specialized talents, and networks limit both the quantity and quality of deal flow they can access. These constraints further hinder effective deal screening, due diligence, and execution. Without formal governance structures, venture expertise and limited financial resources, these firms may also face difficulties in negotiating complex deal terms, engaging effectively with innovative ventures and strategic decision-making.

Given the constraints mentioned above, taking a Limited Partner (LP) position in an external VC fund could be a fast and effective way for mid-sized firms to mitigate them. While these firms can certainly build their own CVC programs—establishing governance structures, hiring talent, and learning through practice—this path requires both time and financial commitment to become efficient. Yet time is increasingly scarce in a rapidly evolving landscape, where new technologies disrupt markets daily and competitors grow more innovative. By investing a comparable amount as an LP, mid-sized firms can gain immediate access to high-quality deal flow, diverse technologies and sectors, and the expertise and networks of seasoned VC partners. This approach not only offers valuable learning opportunities and exposure to investment mechanisms, but also helps build industry credibility and relationships—while spreading risk across a diversified portfolio and shared investor base.

Conclusion

In summary, mid-sized firms operate in a dynamic space where they must balance resource constraints with the need for continuous innovation. While they face challenges in accessing capital, acquiring external knowledge, and managing strategic collaborations, they also possess unique strengths—such as organizational flexibility, long-term vision, and strong relational capital—that differentiate them from

both SMEs and large corporations. Their engagement in corporate venture capital (CVC), open innovation (OI) and corporate-startups engagement (CSE) reflects a strategic response to these constraints, enabling them to tap into external innovation while maintaining control over their core operations. However, the adoption of these strategies is shaped not only by financial factors but also by family-related factors, i.e. socioemotional wealth (SEW), particularly in family-owned firms. The desire to preserve family control, reputation, and long-term legacy often influences investment decisions, leading to a cautious approach to innovation. By leveraging structured governance mechanisms, fostering external partnerships, and strategically balancing risk, control, and SEW priorities, mid-sized firms can enhance their capacity for innovation and long-term growth. The insights from this literature review lay the foundation for further exploration in this thesis, particularly in understanding how mid-sized firms can effectively overcome size-related constraints in equity-based collaborations with startups.

2.4 Provisional model

Building upon the literature review, this section introduces a provisional model of corporate limited partnerships (LPs) from the perspective of mid-sized incumbents, as illustrated in Figure 5. The model identifies five size-related constraints, two family-related characteristics, and three key concerns as the independent variables (IVs), having direct positive influence on the likelihood of adopting an indirect CVC investment approach—taking LP positions in venture capital (VC) funds, which serves as the dependent variable (DV).

Beyond identifying the conditions under which mid-sized firms are inclined to pursue indirect CVC, this model also seeks to explore the potential outcomes of such investments. While direct CVC investments are relatively well-documented in the literature—frequently associated with increased innovation, enhanced financial performance, and opportunities for strategic alliances or acquisitions—the outcomes of indirect CVC remain less explored and more ambiguous. The involvement of intermediaries, such as VC firms, may hinder the direct flow of knowledge between corporations and startups, potentially weakening strategic benefits like knowledge acquisition, organizational learning, and cultural renewal. These effects could be particularly relevant for mid-sized firms striving to enhance their innovation capabilities, internal R&D development, and adaptive company culture.

Through the upcoming qualitative research process, we aim to further examine these variables, uncover specific patterns and relationships, and refine the model accordingly. It is anticipated that the greater the number and intensity of size-related constraints and family-related characteristics, the more likely mid-sized firms will be to adopt indirect CVC strategies. Conversely, the presence of concerns may reduce this tendency. The interviews will help refine and enrich the model and may also reveal moderating variables that influence the relationship between the IVs and DV.

The following chapter outlines the methodological approach used to investigate these dynamics. By engaging with corporate LPs and VC professionals, particularly from technology-focused sectors, we aim to ground our model in real-world practices and insights.

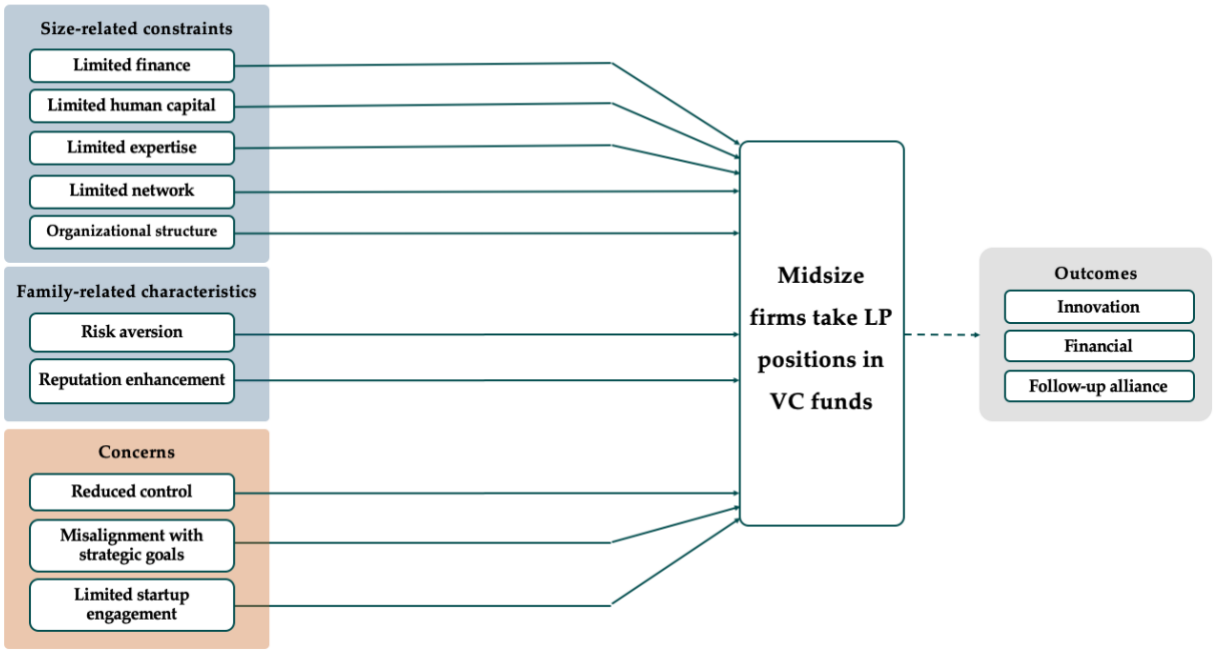

Figure 4: Provisional model of indirect CVC investments from the perspective of mid-sized incumbents

III. RESEARCH METHODOLOGY

The primary purpose of this study is to examine how mid-sized companies address size-related constraints when establishing equity-based collaborations with startup ventures through corporate venture capital (CVC) investments, with a focus on refining and enriching a provisional model proposing the Corporate LP approach as a solution. By achieving this, the research seeks to provide meaningful practical implications for mid-sized firms and venture capital (VC) firms navigating such partnerships, while enriching the academic literature on indirect CVC. A qualitative research methodology is adopted to explore this complex phenomenon in depth. In the following subsections, the research methods employed in this study are thoroughly discussed and explained.

3.1 Analytic induction strategy

Qualitative research is often equated with an inductive, bottom-up approach to construct theory derived from data analysis (File & Gossner, 2024; Gilgun, 2005; Lewis-Beck et al, 2004). There are two general strategies of qualitative data analysis which are analytic induction and grounded theory (Bryman & Bell, 2019). Both approaches use an iterative process which involves a simultaneous data collection and analysis until theoretical saturation is achieved, marked by the absence of significant new insights (Denzin, 1989; Katz, 2001). However, while analytic induction begins with a prior theory and refining it with additional ongoing data analysis, grounded theory allows the emergence of theory derived from the systematically collected and analyzed research data without prior theory (Bryman & Bell, 2019; Gilgun, 2014).

The term "analytic induction" has been coined by Znaniecki (1934) and described as an iterative process that leverages existing theories to identify patterns and relationships in empirical data, making it ideal for refining and enhancing a model grounded in prior literature (Glaser & Strauss, 1967; Manning, 1982). There has been much debate about the value of analytic induction methodology and with the popularity of the grounded theory approach, it is less frequently used today (Lewis-Beck et al, 2004). However, Gilgun (2014) argues the importance of prior theory in qualitative research as foundation and guidance in design and analysis. She asserts that analytic induction is actually an integration of both the concepts of induction and deduction. It begins with a theory – deduction and then, examining empirical evidence that supports, contradicts, refines, and expands the existing theory – induction. From there, she coined a new term for the analytic induction, namely *deduction qualitative analysis*.

This study adopts analytic induction or deduction qualitative analysis approach. It starts with a provisional model derived from a literature review, which posits that size-related constraints and family-related characteristics motivate mid-sized incumbents to take Corporate LPs which help mitigate these constraints. Later, empirical data will be collected and analyzed to refine the model. This approach suits the study's exploratory nature, allowing the researcher to build on the nascent yet evolving body of knowledge on mid-sized firms' CVC practices. A series of in-depth interviews with managers from mid-

sized firms and VC experts provided diverse perspectives, enabling a robust challenge of the model's assumptions. Interviews will be conducted and responses will be coded simultaneously, mirroring the grounded theory approach. While time constraints limited the ability to carry out a fully iterative process, this thesis aims to refine and enrich the provisional model by integrating practical insights and addressing the research questions.

3.2 Sampling methodology and design

Given the qualitative nature of this research and the integrated deductive-inductive approach, both purposive sampling strategies will be deployed to ensure the selected participants align with the study's objectives to refine and enrich the model's assumptions.

3.2.1 Sampling method

Purposive sampling involves the intentional selection of participants based on specific characteristics relevant to the emerging theory (Lewis-Beck et al., 2004). This approach ensures that the sample includes individuals capable of offering rich, meaningful insights (Patton, 2015). For this thesis, two primary groups of interviewees have been identified: (1) managers from mid-sized firms engaged in corporate venture capital (CVC) activities and (2) experts from venture capital (VC) firms that collaborate with mid-sized corporate LPs.

The first group includes managers from mid-sized firms—defined here as companies with annual revenues between €50 million and €1 billion—who are actively involved in CVC initiatives or investment decision-making processes. Participants are expected to hold roles with strategic responsibilities, such as CVC unit managers, investment directors, or corporate innovation leads. To capture a broad range of perspectives, the sample includes firms that have pursued either direct CVC investments, the indirect approach through corporate LP positions, or both. This diversity allows for a comparative understanding of the opportunities and constraints associated with different investment modes. Furthermore, attention will be given to the revenue distribution among the selected firms to ensure diversity and representativeness within the sample.

The second group consists of VC firm experts with experience working with mid-sized corporate LPs. Given that CVC investments are industry-specific, preference will be given to VC firms operating in technology, finance, healthcare, and manufacturing, which align with current CVC investment trends. These experts play a critical role in managing relationships between corporate investors and portfolio startups and possess deep knowledge of the strategic and operational challenges of corporate LPs. Their insights are essential for understanding the feasibility of the Corporate LP model, including the value mid-sized firms bring as LPs and the difficulties in aligning strategic goals between corporate investors and VCs.

The sample selection process combined online research with snowball sampling to efficiently identify relevant participants. To select direct corporate investors, databases such as eu-startups.com, Crunchbase, CB Insights, PitchBook, and OpenVC were utilized. These platforms helped identify CVC units, often bearing names similar to their parent companies. For mid-sized firms investing indirectly via the Corporate LP model, searches were conducted on VC fund websites like High-Tech Gründerfonds. Subsequently, firms were manually screened to confirm they fit within the defined mid-sized revenue range. However, many of these companies are privately held, and revenue figures are not always publicly available, complicating the identification process. To address this challenge, snowball sampling was employed, beginning with key contacts in mid-sized firms and VC networks who could refer additional participants with relevant expertise. This method ensured access to insider perspectives that may not be easily discovered through public sources alone.

The study aimed to conduct 10 to 14 interviews, targeting approximately 80% corporate investors from mid-sized firms and 20% from VC firms. This distribution was designed to ensure a primary focus on mid-sized firms while incorporating valuable external perspectives from VC experts on corporate LP investments. However, many of the mid-sized companies identified are privately held, and due to the confidential nature of their innovation and investment activities, several declined to participate. To address this limitation, greater emphasis was placed on interviewing VC experts to gain deeper insights into the indirect CVC approach. In total, twenty-one mid-sized companies and eight VC firms were contacted via email and LinkedIn, with clear communication of the research purpose and the anticipated contributions of interviewees. To preserve industry diversity, efforts were made to include firms from the technology, healthcare, and manufacturing sectors across various European countries. This approach strengthens the study's capacity to detect patterns and insights specific to these industries during data analysis.

3.2.2 Sampling design

A total of eight interviews were conducted with representatives from seven different organizations, including three corporate venture capital (CVC) units and five venture capital (VC) firms. While the majority of these organizations are headquartered in Germany, one is based in Austria with an operational office in Germany, and another is located in Belgium.

Among the three corporate VCs, two are family-owned businesses, and two pursue direct corporate investment strategies. This distribution allows for an examination of family-related characteristics and an exploration of outcomes, as outlined in the provisional model. Moreover, two of the companies are significantly larger than the others, with revenues approximately two to three times higher. This reflects a degree of size diversification within the mid-sized range, which in this study spans from €50 million to €1 billion in annual revenue. Interestingly, all three corporate investors, in which two of them are family-owned, engage in early-stage investments, which contrasts with the findings of Duran and Mingo (2022), who observed that family firms tend to prefer late-stage investments to mitigate risk and

maintain greater control over portfolio companies. Additional diversity is reflected in the mix of corporate investors with varying orientations—one pursuing primarily financial returns, while two others are strategically driven.

Table 2 presents detailed information about the eight interviewees, briefly introducing their organizations and roles. Although only two interviewees explicitly requested anonymity, the table omits any identifiable information for all participants to ensure confidentiality in relation to the data collected. Although the three mid-sized companies come from different industries, they all invest in technologies either to enhance their core businesses or to prepare for future developments. Similarly, all independent venture capital (IVC) firms in the sample focus on ventures within the technology sphere. All interviewees are considered knowledgeable on the topic, given their current roles related to CVC or, in the case of IVC representatives, their experience working with mid-sized corporate LPs. Notably, seven out of eight interviewees have extensive prior experience in the VC industry and working with corporate investors.

Inter-viewee	Company type	CVC type	Industry	Country of origins	Interviewee's position	Annual revenue (EUR)	Employee size	Investment stage
1	Privately family-owned	Direct CVC	Industrial Manufacturing	Germany	Innovation manager	800 mil	1,000-5,000	Pre-seed, Seed, Growth
2	State-owned	Direct CVC	Industrial Manufacturing	Belgium	CVC General Manager	900 mil	1,000-5,000	Pre-seed, Seed
3	Privately family-owned	Indirect CVC	Chemical Manufacturing	Germany	Chief Business Development Officer	330 mil	500-1,000	Pre-seed, Seed
4	IVC	N/A	General technologies	Germany	Principal	N/A	51-200	Pre-seed, Seed, Growth
5	IVC	N/A	General technologies	Germany	Principal	N/A	51-200	Pre-seed, Seed, Growth
6	IVC	N/A	General technologies	Germany	Family business expert	N/A	201 - 500	Pre-seed, Seed, Series A
7	IVC	N/A	General technologies	Austria	Product & Tech Manager	N/A	51-200	Pre-seed, Seed
8	IVC	N/A	General technologies	Germany	Managing Partner	N/A	11-50	Pre-seed, Seed, Series A

Table 2: An overview of the final sample

3.3 Data collection and interview design

3.3.1 Data collection

Qualitative interviewing is widely regarded as one of the most commonly utilized data collection methods among qualitative researchers (Myers & Newman, 2007). Rubin and Rubin (2011) liken qualitative interviewing to night lenses, allowing researchers to uncover what is typically concealed and to examine details that are often overlooked.

Given the focus of this thesis—investigating how mid-sized firms navigate size-related constraints and whether the Corporate LP approach can alleviate these challenges—a semi-structured interview approach was adopted. This method facilitated the exploration of predefined themes, such as size constraints and the role of Corporate LPs, while also allowing space for emergent insights. In semi-structured interviews, a consistent set of topics is addressed across all interviews. Once the predetermined questions have been covered, participants are encouraged to share any additional insights they consider relevant. Moreover, researchers have the flexibility to ask follow-up questions to clarify responses or to explore certain topics in greater depth (Strauss & Corbin, 2015).

3.3.2 Interview design

Three distinct interview guides (see Appendix 1) were designed to capture diverse perspectives: one for corporate managers with indirect CVC experience, another for corporate managers with direct CVC experience, and a third for VC experts. These guides were reviewed by supervisors and refined to address gaps, enhance comprehensiveness and minimize potential confirmation bias.

The interview questions were carefully crafted to align with the research objectives and the provisional model developed from the literature review. Open-ended questions were crafted to encourage participants to provide in-depth insights, such as "Can you describe the main challenges your company has faced in engaging with CVC?" or "To what extent does your company influence investment decisions in the VC fund?". To further explore underlying causes and gather concrete examples while minimizing confirmation bias or overstatement, follow-up questions were incorporated. These included prompts like: "Why do you think these challenges arise?" and "Could you share an example of how your team addressed or overcame one of these challenges?".

Interviews were designed to last approximately 60 minutes each. At the beginning of each session, the interview structure was outlined to ensure clarity and transparency. To foster trust and openness, each session began with an introduction and informal questions about the company and participant's background before transitioning to core topics. This included questions on their industry, company structure, innovation strategy, and existing engagement with startups. These initial questions helped contextualize their responses in later sections.

Following this, the interview was structured into key thematic sections, each aligned with the overarching research question. The first section focused on CVC adoption, where participants shared their company's experience with corporate venture capital (CVC), including investment strategies, governance structures, and budget allocations. This allowed for a broad understanding of their engagement with startup ventures. The second section addressed CVC constraints, prompting participants to reflect on the challenges mid-sized companies face in implementing CVC strategies. Open-ended questions encouraged respondents to elaborate on the root causes of these constraints and to share specific examples of how their organizations had navigated them.

The third section explored the Corporate LP approach, examining participants' motivations for adopting (or not adopting) an indirect CVC strategy. Interviewees were asked about the effectiveness of the Corporate LP model in mitigating the challenges previously discussed, with follow-up questions to explore concrete examples of success or limitations. The fourth section focused on the effectiveness and limitations of Corporate LPs, assessing whether the approach helped companies achieve their innovation and investment goals. Participants were asked about their level of involvement in VC fund decisions, the risks associated with indirect investments, and how they managed potential misalignments with strategic objectives.

Interviews concluded with a final insights and wrap-up section, where respondents reflected on key lessons learned, their views on the future role of CVC, and how indirect and direct CVC compare to other forms of CSE. Participants were also encouraged to provide any additional comments or observations that had not been covered in the interview.

All interviews were conducted in English via video calls and recorded with the prior consent of the participants. Interview durations ranged from 30 to 75 minutes, totaling 7 hours and 36 minutes of audio recordings. These recordings were subsequently transcribed into written texts to facilitate the coding process.

3.4 Data analysis and coding process

Once the interview data from mid-sized companies and venture capital firms were collected, a coding process was employed following the analytic induction approach. Strauss and Corbin (1990) identify three different levels of coding: open, axial, and selective to explore key concepts related to overcoming size-related constraints in equity-based collaborations. The process progressed from within-case analysis, focusing on individual interview data, to identifying cross-case patterns across the entire dataset (Eisenhardt, 1989).

Each interview was transcribed using professional software. Qualitative data analysis software MAXQDA was used to facilitate data management and systematic coding, enhancing transparency and consistency. The analysis proceeded through the following coding stages.

The first step involved open coding, which is a line-by-line analysis of the interview transcriptions. This process helped to uncover the first-order concepts, focusing on understanding their constraints in implementing CVC and their concerns that mid-sized companies might face when taking the LP positions. Open coding is used to identify distinct concepts by dividing the data into smaller parts, carefully comparing them for similarities and differences, and grouping them under abstract concepts or categories (Strauss & Corbin, 1999). Each interview transcript was carefully reviewed manually to identify relevant and significant passages. Descriptive labels were then assigned to capture the core ideas or explanations provided by each expert. Following this initial review, the identified fundamental concepts were compared, critically examined, and organized into groups based on their similarities.

The second step, axial coding, involved analyzing the relationships between these identified concepts. Axial coding helped identify the connections between the categories and subcategories, offering a deeper understanding of how mid-sized companies adapt their strategies to overcome constraints. This iterative process refined the categories by identifying boundary and causal conditions, as well as contextual circumstances that influence the investment decisions made by these companies (Strauss & Corbin, 1990). Through axial coding, we were able to better understand the strategies, challenges, and contextual factors that contribute to a successful indirect CVC investment.

According to the literature, the coding process is ideally concluded with selective coding, which helps to refine and enrich the provisional model by ensuring it fully reflects the insights emerging from the data. However, due to the time constraints inherent in a master's thesis, it was not possible to pursue additional theoretical sampling or iterative data collection to further develop the emerging theory through selective coding. Despite this limitation, the analysis conducted through initial open and axial coding has already yielded valuable insights that contribute to a better understanding of the phenomena under study. The provisional model presented offers a solid foundation that integrates key concepts and relationships grounded in empirical data. This foundation can serve as a starting point for future research, where selective coding and further data collection may be employed to deepen and validate the model. Thus, while the study's scope is limited, it still provides meaningful contributions to the field and practical implications for mid-sized firms considering corporate LP positions in venture capital.

IV. RESULTS

Drawing from the qualitative research conducted, this chapter presents the findings related to the key elements of the provisional model outlined in Chapter II. These elements include size-related constraints, family-related characteristics, the concerns in adopting indirect CVC and the outcomes of indirect CVC. Additionally, new insights that emerged during the interviews are discussed, offering refinements and extensions to the original framework. Each subsection is supported by direct quotes from interviewees, which serve to illustrate and substantiate the empirical findings. All constraints and outcomes discussed were either strongly supported or explicitly mentioned by at least four interviewees. All participants have relevant experience or prior knowledge of indirect CVC models. Based on the analysis, a refined version of the provisional model is proposed, capturing both existing and newly identified components from the perspective of mid-sized firms.

4.1 Assessment of size-related constraints

As outlined in Chapter II, the literature and provisional model suggest that mid-sized firms face five primary constraints when pursuing direct CVC initiatives: limited financial resources, limited human capital, insufficient VC expertise, weak networks, and an inadequate organizational structure supporting CVC investments. The interviews confirmed and further defined all of these constraints. The initial assumption posited that Limited Partner (LP) positions in independent VC funds could offer a viable solution to these constraints by providing access to external resources, capabilities and require a lower financial commitment in setting up CVC. The interview data strongly supports this assumption.

> *"Upper Mittelstand companies are typically more limited in their resources [than larger companies] …. So therefore, I see a lot of those companies rather joining innovation ecosystems such as UnternehmerTUM or other European hubs. (Interviewee 6)"*

> *"Typically, you have to have a certain size as a corporation to allow for CVC…. And we have a lot of them, the hidden champions, as our fund investors…Because that can make a lot of sense for them. (Interviewee 4)"*

> *"I would advise against direct investments, especially as a small to medium corporation. Unless I'm super experienced in the field. (Interviewee 8)"*

> *"Our company is a typical mid-sized company and we have limited resources for doing corporate venture capital by ourselves…. Therefore, we decided to become limited partners of a very large fund like High-Tech Gründerfonds. (Interviewee 3)"*

While these findings align with the literature, the interviews also revealed several external factors, such as economic conditions and geopolitical risks, that influence the decisions of mid-sized firms to adopt the Corporate LP model. These factors are discussed in more detail in the following subsections.

4.1.1 Limited financial resources

Consistent with the literature, the findings confirm that financial limitations remain one of the most prominent barriers preventing mid-sized firms from establishing their own CVC units. Rather than building a full-fledged investment team, establishing internal processes, and cultivating startup networks from the ground up, indirect investment is perceived as a more cost-effective approach.

> *"CVC is very resource intensive. You need a lot of money to make it work. (Interviewee 1)"*

> *"We are a mid-sized company with limited resources. So how can we be up to date, get in touch with skilled people to reach the next level? We decided to invest in VC funds to get information, ideas for innovation, a return on the money and we can also avoid a lot of internal costs. (Interviewee 3)"*

> *"I think investing into a professional VC fund is… less expensive than setting up an internal team who then scouts and invests into startups. (Interviewee 6)"*

> *"You have to have a certain size as a corporation to allow for CVC or corporate fund with enough money. So for smaller companies it's often a better idea to invest in funds and get access to technology via the fund than doing their own fund. (Interviewee 4)"*

In particular, it is important to distinguish between the cost of hiring talent and the ability to attract such talent for managing CVC programs. In this subsection, the cost associated with hiring skilled professionals is considered part of the upfront investment required to establish a CVC initiative. In contrast, the next subsection will address the issue of limited talent availability, focusing on the challenges mid-sized companies face in attracting and retaining qualified individuals.

> *"If we have to hire all the people for internal scouting, business development and innovation management, this would be a couple of millions per year. This is maybe affordable for really large corporations, but not for our mid-sized companies. (Interviewee 3)"*

> *"It's way more expensive when you come up with a known investment program for a [Upper] Mittelstand VC because you need to have the workforce there. And a wage for an investment manager with a Mittelstand company. That's not cheap. And if you want to get good workforce, it's really expensive there. (Interviewee 8)"*

Furthermore, current **economic volatility**, marked by inflation, rising interest rates, and geopolitical uncertainty, has made capital a significantly constrained resource. Consequently, mid-sized companies are becoming increasingly cautious with their investment decisions. This global trend of reduced corporate investment activity is evident in recent CVC reports, such as CB Insights (2023), which highlight a decline in both CVC-backed funding and deal volume, as well as a drop in the number of newly established CVC units. As one interviewee noted, many corporates are either downsizing their CVC teams or shutting them down entirely. For those that continue investing, the focus has shifted to fewer or delayed deals and a stronger emphasis on initiatives aligned with their core businesses.

> *"There was a time when money was not that expensive. For example, when the interest rates in Europe are below 1% or even 0%. Of course, you can make a lot of investment because you have a lot of money. Now in times where money is a very limited resource, because we are in this very volatile time. (Interviewee 1)"*

> *"There was a bit of a dip when Corona started, the full invasion of Russia and Ukraine started and inflation came back. People then moved out of doing all the startup stuff. Geopolitics nonetheless doesn't make it easy at the moment because we are all thinking that tariffs will affect the economy. So people are still cautious. (Interviewee 4)"*

> *"I think at the moment the trend in this field is definitely that the people are withdrawing. So either they are kind of shrinking the number of teams or they close down their venture capital activities completely or if they continue, they do less investments or in many cases they just don't do any investments because they need to kind of keep their money for the core business. (Interviewee 5)"*

> *"Most of the corporations are limiting their resources for venture capital right now. (Interviewee 3)"*

4.1.2 Limited talents, VC expertise and networks

> *"It's a lack of resources, a lack of talent and a lack of networks, I would say (Interview 6)"*

The second key constraint that mid-sized companies face in engaging in direct equity-based collaboration relates to the lack of human resources, VC expertise, and access to startup networks. These aspects are inherently intertwined and collectively form a capability gap that makes it difficult for mid-sized firms to initiate and manage startup investments on their own. Therefore, in this section, they are grouped as one constraint for simplicity purposes.

While the financial cost of establishing a direct CVC initiative is significant, another equally important barrier is the limited availability of qualified talent. Beyond the ability to pay competitive salaries, mid-sized companies often struggle to attract experienced venture capital professionals due to their relatively

lower visibility and brand appeal compared to large corporations or established VC firms. As noted by several interviewees, even when resources are available, recruiting individuals with the necessary expertise and networks is difficult. The skilled professionals may prefer environments that offer professional development, or prestige. This limitation will typically affect the CVC setup phase.

> *"When you start out with your fund, you have to …have knowledgeable people looking after that fund. When you're a newcomer, it's harder for you to get experienced people. So, it's harder to make good investments. (Interviewee 4)"*

> *"VC professionals, people who know the technology, people who are involved in this ecosystem, people who can really push forward innovative thinking and create new business ideas…. Those really good people have a lot of options and I'm not sure if they would choose us. Maybe they want to live in Berlin, Cologne, or Munich. (Interviewee 3)"*

Moreover, as observed in the teams of three corporate interviewees responsible for CVC initiatives, these units typically consist of only one or two employees. In most cases, at least one team member is hired externally and brings prior VC experience. Among the three companies, two conduct CVC investments directly, meaning they are responsible for executing the entire investment process themselves—a resource-intensive task. This lean structure could be effective in terms of cost, but may hinder the ongoing effectiveness of CVC operations, as such teams often lack the capacity and reach necessary to compete with professional VC funds in identifying and securing high-potential startup deals.

> *"The direct investment is built on the lean approach…. One person is hired from outside, thinking outside the box inside. One is in our company, has the internal knowledge of everything, so thinking and building terms…. We have a very limited portfolio and this portfolio is based on our contacts and networks. (Interviewee 1)"*

> *"I do the sourcing, contacting, meeting with startups, selecting them and proposing them to the investment committee. (Interviewee 2)"*

> *"[Mid-sized companies] who don't have a VC background, usually create a new team and hire one or two people that have VC expertise outside of the company. (Interviewee 7)"*

At the same time, the lack of visibility and networks of the newly established CVC units further pose a substantial barrier. They often do not have access to relevant deal flows, events, or innovation communities, making it harder to identify suitable startup partners. This absence of network capital further reinforces the challenges of engaging directly with startups.

"Your regular Mittelstand brand won't help you in generating deal flow. If you don't have any brand, any reputation with startups, just the Mittelstand brand, you're quite lost because you won't attract the most attractive startups for the CVC. (Interviewee 8)"

"We have our network here directly in our region. It's networking and contacts, mostly [for sourcing startups]. Our portfolio is mostly in the region of Germany. (Interviewee 1)"

"What was challenging was to find the companies…. Before, the sourcing was done nearby only via LinkedIn and via databases that we found on the Internet. Now we have an AI tool that automatically sources deals for us… We need to be very proactive because we are not a known fund. (Interviewee 2)"

Moreover, the learning curve involved in establishing a new CVC unit may be steep and costly, particularly for firms without prior VC experience. Without a strong understanding of these dynamics, companies risk making poor investment decisions, wasting resources, or even damaging their reputation in the startup ecosystem. One interviewee shared an example in which a corporate LP suffered significant financial losses due to inexperience in direct investing, then changed its strategy into indirect CVC:

"They are now happier sort of following us in investments than doing it themselves. (Interviewee 4)"

Taking an LP position in an independent VC fund emerges as a practical and strategic way to overcome these intertwined limitations. It allows mid-sized companies to tap into the fund's professional expertise, benefit from curated deal flow—investment opportunities that have been carefully selected for quality and relevance, reducing the burden of initial screening, and gain exposure to the broader innovation landscape without having to build these capabilities internally from scratch. This route also offers a faster and lower-risk learning opportunity.

"We do 40 new investments per year. So, we have vast knowledge, transaction knowledge. As a small company that's hard to get because we have 2 billion euros under management. You cannot have that as a CVC. (Interviewee 4)"

"We give our Mittelstand fund investors access to deal flow. Because if they want to build up deal flow, they would invest in workforce and reputation. It would take very long. With us, it's way faster to get there. (Interviewee 8)"

"We help them [mid-sized companies] in seeing the deal flow, scouting the market, being aware of what technologies are coming up… and building the network in the ecosystem with startup companies, with other corporations, with other VCs. (Interviewee 5)"

"They [mid-sized companies] essentially get a ticket to learn from us. So, they not only get the network but also know how we do things with startups. (Interviewee 7)"

4.2 Assessment of non-financial characteristics

As discussed in the literature, a majority of mid-sized firms are family-owned businesses. Consequently, their decisions regarding the adoption of Corporate LP positions are assumed to be influenced by family-specific characteristics, particularly a tendency toward risk aversion. However, findings from our interviews suggest that the "risk aversion" characteristics are not exclusive to family-owned firms. Rather, they appear to be common among mid-sized companies more broadly, regardless of ownership structure. Notably, six out of seven interviewees are either based in Germany or operate their businesses there, indicating that such traits may reflect broader cultural features of the German Mittelstand, particularly the Upper Mittelstand. The fact that these characteristics are relevant to both family and non-family mid-sized firms enhances their general applicability. Moreover, the interview data support the notion that these factors positively influence the likelihood of mid-sized firms adopting LP positions in VC funds.

In this context, we refer to these traits as "non-financial characteristics" to distinguish them from size-related constraints, reflecting broader cultural features, particularly within the context of the German mid-sized firms.

4.2.1 Risk aversion

Risk aversion emerged as a notable theme in our interviews. From the interviewee results, risk aversion is not viewed as a trait exclusive to family-owned businesses. Instead, it is perceived as a broader characteristic of mid-sized firms in Germany—particularly the Upper Mittelstand—and reflects the country's overall business culture. Interviewee 8 elaborated on this point by highlighting the Upper Mittelstand's strong focus on core business areas and its resistance to experimental initiatives. This cautious behavior, they argued, stems more from the historical strategies of German mid-sized firms than from the influence of family ownership.

"We are typically seen as a very risk averse nation [Germany]. (Interviewee 4)"

"[Upper] Mittelstand has its own mindset at its core, in its DNA. [Upper] Mittelstand was developed shortly after the second World War…. They grew big because they really focused on their core business. That's the key to success and also to not throw money out of the window and do experiments which don't have the target to pay off in the next few months. (Interviewee 8)"

"That whole 'Made in Germany' marketing idea has been challenged in recent years…. To a certain degree, they [Mittelstand] have lost the edge and are already too late. (Interviewee 7)"

Similarly, Interviewee 7's comment about the Mittelstand "losing its edge" suggests a widespread reluctance to innovate, which may be closely linked to an overarching culture of risk aversion across German firms, regardless of ownership structure. However, this tendency may be more pronounced in family-owned firms due to their SEW values, particularly those related to the preservation of family legacy and wealth.

> *"Of course, a lot of them [family firms] are risk averse because like most of the family's wealth is stuck within the family company…. Most of those companies focus more on incremental and continuous innovation and therefore their focus lies more on R&D and internal development and less on cooperation or partnerships with external innovation partners such as startups. (Interviewee 6)"*

However, this risk-averse tendency is evolving: mid-sized firms are recognizing the need to innovate to remain competitive and **younger generations** in family (mid-sized) firms are driving greater openness to venture capital and engaging with startups.

> *"They [Upper Mittelstand] know that they really need to do something about innovation and to get there faster. (Interviewee 8)"*

> *"I also see a strong rise and interest in exchanging or working with or investing into startups from those [family] companies. (Interviewee 6)"*

> *"It's still better to act now and become heavily involved with local innovators—especially on the technical side. If you're a Mittelstand, why not get involved now—otherwise you fall even further behind. I think that is the main motivation for Mittelstand to invest in startups."*

> *"I think one of the main drivers of family businesses investing in funds is a generational change. So if you have a 60, 70 year old founder of a company. The probability of him or her investing in funds is very low. But when the next generation succeeds that older generation, there's a chance of them investing in the funds…. They are more risk friendly. (Interviewee 8)"*

> *"I usually see that the next generation is much more open towards venture capital and startup collaboration. (Interviewee 6)"*

According to the literature, mid-sized firms adopt several measurements to lower the inherently risky CVC investments: collaborating with reputable investors & invest in geographic and industry proximity to reduce information asymmetries (Sorenson & Stuart, 2001; Bernstein et al., 2016 as cited by Amore et al., 2021); making fewer but larger CVC investments in late-stage ventures (Duran and Mingo, 2022); and collaborating before investment (De Groote, 2023). In fact, interviewees showed that taking LP positions in independent VC funds helps mid-sized companies manage this risk more effectively. The

fund diversifies investments across multiple startups and applies professional due diligence and monitoring processes, which helps minimize risks.

> *"I think it's an advantage. We have little investment risk by investing in the fund and see all the interesting startups. (Interviewee 3)"*

> *"If you invest directly, you have a much higher return but higher risk. Investing in a fund has lower risks. (Interviewee 5)"*

> *"When you invest in a fund where also other companies invest in the fund, the risk gets diversified and it's hedged versus the general risk of doing it all alone (Interviewee 8)"*

> *"Investing into a fund is a moderate risk-oriented approach to get access to startups. Diversified risks on the one hand and the money is being invested by a professional investment team which a corporation usually does not necessarily has. (Interviewee 6)"*

4.3 Assessment of concerns when adopting indirect CVC

As discussed in the literature (Section 2.2.3.2 on indirect CVC investments), while this approach offers several benefits to mid-sized corporate LPs, it also raises certain concerns that firms consider before making investment decisions. These concerns include reduced strategic alignment with the fund and limited direct engagement with startups. For family-owned businesses in particular, the potential loss of control over startups selection and management is especially critical due to their SEW orientation, which emphasizes maintaining managerial control over strategic initiatives. A more detailed explanation of these family-related effects was previously provided in Section 2.3.3.1. These concerns are assumed to negatively influence the decision to adopt the Corporate LP model, as outlined in the provisional model.

Our interview findings generally support the concerns raised in the literature. However, due to the limitations of this study—specifically, that only three corporate interviewees participated, with just one having experience with the indirect CVC approach—the data collected on corporate perspectives regarding indirect CVC remains limited. Nonetheless, although these concerns were mentioned by fewer than four interviewees, they are still included and discussed in this section due to their relevance and alignment with existing literature.

On the other hand, the VC interviewees acknowledged these concerns and noted that they are actively implementing various mechanisms to mitigate them, particularly addressing the limited direct interaction between corporate investors and portfolio companies.

4.3.1 Reduced control and startup engagement

The two concerns "reduced control" and "limited startup engagement" were mentioned intertwined during the interview, the limited degree of control partly caused the limited interaction and collaboration between corporate investors and startups. For such reasons, they are combined in the same subsection to discuss.

As we discussed in the literature, the cautious CVC investment approach observed in family firms may stem partly from the indirect nature of the investment approach, which limits their direct involvement in the investment process and decision-making. By relying on the expertise of VC firms, family firms may perceive a loss of influence over how investments in startups are selected and managed. While both corporate interviewees expressed similar concerns regarding reduced influence in indirect investment structures, only one of them is family-owned business. Thus, this element could be considered applicable to mid-sized firms in general. This preference for control was echoed and explicitly mentioned by Interviewee 1, signaling their preference towards direct CVC with board rights and tighter interaction with startups.

> *"We invest [in startups] because we want to be part of giving the direction that startups should develop, and sometimes to make a merger & acquisition of this company in the future. (Interviewee 1)"*

This strategic orientation underscores why indirect investments, where control over both startups and the fund's decision-making processes is limited, are perceived as less attractive. The limited degree of control not only affects strategic involvement but also restricts meaningful interaction and collaboration between corporate investors and startups, which further explains their reluctance to pursue indirect investment routes. These collaborations could involve deal flows,

> *"When you invest directly in a startup, you can say, 'Hey, I'm an investor, I sit on the board.' But if you invest through a fund, you're just one of many LPs, you're not that important anymore. That's why we don't invest inside funds. (Interviewee 1)"*

> *"We have a small ticket, and they don't care about you…. Then it wouldn't help for deal sourcing. It wouldn't help co-investment. It's the reason why we don't do that. We need to write a big check to be considered by the funds. Then there is no way for us to make anything in this sense. (Interviewee 2)"*

4.3.2 Strategic goal misalignment

According to scholars, investing indirectly may dilute the alignment between the corporation's strategic goals and the fund's investments, as the fund must also cater to the objectives of other investors and pursue financial goals. The interviews shared similar tensions between the mid-sized firms' strategic

goals and VC firms' financial goals. While mid-sized or Upper Mittelstand corporate investors prioritize network, innovation, or strategic alignment, independent VCs prioritize financial returns.

> *"The institutional VC fund always seeks for the goal of financial value creation. That's how they will earn management fees, and the carried interest…. There are VC funds which strategically have a direction or focus on Mittelstand companies in Germany, but they still have this problem, they need a big number of LPs to make it work…. So, my goal is not the goal of the fund. (Interviewee 1)"*

> *"Obviously we are interested in the money primarily. The corporates are mostly interested in the network. Financial return is secondary. It's nice to have but it's not the main value. And for funds, it's the opposite. (Interviewee 7)"*

> *"From a strategic investor's perspective… Many of them have a so-called path to majority. They want to have a shareholding of 50% plus. (Interviewee 8)"*

Currently, the unstable economic climate has led to a noticeable slowdown in CVC investments. As a result, many firms are prioritizing their core business operations in the short to medium term, allocating less funding to long-term, high-commitment initiatives such as disruptive innovation. This trend is also reflected in our interview findings with mid-sized firms. Some corporates or Mittelstand companies are opting for non-equity modes of startup engagement—such as pilot projects or venture clienting—instead of equity-based CVC investments. Venture clienting refers to a model where companies become early customers of startups, testing and integrating their solutions without taking equity stakes. This approach enables firms to stay strategically aligned with their core business while gaining exposure to the startup ecosystem to a certain extent.

> *"Venture clienting is born in the hard times where we learn that resources are very limited. A venture clienting approach is really less costly. You have a really fast pace, and can test something and be a customer. You don't need a big investment. (Interviewee 1)"*

> *"If you're more interested to benefit strategically from cooperation with startups then actually you don't even need an investment at all. So, it can also help to do things like pilot projects or strategic projects. (Interviewee 6)"*

> *"A lot of them [mid-sized corporate investors] indicated they are more about venture clienting, co-piloting but getting those tools early on as opposed to direct investment. (Interviewee 7)"*

Interviews with experts from VC firms revealed that all of them have implemented various mechanisms or activities aimed at addressing the concerns commonly associated with the corporate LP model. These efforts include organizing events to foster interaction between corporate investors and startups, establishing specialized funds tailored to specific groups of corporate LPs, and employing differentiation

strategies in the value-added services offered to investors. These initiatives can be categorized into four main themes: (1) startup engagement enhancement, (2) added-value for investors, (3) investor influence enhancement, and (4) specialized fund structures. Each of these categories will be examined in greater detail in the following section.

4.3.3 Mitigation mechanisms

4.3.3.1 Startup engagement enhancement

By naming "startup engagement enhancement", we group the mechanisms and activities implemented by VC firms to enhance the interaction, relationship building and collaboration between mid-sized corporate investors and the portfolio startup companies. This specific mechanism directly addresses the "limited startup engagement" concern and indirectly addresses the "misalignment strategic goals" as a result of such engagement.

VC firms primarily organize networking events to facilitate interactions between corporate LPs and startup founders. In these settings, VC firms act as intermediaries by introducing, connecting, and matching investors with investees when mutual interests are identified. For instance, a startup developing a logistics solution may be introduced to a mid-sized firm seeking to enhance its supply chain capabilities. This matchmaking function also extends to other forms of collaboration, including acquisition targets, co-investment opportunities, and venture client relationships. Such mechanisms are designed to promote interaction and knowledge exchange between corporate investors and entrepreneurial ventures, thereby strengthening the strategic value of the partnership.

> *"We have a Family day in Berlin. That is one of the bigger European venture capital events. All of our fund investors and portfolio are invited…. Whenever I see a company that fits into what the investors are looking for, I will introduce…. So, we do a lot of introductions. (Interviewee 4)"*

> *"We also have limited partner events every quarter, almost every quarter which is more like a come together and informal exchange of ideas and developments. And we also introduce the founders of the startup we invest in. So, every LP in our fund has the chance to get to know the founders of the companies we are investing in. (Interviewee 8)"*

> *"VC funds provide a huge network. So normally the VC funds do events, startup conferences and they connect corporations with other corporations and they can connect corporations with startups. (Interviewee 5)"*

> *"We do best practice sharing events, a physical event where we invite a lot of corporate LPs and one or two startups…. So, we give them those opportunities to collaborate and to network. (Interviewee 7)"*

"Sometimes employees of the family business spend some weeks with the startup. And also, the startup can learn a lot of things from the family business.... structures, processes, operational excellence. So, it's about learning from each other in every direction. (Interviewee 8)"

Interestingly, beyond general networking or engagement events, interview data reveals a closer form of interaction between corporate LPs and the portfolio companies—co-investment opportunities in startups from the VC fund's portfolio. Most interviewed VC firms invest in very early-stage startups (i.e., pre-seed or seed stages). When these startups perform well, follow-on investments are required, during which corporate LPs are occasionally invited to co-invest directly, without having to set up a full-fledged CVC unit.

This co-investment mechanism offers a **hybrid approach** to startup engagement, allowing corporate LPs to complement their indirect CVC investments with selective direct equity involvement. Most of the case, corporate investors would prefer to follow investment rounds led by institutional VC firms, as this allows them to benefit from the contractual terms, deal structuring, and thorough due diligence already negotiated by the lead investor, as noted by a VC interviewee.

"We also sometimes give them the opportunity to co-invest. So, when we do a follow-on investment into one of the startups, we go to one of our corporate LPs and say you guys should invest separately as well. (Interviewee 7)"

"The [mid-sized firms] come to us because they want either technology scouting or co-investments. They really like to follow us in investments. (Interviewee 4)"

"If there are some interesting startups the fund did invest in and these companies are looking for the next financial round, and the fund thinks it could be an interesting startup for us, then we always have the opportunity to go with a direct investment. (Interviewee 3)"

One mid-sized corporate interviewee, who engaged in indirect CVC via a VC fund, explained that their later-stage direct investments often targeted startups already backed by the fund. In essence, they combined both indirect and direct CVC approaches: the fund serves as a "sensing" function—scouting technologies and identifying emerging trends, then the incumbents can choose whether to "seize" such opportunities if they see an alignment with the firm's strategic objectives. This hybrid form of CVC engagement could be particularly relevant for mid-sized firms, offering them both early window to new technologies and stronger strategic fit when suitable opportunities arise.

From the VC and startups' perspectives, mid-sized firms are perceived as more accessible and open, particularly in terms of gaining direct access to decision-makers, compared to larger corporations. As noted by our VC interviewees, finding customers is one of the most important missions of early-stage startups, hence, they are actively looking for customers and/or feedback on their products and solutions.

In those cases, getting in contact with mid-sized firms, especially the CEO or those who can make the decision, then having them test the solutions and give feedback, are easier for both VCs and the startups. As a result, some startups express a clear preference for working with mid-sized corporate LPs, as shared by VC interviewees below:

> *"In the mid-sized companies, we have typically a direct contact to the decision makers. (Interviewee 4)"*

> *"You get access to those companies much quicker than in a large corporation. (Interviewee 6)"*

> *"One of the core challenges for startups is to gain traction, to gain customers, to get first revenues…. Multinational enterprises sometimes are very hesitant to work and do pilot projects with startups. Whereas Mittelstand, some of them are quite open and that's an opportunity. (Interviewee 8)"*

> *"Once the product is finished, we will present to all our LPs and the mid-sized companies are more open to this…. We also have a relationship where the product is then being developed together with the customer and that of course is very good for B2B startups. (Interviewee 4)"*

> *"If you want to do a small pilot with them that is very personal, that does not involve a lot of pressure, then working with a smaller company might be more beneficial because you receive more input. (Interviewee 7)"*

4.3.3.2 Added-value for investors

To address concerns about strategic misalignment and strengthen their value proposition, VC firms are increasingly offering value-added services tailored specifically for their corporate LPs. Beyond hosting networking events, these services often include strategic support and innovation consulting, positioning the VC firm not just as an investor, but also as a long-term innovation partner.

The nature and depth of these services vary significantly across firms, as they are often used as a key point of differentiation. Common offerings include technology and startup scouting—a targeted search aligned with the corporate's specific needs—and market trend insights, such as industry reports and emerging technology analyses. These tools help corporate LPs stay informed about developments in relevant sectors. Some VC firms go further by providing tailored innovation consulting, particularly to mid-sized firms. Interviewees described how their teams, often composed of industry masters and former investors with board experience, share trusted guidance on ecosystem dynamics and strategic considerations. In some cases, VC partners make the effort to understand the corporate LP's innovation objectives in depth to offer personalized advice, or even assist them in setting up their own CVC units.

"The best VC stays differentiate around their added value proposition and not just about money because there are so many funds with so much money…. So, you really have to create value in some other way. (Interviewee 6)"

"We share our learning and we tell them what works and what doesn't work. We organize conferences and events, mostly about innovation management and how does new innovation work and what can they learn? We try to help them to be more innovative…. If one of our LPs wants to build their own corporate venture unit. We are kind of helping them, setting it up and we are kind of sharing our knowledge and our expertise…. So, it's a consulting service…. (Interviewee 5)"

"A lot of them [mid-sized corporate LPs] gain experience through strategic partnerships [with VCs], learn about how it works, how the networks look like and who are the relevant players and yet slowly to integrate such structures internally. (Interviewee 6)"

"And one of the things we're doing here is key accounting for our investors…. We get to know our investors…. their strategy and their innovation goals…. We recommend startups from our deal flow to our Mittelstand investors…. We help them with strategic discussions they may be leading in their board or their management groups…. We also do trend scouting and within the LPs…. We work very closely with our investors. (Interviewee 8)"

In sum, VC firms contribute not only financial expertise but also knowledge, strategic insights, and access to resources, enabling corporate LPs to gradually develop and internalize these capabilities within their own innovation processes.

4.3.3.3 Investor influence enhancement

By naming this subsection "investor influence enhancement", we aim to group those mechanisms and activities of VC firms that help facilitate the investor's influence in the VC's investment process. Consequently, it will directly address the "reduced control" concern and indirectly affect the other two, as a result of higher influence over the investment process.

Particularly, based on our interview data, two out of four VC funds indicated that they share startup pitch materials with their corporate investors, provided that the startups give consent. Corporate LPs are not limited to pitches strictly within their industry; rather, they have the flexibility to explore opportunities across sectors. For instance, a chemical company interested in software solutions can access and review relevant startup pitches through the VC firm's dedicated investor platform. This approach enhances the engagement with startups by enabling corporate LPs to interact directly with founders, for example, through Q&A segments during pitch events.

"We have dedicated pitch days we call it where we bring together startups and the LPs from the field. (Interviewee 4)

"We do demo days once every month. I did a demo day last Thursday which was about construction tech with a lot of corporate contacts of ours and obviously of our corporate LPs. Five of our startups pitched. Then there was a Q&A session, and the corporate LPs could ask questions about them. (Interviewee 7)"

"We have an investment committee meeting six times a year, everybody comes together. The startups do a pitch. Then the company can ask questions to the team, to me. At the end there's the voting. If 50% or more say yes, then we do the investment. They [corporate investors] really get a much closer connection to the startup companies than in other funds because they are part of our investment process and investment decision. (Interviewee 5)"

Interestingly, only one out of four interviewed VC firms reported that they grant their corporate investors voting rights in investment decisions. Specifically, corporate LPs who invest in a given fund are invited to join that fund's investment committee, where they hold voting rights. These committees typically meet every two months. Prior to each meeting, participating investors receive detailed pitch materials—often including information on the startups, market positioning, competitive landscape and even IP information—one week in advance. During the meeting, startups pitch their ventures directly to the committee, followed by a Q&A session where investors can engage with both the startup teams and the VC's investment managers. To ensure the protection of sensitive startup information, especially in cases where corporate LPs might pose competitive risks, VC firms often implement safeguards in this regard. The final investment decision is made through a voting process at the end of the session. If a majority of the investment committee members approve, the fund proceeds with the investment in the startup.

By participating in the investment decision-making process, corporate LPs gain some influence over the fund's portfolio selection, allowing them to steer investments toward startups that align with their strategic objectives, product development needs, or long-term vision. The early access to emerging technologies and valuable market intelligence can further inform and support their subsequent CSE activities, such as direct investments or acquisitions.

"We involve them quite a bit in our investment decision. Not everyone does that.... When it's a life science investment committee for example, Bayer might be in the decision. (Interviewee 4)"

"For example, the government representatives don't have such a big knowledge about chemicals and there are representatives from Evonik or BASF and if they say no, this is not a good idea, then of course they [the government representatives] will listen to the chemistry expert in the room. (Interviewee 5)"

"They can see really the details of the portfolio company and get insights, which is very valuable for them if they at a later point want to invest in a company themselves. And sometimes they can get good chance to invest in these companies, earlier, cheaper, with better conditions, or buy these companies earlier than their competitors. (Interviewee 5)"

In this subsection, although the term "direct investment" also appears, it carries a distinct implication compared to its mention in subsection 4.3.3.1 on "startup engagement enhancement." While subsection 4.3.3.1 focuses on direct investment opportunities as part of broader startup engagement mechanism, the current discussion emphasizes the potential competitive advantages that corporate investors gain if they choose to pursue such direct investments. First, as members of the investment committee, corporate LPs benefit from privileged access to detailed startup information and insights not available to external investors. Second, investing in startups that have already been vetted and backed by the VC fund increases the likelihood of success, compared to investing in startups independently sourced or evaluated.

Consequently, this mechanism has the potential to foster stronger engagement, increased control, and improved alignment with the corporate LPs' strategic goals, to a certain extent.

4.3.3.4 Focused investment strategy

Although not explicitly mentioned by the interviewees, a recurring characteristic observed among most VC funds with mid-sized corporate LPs is their degree of specialization. These funds typically exhibit a focused investment strategy, whether in terms of technological domain, geographical scope, or target company profile. Technological specialization may include a concentration on sectors such as sustainability, industrial innovation, or healthcare. Some funds are regionally focused, aiming to strengthen collaboration between mid-sized firms and local startup ecosystems. Others are tailored to support specific firm types, such as Mittelstand companies or SMEs.

A high degree of sectoral or industry specialization in VC funds enables mid-sized firms to engage with partners that align more closely with their innovation priorities and long-term strategic objectives. This alignment can help mitigate concerns over potential strategic misfits. Notably, this approach is not limited to mid-sized corporate LPs but appears relevant to corporate LPs more broadly. For example, the Managing Director of Toyota's investment arm, Woven Capital, stated in a webinar with Global Corporate Venturing that the entirety of their indirect CVC capital is allocated to specialist funds, such as those focused on cybersecurity and supply chain (Palmer, 2023).

Many scholars note that while traditional VC firms primarily pursue high financial returns, corporate investors often aim to achieve both strategic and financial objectives (Gompers et al., 2008; Hellmann, 2002). As a result, IVCs tend to invest in startups operating in high-growth sectors, guided by market trends, disruptive potential, and exit opportunities. In contrast, corporate investors typically prioritize

alignment with their businesses' strategic direction, seeking synergies in technologies, markets, or capabilities (Chemmanur et al., 2014). With the growing number of corporations taking LP positions in VC funds, it is plausible that these strategic corporate LPs may drive VC funds toward more specialized and focused investment theses. Although this potential correlation has not been thoroughly examined in the academic literature, it presents an interesting topic for future research.

4.4 Assessment of outcomes of indirect CVC

The literature identifies three primary categories of outcomes: strategic, financial, and follow-up alliances. The interview research corroborated all three of these outcomes, further demonstrating that indirect CVC is a powerful tool for mid-sized companies in overcoming their constraints. Additionally, the findings revealed a distinctive profile of mid-sized firms that are more likely to derive significant benefits from this tool compared to others. However, due to the limitations of this study, none of the corporate interviewees had experience with indirect CVC, and as a result, all outcome-related insights in this study are derived solely from the interviews of VC firms. Furthermore, given that CVC initiatives often require extended periods to produce measurable results, even the two interviewees with direct CVC experience were unable to provide concrete performance metrics.

4.4.1 Strategic outcomes

> *"If done right the Corporate LP model can contribute quite strongly to their innovation goals (Interviewee 7)"*

The interviewees consistently highlighted the strategic outcomes of CVC, which play a critical role in advancing a firm's innovation objectives. These outcomes include access to curated deal flow, enhanced market intelligence, and a technology radar—tools that enable mid-sized firms to stay informed about emerging trends and better position themselves for future opportunities.

> *"It's either technology scouting or co-investments. (Interviewee 4)"*

> *"The first one and maybe the most important one for the, for the corporate is the deal flow…. They can also get the information of what we see, our high-level market intelligence. (Interviewee 5)"*

> *"VC funds usually invest into technologies that are not already used on a daily basis by the corporate, but it's rather like a technology radar which helps them to get a feeling about how new technologies evolve and how you could adapt them in the future. So they have like a runway to prepare for new technologies and get a better understanding in the end. (Interviewee 6)"*

> *"When they gained their expertise through us, that's actually high praise for us. Yeah, it's an honor on one side and on the other side we might have created valuable co-investors in startups as well. (Interviewee 8)"*

"Two things. There are one and two, like really seeing the deal flow, so scouting the market, being aware of what technologies are coming up and what technology fields might be successful and kind of having impact on their core business. So really this is monitoring the whole market and the second one is building a network in the ecosystem with startup companies, with other corporations, with other VCs. Yeah, this networking effect and this being part of the ecosystem, (Interviewee 5)"

The interviewees also observed that many mid-sized firms tend to establish their own CVC units after gaining sufficient experience, building networks, and understanding how the venture ecosystem operates. In this regard, the capabilities to set up a CVC unit becomes a strategic learning outcome for these firms. From the VC perspective, they are often willing to support and advise mid-sized companies in setting up an effective CVC structure as part of their value-added services. Some VC experts even consider this a marker of success for their own efforts in guiding corporate partners. The results are in line with a study from Keil (2004) that firms can acquire knowledge about how to manage CVC investments which is the foundation of the capabilities at the early stages of CVC.

"I think the best way is to set up an internal team ... and then give them the chance to grow into this new space through indirect fund investments and get a better understanding of the VC ecosystem dynamics and then slowly build up a structure to not only learn with VC and startups, but also to exchange and collaborate with them and then once they have gained the experience to do like strategic direct investments (Interviewee 6)"

"They not only get the network but essentially, they want to know how we do things with startups. That five years or ten years from now they can have their own independent corporate venture…. Even if they don't invest in us anymore, they are now a huge player… that is still a success. (Interviewee 7)"

"There [innovation ecosystems] you can do those topics together with external experts and a lot of them gain experience through that strategic partnerships and then gain experience, learn about how it works, how the networks look like and who are the relevant players and yet slowly to integrate such structures internally. Yeah, that's what we see here, especially in Munich. (Interviewee 6)"

"Professional VC funds can also help you in setting up your own corporate venture capital structure because you can share deal flow, you can share resources. And of course, VC firms are also interested in exchanging with corporates and corporate VCs because it helps them to create value for their portfolio (Interviewee 6)"

4.4.2 Financial returns

From the VC's perspective, financial outcome is a core goal and part of their long-term commitment. While this may not be the primary objective for corporate investors engaging in indirect CVC investments, it remains a valuable outcome, particularly for mid-sized firms with limited resources that prefer to take a more cautious approach. On one hand, these firms benefit from a guided learning experience in developing their own direct CVC programs alongside industry experts. On the other hand, they have the opportunity to generate financial returns from their investments without bearing the full risk or operational burden of managing a CVC unit themselves.

> *"It's a guaranteed return for the investors in our fund. Many funds have that. The expected return is a 3x on the investment capital. (Interviewee 8)"*

> *"We cannot promise but when they give money into our fund, our aim is to return it and to give more money back. (Interviewee 4)"*

> *"2x is very realistic and that's what we can promise. (Interviewee 5)"*

> *"Obviously we are interested in the money. I would say primarily (Interviewee 7)"*

4.4.3 Follow-up alliance

> *"If we are able to find the right startup…they do a co-pilot, then they acquire that company and then they get the winning edge. That's worth so much more even in the opportunity costs of gaining 1.5 or 2x. (Interviewee 7)"*

Through the introductions and networks facilitated by VC firms, corporate LPs gain numerous opportunities to form strategic partnerships with startups or acquire them. These partnerships, particularly those aligned with strategic objectives, can create significantly more value than the typical financial returns derived from investments. Such alliances take various forms, including co-piloting, venture clienting, co-investments and acquisitions. While acquisition and co-investment require substantial financial commitments, co-piloting and venture clienting are more prominent partnership models, as highlighted by the VCs. This is partly enabled by the VCs' roles in understanding the needs of both investors and investees and facilitating their connections, as discussed in Section 4.3.3.1 on startup engagement enhancements.

> *"There are success cases where actually they did a copilot and the corporate LP itself profited from it. (Interviewee 7)"*

> *"If you invest into those VC funds on top, they're of course much more open to … offer co-investment opportunities to you. (Interviewee 6)"*

"They like to do a venture clienting approach to try out a startup solution early. Others are looking for co investments or acquisition targets. (Interviewee 4)"

4.5 Advanced model

Given the current gap in the literature regarding CVC from the perspective of mid-sized incumbents, this thesis provides an adapted and refined assessment of size-related constraints, non-financial characteristics, investment concerns, mitigation mechanisms, and outcomes associated with indirect CVC strategies. These findings represent the primary outcome of qualitative research.

Following the interview results, the provisional model was evaluated and, where applicable, revised. Most of the proposed variables were confirmed, some were excluded, several were refined, and new aspects were uncovered. The study highlights three key independent variable–dependent variable (IV-DV) relationships. Two of these suggest a positive correlation: size-related constraints and non-financial characteristics appear to increase the likelihood of mid-sized firms taking LP positions in VC funds. The third relationship shows a negative correlation: the greater the perceived concerns, the lower the inclination to adopt indirect CVC.

Additionally, the interviews provided insight into mitigation mechanisms that moderate this third relationship. These mechanisms, deployed by VC firms, help reduce the negative impact of perceived concerns on a firm's intention to invest indirectly. Although concerns such as "reduced control" and "limited startup engagement" were raised by only two corporate interviewees, they are retained in the advanced model due to their relevance and the mechanisms available to address them by the VC firms. For clarity, these two concerns are discussed separately, as each is mitigated through different means.

Importantly, these variables emerge at different points in time, starting from the time when the incumbent internally analyzes and considers indirect CVC to the time when it actually adopts and commits to such investments. Thus, to accurately describe the relationships and the actual thought process involved, there is a need to differentiate between these moments in chronological order.

At moment one – reflection, mid-sized firms reflect on their internal limitations and non-financial motivations. As hypothesized in Chapter II and confirmed through interviews, size-related constraints, including limited financial resources, lack of talent, expertise, or networks, and risk aversion directly increase the likelihood of adopting indirect CVC. This relationship is further moderated by contextual factors. For instance, the impact of limited financial resources becomes stronger under conditions of economic volatility, making indirect CVC more attractive. Similarly, generational transition within family-owned businesses serves as a moderator, as younger generations appear more open to external partnerships, increasing the firm's likelihood to become a corporate LP.

At moment two – exploration, after internal evaluation, firms begin exploring external options, often by engaging with VC funds to better understand their strategies and offers. Through this interaction, mid-sized firms may discover that many VC firms implement mitigation mechanisms tailored to address common concerns. These mechanisms include enhancing startup engagement, adding investor value, increasing investor influence, and offering sector-focused investment strategies. Each addresses specific concerns raised by corporate LPs and moderates the negative IV-DV relationship identified earlier.

Finally, interviewees revealed and enriched the outcomes of indirect CVC strategy in three categories: strategic, financial and follow-up alliance. The integration of these findings resulted in the development of an advanced model (Figure 2), which captures the complex relationship between constraints, characteristics, concerns, mitigation mechanisms, and the decision to adopt indirect CVC via corporate LP positions. This model provides a more comprehensive understanding of how mid-sized firms approach indirect CVC investment and the factors influencing their strategic decisions.

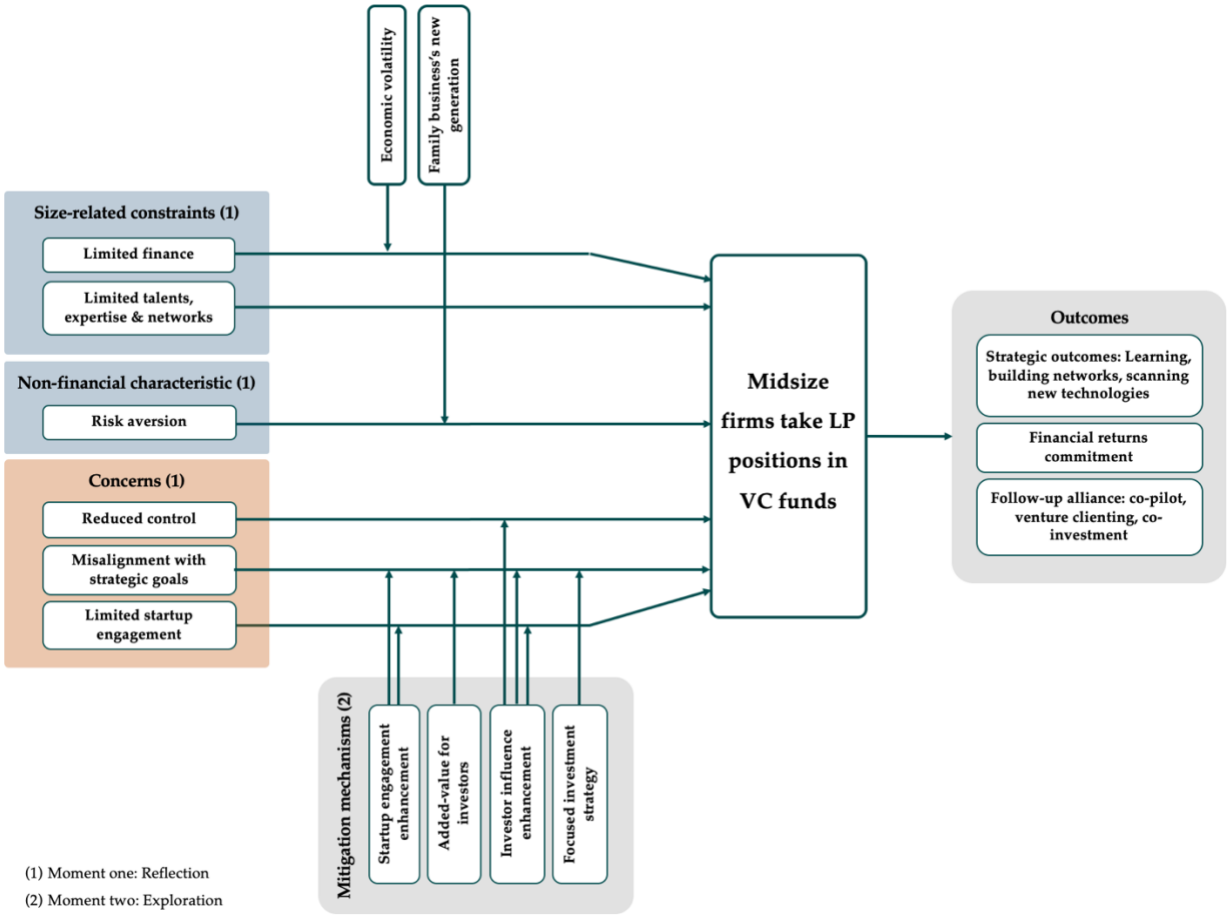

Figure 5: Advanced model of indirect CVC investments from the perspective of mid-sized incumbents

V. DISCUSSION

The final chapter concludes the underlying study by outlining the key findings along with academic and practical implications. Results will be compared to what the received literature has exposed. Moreover, the limitations and suggestions for further research complete the discussion on indirect corporate venture capital funding from the perspective of mid-sized incumbents.

5.1 Key findings

This section highlights the key findings of the conducted study regarding the inclination of mid-sized incumbents to take LP positions in VC funds. To enrich the indirect CVC discussion from a mid-sized incumbent's perspective, a refined list of size-related constraints, non-financial characteristics, mitigation mechanisms, and outcomes emerged from the results of the qualitative research. A more interlinked and detailed picture of indirect CVC was illustrated, presenting several IV-DV relationships for the constraints, characteristics and concerns. In addition, diverse mechanisms and their moderating effect on concerns were revealed, as a way to diminish its impact on the decision of mid-sized incumbents to take LP positions in VC funds.

Mid-sized firms encounter a complex array of size-related constraints that hinder their capacity to engage in direct CVC initiatives, where they would independently invest in startup ventures. Therefore, these constraints have a direct impact on the mid-sized incumbents' willingness to adopt indirect CVC. Three constraints which are the limitations in workforces, VC expertise and networks are interlinked with each other where specialized talents hold a key role in possessing the relevant expertise, experience and networks required to establish a direct CVC program. Therefore, making this category with two main constraints regarding the size of the incumbents: limited financial capital, and insufficient talents with VC expertise and networks.

Individually, all three size-related constraints play a role as independent variables with a positive correlation with the dependent variable. The interviews revealed that most mid-sized firms possess all of these constraints and the stronger these limitations are, the higher possibility these firms will take the LP positions in VC funds. The financial resource constraint has a variable that affects the IV-DV relationship as moderator. Specifically, the limited financial resource is dependent on the economic volatility, which further emphasizes the availability of the financial capital for CVC investments. During these years when the economy is facing a downturn and being unstable, the financial capital become scarcer for the mid-sized firms. In scarce financial resource, mid-sized firms tend to take more cautious CVC strategies, hence they may be more likely to adopt indirect CVC as a cost-effective and less risky approach. However, other mid-sized firms may shrink their team or suspend their CVC activities. It does not always mean that they will go with the indirect CVC option with more limited financial resources.

"At the moment…. the people are withdrawing. Either they do less investments or in many cases they just don't do any investments because they need to kind of keep their money for the core business. (Interviewee 5)"

"Venture clienting is born inside the hard times where we learn that resources are very limited. (Interviewee 1)"

With the other size-related limitations, the stronger they are, the higher chance mid-sized firms will take the corporate LP positions. Out of the two groups of constraint, the limited talents, expertise and networks necessary to establish CVC program has the highest significance, gaining the most support from the samples.

The non-financial characteristic previously derived from the SEW characteristics of family firms and the interviews confirmed one of them with the positive impact on the mid-sized incumbents' willingness to adopt indirect CVC. However, the "risk-aversion" characteristic seems to apply broadly to mid-sized incumbents in general, regardless of their ownership. While it has a direct impact on the dependent variable, the mid-sized firms have been perceived as less risk-averse than before. Especially with the new management generations variable uncovered through the interviews, it enhances the risk tolerance of those companies, and therefore, makes them appear more risk friendly.

The interviews further confirmed the trade-offs between concerns and that mid-sized incumbents' willingness to adopt indirect CVC, supporting the IV-DV relationship that the more concerns the mid-sized firms associate to indirect CVC and the more vivid these concerns are, the lower will be their willingness to adopt indirect CVC approach. The study results distinguish three main concerns which are the reduced control over the investment process by VC funds, the misalignment of strategic goals and the limited direct engagement between corporate LPs and portfolio companies.

To diminish the concerns emerging from indirect CVC investment, multiple mechanisms were outlined and grouped into four main themes, namely engagement enhancement, add-value for investors, investor involvement enhancement and focused investment strategy. The first theme includes the networking events where VCs act as intermediaries in fostering startup-corporate connections. The second theme consists of a wide range of services and strategic support for investors where VC firms try to make a differentiation with other VCs. The third theme refers to a higher level in involving corporate investors in pitches and investment decision process, giving them an extended insight and influence over the portfolio selection. Last but not least, investment strategies are tailored to mid-sized firms' needs, providing them with more strategically aligned funds. While only the third mechanism "investor influence enhancement" mitigates only the reduced control concern, all of the mechanisms, to some extent, tackle the misalignment between corporate LP and VC fund's goals.

The last category regarding the outcomes of indirect CVC. To some extent, the outcomes of indirect CVC show other motivations that affect mid-sized firms' willingness to enter VC funds. There are typically three types of outcome: strategic, financial and alliance. The interview data showed that indirect CVC can yield all three of these outcomes, but with a different combination compared to direct CVC. While direct CVC's strategic outcome often consists of the learning and knowledge acquisition from engaging with startups, indirect CVC's outcomes derived mainly from engaging with VC experts which are their experience, networks, market intelligence, deal flow, technology insights and how they operate the fund and work with startups. Moreover, VCs typically commit a financial returns outcome and offer alliance opportunities with startups including co-pilot, venture clienting, co-investments and acquisition. If a mid-sized firm's goals are aligned with what VCs can provide them with, then Corporate LP is a wonderful win-win solution for three sides: mid-sized corporations, VC firms and startups.

The illustrated key findings, anchored in the robust advanced model, represent an adequate answer to the stated research question and enrich the discussion on the topic of CVC in general and indirect CVC more specifically, from the perspective of mid-sized incumbents, by providing a holistic overview of the constraints, non-financial characteristics, concerns, mitigation mechanisms and outcomes.

5.2 Academic implications

This study makes several key contributions to the academic literature, particularly in existing theories and the areas of indirect CVC, mid-sized firms, and family businesses. By exploring how mid-sized firms adopt indirect CVC, it addresses notable gaps in existing research and offers new perspectives on this underexplored strategic approach.

This study makes a significant contribution to academic literature by identifying key factors influencing mid-sized firms' decisions to adopt indirect CVC—an area largely overlooked in previous research. These factors include size-related constraints, non-financial motivations, and strategic concerns. While the majority of existing CVC studies have concentrated on large corporations, mid-sized firms—despite being essential contributors to the economy and capital markets—remain understudied. This research addresses this gap by offering empirical insights into how mid-sized firms engage with indirect CVC, thereby enriching the academic discourse. Furthermore, by grounding its findings in real-world data, the study narrows the gap between theory and practice, enhancing its relevance to both scholars and practitioners.

While the prevailing academic view often characterizes family businesses as risk-averse and less inclined to invest in R&D compared to their non-family counterparts (Carney et al., 2015), this study presents a more nuanced picture. It shows that some family-owned mid-sized firms are willing to take calculated risks to support innovation through mechanisms such as direct and indirect CVC, venture clienting, and partnerships with universities. This tendency is particularly evident among firms led by younger generations, who often bring greater openness and risk tolerance. In the German context, where most

interviews were conducted, these firms demonstrate a clear willingness to collaborate with startups and VC firms. These findings underscore the need to revisit assumptions about family firm behavior, especially within the European landscape, and contribute to a richer academic understanding of how family-owned businesses balance tradition with innovation in a rapidly evolving economy.

Moreover, while some scholars and corporate investors, including McNally (1997), have expressed concerns about the strategic fit of indirect CVC, this study reveals a wider range of strategic outcomes. Indirect CVC provides mid-sized firms with access to curated deal flow, market trends and emerging technologies—all of which enhance their ability to execute innovation strategies. These findings position indirect CVC as a meaningful strategic instrument rather than merely a financial investment tool, and they expand the conversation about its potential role in driving corporate innovation.

On a theoretical level, the research findings further support existing frameworks in strategic management, particularly the dynamic capabilities and real-options theory (ROT). The study highlights the significant role of indirect CVC in enabling mid-sized firms to actively scan market trends, identify emerging technologies at early stages, and monitor shifts in the industry landscape. This outcome supports Teece's (2007) dynamic capabilities framework, particularly the development of the *sensing* capability. Furthermore, the findings are consistent with previous empirical research by Lee & Kang (2015) and Enkel & Sagmeister (2020), which suggest that CVC investments serve as an external learning mechanism to enhance firms' dynamic capabilities, especially *sensing* capability in identifying new technologies, markets, and complementary innovations for internal R&D.

Moreover, the study reveals that corporate LPs may gain access to co-investment or direct investment opportunities in follow-on funding rounds, sometimes offered by the VC firms. Notably, corporate LPs who were in the investment committee during the initial funding round may hold a competitive advantage, as they are already familiar with the startups, technologies, market dynamics and their performances. This sequential investment behavior aligns with ROT (Myers, 1977), which suggests that firms make small initial investments to acquire information and reduce uncertainty regarding new technologies and markets, before committing to more substantial follow-on investments (Van de Vrande & Vanhaverbeke, 2013).

In conclusion, this research makes a meaningful contribution to the academic field by shedding light on the adoption of indirect CVC by mid-sized firms, an area previously underexplored. It challenges stereotypes about family businesses, redefines the strategic value of indirect CVC, and reinforces key theoretical frameworks including dynamic capabilities and ROT. Altogether, the research not only advances the theoretical understanding of CVC but also lays a robust foundation for future studies examining the role of mid-sized firms and indirect CVC in the context of innovation strategy.

5.3 Practical implications

This study provides actionable insights for mid-sized firms, venture capital (VC) funds, and startups aiming to forge meaningful, long-term relationships through indirect Corporate Venture Capital (CVC). By addressing the unique challenges and opportunities faced by mid-sized firms, this section offers a roadmap for leveraging indirect CVC as an effective innovation strategy.

Mid-sized firms play a pivotal role as the backbone of many economies, yet the strategic literature on venture capital remains dominated by a large corporate perspective. These firms often lack the attention and support needed to scale effectively, despite their growing interest in using CVC as an innovation tool. However, direct CVC poses significant challenges for mid-sized firms due to their inherent resource constraints, requiring substantial financial investment, specialized talent, and extensive networks to operate efficiently. Indirect CVC, through Limited Partner (LP) positions in VC funds, offers a compelling alternative. It is cost-effective, requires no upfront investment in building a CVC unit, and leverages the professional expertise and established networks of VC funds. Additionally, time is a critical factor—newly established corporate VC units need time to learn, build networks, and operate effectively, whereas indirect CVC provides mid-sized firms with faster access to talent, networks, and experience. This cost-effective route accelerates time-to-learning and market intelligence, allowing mid-sized firms to deploy CVC as an innovation tool more rapidly.

Moreover, non-financial dynamics add another layer of motivation for adopting indirect CVC. For some mid-sized firms, particularly those with an emphasis on risk mitigation, the diversified risk profile and credibility associated with reputable VC funds make indirect CVC especially attractive. In the case of family-owned mid-sized firms, the presence of younger generations in management often correlates with greater openness to external collaboration and a higher tolerance for risk—further increasing their willingness to engage with startups and VC firms.

For mid-sized firms, some VC experts recommend a phased approach: mid-sized firms may initially enter the CVC space via indirect investments to build internal capabilities, accumulate domain knowledge, and expand networks at low cost. Once sufficient expertise and resources are in place, these firms can then launch direct CVC initiatives—thereby achieving greater control, strategic alignment, and hands-on engagement with startups. This sequential strategy enables mid-sized firms to maximize the benefits of both indirect and direct CVC while managing risk and resource commitments effectively.

For startups, the findings highlight the unique perks mid-sized firms offer, such as faster decision-making and direct access to leadership, compared to larger corporations. Successful corporate–startup engagement (CSE) demands patience and cultural openness. Mid-sized firms should resist the impulse to over-direct startup activities; instead, they must allow entrepreneurial teams the space to experiment and pivot. Similarly, startups should invest time in understanding corporate objectives and governance norms. Establishing a common language of innovation—grounded in respect for each partner's strengths—will improve communication, reduce misalignment, and strengthen the long-term viability of the CSE.

For VC funds, understanding the specific constraints and concerns of mid-sized corporate LPs is essential for designing attractive fund offerings. This study identifies reduced control, potential strategic misalignment, and limited direct startup engagement as the principal barriers to indirect CVC adoption. To mitigate these concerns, VC funds may consider (1) host regular networking events that facilitate direct interaction between corporate LPs and portfolio startups; (2) offer value-added services—such as tailored strategic advice, innovation workshops, and support in establishing in-house CVC units—that align fund activities with corporate objectives; and (3) in select cases, involve corporate LPs in pitch evaluations and investment committees where the mid-sized investors may have a degree of influence over the investment decision. By taking this third mechanism, VC firms can also leverage the corporate investors' industry expertise. Although this third approach is currently only practiced by one VC firm in the study, it directly addresses the concern of reduced control—a key issue for mid-sized firms. These mechanisms not only reassure mid-sized investors but at the same time also enhance the values for portfolio companies. These schemes, while promising, have not yet been systematically studied for their long-term impact or effectiveness. Future research could explore how such mechanisms influence fund performance, corporate satisfaction and startup perception, helping to shape best practices for the VC and corporate partnership.

In conclusion, this study's practical implications provide mid-sized firms with a clear strategy for adopting indirect CVC as a resource-efficient innovation tool. By addressing the needs of family-owned businesses, mitigating concerns through VC mechanisms, and fostering collaboration with startups, the research offers valuable guidance for all stakeholders. Indirect CVC emerges as a powerful opportunity for mid-sized firms to overcome their limitations and engage effectively with the startup ecosystem. By translating these insights into tailored policies, governance structures, and engagement practices, mid-sized firms, VC funds, and startups can collectively enhance the effectiveness of indirect CVC as a catalyst for innovation and growth.

5.4 Limitations and future research

Alike most research, the current study also contains several limitations mainly engendered due to the qualitative nature. These limitations not only shape the boundaries of the current findings but also suggest avenues for future investigation.

First, the study's interview sample was limited in size and scope. Only three mid-sized corporate representatives and five VC representatives participated, with the latter group being slightly overrepresented. This imbalance may have resulted in findings that are more reflective of the VC perspective. Additionally, the corporate participants had only recently implemented their direct CVC initiatives, meaning they were not yet in a position to provide measurable outcomes or concrete performance metrics. Since CVC often requires a longer time horizon to yield strategic or financial results, future research would benefit from longitudinal designs that track outcomes over time.

Second, the geographic scope of the study was primarily centered on Germany, with most interviewees based there. While Germany is a relevant context due to its large number of mid-sized firms, this focus limits the generalizability of findings to other European countries or more mature CVC markets like the United States. Future studies could compare mid-sized firms across various countries and regions to better understand how national business cultures and market maturity influence CVC adoption.

Third, the analytic induction approach, though useful for theory-building, is highly iterative and time-consuming. Due to time constraints, the number of interviews that could be conducted and revisited was limited. Furthermore, as in any qualitative analysis, researcher interpretation may introduce bias, and in this case, one instance of referral bias also emerged—a corporate interviewee was introduced by a VC participant, which may have influenced the responses. To minimize these challenges, future researchers are encouraged to begin their outreach early and allow sufficient time for multiple interview rounds and broader participant recruitment, ideally incorporating more diverse networks.

Moreover, while the study developed a provisional framework to explain how mid-sized firms overcome size-related constraints when setting up indirect CVC, it has not been empirically tested. Future research—both qualitative and quantitative—could test the validity and applicability of this model across broader samples. Notably, some moderating factors such as risk aversion were deliberately excluded for simplicity, yet they may play a significant role in how firms approach startup collaboration. Follow-up studies could examine such variables to refine and expand the framework, leading to a more comprehensive understanding of mid-sized firms' investment behavior.

The study also focused primarily on the initiation phase of indirect CVC rather than its post-investment dynamics. A valuable future direction would be to investigate how the relationship between mid-sized firms and VC funds evolves over time, particularly how trust, influence, and learning develop after the initial tie is formed. Longitudinal research could shed light on whether early concerns—such as reduced control or strategic misalignment—persist or fade over the course of the investment partnership.

Additionally, this research briefly identified several mechanisms VC funds use to engage mid-sized investors—such as hosting networking events, offering tailored strategic services, and, in one case, involving LPs in investment decisions. However, these mechanisms have not yet been systematically studied. Future studies could explore their effectiveness in practice and their impact on both mid-sized firms and startups. Comparative research might also examine how indirect equity-based collaborations (like indirect CVC) differ from non-equity models (e.g., venture clienting) in terms of learning outcomes and strategic alignment.

In sum, while this study offers early insights into how mid-sized firms engage in indirect CVC, there remains significant room for further inquiry. Expanding the research in both scope and depth will not only test the robustness of the proposed model but also enhance our broader understanding of how mid-sized companies participate in and shape the startup ecosystem.

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APPENDICES

Appendix 1: Interview guide for Corporate investors with indirect CVC

INTERVIEW GUIDE 1

(For Corporate investors with <u>indirect</u> CVC experience)

Master's thesis: How do mid-sized companies overcome size-related constraints when adopting equity-based collaborations with startup ventures?
Program: Master of Management, Strategy & Innovation Management
Student: Phuong Vu Thuy Anh | Email: phuong.vuthuyanh@student.uhasselt.be
Supervisor: Prof. Dr. Yannick BAMMENS

Note:
The interview will be recorded and will last approximately 01 hour.
*The interview will **<u>not</u>** be published and will be used solely for the Master's thesis purposes.*
All personal and company information will be kept confidential and anonymous.

Thank you for taking the time to speak with me today. I'm researching how midsize companies adopt corporate venture capital (CVC), particularly in navigating size-related constraints. Your experiences and insights on CVC and innovation strategy would be invaluable for my research.

I. General information

1. Could you describe your company's industry, products/services, and ownership structure?
2. If you're comfortable, could you share your company's annual revenue? … or a range?
3. How would you describe your company's innovation strategy, and what are some key trends and challenges you're currently facing in your industry?
4. How are your company currently engaging with startups, for example CVC, hackathons, or co-development?

II. CVC Adoption

5. Could you provide an overview of your company's corporate venture capital (CVC) activities? (Probe: how long you've been investing, your experience level, and the investment stages you target)
6. If you're comfortable, could you describe the scale of your CVC investments relative to your R&D budget or overall innovation spending?

III. CVC Constraints

7. Can you describe the main challenges your company has faced in engaging with CVC? Why do you think these challenges arise?
8. Could you share an example of how your team addressed or overcame one of these challenges?
9. How do factors like industry trends, competitive pressures, and your company's culture and ownership structure influence your approach to CVC?

IV. Corporate LPs' potential

10. Let's move on by discussing your company's decision to adopt an indirect CVC strategy. Could you share what motivated you to choose this approach (over direct CVC)?
11. In your experience, what impact has the Corporate LP approach had on the challenges you mentioned, both positive and negative?
12. Could you share an example where Corporate LPs were beneficial or failed to address your challenges?
13. Have you experimented any other methods to address the challenges in CVC, and how do these compare to the Corporate LP approach?

V. Corporate LPs effectiveness and limitations

14. Now that we've discussed the motivations for adopting indirect CVC, let's talk about its effectiveness. What goals does your company aim to achieve through Corporate LPs? If goals aren't explicit, how do you assess their success?
15. Can you describe how indirect CVC has impacted your company's ability to achieve its goals?
16. Could you share specific examples of indirect CVC investments that have been particularly successful or unsuccessful? What factors do you think contributed to these outcomes?
17. To what extent does your company influence investment decisions in the VC fund? Are you primarily a passive investor, or do you participate in investment committees or other decision-making processes?
18. *[For hybrid CVC*] Have you noticed any significant differences in success rates between direct and indirect CVC investments? If so, what factors contribute to these differences?
19. What are the main risks or downsides of being a Corporate LP that concern you, and how does your company manage or mitigate these risks? (Probe: loss of control, misalignment with strategic goals)

VI. Final insights & Wrap-up

20. As we wrap up, what key lessons have you learned from your CVC experience, and how have these influenced your approach to future investments or collaborations with startups?
21. You also mentioned other ways your company collaborates with startups, like through hackathons or co-development programs. How do these methods contribute to your innovation strategy, and how do they compare to your CVC approach?

22. Looking ahead, how do you see the role of CVC, especially indirect CVC, evolving as an innovation tool? Are there any emerging innovation practices your company is considering?
23. Is there anything else you'd like to share about your company's experience with CVC or the Corporate LP model that we haven't discussed yet?
24. If additional questions or clarifications arise, would you be open to a follow-up discussion?

Thank you very much for taking the time and sharing. Please rest assured that all information will be kept confidential and will be used for the thesis purposes only. Once the data is analyzed, I can share the research results with you if you would like.

Appendix 2: Interview guide for Corporate investors with direct CVC

INTERVIEW GUIDE 2

(For Corporate investors with <u>direct</u> CVC experience)

Master's thesis: How do mid-sized companies overcome size-related constraints when adopting equity-based collaborations with startup ventures?
Program: Master of Management, Strategy & Innovation Management
Student: Phuong Vu Thuy Anh | Email: phuong.vuthuyanh@student.uhasselt.be
Supervisor: Prof. Dr. Yannick BAMMENS

Note:
The interview will be recorded and will last approximately 01 hour.
*The interview will **<u>not</u>** be published and will be used solely for the Master's thesis purposes.*
All personal and company information will be kept confidential and anonymous.

Thank you for taking the time to speak with me today. I'm researching how midsize companies like yours adopt corporate venture capital (CVC). Your experiences and insights on CVC and innovation strategy would be invaluable for my research.

I. General information

1. Could you describe your company's industry, products/services, and ownership structure?
2. If you're comfortable, could you share your company's annual revenue? … or a range?
3. How would you describe your company's innovation strategy, and what are some key trends and challenges you're currently facing in your industry?
4. How are your company currently engaging with startups, for example CVC, hackathons, or co-development?

II. CVC Adoption

5. Could you provide an overview of your company's corporate venture capital (CVC) activities? (Probe: governance structure, how long you've been investing, your experience level, and the investment stages you target)
6. If you're comfortable, could you describe the scale of your CVC investments relative to your R&D budget or overall innovation spending?

III. CVC Constraints

7. What have been the main challenges your company has faced in engaging with CVC. Why do you think these challenges arise?

8. Could you share an example of how your team addressed or overcame one of these challenges?
9. How do factors like industry trends, competitive pressures, your company's culture and ownership structure influence your approach to CVC?

IV. Corporate LPs potential

10. Could you share what motivated you to choose the direct CVC approach?
11. Are you aware of a way to invest indirectly in startups called Corporate LPs where companies take Limited Partner (LP) positions in VC funds?
    a. If yes, why has your company not pursued this approach? (Probe: inefficiency, downsides, risks, no strategic alignment, advantages & disadvantages vs direct CVC)
    b. If no, what strategies have you used to address the constraints you mentioned?

V. Direct CVC effectiveness

12. What goals does your company aim to achieve through direct CVC? If goals aren't explicit, how do you assess their success?
13. Can you describe how direct CVC has impacted your company's ability to achieve its goals?
14. Could you share specific examples of direct CVC investments that have been particularly successful or unsuccessful? What factors do you think contributed to these outcomes?

VI. Final insights & Wrap-up

15. As we wrap up, what key lessons have you learned from your CVC experience, and how have these influenced your approach to future investments or collaborations with startups?
16. You also mentioned other ways your company collaborates with startups, like through hackathons or co-development programs. How do these methods contribute to your innovation strategy, and how do they compare to your CVC approach?
17. Looking ahead, how do you see the role of CVC evolving as an innovation tool? Are there any emerging innovation practices your company is considering?
18. Is there anything else you'd like to share about your company's experience with CVC that we haven't discussed yet?
19. If additional questions or clarifications arise, would you be open to a follow-up discussion?

Thank you very much for taking the time and sharing. Please rest assured that all information will be kept confidential and will be used for the thesis purposes only. Once the data is analyzed, I can share the research results with you if you would like.

Appendix 3: Interview guide for VC firms

INTERVIEW GUIDE 3

(For VC firms)

Master's thesis: How do mid-sized companies overcome size-related constraints when adopting equity-based collaborations with startup ventures?
Program: Master of Management, Strategy & Innovation Management
Student: Phuong Vu Thuy Anh | Email: phuong.vuthuyanh@student.uhasselt.be
Supervisor: Prof. Dr. Yannick BAMMENS

Note:
The interview will be recorded and will last approximately 01 hour.
*The interview will **not** be published and will be used solely for the Master's thesis purposes.*
All personal and company information will be kept confidential and anonymous.

Thank you so much for taking the time to speak with me today. I'm conducting this interview as part of my master's thesis on how mid-sized companies navigate their constraints and collaborate effectively with startups through CVC. Your sharing would bring a lot of insights and new perspective for my research.

Before we start, do you consent to this interview being audio-recorded for transcription and analysis purposes? Would you prefer that the company be mentioned by name, or remains anonymous?

I. General information

1. Could you please share with me about your funds?
    a. What investment stages does your fund focus on?
    b. What types of startups and industries do you typically invest in?
2. What current trends are you observing in the VC landscape (e.g., emerging industries, geographic shifts, investor behavior)? What factors do you think are driving these trends?
3. How do you perceive the role of corporate venture capital (CVC) in the VC ecosystem?
4. How many midsize corporate LPs are there in your last fund? And how many of them are family businesses?

II. Constraints and opportunities of midsize firms

5. From your experience, what are the main challenges midsize companies face when they first engage in direct CVC investments? How do you think …. can help to solve those challenges? Can you share specific examples?

6. How do you think midsize firms compare to large corporations in terms of their ability to engage in direct CVC? What are the disadvantages and advantages? Can you share specific examples?

III. Corporate LPs' advantages & disadvantages

From LP's perspective

7. What **motivates** midsize companies to take LP positions in VC funds rather than investing directly in startups?
8. As far as I know, midsize companies include **family businesses** as well. Do you spot any differences in terms of characteristics or goals or the way they invest and interact with startups?
9. How do midsize firms typically engage and interact with portfolio startups in your fund?
10. What if Corporate LPs want to exit because for example, their strategic focus change, change of CEO. What's gonna happen?

From startup's perspective

11. How do startups typically perceive CVC investors compared to larger LPs and independent VCs? what are the benefits and drawbacks?

From VC's perspective

12. What benefits and challenges have you encountered when working with midsize Corporate LPs?
13. Have you observed any misalignment or conflicts between corporate LPs and startups? How did you manage it?
14. So midsize firms have strategic motivation when invest in your fund right. As far as I study, there needed to be an active engagement between them to facilitate let's say the knowledge flow. So I'm wondering What activities have you set up to facilitate the engagement and interactions between them?
15. Can you describe your **ideal midsize corporate investors**? Because there are several ways for them to invest. So, if they choose to invest in HTGF, what would be their common characteristics, for example their goal, challenges or experience?

IV. Corporate LPs effectiveness & limitations

16. What are the results, or KPIs midsize companies want to achieve through your fund?
17. How do you know or measure it if your corporate investors are satisfied or not?
18. To what extent do mid-sized corporate LPs influence investment decisions in HTGF?
19. Will the same mechanism for Corporate LPs applied in all the funds or they're different? What are your key differences?
20. What adjustments or improvements should midsize companies and startups make to enhance the effectiveness of the Corporate LPs model?

V. Final insights & Wrap-up

21. To wrap up, how do you see the role of CVC and its trends evolving in the next 5 years?
22. Is there anything else you'd like to share about your experience working with midsize corporate LPs or their engagement with startups that we haven't discussed yet?
23. Would you be willing to follow up if additional questions or clarifications arise?

Thank you very much for taking the time and sharing. Please rest assured that all information will be kept confidential and will be used for the thesis purposes only. Once the data is analyzed, I can share the research results with you if you would like.