Has Corporate Venture Capital unleashed its full potential yet?

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ACKNOWLEDGEMENT

I would like to dedicate this thesis to my father Willi, who was an engineer, entrepreneur, inventor and most of all: a thoughtful, kind-hearted, loving family man. I also would like to dedicate this thesis to my two wonderful daughters Josephine and Rosalie, who have always motivated me to continue writing, teaching and talking about my passion for innovation and entrepreneurship, and getting up very early every day, but be a caring father! In particular, I would like to thank Sir George Buckley, who has always believed in me, who is an excellent partner and advisor, who has never stopped encouraging me even in difficult times. During my career we became close friends and shared our thoughts on many topics like Open Innovation, economy, technology, CVC and even family-life. George always advised me and continuously challenges the need for more strategic Corporate Venturing and permanent global innovating even now – after his retirement as CEO of 3M Ltd. We share this entrepreneurial thinking and a huge passion to never stop innovating, advising or teaching others and finally driving corporate growth. To out-innovate competition and replicate technologies & businesses globally is in our genes. In 2009, as President of 3M New Ventures, I became involved in an exciting innovation center project (including plans for an incubator) at the University of Huddersfield. Liz Towns-Andrews OBE, 3M Professor of Innovation introduced me to several university enterprise programs and asked me to host some activities to initiate startups by Huddersfield students. This interest and energy for startups sparked my interest in conducting academic research to prove the need for companies to establish a strategic CVC unit and to enable me to continue what I have been doing for almost two decades now: innovating, professionalizing CVC and advising several C-level executives

on how to invest in and partner with startups. Therefore, I want to give a very big “Thank you!” to Prof. Liz Towns-Andrews OBE, for making this dissertation possible and supporting me all these years.

ABSTRACT

Corporates today are faced with increasing social and environmental challenges, rising technical complexity and the need to remain competitive, but also to grow and survive in the long term. Corporate venture capital (CVC), minority investments in startups, and especially strategic CVC (sCVC), has therefore become a popular approach for established companies to strengthen their innovative power from the outside-in. However, full potential and maximum value-add of sCVC, and thus CVC as a whole, has yet to be realized.

This practical-oriented dissertation builds on recent academic research and practical expert debates, examining whether CVC has long been underestimated as an entrepreneurial vehicle or "tool" (some even say weapon!) for generating growth and additional cash. It aims to create a better understanding and awareness of the underlying dynamics and potential of sCVC towards greater CVC program success.

First, the qualitative research outlines non-financial objectives pursued with a focus on their potential to create value for the corporate parent. Second, the House of sCVC is developed, providing insights on why corporates should start or restructure their CVC program, while being more interested in strategic value creation and startup collaboration. And third, the ideal structure (or benchmark) and strategic objectives are given, aligned with a defined mandate for optimal use of CVC as a means of open innovation and value creation for corporates.

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AI	Artificial Intelligence
BMW	Bayrische Motoren Werke (German OEM)
BU(s)	Business Unit(s)
C-Level	High-level management; titles usually begin with “C” for “Chief”
CD	Corporate Development
CEO	Chief Executive Officer
CIO	Chief Information Officer
CSO	Chief Strategy Officer
CTO	Chief Technology Officer
CVC	Corporate Venture Capital
CX	Any kind (“X”) of corporate management team member
EVP	Executive Vice President
FoF	Fund of Fund
FRP	Future Research Projects
GCV	Global Venture Capital (CVC organization in the US and UK)
GCVA	Global Corporate Venture Association
GP	General Partner
HR	Human Resources
IoT	Internet of Things
IP	Intellectual Property
IPO	Initial Public Offering
IRR	Internal Rate of Return
IVC	Independent Centure Capital
JV	Joint Venture
KPI	Key Performance Indicator
LP	Limited Partner
NPVI	New Product Vitality Index
PE	Private Equity
POC	Proof of Concept
PR	Public Relations

R&D	Research and Development
sCVC	strategic Corporate Venture Capital
VC	Venture Capital

CHAPTER 1 – MOTIVATION

When I first tried to establish CVC activities for the BMW Group in early 2003, it became clear to me that financial benefits alone would no longer meet the expectations of big corporates for fulfilling their potential. Due to the previous economic cycle, the overall CVC business field started to experience the need for a change. I have always been highly passionate about innovation and became very interested in finding answers and mechanisms for accelerating the insourcing of innovative technologies and business models in order to provide corporates with the chance to learn from these, whilst growing their business. In addition, I began to wonder if the focus of the CVC drivers, the so often mentioned value-adds, were still set appropriately. For example, could strategic value-add be of superior benefit for the corporate even though it may be difficult to "measure" economically or potentially not measurable at all? This stimulated my thoughts and this question forms the basis of the research reported in this thesis. In addition, the various meetings with very well-known C-level leaders and investors confirmed my assumptions that CVC is facing a tremendous transition phase. The general perception I gained was, that corporate executives, especially CFOs, had a rather negative image of CVC practices and performance based on their experience from the early 20th century during the internet bubble burst. For example, the perception of "burn money only" on non-mature startups. Reflections like "cultural clash with ventures", "governance disasters", "CVC as a money burning tool" and "not being worth the investment since most programs fail" came across me. Nearly everyone told me about financial targets as the prevailing way of measuring CVC practices. Thus, the C-level executive excitement to start a CVC unit was small, however this changed in 2008, in times of the financial crisis, and some CEOs saw

opportunities and needs to be more open to innovation from the outside-in. Causes for the change led back to digitalization, disruption of successful businesses, the need to out-innovate competition and to hold an innovation strategy as a growth-driver especially in their industrial segment. Lots of technologies were developed and invented in niches from adjacent industries and changed the need for speed and risk taking which required more entrepreneurial thinking and strategic preparation on how and where to grow. I have talked to hundreds of CEOs, CTOs, CSOs, CFOs and senior executives of big corporations to shape my thinking. I have listened to startup talent regarding different approaches for the development of new products and services and even new business models to inspire big corporates from new disruptive markets and even new regions.

My career and great interest in CVC started twenty years ago and is summarized in the following biography: In April 2019, I was appointed Managing Director (MD) and Chief Executive Officer (CEO) of Hitachi Ventures - Hitachi's global corporate venture unit - after five years of working globally as a senior executive consultant for Fortune 500 company CVCs and VCs, while myself becoming a serial entrepreneur. Within those years, I proposed and established a “Strategic Corporate Venture Unit” for the No.1 industrial conglomerate in Japan: “The Hitachi Group”. Subsequently, I drafted, founded, hired an excellent team and since 2019 operate all minority venture activities for Hitachi out of the Hitachi Ventures headquarter in Munich, Germany, and a subsidiary office “Hitachi Ventures North America”, in Boston, United States. Initially, I have concentrated on the regions of Europe including Israel and North America and the team became a trusted investor, even thoughtleader, for minority investments in selected adjacent niche technologies and disruptive business opportunities with fast scalability.

From March 2015 until early 2019, I worked as Senior Executive Advisor to C-level executives of several Fortune 500 corporates in Germany, the US and Japan. The purpose of my role was to start, develop and advise these companies on how to set up and operate their more strategic Corporate Venture units. At the same time, I reviewed their R&D innovation strategies including technical roadmaps and new business models or advised on the restructuring of existing CVC units to become more strategic. Until 2015, I was president of 3M New Ventures. I founded and was in charge of 3M's global Corporate Venture unit "3M New Ventures" to "invest in technologies that lead into new territories and to re-infect 3M with an innovation virus". I drove the company's on-going efforts to identify, acquire and develop new-to-3M technologies and businesses using venture style funding and management. I reported to the CEO and CTO of 3M Inc., was a member of the New Ventures Board (including CEO, CTO, CFO, SVP corporate Development), the Executive Conference, Corporate Technology Operations Committee (R&D board) and the global Innovation Board. Between 2008 and 2015, I took part in building the global Corporate Venture organization with six global offices in order to execute minority venture investments (early and later stage) with strategic footprint in key focus areas of 3M Business Groups: Industrial (incl. automotive), electric and electronics, health care, safety and security and consumer.

In recognition of my work, I was awarded "Best Innovator 2010 for Best Corporate Venture Unit" by the German Federal Ministry of Economics and Technology. Due to my strong leadership at 3M New Ventures, the CVC unit was also globally listed as a top 5 "Most influential Corporate Venture Units in the industrial sector" by A.T.Kearney and Wirtschaftswoche under the patronage of the Federal Ministry of Economics and

Technology (A.T.Kearney and Wirtschaftswoche, 2011).

Prior to this engagement within the multi-technology company 3M, I worked for more than 23 years at the BMW Group in Germany and in the UK. The areas of responsibility included manufacturing planning of motorcycles, business development and strategy for BMW Group Powertrain and for the last seven years in BMW R&D's innovation field for “Future Automotive concepts and early-stage Concept Vehicles” for BMW, MINI and Rolls Royce. There, I received prestigious innovation awards such as the outstanding corporate innovator award “OCI Award in US in 2004” for BMW Group Innovation Management. Before starting my industry career path, I studied manufacturing engineering in Berlin and hold a “Dipl.-Ing. Degree” (Master of Mechanical Engineering). Since 2010, I have been a Visiting Professor for Innovation and Entrepreneurship at the University of Huddersfield in the UK. For two decades now, I own my family office in Munich, Germany, have made several Business Angel investments and actively collaborate with organizations like GCV association and several Business Angel organizations (e.g., VC Club Germany, BAND Germany, Angelgate - Business Angel Club Switzerland). With an unabashed passion for innovation and technologies and my long-term experience in venturing, I drive and will drive a huge network of entrepreneurs, executives, advisors to foster investments, innovative businesses and technologies scouted through a global “open innovation” process and the CVC and VC network. Famous quote of Fred Palensky (former CTO of 3M Inc.): Stefan, re-infect 3M with the “innovation virus” and I have done that!

My top management roles and my executive network has sharpened my opinions about the need for strategic CVC (sCVC) to face global challenges in social, environmental and health sectors, to innovate in an entrepreneurial style and to change

corporate cultures and to fight the “not-invented-here”-syndrome” for adding value and growth. I have experience of what is possible, how to execute and I have a passion and endless motivation to drive sCVC for corporate success and help to initiate growth.

CHAPTER 2 – INTRODUCTION

2.1. Introduction

In the following chapter, the research phenomenon of target is elaborated. Initially, the research gap is identified and outlined, and research significance is further explained. Accordingly, the research question and hypotheses are derived. Subsequently the research aims and objectives are presented and the dissertation structure and scope are developed, summarized, and the most important aspects of the chapter are highlighted.

2.2. Research gap

Over the last two decades, CVC, which is minority and early stage or growth investments in startups (Dushnitsky and Lenox, 2005b), has become a central matter for established corporates, as disruptive technologies and ever changing markets with their intensified competition, forces them to secure competitive advantage and future growth through innovative strength, risk-taking and entrepreneurial leadership (Röhm, 2018a; Glinyanova *et al.*, 2021). The transforming environment has in particular led to an increasing tendency towards sCVC in order to connect entrepreneurial activity and strategy (Gutmann, 2019; Abernethy, Dekker and Grafton, 2020; Prügl and Spitzley, 2020). Companies are recognizing the opportunity to leverage the many benefits that sCVC brings, moving away from the more traditional, finance-focused ones. At the same time, corporates face the immediate challenge of making sCVC practices the lasting success they expect them to be.

Relatively rudimentary research has been conducted on the investment practices of sCVCs, revealing a research gap and a plethora of strategic objectives and sCVC approaches are presented. However, a common sCVS practice has not to be identified (Kann, 2000; Dushnitsky and Lenox, 2006; Napp, Minshall and Probert, 2009), since every corporate approaches sCVC in a different way. There are data inconsistencies and diverse tracking operations, whereby sCVC is predominantly measured by traditional, financial KPIs (Chiang, 2018). As a consequence, the potential of sCVC is rather unexplored, but seems a promising research field. With a closer look at the so-called financial-oriented CVC programs, the generated outcomes are rather small compared to the ones of the mother company and thus not even shareholder relevant. sCVC outcomes however, conceal more potential, since they go beyond traditional financial benefits (Ma, 2019).

2.3. Research relevance and dissertation goal

The relevance of this particular research project is to gain the necessary knowledge and raise awareness of sCVC potential, which at present is not perceived, fully understood or exploited (Napp and Minshall, 2011; Pinkow and Iversen, 2020). Creating a better understanding of the underlying dynamics and mechanisms of sCVC practices and improving the practical application of sCVC in the future to realize its full potential, is the goal of this dissertation. It is expected that the knowledge and expertise gained will contribute to improved CVC practices with long-term CVC success (Gompers and Lerner, 2000; Teppo and Wüstenhagen, 2009; Hill and Birkinshaw, 2014). Meeting the expectations for the CVC program, and thus realizing the anticipated benefits, are key. An in-depth and systematic aggregation of sCVC objectives will be conducted to reveal unknown, known, and utilized sCVC objectives. For this purpose, theoretical research and the selection of the appropriate methodological approach is taken. Interviews with representative partners will be conducted and the “House of sCVC” developed.

2.4. Research question and hypotheses

2.4.1. Research question

In the previous sections, *section 2.2 and 2.3*., the research phenomenon of target, the research gap and research relevance have been outlined in detail. Accordingly, it is necessary to clarify whether sCVC has already reached its full potential, and if not, what that potential is.

The author's observations and insights stem from the time when he was working in corporate strategy for powertrain and vehicle concepts at BMW Group in 2002. Back then he had his first contact with the CVC industry namely predominantly executives of around 5000 global companies. Those contacts were and are mainly CFOs, who have experienced rather unpleasant experiences with CV arms, which did not bear the financial success expected. Of those contacts, less than 700 CVC arms were operational and were targeted purely towards financial KPIs.

At the same time the CVC history on a global scale developed as follows: The equity invested in most CVCs established between 1995 and 2005 had to be written off by almost 100%, millions of corporate USDs were lost, and therefore CVCs received the label of being "burning money" institutions or "complete failure". However, expectations by a CVC department laid solely on financial impact and contribution to business performance. Some additional comments from corporate leaders or even board members were that they stated venturing as not fitting into the core strategy as they need to focus more on developing and improving core products, while supporting organic R&D. But this was the beginning of the digital revolution in the industry, and R&D departments had to deal with open innovation from adjacent markets, where disruption originated. New

product innovations and solutions emerged at the intersection of different industries, and they increasingly became famous role models. Large companies found out that CVCs bring more than just measurable financial success. Many examples of successful startups and so-called unicorns showed that these "so different from corporate culture" processes, approaches and talented entrepreneurs taking risks and experimenting with innovations outside the "comfort zone" or known technology plans, were quite successful and became famous examples in the VC world. This was the beginning of a different mindset by top management, new expectations of performance and value generation by CVC arms were born and led to new rather intangible KPIs. Some key corporate executives around the world and some entrepreneurs and innovators have demonstrated the impact of open innovation by startups on corporate strategy and growth momentum. Many other objectives in the areas of collaboration, culture and entrepreneurship became increasingly important. Observing the impact of these showed executives that CVC has more than just financial impact when all the soft factors are considered and actively sought after. It was clear that companies needed to change significantly and translate the DNA of startups into corporate language. Many of those new discovered objectives can add value whereas it was not even clear how many objectives there were. One reason for that was and still is that corporate strategies are usually confidential, sometimes opaque, or not even existing or agreed upon business strategies. This explains why there is rather limited literature on the added value of CVC investments.

The CVC community's observation shows that even today, +10 years later, more and more executives are asking their CVC arms to become even more strategic and add value to the business in addition to solid financial performance (GCV Community and

Leadership Society 2020 discussion). These are the new tasks for those already operating a CVC arm or intending to establish a new one for their corporate parent. Today, social, environmental and health challenges require faster innovation, more funding and resources, and at the same time different expertise and risk-taking entrepreneurship to drive change and make the world a better place. On various platforms and forums in the global CV community, there was increasing discussion about the added value that CVC arms can provide to their corporate parent. Obviously, most promising startups were asking about the benefits of working with just this CV arm rather than others or just one VC if they had a choice. It was platforms like Global Corporate Venture Association (GCVA)'s leadership society and its symposium for the top 700 CVC arms of larger companies where these pending value-added questions were discussed and answered in various panels.

As for the strategic value drivers, some of them are obviously of key importance to CV arms and are frequently used or even demanded. Others are less important or even unknown, but no CVC entity that is among the top 500 CVC programs in the world uses all of them, or at least they are not published or known to organizations like the GCVA. Some of the four most well-known and practiced strategic goals for a large company are:

- Insight and access to new trends, usually subsumed under the buzzword: Open Innovation.
- Insight into and access to new markets and ecosystems.
- Involvement in R&D dialogue as an opportunity to co-develop or add missing technologies to company plans; and

- Collaboration in terms of interactions, partnerships, and joint projects between invested startups and selected business units.

Some new and upcoming strategic value drivers that are now very modern, but less known or only used by some of the top 100 CVC arms (GCV, 2021) would be those like:

- Contribution to environmental responsibility or global targets like climate change.
- Contribution to social responsibility; and
- Entrepreneurial teaching as part of a leadership program but facilitated, promoted and even hosted by the CV arm.

All of these and many new strategic value drivers will be part of and the focus of this dissertation. The aim of this thesis is to create a nearly complete and comprehensive list of all used and new or not yet used strategic value drivers for companies running CVC activities. These observations and experiences within the CVC community led to the following research question:

Research Question: *"Has Corporate Venture Capital been misunderstood and used simply for a financial purpose?"*

It is generally assumed that in the past, CVC was mainly seen and used as a financial instrument to generate additional profits and secure growth – thus the core of CVC has been misunderstood and therefore not unleashed its full potential yet. It is believed that the strategic aspects of CVC are most likely neglected, probably because they are not known, not recognized as beneficial, or simply not considered a priority. This sCVC potential has probably not yet been fully exploited and therewith has prompted the author to run further investigation in this field.

Internal confidential interviews with senior level executives show that working, partnering and collaborating with startups and their entrepreneurs has a very positive impact on driving innovation, change and growth. Only by interviewing these executives of CVC arms will it be possible to make different approaches and objectives visible and their added value transparent. It is expected that some research will expand the list of CVC value drivers and will identify opportunities for additional value-added, untapped value drivers for all companies, and they will ask their CVC arms about them in the future. The proposed hypotheses to investigate are outlined in the following *sections 2.4.2. and 2.4.3..*

2.4.2. Hypothesis 1

Neither theory nor practice has shown a definition or better-stated differentiation between financial versus sCVC investments, which is also reflected in the common financial CVC measurement approach. In this context, insights are missing of how-to best set-up and operate sCVC practices to enable the development of potential to its full extend. Some value drivers for strategic objectives will be known, some unknown and some even though unutilized. It is expected that this research will expand the list of value drivers and will identify opportunities for further value-add for all companies. The proposed hypothesis to investigate is therefore:

Hypothesis 1*: "Non-financial objectives are the ones, which are not derivative or measurable in terms of value-add generation for the corporation".*

2.4.3. Hypothesis 2

To gain more information about what CVC as a whole can be capable of, insights into the untapped potential of sCVC activities that have been neglected by companies are explored. The goal of this dissertation is to develop a better understanding of how CVC can best be used as an open innovation tool to realize its full potential and outperform the competition in the future.

Some of the value drivers for sCVC will be known, some unknown and some even though unutilized. One good example for an objective “known, but mostly unutilized” is the leadership training program by its corporate venture arm. Future leaders learn venture tools and how to work with startups, the need for speedy decisions and new risk-taking, broader responsibilities or the fear of disruption and competition from other regions and markets and how to face them. This is very different to classical corporate leadership training, but nowadays even mandatory for future leaders. It is expected that some research will widen the list of objectives and demonstrate opportunities for value-adding unutilized objectives for all corporates and they will to ask their CVC arms for those in the future. As a result, the second hypothesis to verify is the following:

Hypothesis 2*: There is unleashed CVC potential– non-financial potential that cannot be realized with financial KPIs alone.*

2.5. Structure and scope

The dissertation is structured in a traditional format, covering extant knowledge to provide an introductory baseline, qualitative research analysis and a discussion including practical guidelines. In total, there are eight chapters, which build on each other and which are intertwined (see *Figure 1).* The *first chapter* represents the motivation of the author including information on its personal career track, which has led to this dissertation. The *second chapter* comprises the introduction, which describes the research phenomenon, the research gap and research significance. The research question is derived and supported by hypotheses given. The chapter is then rounded off by the presentation of the structure and scope of the dissertation. The *third chapter* embraces the conceptual fundamentals and landscape of CVC. The historical development and the CVC potentials and drawbacks are explained, whereby particular elements and dynamics of CVC practices are highlighted. In the *fourth chapter*, the theoretical background of CVC is summarized with special focus on strategic-oriented CVC programs. A status quo of past research is outlined with attention towards the research gap and research question. A literature review and secondary research is conducted to provide a broad and wide overview of latest CVC activities and knowhow. Findings of CVC studies, reports, corporate news, amongst others, are outlined. In the following chapter, *chapter five*, the methodology approach is given. The qualitative, action-oriented research procedure is described on which the dissertation findings are based. Special emphasis is laid on the interview selection process, the questionnaire design and interview assessment approach. In *chapter six,* analysis and findings are covered. Expected and unexpected results of existing literature, secondary research and insights from the interviews are

outlined and reflected with the research gap, research question and hypotheses developed.

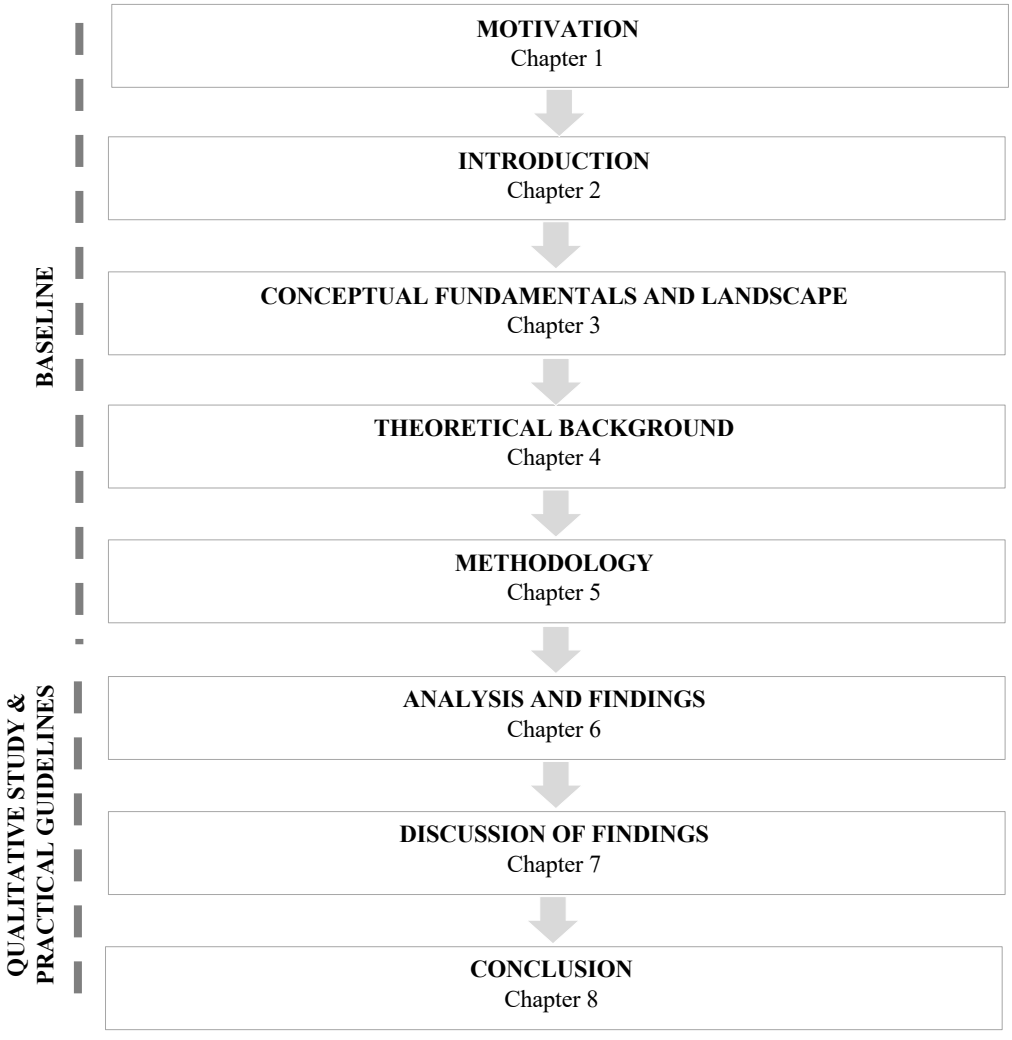
In *chapter seven*, a discussion of findings on the objectives is outlined. The House of sCVC is elaborated and theoretical and practical implications summarized as well as underlining limitations and a call for future research. As a final summary, the conclusion in *chapter eight*, highlights and recapitulates most relevant facts and insights of the dissertation on: “Has Corporate Venture Capital unleashed its full potential yet?”

In general, the scope of the dissertation targets sCVC which, together with financial CVC, is the main form of corporate venturing. Related thereto, *section 3.2.* discusses open innovation as an introduction to CVC, as it offers insights into the origins of the CVC phenomenon and clarifies a company's drive and demand for CVC activities. While *section 3.4.* and *section 3.5.* outline related areas such as internal venturing, other forms of external venturing and venture investments are described. Differentiation from CVC is very important as the field of innovation and entrepreneurship is too large to be treated holistically in this dissertation, while a broader picture of how CVC fits into the field and a good understanding of the current ecosystem are necessary.

In line with the thematic delimitation, the dissertation focuses on specific industries, territory and CVC phase orientation. This information is based on the experience and expertise of the author as well as on his network, on which the research and especially the data collection (interviews) and analyses are based. The target sectors are the “industrial sector”, the “energy sector” and the “mobility sector”, while the focused geographical areas are North America and Europe. The CVC phase is oriented towards development rather than disruptive innovation topics. Such a distinction in industry,

territory and CVC phase in general is essential and important, as all have very specific characteristics and dynamics that make comparison and generalization of results otherwise difficult and inaccurate. Overall, in terms of structure and scope, it can be said that, unlike previous work, this dissertation approaches the rather unexplored field of sCVC with a specific, but highly experienced, practical perspective – following a broad and more comprehensive approach to how sCVC can be successfully conducted.

Figure 1: Dissertation structure



Source: Author's own illustration

2.6. Summary

In summary, *chapter 2* outlines the research phenomenon of CVC, and sCVC in particular, as an external vehicle for corporates to drive their innovation strategy externally in order to ensure future growth and survival. The research gap that sCVC practices are increasing due to their various promising benefits, but their potential for impact is rather unexplored, is identified. Acquiring knowledge and awareness of sCVC potential is expected to provide insights into the longevity and optimal use of CVC programs to make them worth their investment. The research question outlined in *section 2.4.1.* if CVC has been misunderstood as a corporate vehicle to make additional money to date is developed and to be explored by the support of two derived hypotheses. The first hypothesis (*see section 2.4.2.)* is referring to the characterization of non-financial objectives, whilst the second hypothesis (*see section 2.4.3.)* targets the ideal set-up to unleash strategic value-add in this context. In summary, a structure and scope of the dissertation is provided, detailing the content of eight chapters. Those cover the motivation of the author for this dissertation, the introduction of the research phenomenon, the conceptual fundamentals and landscape of CVC, the theoretical background, the methodology, the analysis, results and robustness check, as well as the conclusion.

The next chapter details the conceptual fundamentals and landscape of CVC, laying out the foundation for this dissertation. The reader is to be familiarized with common terminology, the prevailing CVC setting and the various interrelationships and dependencies within the CVC ecosystem to better understand the phenomenon of focus.

CHAPTER 3 – CONCEPTUAL FUNDAMENTALS AND LANDSCAPE OF CVC

3.1. Introduction

CVC is based on a series of conceptual fundamentals and is to be distinguished from similar but different forms of capital investments inside and outside the corporation. Accordingly, in the following chapter, the classification of CVC in the field of innovation is outlined, a definition of CVC provided and its positioning external delimitation within a firm highlighted. Building upon this, the historical development of CVC is described, and information is provided on its essential elements such as the CVC objectives, types and governance. The chapter will then be summarized providing insights on CVC potential, challenges and drawbacks.

3.2. Open innovation

Over the course of time, as any business matures, permanent disruptions and technological advancements occur, such as those prevalent in the 21st century, which mean that corporates are urged to search for new business opportunities (Rauter *et al.*, 2019). Many corporates are facing the challenge of simply continuing their business operations, as they see their competitive advantage and thus their long-term existence at risk (Vareska Van de Vrande, Wim Vanhaverbeke, 2010; Battistini, Hacklin and Baschera, 2013). In the past, market leaders have managed this type of uncertainty with radical innovations by launching internal R&D projects (Herskovits, Grijalbo and Tafur, 2013). However, investments in centralized R&D became more and more obsolete for many industries primarily due to increasing costs and missing results and ultimately causing the

emergence of the open innovation paradigm (Vanhaverbeke, Vrande and Chesbrough, 2008). Chesbrough (2003) was the first who coined the expression “open innovation”. The expression “open innovation” describes how corporates can no longer afford to rely solely on their internal ideas, capabilities and resources when an abundance of knowhow exists in the present external environment. Equally, corporates can no longer limit themselves to bringing their innovations to market along a single path. CV, as a means of open innovation, offers an additional innovation source (Vareska Van de Vrande, Wim Vanhaverbeke, 2010). In the field of open innovation, corporates search for new, innovating ideas far beyond organizational boundaries, while leveraging their own ideas outside the company’s walls through external channels (Vanhaverbeke, Vrande and Chesbrough, 2008). In this context, open innovation holds a broad spectrum of innovation sources beyond the traditional ones. However, open innovation approaches can lead to organizational conflict. Gaining external knowledge to start internal innovation, often leads to a loss of control and a loss of core competences of the corporation (Enkel, Gassmann and Chesbrough, 2009). In addition, the “not invented here” syndrome might emerge, where external ideas and knowhow are rejected by corporate employees (Pinkow and Iversen, 2020). As a consequence, a corporate must ensure that an organizational culture is established which promotes an environment of openness and acceptance of external knowledge sources (Hannen *et al.*, 2019). Entrepreneurial orientation is a prerequisite to enable successful engagement of open innovation activities (Yun *et al.*, 2020) and fundamentally, the future lies in a good balance of internal and external innovation practices, where core competencies are promoted and IP rights protected (Chesbrough, 2003). Corporations which address and manage this balance successfully can make use

of the various benefits which open innovation presents (West and Bogers, 2014). For example, corporates will gain insights and access to technologies and markets through open innovation practice, empowering them and leading them to become more exposed to innovative solutions and greater innovation strength (Poetz and Prügl, 2010).

In general, open innovation itself occurs in a variety of forms with CVC being identified as one of the major organizational vehicles of open innovation, (Chesbrough, 2000). Since external venturing is already known for being a management practice to stimulate growth of a corporation (Block and MacMillan, 2003), explained in detail in the next section, CVC has been one of the most important organizational means for applying open innovation in companies - a practice, which is venturesome and reversible at the same time (Chesbrough, 2003). Corporates engaging in CVC investments integrate external sources through this collaboration with new ventures and might even foster internally created spin-out ventures. The open innovation paradigm provides the foundation that promotes the need for this approach (Pinkow and Iversen, 2020).

3.3. CVC characteristics

CVC is characterized by two major alternative perspectives: The perspective of corporates and the one of ventures. From the perspective of corporates, CVC is seen as a mode of external corporate venturing (Henderson & Leleux 2001, Kann 2000, Keil 2000). In contrast, from the perspective of ventures, CVC is seen as an alternative source of funding (Gompers & Lerner 1998, Maula & Murray 2000a). This dissertation primarily lays its center of attention on the former perspective – the perspective of corporates with a focus on strategic program orientation. Accordingly, CVC is defined as “minority equity

investment by an established corporation in a privately-held entrepreneurial venture" (Dushnitsky, 2009). Corporates typically follow two common orientations when running CVC programs. These orientations are include financial, such as financial returns, as well as strategic, including access to new technologies, innovations and new markets, amongst others. The ventures receiving CVC support have privately held considerations and are legally independent from the investing corporate party. Yet, the investing corporate holds the privilege of receiving a minority equity stake in the venture. Whether the corporate or the venture enters into a solely monetary relationship, rather than following a non-pecuniary cooperation, will depend on the nature of the CVC program which has been established. The latter is often reflected in terms of information and knowledge sharing by both sides and dependent on the synergies of for example: services, products and technologies. Both types of orientation are very common and determined by the objectives pursued. However, until now, no clear separation of these two approaches has been identified either in academic literature or within CVC practice.

3.4. CVC in the context of external venturing modes

CVC activities must be considered separately from internal venturing modes as well as from other external venturing practices, which also aim at innovation enhancements, increased profitability or in general at future growth (Keil, 2000). An introduction is given in the following sections 3.4.1. and 3.4.2.

3.4.1. Internal venturing

Internal venturing modes include research and development (R&D) practices, which involve internal systematic activities to increase knowledge, skills, and the use of that know-how in the development of new products, processes, or services (Sahaym, Steensma and Barden, 2010).

3.4.2. External venturing

External corporate venturing modes, on the other hand, are classified into three distinct forms (Keil, 2000), which are:

(I) CVC,

(II) Venturing alliances and

(III) Transformational arrangements.

Looking into *(I) CVC practices,* they all share investment as the essential mechanism through which a relationship with an independent venture, the incumbent, is established. Three sub-clusters are presented with their particular characteristics:

(Ia) Third party funds: Investments are made in funds managed by traditional Venture Capital (VC) firms. In this form, the VC recruits several investors to participate in a fund,

which often focuses on a specific technology area. The corporate then acts as a limited partner (LP), while the VC acts as a general partner (GP). From the Corporate perspective this investment style is called “Fund of Fund” (FoF).

(Ib) Dedicated funds: Set up as a special fund together with a traditional VC. In this arrangement, the management party of the fund is the VC. Only one corporate invests and acts as the single limited partner.

(Ic) Self-managed fund: Set up of an own self-managed fund. The fund can be established similar to a traditional VC fund or set-up as a subsidiary of the corporation.

Overall, financial or other risk exposure increases from third party funds, to dedicated funds up to a self-managed one, since a third party can be leveraged for legal liability.

Looking into *(II) Venturing alliances,* in contrast to CVC, the relationship with the venture is based on intense cooperation rather than investment. Objectives of creating or supporting new business fields are of particular focus. Venture alliances comprise two sub-clusters, which are:

(IIa) Non-equity alliances: Alliances formed to create or support new business lines without any involvement in a new organization or an equity investment. The majority is not venture specific.

(IIb) Joint Ventures (JV): A new legal entity or organization is created in order to pursue business opportunities. Alliance partners are joint owners of the new legal entity or organization.

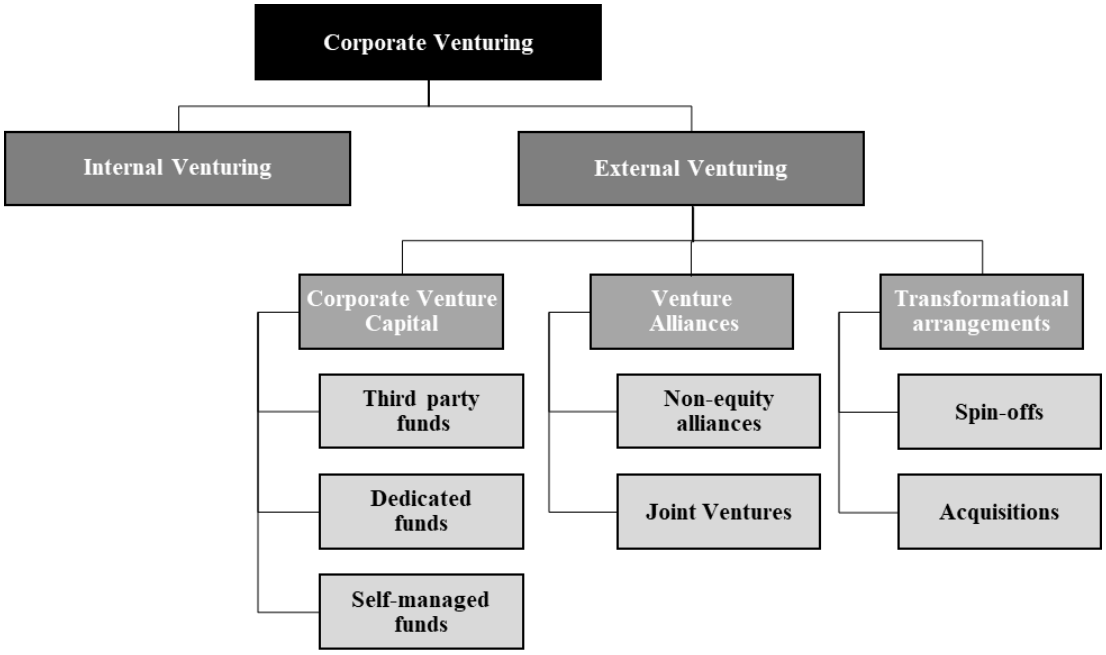
Looking into the third group *(III) Transformational arrangements,* there are two sub-clusters, which are:

(IIIa) Spin-offs: An internal venture is externalized or totally spun off from the corporate. Two forms of spin-offs are identified. Either the corporate can totally divest the venture in terms of selling it off or the corporate can transform the venture to maintain a minority stake in form of an external venture.

(IIIb) Acquisitions: In contrast to a spin-off, an independent or an external venture is incorporated in the acquiring company, since the majority of the venture shares are acquired. However, the venture can still remain independent despite the fact that the corporate holds control of the venture.

In summary, an overview of the Corporate Venturing modes described above can be found in *Figure 2,* illustrating the embedding of CVC and other practices within the corporation.

Figure 2: Corporate venturing modes



Source: Author's own illustration based on Keil (2000)

3.5. Other forms of venture investments

In addition to the various Corporate Venturing practices described above, CVC must also be distinguished from other venture investment bodies such as

- Venture Capital,
- Private Equity,
- Incubators and
- Accelerators.

3.5.1. Venture Capital

Venture Capitals (VCs) are “independent, professionally managed, dedicated pools of capital that focus on equity or equity linked investments in privately held, high growth companies” (Gompers *et al.*, 2020). VCs differ from CVC in four major aspects. Firstly, they have different objectives and thus the expectations of a VC are predominantly financially oriented, which is reflected by their focus on high financial returns. As a consequence, VCs do not support their ventures operatively. In contrast, CVC investors often provide assistance to their portfolio companies based on the linkage to the investing corporation’s operational capabilities, permitting portfolio companies to make use of their manufacturing plants, distribution channels, technology or brand (Park and LiPuma, 2020). Secondly, the organizational structure of a VC is different. In CVC, the single limited partner is a corporation. In the case of a CVC fund, CVC activities can be a subsidiary of the mother company. With regard to a VC, fund sponsors can be several parties. Thirdly, CVC practices are embedded in the corporate ecosystem, which offers access to markets, technologies, knowledge and tools and processes (Maula and Murray, 2001). VCs do not have these resources available, nor do they hold this backup. Fourthly, VC managers are remunerated in line with the business success rate, which is not always the case with CVC. Sometimes CVC holds a “carry”, which is the carried interest in the form of a percentage of investment gains, often amounting to ~20% (Röhm, Merz and Kuckertz, 2019). CVC employees are often reimbursed by a fixed salary in line with corporate remuneration schemes. Finally, the VC investment lifespan is typically much shorter than that of CVC programs. VC investments frequently cover three to five years, being short-term orientated on financial returns (Gompers and Lerner, 1998). CVC

investments, on the contrary, are longer and extend eight to ten years, holding a long-term investment perspective (Guo, Lou and Pérez-Castrillo, 2015).

3.5.2. Private Equity

Just like VCs, Private Equity (PE) firms do make investments in privately-owned ventures with the same goals pursued. They are aiming for financial value-add of their invested ventures, which are intended to be sold (equity stake to be sold) at a later stage with a corresponding profit. The differences however lie in the types of ventures they make their investments in, the amount of capital and equity they are targeted at and the timing of the venture's lifecycle. PE firms prefer to invest in later stages of the ventures, in the growth and expansion period of a company (PitchBook, 2020) from shareholder majorities up to full acquisitions.

3.5.3. Incubators

Incubators are programs run by institutions e.g. corporations, which provide funds and operational support for new ventures (Verhoeven, 2018). This support can be provided in the form of coaching, knowledge sharing, and resource support or simply by the provision of office space, strategic and technical support or access to networks, amongst others. The rationale underpinning this is that institutions intend to help ventures innovate, sometimes in exchange for equity (Pitchbook, 2017).

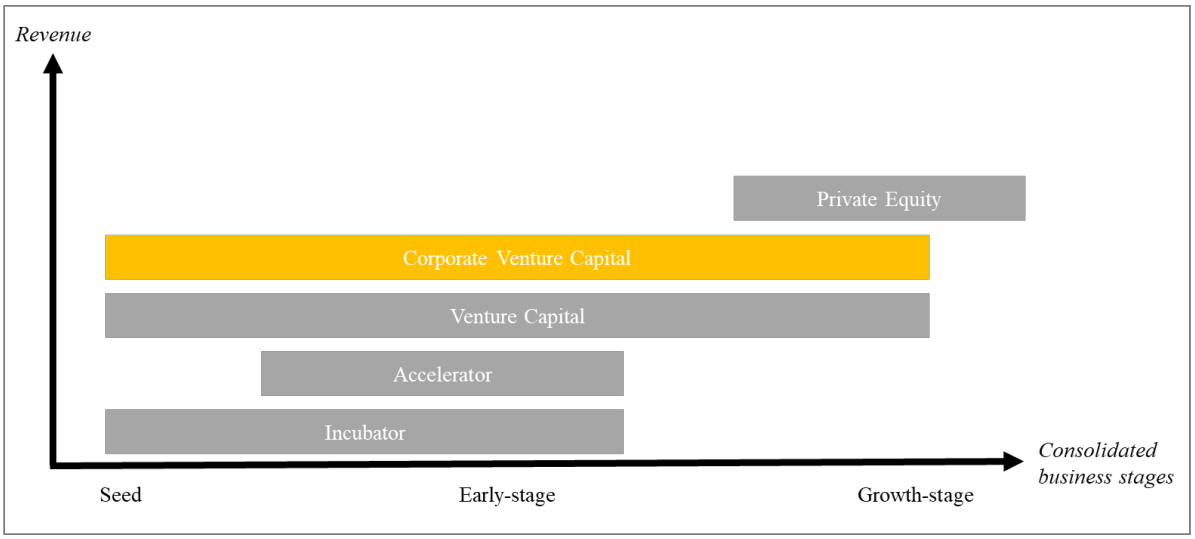
3.5.4. Accelerators

In contrast to incubators, accelerators often focus more on scaling businesses rather than primarily concentrating on the innovation creation (Verhoeven, 2018). Accelerators are also programs run by institutions e.g. corporations, which provide funds and operational support for new ventures. The rationale behind corporate accelerators is that they intend to help ventures grow mostly in the early-stage phase, primarily in exchange for equity. This is often done in a kind of boot camp for ventures for a limited amount of time. Ventures have to apply for such boot camps, where strong selection and application criteria are set (Pitchbook, 2017). In general, the process starts with the application screening as a first filter for an initial fit. Then if successful, startups get invited for the selection days which normally last a couple of days. There pitches and more detailed discussions are taking place before getting accepted to the program. The startup product or service will be challenged, the business plan as well as the team amongst other selection criteria. Recent literature by Luo (2020) has looked at how accelerators select their startups and what decision criteria are used. However, the results are still in their infancy (Yin and Luo, 2020). First results show that there is a shift of decision criteria from “eight real or win criteria in the initial screening of many startups to another four win or worth criteria in the final selection”(Yin and Luo, 2020).

In order to put the individual venture investments modes into one picture, the financing modes for incubators, accelerators, VC and PE can be understood in a chronological order. At the beginning of a venture creation, incubators come into play and are then superseded by accelerators, VC and PE providers as the business matures and progresses. Incubators are mostly actives in the seed-stage of startups, but also CVC or

VC investments might be possible here. Investments in early stage are then covered by Incubators, Accelerators, CVC and VC, whereas the growth stage is only covered by the latter two and the PE. In general, however, there is no fixed business stages, but rather a tendency for certain ones (see *Figure 3*).

Figure 3: Startup investment cycle



Source: Author's own illustration (not exhaustive)

Beyond the approaches described here, there are also other types of venture investment support which can be drawn upon by ventures e.g. Government-related Venture Capital (GVC), University-related Venture Capital (UVC), Bank-affiliated Venture Capital (BVC), Business Angels (BA), crowdfunding, etc. (Pitchbook, 2017). GCV is for example a direct financing subsidy by the government, which is a rather unexplored field so far (Luukkonen, Deschryvere and Bertoni, 2013). UVC is an example of direct venture financing by a university which is predominantly targeted towards university spin-off ventures (Widding, Mathisen and Madsen, 2009). BVCs are subsidiaries of banks which provide venture capital. Previous studies have shown that BVCs are established to

increase a parent banks' lending opportunities (Hellmann, 2002). BAs are high-net-worth individuals, directly investing in early-stage companies (Pitchbook, 2017), whereas an example for crowdfunding is the accumulation of small amounts by individuals to fund a specific project (Pitchbook, 2017).

Overall, ventures nowadays are exposed to a broad range of financial support instruments. As a consequence, receiving funding does not represent a big obstacle for them anymore. Thus, corporates have to make use of the CVC benefits they can offer ventures in order to make themselves attractive to serve their own investment purposes.

3.6. CVC historical development

The historic presence of CVC, which began in the mid-1960s, has seen external venturing practice come and go in a cyclical manner (BCG, 2012) but always with the intent of concentrating mainly on the financial benefits for the investment of its corporate (see *Figure 4).* The cyclical fluctuation of CVC presence throughout history has followed general macroeconomic events and changes and has seen several waves of activity.

The first wave of CVC investment was the period of rapid tech advancements, solid corporate profits, an increasing stock market and a widespread belief in the strategic value of diversification (wave 1). Early CVC investors comprised "Dupont, 3M, Alcoa, Boeing, Dow, Ford, GE, General Dynamics, Mobil, Monsanto, Ralston Purina, Singer, WR Grace, and Union Carbide" (CBInsights, 2017). However, fluctuations started with the IPO market crash in 1973 (CBInsights, 2017).

Recovery appears again along with VC presence in the early 1980s after the cut of capital gains tax in the US as well as a relaxation in restrictions on pension fund

investments. Again, the 1987 stock market crash saw corporates closing up their CVC units (wave 2).

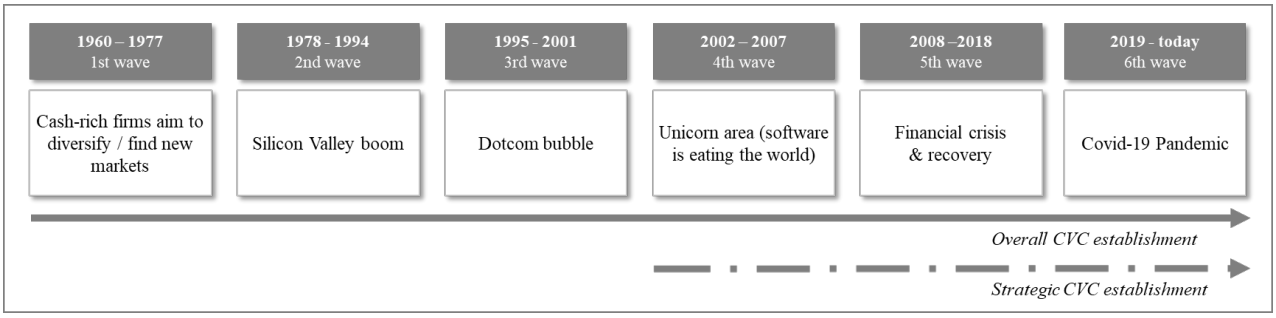
Once the internet came along and the dot-com bubble started to grow, CVC was back and in full swing with European corporates also joining the trend such as Telefonica Innovation Ventures or Novartis Venture Fund (VC Cafe, 2019). It was only during this spike in CVC presence that corporates also pursued strategically disruptive technologies and not solely financial returns as part of their CVC investments. However, once again, the implosion of the dot-com bubble in 2000-2001 (wave 3) closely followed by the recession in 2001-2002, which saw the presence of CVC operations spiral downwards again.

After this crisis, CVC did not totally disappear since the software industry emerged and flourished with corporates deciding that Corporate Venturing was more strategic for their future (wave 4). Corporates started to position CVC as a key component of their innovation strategy.

A broader shift in the innovation ecosystem started to emerge, with corporate R&D strategies moving from exclusively internal innovation efforts towards external sources of innovation (also known as open innovation). Investments leveled up once again before the global financial crisis hit at the end of 2007 (wave 5).

In the following years, and since the beginning of the Covid-19 pandemic, a major upswing in CVC has been realized (wave 6). The current wave hit its peak with 3,234 deals worth a total of USD 57.1B (CBInsights, 2019). The after-effects of the pandemic and impact on the global economy are still non-computable.

Figure 4: CVC waves

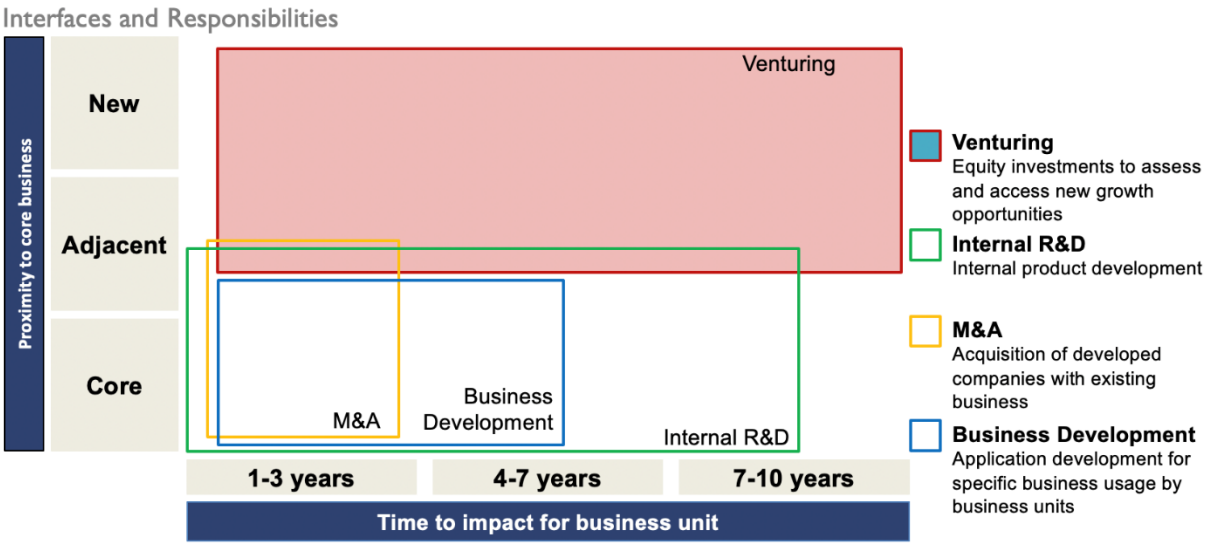


Source: Author's own illustration; BCG (2012); Röhm (2018)

All of this demonstrates that corporate confidence in risk based external venturing has dwindled during times of economic downturn. Besides economic forces, historical data also appears to support the lack of a procedural, structural, communicative and performance measurement norms in the CVC practice. In addition, many misunderstandings and costly procedural inefficiencies seemed to be present in the CVC space. C-level executives, who should be supportive of strategic directives, are still characterized with the financial oriented CVC mind-set of the past. They compare themselves to PE and VC, thus, realizing comparatively "less" financial success. CVC is often considered a "waste of budget", which then motivates the corporation to shift the budget away from CVC towards efforts close to the core business units. The corporate mentalities outside the venturing departments expect comparable returns from ventures as from their core business units. In light of this, the mentality towards CVC appears to improve with high interest in open innovation and digitalization. Nevertheless, countless subsequent hurdles still impede a lean and successful CVC path, making the CVC practice by no means clear or trivial.

Due to fast changing markets and ecosystems the need for speed even in R&D gave a push to the agile market of CVCs observing opportunities from startups. Specialized startups in selected niches developed very quickly and relevant "unicorns" in the respective technology area. That is why CVC became a very competitive tool versus organic corporate R&D. This shift is shown in *Figure 5*.

Figure 5: CVC usage



Source: Author's own illustration

3.7. CVC objectives

As a rule of thumb, corporates operating CVC activities pursue various objectives. These objectives can be clustered into two overarching categories: financial objectives and strategic objectives (Chesbrough, 2002). The two dichotomous objectives are not highly selective, neither clearly defined by literature yet, but provide an orientation towards the CVC type applied, the degree to which the CVC practices are interlinked with the mother company and the ventures and the time duration of a CVC program. In light of these, CVC practices are distinguished from the traditional VC practices. Unlike traditional VC, CVC can adopt for both orientations, the financial and the strategic one (Reimsbach and Hauschild, 2012). In the following section, details about the financial and strategic objectives pursued by CVCs are outlined.

3.7.1. Financial CVC objectives

Financial objectives draw attention to the generation of purely financial outcomes (Chesbrough, 2002) with a primary rational on the leverage of the mother company's business operations in order to secure future profit and growth (Dushnitsky and Lenox, 2006; Battistini, Hacklin and Baschera, 2013). Financial objectives embrace financial returns, IRR or multiples (Dushnitsky and Lenox, 2006). As a rule of thumb, the IRR strives for amounts around 10-15% and the multiple to reach a factor of 2-3x (author's own knowhow). In terms of venture collaboration, a finance-oriented CVC program provides no support other than financial. Sometimes a position on the venture's board is taken for observation purposes, but the CVC tends to take a passive role for the venture.

3.7.2. Strategic CVC objectives

Strategic objectives in contracts alongside the financial ones, are quite diverse and more multifarious than the financial objectives. Most common objectives cited are oriented towards access to new markets, know-how and particularly insights on emerging technologies and business models (Miles and Covin, 2002; Birkinshaw and Hill, 2005; Markham *et al.*, 2005), learning and fostering of innovation (Weiblen and Chesbrough, 2015), identification and exploitation of synergies with ventures (Chesbrough, 2002) and the creation of an entrepreneurial environment (Battistini, Hacklin and Baschera, 2013). With regard to the ties of a CVC program to its ventures in the case of a strategic orientation, the relationship often goes beyond just equity capital. There is often strong operational support for the ventures in place (Chesbrough, 2002). This support can be exercised in the form of a board seat at the venture, practicing a dedicated monitoring role of its activities and close operative support of running the venture business (Keil, 2004; Dushnitsky and Lenox, 2005b). Close operative support could entail R&D practices or resource sharing, amongst others (Wadhwa and Kotha, 2006). As a consequence, the CVC fund can gain an improved overview of the portfolio of activities and hence guarantee better reporting and communication.

Considering the differences of the two orientations, hybrids are not a rarity. However, not to forget that the theoretical objective orientation in contrast to the objectives strived for and expected in practice may be far apart. What one can observe by looking at past CVC activities, is that the focus and relevance level of strategic objectives has grown (GCV, 2020b). This development can be explained by the increasingly perceived strategic synergies and benefits corporates are striving for, besides the diminishing relevance of financial returns of financial CVC programs in

comparison to the total corporate returns. In general, the overall CVC sector and CVC as a percentage of VC has increased considerably (*see detailed section 3.5*). Whereas in 2014, CVC-backed funding amounted to USD ~17.9B, which has more than tripled by 2019 with USD ~57.1B (GCV, 2020b). Identified drivers for this development are the confrontation of speed, the increase in complexity and the digital transformation of new requirements by corporates, amongst others (CBInsights, 2019). As a consequence of the growing importance of sCVC investments, the distinctive term sCVC will be used throughout this dissertation. The term CVC will only reflect traditional CVC activity, which is more financially oriented.

In summary, CVC orientation in general has a significant impact on the type of CVC approach adopted, the CVC governance arrangements established and the communication and reporting style chosen (Sykes, 1990). This leads to the conclusion that the objective orientation does form the foundation, amongst other elements, of the overall CVC program and its corresponding practices.

3.8. CVC governance

As briefly mentioned before, the objectives of a CVC program determine the CVC approach adopted. The most common governance factors are: The CVC types, the reporting line, the board relationship as well as the CEO relationship and the remuneration and incentives packages in place. In the following section, each governance factor will be elaborated in detail.

3.8.1. CVC types

(a) The independent CVC fund is operated as an independent legal entity (subsidiary of the mother corporation). The CVC Fund is fully autonomous from a legal perspective, however aligned to a certain degree with the corporation. In case of a strategic-oriented fund in particular, the degree of alignment with the strategy agenda of the corporate is rather high (500 Startups, 2019). As an example of an sCVC fund, the fund operates independently without strong interference from the parent company's board, corporates' BUs or other key stakeholders, but acts in line with their expectations. These expectations are aligned with strategic goals and contributions to the parent company. CVC decisions respect these corporate expectations and strategic goals of the parent company and foremost appropriate portfolio companies with collaboration potential and strategic fit are selected for investments. Such an alignment would not be the case with a purely financially oriented CVC fund as this type of fund would rather remain completely independent. In both cases, however, the CVC fund has its own budget for a specific period of time. As a rule, the target period for sCVC is five to seven years compared to a finance-oriented focus, which aims for two to three years of demonstrating profitability.

(b) The CVC fund under the umbrella of the mother corporation (no management company), differs from the independent CVC fund and is not a standalone fund from a legal perspective. Legally the CVC fund acts under the corporate mother, which is the contracting authority (Miles and Covin, 2002). As an example of an integrated sCVC or traditional, financial fund, the fund would operate in a similar way to an independent fund. However, there is a much closer link to the corporate mother which has the authority to issue instructions. This is because the fund operates under the corporate's financial guidelines.

(c) The CVC unit acts as an integrated part of the mother corporation (Chesbrough, 2002; Campbell et al., 2003). In this scenario, the CVC is a balance-sheet investment, operated under a specific BU or as a separate unit (500 Startups, 2019) with access to processes and knowhow of the corporate (Verhoeven, 2018). However, this set-up can be hindered by the obstacle of internal politics as the CVC unit has to compete for limited resources.

Overall, in all three cases the CVC operating team can be located close to the mother company or at a separate location.

Irrespective of the type of CVC, which is chosen, the governance arrangements of the CVC are critical. These are sometimes referred to as institutional ownership characteristics, and include the reporting line, the board relationship as well as the CEO relationship associated with a CVC program (Anokhin, Peck and Wincent, 2016). In the best case scenario, governance factors are aligned with the CVC objectives (500 Startups, 2019).

3.8.2. CVC reporting line

Reporting and communication levels are determined by the degree of closeness to either the mother company or the ventures but can vary according to the venture stage, business area importance or simply the degree of management attention. Regardless of how the CVC entity or unit is organized, it is linked to the corporate management, the business unit management, and the venture. In the situation where the CVC entity is separate, the head often directly reports to the corporate leadership such as the CEO or CFO, etc. In case of an integrated CVC entity or unit, the reporting line of the CVC head can be either to the corporate leadership or to the corresponding head of a certain BU (500 Startups, 2019; GCV, 2020b).

3.8.3. CVC board relationship

The board relationship, if established, can be embodied as an investment committee or / and as an advisory committee. An investment committee is often comprised of C-level stakeholders such as the CEO, CFO or CSO, according to the CVC orientation. For example, if the CVC program is strategically oriented, then the CSO will be most likely be involved, if financially oriented then it will be the CFO. Also, it is quite common to have someone from the operational team on the board. However, as a general rule of thumb, the investment committee is kept rather lean and of a high level (Yang, 2012). The role of the investment committee is to determine whether the corporate will invest in a venture as an initial or follow-up investment. The investment committee is part of the terms under which a venture investment is made as well as the length of an investment and the investment amount which the venture will receive (Drover *et al.*, 2017; 500 Startups,

2019). In addition, the investment committee sometimes takes on an observer role at the board of the venture in order to monitor its activities and to ensure alignment with agreed strategic objectives.

The advisory board, on the other hand, is not commonly established, but when it is, this is usually to gain access to the expertise of external experts and to gain a third perspective from the outside (Anokhin, Peck and Wincent, 2016).

3.8.4. CVC CEO relationship

The CEO relationship as an important governance factor and one which should not to be underestimated. Most CVC programs are successful, if there is established management buy-in, often driven by the CEO. Support by the CEO in terms of financial support, openness for CVC or simply to demonstrate awareness of the potential of CVC, is quite crucial for a successful CVC program operation (Anokhin, Peck and Wincent, 2016). The CEO relationship often refers back to certain incentives or a particular personal agenda which is being pursued. The relationship with the CEO is often built on personal relationships to the CVC operating team as well as other CVC stakeholders involved (GCV, 2020b). Overall, the CEO involvement will influence the decision-making processes and investment behavior of the CVC to a high degree.

3.8.5. CVC remuneration including incentives

Remuneration and incentive structures play another very important role of governance factors (Maula, Autio and Murray, 2003; Jääskeläinen, Maula and Murray, 2007). With regard to remuneration, the level of compensation varies according to the type of CVC in place. For example, if the CVC is an independent fund, then management staff are generally remunerated by a “carried interest”, often referred to as “carry”. The carry is a profit share of investments taken, paid in excess to their base salary (Sykes, 1992). For an integrated CVC fund or unit, in addition to the carry, staff are generally paid in a similar way to the other employees of the mother company. Setting the right remuneration incentives is crucial, since CVC stakeholders might be directly or indirectly influenced by a certain reward and recognition behavior (Jääskeläinen, Maula and Murray, 2007). Equally, they could be unattractive and stakeholders might not be willing or be attracted to work for a CVC at all. The carry is a quite common compensation method in the VC environment and promises high profit returns. Accordingly, a typical corporate compensation model may not be as attractive, resulting in a shortage of qualified employees for a CVC entity or unit.

In addition to financial incentives, some companies have started to introduce various non-financial incentives, such as the title of "venture or innovation ambassador" or the "employee of the month" award (author's own experience). The intention hereby, is to evoke a certain behavior as well as to create CVC staff motivation.

Overall, each governance factor must be considered as an individual element, but also as part of the overall construct that works toward the set objectives and expectations of the CVC program.

3.9. CVC challenges, benefits and drawbacks

One of the biggest challenges still facing CVC is its predominant measurement against financial metrics and returns, even though claims have been made that CVC is primarily operated for strategic reasons (Kann, 2000). For corporations, those implications almost exclusively result in the need to achieve clear Internal Rates of Return (IRRs) and investment multiples. Without these financial drivers, the initialization and overall support for CVC by the parent company would be of less importance if not totally absent. Since the dot.com bubble burst and financial crisis and consequential decline of CVC activity, the need for more strategic relevance and learning from CVC investment targets became essential (Teppo and Wüstenhagen, 2009; Röhm, 2018a). Nevertheless, top-level commitment and an equal understanding of envisaged objectives are to be based on common ground and reflected in mutual understanding and support amongst all CVC stakeholders involved. This also means that silo cultures inside the corporation must be dissolved to foster CVC programs to reach their full potential. Layers of bureaucracy and unnecessary political hassles must be avoided and abolished (Teppo and Wüstenhagen, 2009).

In contrast to the various challenges which CVC is facing, corporates can take advantage of various potential opportunities. CVC offers an additional innovation vehicle parallel to Research and Development (R&D) and Business Development (BV) projects in the innovation space and comes along with the several benefits for the parent corporation, which can be structured into financial and strategic ones (Kann, 2000; Wadhwa and Kotha, 2006). Benefits are summarized below and in *Figure 6*.

Financial benefits:

- Financial returns including financial gains, IRR or multiples, which lead to higher profitability and future growth. Financial benefits are primarily of interest to the CFO (Gompers and Lerner, 2000a; Dushnitsky and Lenox, 2005a).

Strategic benefits:

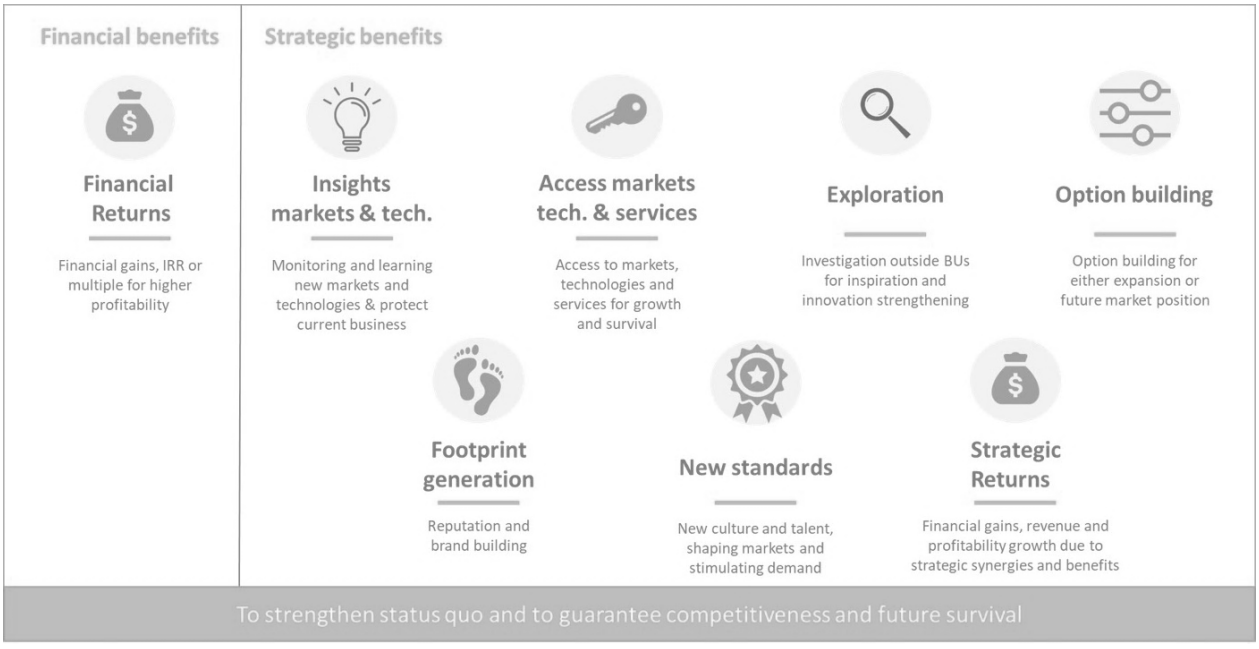
- Insights and learning of new markets and technologies, for scouting purposes as well as for establishing greater awareness of trends, opportunities or even threats. This can foster future developments to protect and bring forward core business, while leveraging external disruptions and learning from the venture's relationship. Start-ups can become an expert sparring partner for the corporation to deliver strategic guidance and direction. Corporate learning can be direct by getting to know the venture better or indirect by simply observing venture operations from the outside. These benefits are in the interest of all C-level and business executives (Chesbrough, 2002; Yang, Narayanan and Zahra, 2009; Baldi, Baglieri and Corea, 2015; Basu, Phelps and Kotha, 2016).
- Access to new markets, technologies and services in order to gain insights, information on technology and sometimes access to Intellectual Property (IP). This acts as a mechanism for complementing internal R&D and strategic learning. These benefits are primarily of interest to CTOs and CSOs (Chesbrough and Tucci, 2004; Birkinshaw and Hill, 2005; Keil, Autio and George, 2008; Yang, Narayanan and Carolis, 2014)

- Exploration of business areas outside the corporate's core business in order to strengthen innovation capabilities and gain inspirations for new business areas. These benefits are in the interest of the CSO, Corporate Development (CD) and Business Development (BD) of BUs (Keil *et al.*, 2008; Wadhwa and Basu, 2013; Baldi, Baglieri and Corea, 2015)
- Option building for filling in and completion of technology roadmaps as well as validation of existing corporate strategies, e.g. the opportunity for business expansion if new market opportunities prove to be desirable, feasible, and viable or for future company acquisitions. These benefits are in the interest of all C-level and business executives (Vanhaverbeke, Vrande and Chesbrough, 2008; Lee, Park and Kang, 2018).
- Footprint generation in new territories and even global regions that are outside the core geographic footprint to improve reputation and brand building. In addition, using this as a route to identify emerging trends like environmental and social responsibility which can lead to an improved business image. These benefits are in the interest of CTOs and business executives (Ernst, Witt and Brachtendorf, 2005; Basu, Phelps and Kotha, 2016; Gutmann, Schmeiss and Stubner, 2019).
- New standards which are generated through the startups as markets are reshaped and demand is stimulated in a more proactive approach. The corporate can differentiate across industries and verticals by e.g. business model innovation through involvement in corporate strategic dialogue, M&A dialogue, R&D dialogue, BU dialogue. A new corporate culture can be created, attracting new talent and creating value-add for key customers through leveraged resources. These benefits

are in the interest of the CSO, CD and BD of BUs (Hill and Birkinshaw, 2006; Rossi *et al.*, 2020).

- Strategic returns including financial gains, revenue and profitability growth, as a consequence of the corporate suddenly having access to different networks, additional expertise and resources. At the same time, the corporate can leverage synergies and benefit from more flexibility, agility and being more target oriented. Corporate R&D investment can be reduced and other than in the case of FoF, there will be no loss of strategic value through direct investments. These benefits are in the interest of all C-level and business executives (Kann, 2000; Napp and Minshall, 2011; Titus and Anderson, 2018; Ma, 2019).

Figure 6: CVC benefits



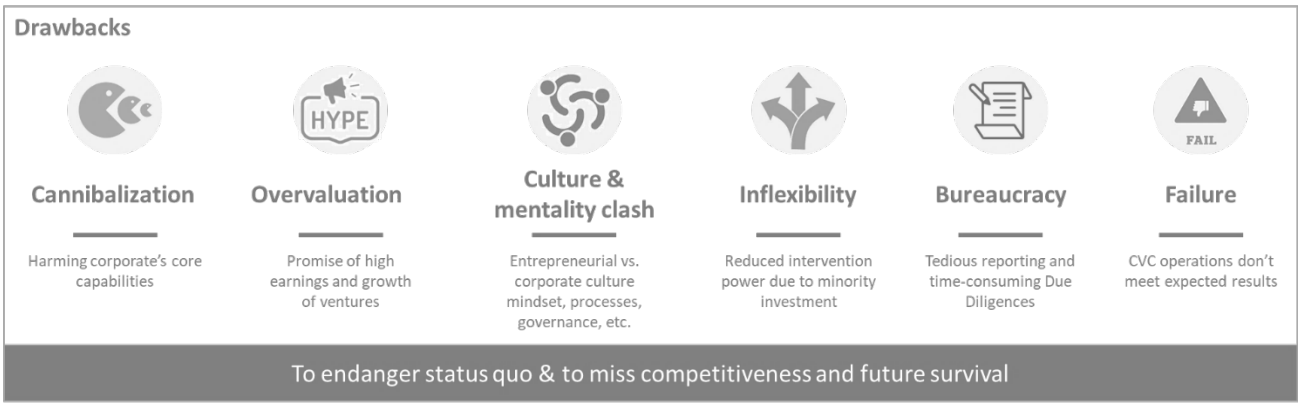
Source: Author's own illustration

It is also important to remember that CVC programs also come with potential drawbacks (Gompers and Lerner, 2000a; Maula and Murray, 2002), and a summary is provided in *Figure 7*. The potential drawbacks include:

- Cannibalization of a corporate's core capabilities in terms of products, services or processes (Ernst, Witt and Brachtendorf, 2005; Yang, Narayanan and Zahra, 2009). This is often experienced in the process of digital transformation for example in the case of a bank industry stepping into digital services, disrupting the traditional retail business or in the case of the automobile industry entering the electric vehicle market, while harming their traditional engine business.
- Overvaluation of the corporate's portfolio and therewith performance. For example, some ventures may promise high earnings and growth, but sometimes turn out to be less profitable.
- Specific culture and mentality of (new) ventures, which in most cases do not align with those of the corporate. Different perspectives, expectations and working styles might collide and cause relationship difficulties between the new venture and the corporate. Furthermore, certain skillsets and knowhow might be missing on the corporate side (Keil *et al.*, 2008; Lee, Kim and Jang, 2015; Gaba and Dokko, 2016).
- Inflexibility (being in a corset) of the corporation due to minority investment (no full control) and often because of co-investment. The investor with the highest stake will guide the way (setting the objectives to follow).
- Tedious bureaucracy including complex reporting structures and time consuming Due Diligence processes (Dushnitsky and Lenox, 2005a, 2006; Vibha Gaba and Bhattacharya, 2012).

- Above all, most CVC programs have experienced not meeting set objectives and expectations and thus are perceived as not being worth the investments – expected success is not realized (Barretto-ko, 2011; Hill and Birkinshaw, 2014)

Figure 7: CVC drawbacks



Source: Author's own illustration

Notwithstanding these drawbacks, the benefits of running CVC practices have prevailed as reported by various scholars (Maula, 2001; Chesbrough, 2002; Dushnitsky and Lenox, 2006). These authors underline the fact that scouting innovation from the outside-in brings more additive value than it does competitive drawbacks. The debate of CVC threatening other internal corporate venturing activities such as R&D, has frequently been proven to be false (Kann, 2000; Chesbrough and Tucci, 2004). On the contrary, research has found that CVC programs strongly and positively align with the level of R&D spent by the corporate (Dushnitsky and Lenox, 2005a). Over and above, CVC practices have been shown to complement and extend internal corporate venture activities. For example, CVC encompasses disruptive and non-core opportunities alongside other

corporate activities such as R&D and BD, which primarily concentrate on core technologies and applications for corporate business units or strategy development for the core business. However, the positive side effects of CVC are not usually measured by financial return analysis of CVC portfolio investments.

3.10. Summary

Overall, CVC is now increasingly understood as an instrument to cherry-pick technologies and to obtain insight into young disruptive fast ventures. These ventures provide a different DNA, skill set and market approach and present the corporate with the opportunity to investigate the positive effects of learning and assimilating knowledge, skills, and technologies or even new businesses, if appropriate. The strategic relevance of CVC has and will further become increasingly important, especially in contrast to the traditional CVC, which has focused more on financial returns. Nevertheless, this does not mean that loss making is accepted or welcomed. Consequently, when considering undertaking CVC or redirecting CVC units, more CEOs and CFOs are listing strategic reasons to reinforce the committed budgets, resources and activities, which drive innovation and growth from the outside-in. In addition to large corporates, even mid-tier companies are beginning to commit significant budgets e.g. EUR 50-1500M funds (GCV, 2020b) towards CVC activities. Increasingly, all organizations with CVC programs are setting themselves strategic objectives and Key Performance Indicators (KPIs) or simple visions and goals for current and future businesses. However, these are still accompanied by financial targets. Neither do structural and behavioral factors fit together, nor the

overall objectives of the CVC program. Consequently, corporate success is often left behind, with CVC yet to reach its full potential.

In order to have a better understanding of conceptual fundamentals and the landscape of CVC, this chapter has provided insights on the underlying concepts, dynamics and mechanisms behind CVC. The CVC's role is elaborated in the context of open innovation, stating that the open innovation paradigm builds the foundation which promotes the need for the CVC approach. Then CVC's characteristics are further described in detail, such as the CVC perspectives, stakeholders and dependencies, amongst others. Following this, other external venturing and venture investment modes have been outlined, compared and taken into context in order to provide the reader a better understanding of the CVC ecosystem. The historical development of CVC from its inception to the present day has been described to provide a better understanding of how and why CVC is used. Subsequently, the differences between the two most common CVC objective orientations are elaborated in detail, as well as the various governance factors involved. Finally, building on these findings, the challenges, advantages and disadvantages of CVC have been discussed.

In the next chapter, a theoretical background is provided, including a literature review, complementary research, and a theoretical background discussion.

CHAPTER 4 – THEORETICAL BACKGROUND

4.1. Introduction

In the following chapter, a literature review and supplementary research on the status quo of CVC is given. Relevant, most cited academic papers and information available via corporate websites, conferences and events are highlighted. The literature review predominantly concentrates on previous academic approaches and findings to better understand underlying mechanisms and dynamics of CVC as such, as well as of its interaction and dependencies with the surrounding ecosystem. Special focus lays on the strategic perspective of CVC practices, which reflects the core of this dissertation. Missing or incomplete academic research areas of sCVC practices are highlighted and presented as potential research areas for this dissertation.

4.2. Literature review

In the past and in particular since the 2000s, the prominence of CVC has increased with tremendous speed (Röhm, 2018a). CVC, defined as corporate equity investment in startups (Gompers and Lerner, 2000a), has evolved as an important element of entrepreneurial capital, while it has gained elevated popularity in the form of corporate investment (Chesbrough, 2002).

The popularity not only increased due to solely positive aspects such as the various accompanying benefits of CVC, but also due to various controversies such as the CVC survival and long-term success (Teppo and Wüstenhagen, 2009), also see *section 3.9.* CVC has been characterized by its cyclical development since the sixties (Gompers and

Lerner, 2000b; Dushnitsky and Lenox, 2006; Barretto-ko, 2011) and carries the reputation of a “sudden death syndrome” (Teppo and Wüstenhagen, 2009). This phenomenon is reflected in many corporates that have discontinued their CVC activities, often quite abruptly such as DuPont Ventures in 2020 (Mawson, 2020).

CVC holds the image of being ephemeral to the corporate mother with the objectives and structures of CVC programs diverging from the corporate parent. CVC programs are becoming more dispersed, while involved stakeholders hold diverse perspectives (Gompers and Lerner, 1998). To date, there have been many recurrent ups and downs and therewith the introduction and abandonment of CVC practices (BCG, 2012). Past research has shown that long-lasting CVC success cannot unconditionally be assured (Gompers and Lerner, 2000b). Accordingly, various scholars have looked into the mystery of why some corporates “have started and thrived, while others have started, sputtered, and finally discontinued operations” (Siegel, Siegel and MacMillan, 1988). Hill and Birkinshaw (2012) blame short-term thinking affected by economic fluctuations for the cyclical and volatile nature of CVC activity (Hill and Birkinshaw, 2014). In their perspectives, financial-oriented, market-driven decisions have primarily led to CVC short-term approaches, which have disadvantaged promising ventures. This perspective has also been identified by other scholars and practitioners (Allen and Hevert, 2007). The financial, short-term approach has lost priority (Anokhin, Peck and Wincent, 2016) since corporations have increasingly realized that CVC entails more than just financial returns and strong interest in sCVC programs has emerged (Maula, Autio and Murray, 2003; Dushnitsky and Lenox, 2005b). Corporates have realized the opportunity to reap the diverse benefits of CVC (*as outlined in section 3.9*) but have instantaneously also faced

the challenge of driving sCVC practices to the long-lasting successes expected. As well as the traditional CVC practices with a financial orientation, sCVC programs also show failure. This has led to increased research interest in trying to understand the reasons for the unexplained CVC failure and to find answers. Scholars have tried to understand why some programs are more successful than others, but to date without satisfactory non-controversial results (Sykes, 1990; Gompers and Lerner, 2000a; Teppo and Wüstenhagen, 2009; Hill and Birkinshaw, 2014). Some scholars, for example, argue that it is a matter of having an autonomous governance system implemented, having interactions with the VC community and setting competitive remuneration systems to VCs (Hill and Birkinshaw, 2014), while others emphasize the corporate's organizational culture as key in survival (Teppo and Wüstenhagen, 2009). Correspondingly, academia intensified its research focus on the CVC essentials overall (Phan et al., 2009; Chemmanur, Loutskina and Tian, 2014; Röhm, 2018b; Ma, 2019) and in particular on the sCVC practices (Kann, 2000; Napp and Minshall, 2011). Areas such as sCVC objectives and especially the generation and repatriation of strategic value-add to the corporate mother, are investigated (Napp, Minshall and Probert, 2009; Chiang, 2018).

With regard to general studies, predominant attention has been laid on three major research streams: The CVC individual level, CVC corporate level and CVC market level. Scholars investigating the CVC individual level, concentrate on *CVC personnel* and *career backgrounds* (Gaba and Dokko, 2012; Souitaris, Zerbinati and Liu, 2012), *the mindset and investment rationales of CVC stakeholders* (Souitaris, Zerbinati and Liu, 2012; Souitaris and Zerbinati, 2014) and the *individual remuneration* (Benson and Ziedonis, 2009; Hill *et al.*, 2009; Dushnitsky and Shapira, 2010b). Gaba and Dokko's

(2012) research results show that corporates operating intense CVC investments are less likely to give up those practices, while being less likely to learn from others doing so. Further, they figured out that staffing decisions are crucial in this context, since they influence the likeliness of CVC practice abandonment (Gaba and Dokko, 2012). Souitaris, Zerbinati and Liu (2012) brought new insights into the dependence of CVC organisational structure on CVC orientation and therewith the underlying CVC rationals. This chosen orientation depends on who the CVC programe seeks legitimacy from, as well as the mindset and experience of top management (Souitaris, Zerbinati and Liu, 2012). The orientation can either be endomorphic, concentrating on the internal parent, or exomorphic, concentrating externally on the industry (Souitaris, Zerbinati and Liu, 2012). Dushnitsky and Shapria (2010) examine the influence of corporate employee compensation on investments in new technology. The results provide evidence that compensation systems, as a form of incentive, influence investment behaviour and ultimately investment outcomes in the form of performance (Dushnitsky and Shapira, 2010).

In addition to the individual level, research undertaken at the corporate level, has focused on the antecedents of *CVC investment decision-making*, *CVC objectives* (Chesbrough, 2002; Keil, 2004; Dushnitsky and Lenox, 2005b; Keil, Autio and George, 2008; Basu, Phelps and Kotha, 2011; V. Gaba and Bhattacharya, 2012), CVC in comparison to other innovation vehicles (Sahaym, Steensma and Barden, 2010), *organizational CVC structure* and the *portfolio investment process* (Gompers and Lerner, 2001; Hill *et al.*, 2009; Yang, Narayanan and Zahra, 2009; Dushnitsky and Shapira, 2010a; Keil, Maula and Wilson, 2010; Anokhin *et al.*, 2011; Jääskeläinen, 2012; Anokhin,

Wincent and Oghazi, 2016). Also CVC investment outcomes in terms of *value-add contribution and implications* for the corporate became very popular (Dushnitsky and Lenox, 2005a, 2006; Wadhwa and Kotha, 2006; Keil *et al.*, 2008; Keil, Autio and George, 2008; Hill *et al.*, 2009; Basu, Phelps and Kotha, 2011; Napp and Minshall, 2011; Basu and Wadhwa, 2013; Röhm, 2018a).

Scholars found out that more CVC investments occur in industries with very little protection of IP and in industries with great technological ferment with supplementary distribution opportunities and in the case of corporates having great cash flow and absorptive capacity on disposal (Dushnitsky and Lenox, 2005a; Dushnitsky and Shaver, 2009). In this context, the results of Tong and Li (2011) on real option theory on CVC investments, shows a direct positive relationship between market uncertainty and a corporate's choice for CVC investment instead of acquisition. Looking into the utilization of CVC as a means of externalizing corporate R&D, the results of Gaba and Bhattacharya (2012) reflect that corporates are more likely to make use of CVC investment practices, and less likely to end them, when a corporate's innovation performance meets social responsibility agenda. Basu et al. (2016), proposed new practices as to how CVC can effectively bring external expertise and knowledge integration into the corporate mother. In particular, the entrepreneurial culture of a CVC program is highlighted (Basu, Phelps and Kotha, 2016).

Arising from research on CVC decision making, Chesbrough (2002) set an important milestone of CVC practices as a significant vehicle in the field of open innovation. Chesbrough was one of the first academics to elaborate on the dual dimension of corporate VC, including the CVC *objectives* pursued (either financial or strategic) and the

linkage of CVC to the corporate mother, whether via tight or lose relationships (Chesbrough, 2002). Dushnitsky and Lennox (2005b) then subsequently investigated the various benefits of CVC practices (*see chapter 3).* Keil (2004) further examined how corporates can build up the capability of running CVC effectively and emphasized the crucial role of pre-conditions and know-how management practices. The learning process is one of the key outcomes of this research (Keil, 2004). In a later study, Keil et al. (2008) then looked into the diverse governance modes of CVC and how these can affect a corporate's innovative performance. CVC investments in industries that have adjacent to core focus show an important positive correlation with a corporate's innovation performance.

Another positive relationship is seen when looking into the influence of R&D practices effecting CVC investments. Sahaym, Steensma and Barden (2010) determined that R&D does increase the CVC investment activity of a corporate, especially in the case of CVC investments in fast growing and fast changing industries, s.a. Energy, Mobility or Health.

In addition to governmental CVC modes and the CVC relationship towards R&D, the *organizational structure* of CVC programs has been researched. Some scholars highlight CVC autonomy (Hill *et al.*, 2009), whilst others emphasize the importance of cultural aspects (Teppo and Wüstenhagen, 2009), s.a. openness to next generation's management style and entrepreneurial risk-taking or the variations in organizational configurations of CVC programs (Hill and Birkinshaw, 2008). Building upon this work, Hill and Birkinshaw (2008) further investigated why some CVC programs survive while others

do not. Results showed that a central role lays in the interplay of exploration (new capabilities strived for) and exploitation (existing capabilities to further establish).

Other scholars have looked into the *portfolio investment process,* with Gompers and Lerner (2001) being some of the first to investigate this area. Gompers and Lerner generally compared CVC investments with the ones of traditional VCs, revealing differences in the organizational structures and incentives which re-set. They also presented complementarities between CVCs and VCs. Yang, Narayanan and Zahra (2009) have gained insights on the how the relationship industry experience and diversity of CVC investments is positive in the context of venture selection with high financial opportunities. Regarding ventures of strategic opportunity, the CVC experience intensity, stage diversity and syndication are significant. Anokhin, Wincent and Pejvak (2016) build on this previous research by not focusing on the financial vs. strategic perspective of CVC programs but paying close attention to the nature of the deal. Results show that the majority of CVC deals are disadvantageous or do not show a discernible effect on corporate strategic benefits (Anokhin, Peck and Wincent, 2016). Financial benefits are not considered in the study.

It must not be forgotten that to date, the majority of researchers have concentrated on the *value-add contribution of CVC investments and the associated implications* for the corporate mother. Dushnitsky and Lenox (2006) have conducted more research on whether CVC investments actually create value for the corporate parent. Their results show that greater firm value is generated when firms explicitly seek CVC investments to exploit new technologies (Dushnitsky and Lenox, 2006). Zahra and Hayton (2008) have analyzed the relationship between external venturing activities and the firm's financial

performance. They have shown that CVC investments are positively associated with financial performance. Access to and use of external information positively moderates CVC investments and a firm's financial performance (Zahra and Hayton, 2008). Hill et al. (2009) go one-step deeper by investigating the implications of CVC performance and by transferring the VC model into the CVC context. The result of their study shows that the performance of a CVC program, and thus its survival, is strongly related to the transfer of the VC model. Similarly, Wadhwa and Kotha (2006) investigate in more detail the conditions of CVC investments effecting corporate knowledge creation, which contribute to corporate performance. Their insights show that a low investor involvement results in an inverted u-shape relation of the number of CVC investments and innovation performance. That means that there is a certain turning point where the positive relationship turns into a negative one. In the case of high investor involvement the relationship shows opposite results (Wadhwa, Phelps and Kotha, 2016). When reconsidering the organizational structure that is in place, this relationship can also provide a mechanism for determining how CVC value-add can be measured and thus show a contributional effect to the corporate mother (Teppo and Wüstenhagen, 2009). However, measurement of sCVC remains in its infancy with only trivial approaches so far (Ma, 2019), such as the number of meetings, number of startups that align with business strategy or number of collaboration projects.

When considering research which has been carried out at the market level, R&D and open innovation (Dushnitsky and Lavie, 2010; Sahaym, Steensma and Barden, 2010; Pinkow and Iversen, 2020) and the effect of institutions and regulations on CVC have been investigated with great interest (Da Gbadji, Gailly and Schwienbacher, 2015).

Pinkow, and Iversen (2020) have recently carried out research on sCVC objectives as an open innovation vehicle and characterizing CVC as a method to stimulate innovation. They found that institutions and associated regulations play an important role in this regard. Previous research by Da Gbadji, Gailly and Schwienbacher (2015) had been carried out to try and understand what drives corporates to run CVC programs worldwide. Results showed that CVC programs operating in countries with a market for early-stage investments are quite well developed and generally available. Countries with costly personal insolvency arrangements are less ideal for CVC programs, since they discourage entrepreneurial activity.

Overall, general literature findings on CVC confirm that to date academic research on the CVC construct and dynamics with its relationships and interdependencies are rather inconclusive represented. Previous research has focused mainly on self-contained aspects (individual, corporate, market level) with some investigation of the interdependencies of one element on another but often even without the consideration of reciprocal impacts - the interdependency of two aspects (Covin and Miles, 2007). The venture perspective is also a quite elaborated research field (Maula, Autio and Murray, 2009). However, this perspective is not the focus of this dissertation.

Concerning sCVC research more specifically, strategic objectives draw predominant attention and have led to various research studies (Chesbrough, 2002; Gompers, 2002; Dushnitsky and Lenox, 2006; Riyanto and Schwienbacher, 2006; Röhm, 2018b). Findings include a plethora of strategic objectives such as access and insights to new markets and technologies *(see chapter 3).* Likewise the manner of how sCVC is pursued, including the decision-making processes and the efforts required, have been of specific research

interest (Kann, 2000; Dushnitsky and Lenox, 2006). Kann (2000), for example, developed a CVC structure and valuation framework to best meet sCVC goals and expectations (Kann, 2000). Whereas Napp et al. (2009) established one of the first theoretical frameworks to capture and measure strategic value of CVC investments since they introduced a a three-level perspective: The value layer, the operational layer and metrics layer (Napp, Minshall and Probert, 2009). Besides scrutinizing obstacles and limitations in the process of pursuing sCVC, the overall value-add (Kann, 2000; Knyphausen-Aufseß, 2005; Anokhin, 2006; Maula, 2007) was also investigated. Research shows that CVC value-add contributions are heavily influenced by the CVC program objectives and the organizational structure (Siegel, Siegel and MacMillan, 1988; Teppo and Wüstenhagen, 2009). When looking into strategic investment outcomes, the characteristics of certain deals, such as entrepreneur knowhow and background or a unique technology, rather than aggregated CVC programs, hold great importance of value-add generation (Anokhin, 2006). In this context, academic researchers have looked into underlying CVC success factors and principally found that the comparability of success is difficult to guarantee due to data inconsistencies and diverse tracking operations (Chiang, 2018). In particular, with regard to sCVC success factors, the determination of success factors is not clear (Dauderstaedt, 2013) and different approaches have been applied. For example factors such as strategic set-up, investment processes, governance, internal collaboration, the industry landscape and others have been explored (Napp, Minshall and Probert, 2009; Teppo and Wüstenhagen, 2009; Dauderstaedt, 2013; Chiang, 2018).

A thorough understanding of underlying dynamics and mechanisms of sCVC practices still remains in its infancy (Napp and Minshall, 2011). Scholars have experienced challenges in how to set the “right mixture of strategic [objectives] and operational implementation” (Napp and Minshall, 2011). There are also no meaningful findings on the most relevant strategic objectives and value-add contribution to the corporate mother. This deficiency goes along with the ideal setup and operation of sCVC practices and the integration within the CVC landscape. As an additional aspect, Pinkow and Iversen (2020) have carried out rudimentary research to determine the best timing for applying and realizing sCVC. These scholars have recently run a study on strategic objectives of CVC and point out that a systematic concept of strategic objectives is missing. Their study covers an overview of the strategic goals that a CVC program can pursue, whilst highlighting obstacles and limitations and the role of ambidexterity, exploiting versus exploring, and autonomy.

One underlying explanation of the deficiency of existing research is the lack of adequate measurement systems for sCVC activities (Napp, Minshall and Probert, 2009; Chiang, 2018). Without the capability to capture and measure CVC operations, it is nowadays almost impossible to properly control, intervene or determine if the potential of sCVC has been fully unleashed (Poser, 2003). Poser (2003) states that measurement systems are needed for determining strategic objectives and expectations and he even stresses that the lack of measurement causes a poor understanding of CVC impact. Other scholars reinforce this view, whilst further analyzing or disprove the phenomenon - but without satisfying results so far. These scholars include, amongst others, Kann (2000), Chesbrough (2002), Rauser (2002), Knyphausen-Aufseß (2004), Bassen et al (2006),

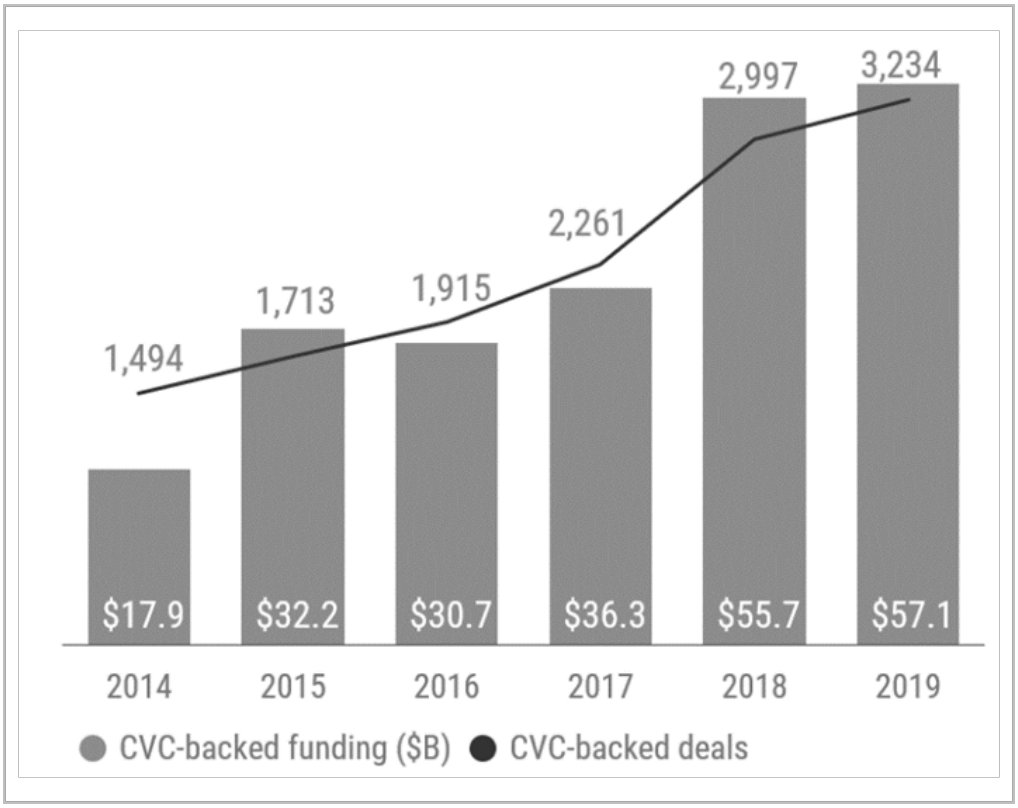
Allen and Hevert (2007) and Chiang (2018). So far, different approaches and perspectives have been applied, but the results are often too specific and not generalizable yet (Poser, 2003; Chiang, 2018).

In summary, literature to date shows that academic research on CVC practices in general and on sCVC practices in particular, is not exhaustive. An in-depth and systematic aggregation of individual strategic objectives – used and familiar ones in practice – aligned with the strategic objectives identified by academia is to be developed as part of this dissertation. Within the framework and analysis to be established, the unused and unfamiliar strategic objectives, the best timing and application for realizing strategic objectives overall, as well as the corporate setup are to be identified. This approach, including the application of new and different methodologies and theories to explain certain phenomena in more depth and breadth, has been called for in recent academic research (Thornhill and Amit, 2001; Pinkow and Iversen, 2020).

4.3. CVC sector research

In line with the literature review, the growing development of CVC activity is confirmed by supplementary research (CBInsights, 2019; Pitchbook, 2020). Pitchbook (2020) reports on the increasing importance of CVC in the US VC ecosystem (Pitchbook, 2020), whereas CBInsights (2019) states that until the end of 2019, CVC-backed funding amounted up to 3,234 global deals worth USD 57.1B representing 25% of the overall VC ecosystem in 2019 (CBInsights, 2019) (see *Figure 8).*

Figure 8: Global CVC activity



Source: CB Insights (2019)

In 2019, whilst most active CVC corporations referred back to the US, Asian-based companies running CVC activity showed an even greater share of CVC practices for the first time (CBInsights, 2019). TechCrunch (2019) explains the growth as a dichotomous movement. On the one hand, the landscape of tech moves faster with corporates becoming more aware of CVC as an integral part of corporate innovation processes in order to meet market demand. On the other, ventures increasingly seek capital, whilst realizing the strategic benefits of CVC (TechCrunch, 2020a). This development also holds true for other sectors such as the industrial sector (CBInsights, 2019). Accenture (2013) summarizes this CVC progress by emphasizing that “venture-capital backed startups have been a major force for technological innovation and industry disruption over the last 40 years” (Accenture, 2013). In addition, EY (2018) underlines the potential of CVC as a complementary mechanism to R&D to further enhance and foster corporate innovation (Ernst & Young, 2008) .

The latest study by Pitchbook (2020) emphasizes the trend from financial-oriented CVC programs towards strategic-oriented ones (Pitchbook, 2020), due to the growing awareness of the various strategic advantages of operating sCVC investments. Interestingly, the study also states that in the recent Covid-19 pandemic crisis, no downturn has been experienced, like those in the past (Pitchbook, 2020). This can be linked to the fact that CVC programs are less short-term oriented and financially economic-dependent as those, which prevailed previously. Instead, the increasing orientation towards sCVC programs appears to be more enduring. In the context of the Covid-19 pandemic, the recent McKinsey study on CVC emphasizes how corporates now experience and struggle with previous “neglected digitization initiatives” (McKinsey &

Company, 2020). Many corporates hold on to the status quo, rejecting digitalization and therewith transformational initiatives. Immense pressure to innovate quickly is demanded and hence the need to properly apply CVC has been heightened. Accordingly, the CVC "rules of engagement" (McKinsey & Company, 2020) have been emphasized. For example, objectives which are set must be aligned and agreed prior to and during the formation of the partnership between the corporates and startups. In addition, KPIs must be defined, aligned to the set objectives and continuously monitored and adjusted when needed. This is of paramount importance to the success of the CVC program.

In parallel with having these relevant mechanisms in place and increasing the development of CVC for financial benefit and success, secondary research also reports on the negative side of CVC activity. CVC has even been nicknamed "tourist capital" (VC Cafe, 2019) due to its high cyclicality and has a reputation of simply being "dump money" (VentureBeat, 2017), not delivering expected financial returns and consequently not making CVC activity worth the investment.

. Over the last few decades, CVC activities have tended to increase when markets are strong and performing well, but quickly evaporate when markets are failing or disrupted (VC Cafe, 2019). Consequently, interest in the development of CVC has arisen and led to in-depth investigations (BCG, 2012; 500 Startups, 2019). This is because corporates increasingly need to better understand the dynamics and mechanisms behind CVC practices, since the majority of CVC programs do not meet expectations or objectives which have been set. Particular CVC types and the CVC lifecycle have been investigated by various secondary research sources such as TechCrunch (2020) and Medium (2019) (Medium, 2019b; TechCrunch, 2020a). In addition, overarching CVC

drivers and especially the sCVC ones, have been of focus of research due to increasing interest and popularity (Pitchbook, 2019; VC Cafe, 2019). 500 Startups (2019) recently published a study on the “Unlocking Innovation through Startup engagement” (500 Startups, 2019). This document outlines the most important motivators of a corporation to start CVC operations including the extent to which corporates weight strategic versus financial objectives against each other. Starting from a pure strategic orientation up to a pure financial one. In addition, the best stages to optimize CVC activities are described as well as insights on which markets, technologies and sectors to anticipate.

The limited success or even failure of CVC operations is still criticized in the literature. For example, in the article “Betting Your Innovation Budget: Why risk it on CVC?” by Rainmaking (a small group of entrepreneurs), it is stated that 75% of all VC funds “lose everything” (Rainmaking, 2020) and CBInsights reports about 33% of established CVC programs become “Zombies” (CBInsights, 2020b). Recent confirmation can be found by the shutdown of DuPoint Ventures, which announced in March 2021 to discontinue its CVC activities (GCV, 2020a). Only a small, modest number of corporates such as Intel Capital or Qualcomm Ventures have demonstrated success over the years, in terms of survival and performance (Rocketspace, 2016; Medium, 2019a). Furthermore, many articles argue about the risk involved versus the potential benefits of CVC programs (BCG, 2018; 500 Startups, 2019; VC Cafe, 2019). Benefits are controversial since they face corporate inertia and misalignment of results in terms of management expectation of maximizing IRR or meeting a certain investment multiple. The focus of sCVC is often dispersed, while absent efficacy is caused by the lack of essential personnel with the appropriate knowhow and skills operating in an entrepreneurial environment. The

operational measurement of sCVC programs is also questionable, since the majority of corporates still follow traditional CVC practices with financial KPIs.

Currently, several optimization approaches are known and discussed and most secondary research sources are positive about the future growth of CVC (500 Startups, 2019; Pitchbook, 2019). However, until specific gaps in the fundamental understanding of the principles of CVC are fixed, corporates will continue to be unsuccessful. It is likely that macroeconomic factors or regulation will continue to impede the exploitation of CVC potential (Pitchbook, 2019) and has been widely discussed with regard to the ongoing Covid-19 crisis and its consequences for CVC (BCG, 2020; CBInsights, 2020a; TechCrunch, 2020b).

4.4. Theoretical background discussion

In the context of ongoing CVC practices, the current striking evolution of struggles and hurdles provide reasons why corporates may not have fully understood how best to leverage CVC as a corporate vehicle to support and validate strategic alignments in order to strengthen innovation and corporate growth. As a consequence, the literature review and secondary research has provided evidence that the full potential of CVC activities might not yet be realized. Many scholars have described and emphasized the lack of success which corporate investors are striving for. In particular the sCVC practices, which have evolved to take a more popular standing in the CVC landscape, have demonstrated a great number of benefits, but many challenges in seizing them still exist. Previous research shows both the benefits and the challenges of CVC which are making a crucial contribution towards the success of CVC programs. One major challenge, which is

frequently mentioned in literature and practice, but without a promising solution, is the quantification of strategic value-add. It appears that corporates might not have fully understood the concept of the sCVC construct since the vast majority still monitor and evalute sCVC activities by financial KPIs with often a short-term perspective of “quick results”. This leads to the conclusion that the research area of how to best operate sCVC activities has only rudimentary coverage by academia but has been identified as crucial in practice. There are hardly any answers to be found about the most relevant non-financial objectives a CVC program that should be adopted in order to bring maximum value-add to its corporate mother. Neither are there any holistic investigations on the ideal set up and operation of an industrial CVC program to maximize sCVC operations.

4.5. Summary

In summary, theoretical background research confirms the identified research gap and questions outlined in c*hapter 2.* Research potential has been identified and perceived as essential, but only rudimentary solution approaches have been found. The increasing number of academic publications on CVC has progressed understanding of this phenomenon, but the fragmented and unconsolidated nature of this research has identified essential aspects of CVC which requires further clear theoretical and empirical research.

In the following chapter, the methodological approach which has been adopted for this study is outlined. Initially, the research design and the qualitative research methodology of action research are described, followed by information on data generation and the interview framework which has been developed.

CHAPTER 5 – METHODOLOGY

5.1. Introduction

This practitioner dissertation is conducted with an exploratory, action-oriented methodological approach to best present both the background and the aim of this dissertation. The methodological chapter is structured into four sections, namely the research design, the method applied, the data generation and the interview framework. The research design sections start with a reflection of design constraints and potential influential components in order to guarantee compatibility with the philosophy chosen. Next, action research is presented as the selected dissertation method. Quality assurance and ethics are also drawn upon in this context. In the data generation section, information on the interview candidate selection process is described and the interview procedure is outlined. To conclude the methodology chapter, there is a description of the interview framework, demonstrating the development and details of the interview questions.

5.2. Research design

In order to provide information on the research design selected, it is essential to understand the objectives and focus of the topic to be studied (Taylor and Taylor, 2009), which are outlined in detail in *chapter 2*. The underlying research philosophy is the primer and most crucial element of setting up a research design to foster the aspired dissertation outcome. As demonstrated in the literature section, many different approaches have been used by various scholars in the past, investigating specific research aspects. Accordingly, the research design must be wisely chosen in order to allow analyses as well as

contextualization of the research matter. It is recognized that the research design is based on philosophical assumptions and prior beliefs, which potentially affect it (Creswell, 2013) and should thus be recorded. The research design builds the basis for the research methodology choice, which is suitable to the topic of focus, as well as generating the set-up of the research. The research design is to support a particular type of research such as in the case of this dissertation, the semi-structured interviews / questionnaire. Key characteristics covered by the research design are (Clancy, 2002)

- Research gap and question to address
- Techniques of data collection
- Method of research analysis
- Research setting and timeline
- Evaluation of analysis.

In general, there are five common research design types (Creswell et al., 2007), which are

- Descriptive research design: Its predominant focus lies in outlining the topic of research and subsequently in generating a theory.
- Correlational research design: Its predominant focus lies in the establishment of a relationship between closely related variables or topics.
- Experimental research design: Its predominant focus lies in the generation of a relation between the cause and effect of a particular event.
- Diagnostic research design: Its predominant focus lies in the examination of the underlying cause of a specific phenomenon.

- Explanatory research design: Its predominant focus lies in the further development, and exploration on the researcher's ideas and the phenomenon under consideration.

In this dissertation, the latter research design, the explanatory one, is chosen. This research design resembles a great fit with the research phenomenon under investigation and the researcher's background. The explanatory research design will be used to support and identify unexplored aspects of the particular topic and to explain gaps and missing parts.

In regard to the research background, the author reflects an experienced practitioner. This brings advantages in terms of familiarity with terminology and common phenomena, as well as depth of detail, while not neglecting the research context. However, preconceptions might cause biases or inhibit findings and objective evaluations of research parameters. The two most common biases in social research are the social desirability bias and the case selection bias(Clancy, 2002; Chung and Monroe, 2003; Dalton and Ortegren, 2011). The first, the social desirability bias, involves respondents not revealing their true behaviors and attitudes because they are trying to look good in the eyes of others (Zerbe and Paulhus, 1987; Chung and Monroe, 2003). In order to avoid the bias, measures such as focusing on the word choice and the use of indirect questioning were taken. The second bias, the case selection bias, covers, the choice of cases where individuals with ethical maturity are preferred (Leuffen, 2007). In this dissertation, therefore, emphasis was placed on a random selection of interview partners from different industries, with different backgrounds and functions in the CVC context.

In the following sections, more detail and an outlay of the methodology of qualitative research studies is discussed.

5.3. Action research

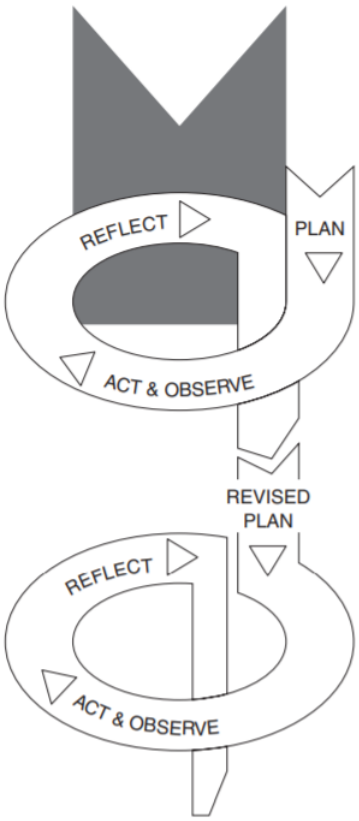
In general, qualitative research is applied to understand how people experience their surroundings. The research method is not only about understanding concepts, opinions, or experiences of people. However, it is not only about what people think, but also why people think it. There are several qualitative research approaches that have a tendency to be flexible and to focus on richness of meaning in data interpretation. Known approaches are (Adelman, 1993; Moen and Middelthon, 2015):

- Grounded theory: Researcher collects extensive data on a specific topic of interest and with theory development as an ultimate goal.
- Ethnography: Researchers immerse in certain groups or organisations of interest in order to understand the prevailing cultures, behaviours and interactions
- Action research: Researchers as well as participants combine theory with practice in order to drive social change in terms of improvement.
- Phenomenological research: Researchers examine a phenomenon or event of target by outlining and evaluating the lived experiences of participants.
- Narrative research: Researchers study how stories are told to gain an understanding of how participants perceive and give meaning to experiences.
- Case studies: Researchers observe and analyse a particular event or individual in-depth over time.

All qualitative research approaches hold some commonalities but highlight different goals and perspectives. There might be certain overlaps and nowadays quite often mixed approaches are present. Considering the focus of this research program, it is important to highlight that this dissertation has the special characteristic of being action oriented. Other than case studies, which show some extend of fit too, the action research approach concentrates on solving a prevailing phenomenon (immediate action). The author or certain participants themselves systematically examine and take part in their own practice field (Herr and Anderson, 2005). Whereas in case studies, a certain problem of concern is mostly observed and analyzed first before it is solved over a longer period of time. Accordingly, action research refers to disciplined enquiry to inform, improve or change practice conditions. It addresses the solution generation of practical problems by empowering practitioners to engage with research, while initiating optimization (Meyer, 2000).

The action research resembles a spiral of cycles of self-reflection (see *Figure 9)*. The spiral starts with (a) the planning of change and goes over to (b) acting and observing the development of change. It then follows (c) the reflection, resulting in the replanning. A revised plan then kick-starts the next cycle (Kemmis and McTaggart, 2000). However, those stages might overlap and initial plans might become obsolete over time due to experiences made and therewith learning gained. Accordingly, the action research cycle is likely to be more responsive and fluid.

Figure 9: The action research cycle



Source: Kemmis and McTaggart (2000)

5.4. Data generation

The main input for primary data in this dissertation is semi-structured interviews with a broad range of input providers. The interviewees are clustered into three groups, including (1) CVC C-level responsible individuals, (2) experienced operative CVC managers and (3) CVC experts from a wider range of industrial industry corporations with special expertise on sCVC practices. The interviewees were chosen according to the authors' background and research focus of industrial, sCVC activities and extensive business network. However, for validation purposes experts from industries outside the

research scope were also consulted. In this context, semi-structured interviews within the scope of action research allowed for open discussions. Interviews could be adapted to the exploration of significant avenues of the discourse, whilst research focus could be sustained and remain consistent with the research question (*see section 2.3.).* It is important to guarantee this comprehensiveness and relevancy of the data in order to keep focus on the research objectives and discussion themes, since dilution by large amounts of rich information might otherwise distract.

The interviews were arranged to last between 60 and 90 minutes and in most cases were preceded by either a phone call or e-mail to request the interview and to provide a short debrief regarding the purpose of the research project. In comparison to the formality of structured interviews, semi-structured interviews were preferred so as to create a relaxed interview atmosphere.

In general, interviews were not recorded for privacy and confidentiality reasons. Also, the personal interview notes were kept by the author, since most interviewees are C-level executives, who would not have given open insights otherwise. In advance of the interview, an ethics and confidentiality agreement were put in place (see Appendix 2).

Interviews were predominantly held via Zoom due to location and time restrictions as well as the Covid-19 regulations, which were introduced during the later stages of this research. The remote interviews came with the advantage that interviewees experienced the interview in a relaxed and familiar atmosphere, which positively contributed to an open information exchange.

An interview questionnaire was developed prior to the interview process, clustering the topics of research focus with dedicated sections for each specific research group *(see*

Table 1). At the beginning of each interview, the author provided an introduction to the research field and the purpose of the research. This was then followed by open questions to promote a relaxed dialogue, avoiding initial short and closed reposes. The purpose of this was to encourage the interviewees to talk freely without being directed too much, whilst building up trust and rapport for more detailed discussions. Further aspects were then explored in more depth in accordance with the principles of intensive interviews (Charmaz, 2006). This approach has the advantage that through a gradual introduction of intensified interview questions, a directed and deep information exchange could be provoked but without too much interrogation. Throughout the interview process, the interview questions were slightly modified and refined and directed into specific topic themes. This was primarily due to thematic priorities emerging as a result of the ongoing data collection and analysis and using the principles of action-based research to refine the questions asked. Along this sampling process interviewees, known for their expertise in specific areas, were purposely drawn upon in order to support the elaboration of emerging themes and categories. The final phase of data generation reached its peak once the central categories and their dimensions appeared to be comprehensively covered – followed by a few more interviews to explore side-related issues.

Overall, fourteen interviews with eleven corporations and three experts have been held. In general, the questionnaire was sent only to companies, as the input from experts was used more as supplementary input. The anonymized list of interviewees is represented in *Table 1*, which provides information on the interviewee cluster group and background information on status and experience of the participant as well as on their organization sector or operating field and location.

Table 1: Interview candidates

Corporate sector / Operating field	Interviewee background	Cluster group	Corporate HQ
Mobility, health, industry, energy, IT	Mechanical Engineering	Managing Director / CEO	Munich, Germany
Mobility, health, industry, energy, IT	PhD in Engineering	CTO	Tokyo, Japan
Industry, Adhesives	MBA finance and accounting, 7 years VC, 5 years M&A	General Partner	Duesseldorf / Berlin, Germany
Electronics	Business	Managing Director	San Jose, California, USA
Industrial manufacturing	MBA Harvard; Mechanical Engineering	Principal	Greater Boston Area, USA
Safety, industry, transportation, electronics, health care, consumer goods	MBA, M&A transactions, corporate strategic planning	CEO	Minnesota, USA
Energy	Law and finance	CEO	Paris, France
Telecom, IT	MBA Insead; economics, consulting and entrepreneur	CVC CEO	Zurich, Switzerland
Consumer Goods	Entrepreneurship and CVC	Vice President	New Britain, CT, USA
Automotive	Electrical engineer / automotive industry	CVC Partner	Munich, Germany
Energy and automation	MBA Stanford; economics and business partnerships	Managing Director	San Francisco, California, USA
Innovation	CVC expert	CVC expert	Munich, Germany
Finance	CVC expert	CVC expert	London, USA
Finance	CVC expert	CVC expert	Zurich, Switzerland

Source: Author's own illustration

5.5. Interview framework

The interview questionnaire has been designed using a framework, which includes six sections (*see Figure 10).* Section one is a general section on the background information of the interviewees and their corresponding corporates. The second section comprises the organizational form of the CVC program of target, followed by the third section on the CVC program portfolio. The fourth and fifth sections involve more specific questions on the value drivers of the CVC program and how to achieve financial or strategic objectives. A range of value drivers are given, which are derived from the literature review and the author's experiences. The value drivers are rated using self-developed importance levels using rankings of one to three stars. One star (*) symbolizes the corresponding value driver to be important, two stars (**) to be very important and three stars (***) to be superior. In the last section of the questionnaire, the judgment section of the strategic value drivers, open answers are expected including an open comment field. Overall, the reasoning behind the six sections chosen is to cover all relevant background information and thematic insights, which are needed to best test the research hypotheses and to answer the research question in focus. More specific detail regarding each section of the interview questionnaire is provided below.

Figure 10: Interview questionnaire

GENERAL

What is your....	Answer	Comments
Current function / position		
Current duration of your function / position		
Academic and practical background		
Corporate sector of operation		
Corporate HQ location (if applicable)		

ORGANIZATIONAL FORM

What is your....	Answer	Comments
...orientation? (predominantly stragic or financial)		
...judgment on financial vs. strategic approach? (percentage split e.g. 70% strategic and 30% financial)		
...governance? (independent or integrated)		
...organizational structure? (fund, balance sheet, other)		
...budget size? (percentage of investment)		
...reporting line? (under CEO, under business unit,...)		

VENTURES / PORTFOLIO

What is your....	Answer	Comments
...preferred investment phase? (Seed, Series A,...)		
...targeted ticket size? (volume size)		
...preferred rights? (privileges,...)		
...plan to integrate? (yes/no)		
...speed? (duration startup scouting up to term-sheet)		
...venture scouting procedure? (proactive / passive)		

VALUE DRIVERS TO ACHIEVE FINANCIAL OBJECTIVES

To what degree would you classify the following value drivers...(* = important, ** = very important; *** = superior)	Answer classification	Comments / Examples in case of no relevance
Financial gains		
IRR or multiple (multiple size)		
Other value driver (please describe)		

VALUE DRIVERS TO ACHIEVE STRATEGIC OBJECTIVES

To what degree would you classify the following value drivers...(* = important; ** = very important; *** = superior)	**Answer classification**	**Comments / Examples in case of no relevance**
Insights and access to new trends		
Insights and access to new markets		
Strengthening of innovation capabilities overall		
Inspirations and start of new corporate businesses		
Filling in and completion of technology roadmap (identification and testification of white spots)		
Validation of existing corporate strategies		
Option building		
Involvement in corporate strategic dialogue		
Involvement in M&A dialogue		
Involvement in R&D dialogue		
Collaboration: Business Unit involvement		
Creation of new culture		
Decision making speed		
Talent search (intake talent with startup background into corporate + carve out corporate talent to run CVC unit)		
Entrepreneurial teaching as part of leadership program		
Brand awareness and marketing / reputation		
Environmental responsibility		
Social responsibility		
Abbreviation of R&D		
Financial gains (revenue and profitability growth)		
Value-add for ventures ("being" a good investor)		
Value-add for key customer leveraging resources (by direct startup communication)		
Direct investments (not FoF otherwise loss of strategic value)		
Other value driver (please describe)		

STRATEGIC VALUE DRIVERS JUDGEMENT

Your judgement on...	**Answer**	**Comments**
What does it need to unfold full potential of the abovementioned strategic value drivers (ideal set-up)?		
Whom do value drivers serve / support most?		
What do others do differently? Any learnings?		

Any further comments?	

Source: Author's own illustration

5.5.1. General part

The general part of the interview questionnaire concentrates on the background of the interviewee who, as previously described, either embodies a CVC C-level responsible, an experienced operative CVC manager or a CVC expert. Details of their current function / position, the duration of the function / position and their academic and practical background are also requested. Questions regarding the employer background are also asked including the corporate sector of operation and the location of the corporate headquarters. This information was collected to enable better comparison and validation of results presented later in the discussion part of the dissertation.

5.5.2. Organizational form of CVC programs

The organizational form section looks into the orientation of the corporate in order to identify the focus of the CVC program. Some CVC programs have a pure financial orientation, others a pure strategic orientation and some a mix of both. Hence, questions on the predominant focus and thus on the direction of objectives were asked. Details on the governance arrangements was also collected, since there is the possibility for a CVC program to operate as either integrated or as an independent unit. Also, the organizational setup can vary since a CVC program can operate as a fund, balance sheet investment, amongst others, with a corresponding reporting line and budget size. Therefore, details on those aspects were included to help to better classify the various CVC programs in focus.

5.5.3. Portfolio of CVC programs

In the portfolio section, answers regarding the preferred investment phase were requested. These can vary between seed investments, series A, series B, C, D, etc. or even resemble a mix of several investment phases. Accordingly, the interviewee was asked about the targeted ticket sizes, the investment volume per startup, the investment volume of the overall portfolio as well as the preferred rights in focus by the CVC program. Information on the integration plans of the ventures which had been invested in were queried too, in order to better understand if the corporate's innovation strategy was reflected by the CVC program. Similarly, the pro-activeness of venture scouting and the process speed up to the term-sheet was asked for. The reason for asking for this information is that some CVC programs operate passive venture scouting, which means that they receive investment requests without actively looking for ventures. Others on the other hand, are more proactive in their approach with a clear target focus and strategic approach. Regarding the process speed, some CVC programs run a more VC-like approach of six to eight weeks, or alternatively a business unit-like approach of eight to twelve weeks. The approach choice will depend on the governance, the organizational set-up and finally alignment to the goals and objectives which have been set for the CVC program.

5.5.4. Value drivers to achieve financial objectives of CVC programs

The most common financial objectives according to the literature review and the author's experiences are the financial gains. Basically, financial gains or so-called returns, are considered extremely important for survival and additional revenue generation, but also to attract the best startups. Financial gains can be measured as either Internal Rate of Return (IRR) or multiples, two common terms in the VC field. The main difference between the IRR and multiples is that they measure two different things. The IRR measures the percentage earned for each dollar invested for each investment period, whereas multiples measure the total cash that an investment will return. A multiple of for example "4x" means that the investment has achieved an "investment multiple of 4" at the exit. This measure predominantly relates to the complete fund volume and indicates its 10-year performance.

For corporates in general, it is easier to judge the financial performance by implementing these two measures than by looking at absolute numbers, which might appear small in comparison to the overall financial performance of the mother company. In addition, the questionnaire asks for other financial value drivers as a sanity check. No additional comments were received from interviewees in relation to this.

5.5.5. Value drivers to achieve strategic objectives of CVC programs

In contrast to the financial objectives, there are many more strategic ones targeted by corporate CVC programs. Most common strategic objectives are associated with insights and access to markets, technologies and in general new trends. Corporates strive to get a foot into new markets and technologies which are not covered by their core

business with the intention of securing further growth and hence competitiveness and future survival. Corporates aim to strengthen their overall innovation capabilities by taking sCVC as an external vehicle to elevate their innovation strategy. Furthermore, they strive to obtain inspirations to start new corporate businesses and to fill in or complete a certain (technology) roadmap, the so-called white spots. Besides the exploration aspects, corporates also look for validating their existing corporate strategies and further option building. They are often open for a strategic, M&A or R&D dialogue, receiving and validating new market and customer impulses with their defined and ongoing corporate strategy. In parallel, sCVC programs often prefer high collaboration between the corporate BUs and the venture of interest. Synergies can be generated such as the usage of systems and processes of either the corporate or the venture. Looking at the collaboration, there is often talk of the creation of new culture on the corporate side. This can be reflected in a new mindset, but also in an improvement in the decision-making speed and handling of processes in general. Another positive aspect of sCVC operation is talent search and retention. New skills and knowledge can be acquired through a talent intake with startup background. Alternatively, existing skills and knowledge can be retained via a carve out of corporate talent to run a CVC unit. Entrepreneurial teaching can be integrated in the leadership program, with special focus on failure and the handling of obstacles and scare resources. As a consequence, improved brand awareness and reputation can be established. Other strategic objectives are considered important for the improvement of a corporate’s image and these include training opportunities for the figurehead of the corporate, increased value-add for ventures ("being" a good investor) and value-add for key customers by leveraging resources through direct startup

communication. Likewise, the two recent trends of environmental and social responsibility, when acted out through investments in corresponding ventures, can lead to image enhancements. Apart from these rather intangible strategic objectives, there are also various tangible ones, such as financial gains or cost reductions e.g. the reduction of R&D expenditure. Revenue increase and profitability growth is to be expected. One must not forget that direct investments through CVC programs are perceived as tangible strategic objectives. So as not to leave out any important strategic objectives which have not been covered in this section, the questionnaire finally asks interviewees for any other strategic value drivers which they wish to highlight.

5.5.6. Strategic value drivers' judgement of CVC programs

In the last section of the interview questionnaire, emphasis is placed on questions regarding what is needed to unfold full potential of the above-mentioned strategic value drivers. That is to say, what is the ideal set-up and circumstances needed to make a CVC program successful. This is an open question to be considered by the interviewee. The interviewee is asked for who the value drivers serve most and how other corporates operate in comparison. The underlying reasoning for this question is to determine severe differences in CVC practices as well as lessons learned.

Finally, the questionnaire ends with a further comments section, which allows the interviewee room to raise additional points which are not treated with enough depth and detail elsewhere.

5.6. Summary

This chapter informs the reader of the chosen research design. The dissertation follows an action research approach as it reports on the study of actions to an external audience. The author is an experienced practitioner in the field of CVC and especially sCVC. This brings the advantage of familiarity with the terminology used and the status and dynamics of the ecosystem. Detailed expertise is available, enriched by academic research. In the context of the data generation, semi-structured interviews are conducted as primary input, further enhanced by a literature review and secondary data. Information on the interviewee selection process, set-up and execution of the interviews is provided, as well as the development of the interview questionnaire. Subsequently, the interview framework is mapped out and described in detail covering the general part, organizational form, the portfolio in focus, the financial and strategic objectives as well as the judgment of the interviewee.

In the following chapter, interview findings of those areas addressed are further outlined. Particular emphasis is placed on the financial and strategic objectives and the further anomalies and additional comments by the interviewees. The questionnaire framework and the participant selection will be reviewed, and findings discussed.

CHAPTER 6 – ANALYSIS AND FINDINGS

6.1. Introduction

This chapter will cover the various analyses carried out and results obtained to test the research hypotheses (*see chapter 2*) and answer the primary research question and its sub-questions. Findings from interviews conducted are juxtaposed and supplemented with those of the literature review and from supplementary research with particular emphasis on insights on sCVC. A sCVC framework is developed, reviewed and potential amendments are evaluated and propositions developed. A summary and discussion of the analyses and research findings is provided at the end of the chapter.

6.2. Findings related to organizational form

A number of factors relating to organizational form emerged from the interviews which contribute to the foundations and principles of CVC investment. These factors are detailed in the following sections.

6.2.1. Orientation

Overall, the organizational form of the CVC programs researched shows a very similar picture. The majority of respondents stated that CVC units had a predominant strategic focus with a financial component being a prerequisite for investment. CVC units generally aimed to make a strategic contribution to the corporate mother company and its entire ecosystem through CVC investments. For example, cooperation potential with ventures was highlighted as a prerequisite to leverage CVC as an innovation vehicle for

the corporation. In addition to strategic ambition, CVC units also targeted financially attractive companies, such as the next future billion-dollar businesses or so-called unicorns. One of the aims for doing this was to send the right message to startups and other investors that CVC units also care about the financial return of a startup. Notwithstanding this, interviews have shown that CVC units have the leeway to tailor their CVC orientation form according to the particular group being targeted.

6.2.2. Judgement on CVC approach

Whilst results showed general unity on the organizational form, the CVC judgments regarding the CVC approach showed a slightly deviating picture. The majority of interviews revealed a strong tendency towards a 50-50 judgement on strategic and financial investments with deviations in both directions. However, it appeared that this judgement varied and was dependent on the background of the interviewee. Most interviewees highlighted that no investments took place without VC-like returns and the strategic relevance of the investment varied somewhat. Looking for more evidence of a mainly sCVC orientation, some interview candidates indicated that their focus was on primarily sCVC investments. This was because the overall purpose of CVC investments is to support and challenge corporate strategy and good strategic investments could also yield good financial returns. These financial returns were then not only seen as capital gains, but also as sales/profit growth. Some interviewees stated that their first investment criterion was strategic focus and if this was not met then it was used as a knockout criterion to filter out potential investments. If there was no strategic fit, they would most likely not pursue the investment. The second filter was then a financial filter to examine

the financial outcome and determine if it was a positive investment. If an investment offers a rather low financial potential, but a high strategic potential is identified, the investment is sometimes made anyway.

6.2.3. Governance

Interview results showed that there is no consistent governance form for CVC units. Some of the CVC units operated as independent funds with the corporate parent as a sparring partner and the Business Units (Bus) drawn on startup collaboration and integration. Others CVC units were completely independent and only slightly intertwined with the corporate, or in contrast established as a fully integrated unit that is strongly intertwined with the corporate parent BUs. In addition, an operational model which was a combination of an independent and integrated form under the umbrella of the same corporate company was found. In this instance, the independent fund and an integrated CVC unit were established for different intended purposes. Furthermore, interviews revealed that there was also a variation in governance arrangements regarding the freedom of taking investment decisions. Some CVC units referred to restrictions above a certain investment amount, such as EUR 10 million, where approval of the investment committee had to be obtained or where they had to involve BUs and needed their buy-in.

6.2.4. Organizational fund structure

Depending on the governance structure in place, separate fund or balance sheet investments were found and occasionally, a combination of both occurred simultaneously. In general, it was found that a separate fund structure aligned with an independent governance model, and the balance sheet structure with the integrated governance

approach. However, exceptions were found such as a separate fund structure under the corporate mother governance. Both organizational forms demonstrated advantages and disadvantages, but interviewees commented that they were most effective when the fund structure was compatible and supportive of the CVC unit's goals and expectations.

6.2.5. Budget size

The budget size of the CVC units which were studies could not be compared with each other. Results showed that CVC budget sizes varied considerably with some CVC units having an annual available budget in the region of EUR 50 million and others managing budget funds between EUR 150 million and up to a EUR 1 billion. Some CVC units stated that their budget size depended on the overall corporate investment sum planned and this might change on an annual basis. In addition, interviews have shown that there are different timelines for budgets and funds, which often have spending restrictions required by the corporate parent regarding engagement or specific thematic issues. Time frames can also vary with a short-term focus of about three years to demonstrate returns and up to ten years for a long-term focus of corporate CVC activity.

6.2.6. Reporting line

Interview results showed that there was no common reporting line amongst the CVC units studied. However, what was observed was that generally the reporting line goes directly to a C-level member, from CFO, CTO, CSO, CIO to CEO - or quite often indirectly via a CX member to the CEO. Investment committees, responsible for the investment decisions of the startups, were also kept rather lean with a limited number of committee

members from the board level. In addition, some of the CVC units studied had an advisory board which met a couple of times a year with additional external members to undertake investment evaluation for the CVC unit.

6.3. Findings related to ventures / portfolio

6.3.1. Preferred investment phase

Most of the CVC units analyzed showed a strong tendency to Early-Stage investments such as Series A with very few starting with seed or even pre-seed investment (Reiff, 2021). Some CVC units tapped into Series B investments, while most only chose Series C and Series D as follow-on investments. In general, most CVC units preferred to remain flexible and were investment stage agnostic in order to remain flexible and able to respond to the development and execution speed and perhaps more importantly the better “maturity” of the target. In this regard, “maturity” of the startup means that they already have revenues to show, some real customers buying products or services and a good management team with an entrepreneurial mindset not just a technical focus. This requirement was declared as a risk mitigation by the CVC units.

6.3.2. Targeted ticket size

Even though interviews showed quite homogeneous results in the investment phase taken, the ticket size found showed great variance. Ticket sizes ranged from one million up to EUR 20 million with follow-on investments included and dependent on the fund investment strategy and restrictions. Ticket sizes were often limited by fund regulations with a 15% maximum investment of the total fund size per target. Inferences can be drawn about the total budget available and the respective type of budget management, but most commonly about the maturity of the venture.

6.3.3. Preferred rights

Unilaterally, CVC units stressed their preference to adopt typical VC preferred rights. For example, the right of first refusal with terms decreasing over time was a preferred option. Some CVC units aimed to secure the privilege of a board (observer) seat at the target venture, especially if they were a lead investor.

6.3.4. Plan to integrate

In general, interviewees indicated that purchase or integration of the startups into the parent company was not planned or recommended due to the huge cultural differences which existed. Some CVC units were open to the idea of integration, but at the time of interview, had not actively pursued this goal. Other interviewees expressed the contrary view and emphasized the disadvantages of possible integration of startups in the corporate parent. For example, key personnel within the startups may leave due to increased bureaucracy and politics within the corporate parent or simply reduced agility

due to slower decision-making processes. Finally, interviewees indicated that if ownership, responsibility or strategy changed significantly then founders would leave. Some CVC units responded that they would only integrate under certain conditions such as when there was an innovation stop, which made the product part of the core business. Or if, at the same time, they were able to acquire very specialized talent that was a complementary fit to the corporate R&D team or business unit.

6.3.5. Speed

Interviews have shown that the time span of a deal closing varies on a scale of four weeks to six months from first contact to closing. The speed of deal closure depended on various aspects, which might by rooted internally or externally. Internal delays could arise because of too many concurrent deals ongoing or staff shortage and focus. External delays could be caused by difficulties such as accessing necessary data and good customer feedback, amongst other reasons. Generally speaking, deals with a more pristine thematic background and niche complexity or experience tended to have a longer due diligence process. Also, CVC units operating as an integrated corporate unit showed a tendency for a longer time period of investigation due to more corporate involvement and consequential additional bureaucracy and coordination. However, the overall mantra observed was that all CVC units aimed for a deal duration which was as short as possible but was appropriate to demonstrate value-add.

6.3.6. Venture scouting procedure

Interview results showed that the venture scouting procedures adopted by CVC units was heterogeneous. A significant amount of venture scouting was inbound and arose from the company's BU heads and R&D or business development teams. In this instance, it was almost certainly aligned to the corporate strategy. Other venture scouting procedures observed included syndication through the partners' network with VC/CVC or the global startup community in various hotspots as the main source of pipeline as well as proactive venture scouting regarding investment theses mapped out. Only a few respondents mentioned a passive approach to venture scouting such as cold calls by them. Finally, all respondents emphasized their target metrics for the number of companies to be procured and their alignment with the business unit strategy.

6.4. Findings related to financial CVC value-add

In this and the following section, value drivers to achieve financial and strategic objectives were queried and given ratings to aid evaluation. The ratings started with "no asterisk", meaning no importance or relevance at all, " * ", meaning of being an important driver, " ** ", meaning of being a very important driver and " *** " meaning of being superior driver towards either financial or strategic objectives of the corporation of target. The results of the strategic objectives drivers are shown in *Figure 11* and the ones of the financial one in *Appendix 1.*

6.4.1. Financial gains

In general, the interviews showed that financial gains were relevant and rated as highly valued. Most of the respondents indicated that financial gains were “very important drivers” to achieve financial CVC value-add as they are the basic raison d'être of the CVC unit. Of course, appropriate IRRs or multipliers were also a prerequisite in this context, but adding financial gains was perceived as an important aspect. In particular, adequate financial returns with a special focus on early success cases for recession survival were sought. Even in thriving market conditions, financial returns were highlighted by respondents as superior because they are necessary to make large CVC investments to attract the best startups, potentially leading to the next billion-dollar business entity.

6.4.2. IRR or multiple

IRR or multiples were generally rated as a “very important means” of assessing financial performance of CVC investments. Respondents argued that it was easier to assess financial performance with an IRR or multiples than it was with absolute figures, which may seem very small compared with the performance results of the corporate parent. IRR and multiple figures are routinely used in the VC world and are often drawn upon for either internal decision-making or external comparison and figurehead (*as elaborated in section 5.5.4*). Respondents indicated that from an internal point of view, IRR and multiples were often requested by the finance department, CFO or CEO to provide an overview of the financial development of the CVC unit. This was especially the case at the beginning of a CVC program when these figures are used for valuation aspects. In addition, respondents indicated that IRR and multiples were also key figures

used to inform carry decisions and future new or follow-on investments decisions. Overall, interviewees indicated that an IRR of around >10% or a multiple of 2X were appropriate financial performance targets.

6.4.3. Other value drivers

In addition to the financial CVC value drivers previously mentioned, respondents highlighted several other drivers. One which was mentioned various times was the need to return value to the business units and the corporate mother overall. However, it was recognized that this so-called strategic value for the entrepreneurial anchor investor also presented overarching challenges for the CVC team due to a lack of transparency and thus measurability or, better, evidence of impact. The alignment of CVC investments with the company's strategy was highlighted as a value driver by respondents too. In the following section, more insights regarding strategic value drivers are outlined and detailed analysis and corresponding rankings are provided.

6.5. Findings related to strategic CVC value-add

A total of 22 strategic value drivers were listed in the questionnaire and respondents asked to rate their importance and relevance for the corporation and achievement of strategic objectives. Interviewees were also given the opportunity to comment on each value-driver provided as well as their scored ranking. The value drivers reflected a collection of values found in the literature, as well as from the author's personal experience. In addition, respondents were given the opportunity to discuss additional strategic value-drivers that were not covered. In the following sections, results for each

value driver are provided including ratings and comments discussed individually. The final section includes statements on additional strategic value drivers highlighted by respondents.

A graphical overview of the questionnaire outcome on the value drivers towards strategic objectives can be found in *Figure 11*.

Figure 11: Value drivers towards strategic objectives - Overview responses

Involvement in R&D dialogue

Collaboration with Business Units

Creation of new culture

Decision making speed

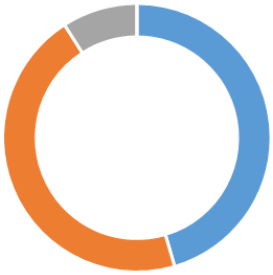
Talent search

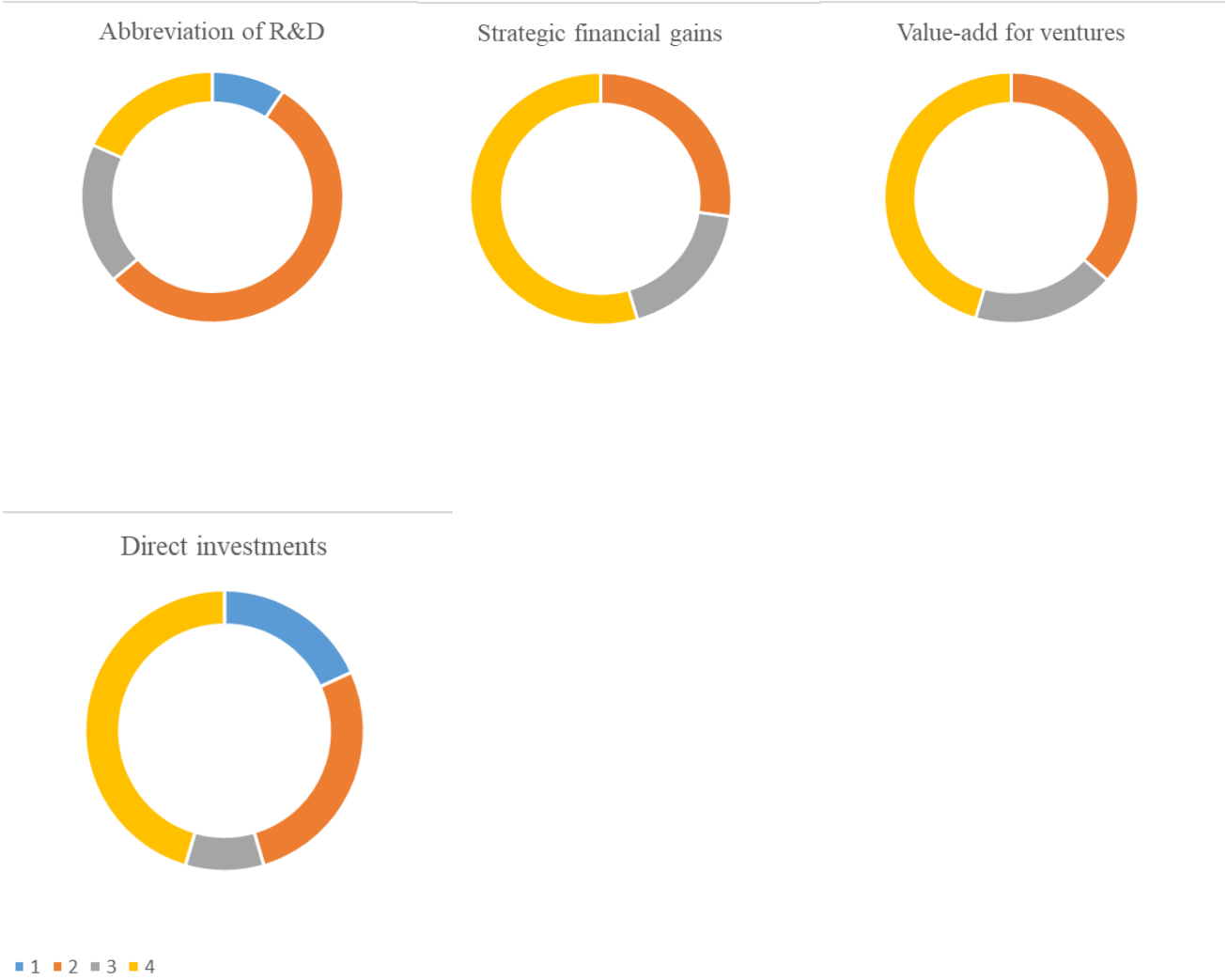
Entrepreneurial teaching

Brand awareness and marketing

Environmental responsibility

Social responsibility





Source: Author's own illustration; 1=no importance / relevance; 2="important"; 3="very important"; 4="superior"

6.5.1. Insights and access to new trends

The overall rating of this value driver was “very important” with respondents highlighting the importance of obtaining insights and access to new trends in order to better classify current and future business activities. It was the general view of respondents that corporates tended to see the world from the perspective of their core business only and often recognized new trends when it was too late. However, respondents emphasized that activities should be viewed from a holistic perspective rather than on a deal-by-deal basis. Information overload and complexity was often cited as a challenge in this context and interviewees considered it critical for the corporation to understand who is interested in what, when and why, and who is the target audience in order to deliver maximum value. Most corporates lacked benchmarking data and visibility from adjacent markets.

6.5.2. Insights and access to new markets

This value driver also has the same overall rating of “very important” as the previous value driver. Respondents also emphasized that a holistic perspective would be preferred for this value driver and that there is a potential risk of information overload too. Furthermore, respondents stated that gaining insights and some expertise in new fast-growing markets was more important than gaining market access. Of particular note in this context was the statement that one of the most important value drivers of a company is to “not make wrong decisions”. Accordingly, the analysis of new technology and market trends is of great importance in order to avoid wasting money and resources.

6.5.3. Strengthening of innovation capabilities overall

This value driver shows an overall rating of being “very important” but with rating outliers of “superior” and “no relevance at all”. Regarding a more superior rating, respondents stressed that CVC was a promising route for strengthening corporate innovation capabilities especially for business model innovation and eco-system innovation. Other respondents considered the startup incubation function as a major route for impacting on innovation capabilities. Regarding the rating towards no corporate relevance, respondents considered traditional R&D and M&A mechanisms as the preferred route to strengthen innovation capabilities.

6.5.4. Inspirations and start of new corporate businesses

This value driver was also seen as “very important” but has some dependencies. Respondents felt that BUs should be reflected in the new investments and that the corporate mother should not compete with the (new) portfolio companies. The timing of a proposed new investment was also considered of utmost importance. In the case of rather poor business performance of the corporate mother, the execution of the investment would most likely not be ideal. Furthermore, the similarity of an entrepreneurial approach of starting a new corporate business via CVC and one of startups founded from zero was emphasized and that these should always start with a clear strategy and business plan scenarios.

6.5.5. Filling in and completion of technology roadmap

Overall, this value driver was rated as “very important”. However, interviewees from the CVC units gave contradictory responses. Those who attributed less importance to CVC for identifying and testing white spots argued that the roadmap was the responsibility of corporate R&D and the BUs and that there were already many technology scouts and experts in the industry. CVC was only considered valuable in emerging regions, markets or technologies in which the company has little experience. Others who attributed more importance to CVC for identifying and testing white spots argued that only some areas are covered by the BUs, but this can be very limited and single-viewed. The identification of white spots through CVC investments is thus a good starting point of innovation and contribution to the technology roadmap.

6.5.6. Validation of existing corporate strategies

The value driver of corporate strategy validation was largely perceived as “important” but also with various perspectives. On the one hand, respondents stated that there was no evidence of CVC being a value driver for the corporate and that in general it was rather backward looking and typically did not validate the current business strategy. However, on the other hand, some respondents stated that challenging the existing corporate strategy was one of the superior functions of CVC. The radar of the venture arms market activity in most agile, challenging hotspots around the globe are usually highly sensitive, promising innovation indicators. As a consequence, CVC can be used as a vehicle to control the pulse of innovation sources valued by corporate strategy to

identify technologies and companies in times of social, environmental and health challenges.

6.5.7. Option building

In general, option formation or scenario building was highly valued by all respondents with an overall “very important” rating. This reflects the possibility of discovering major new business areas and how they can be developed to have an impact on corporate growth. Nevertheless, respondents felt that this would be dependent on a company's R&D capabilities and the business development skills of business units. For some corporates, CVC was not seen as a strong contributor with BUs preferring internal organic development reliant on strong corporate R&D support and demonstrating a fear of sharing corporate skills or knowledge gaps. As a strategy option, however, some respondents felt it was significant because they believed there was potential value in "experimenting" in new territories through CVC activities. This type of collaboration was believed to be less risky than spending huge amounts on R&D programs for new product development.

6.5.8. Involvement in corporate strategic dialogue

The objective of engaging in strategic business dialog was considered "very important" because understanding a company's strategy was viewed as indispensable for making strategic investments or allocating resources to selected businesses with expected growth potential. Feedback through CVC, based on identified market and technology trends and filling white spaces, must be used to challenge, review and even

modify corporate or BU strategies. However, respondents emphasized that strategic dialogue does not take place on all levels and occurs predominantly between the head of the CVC unit and the C-level management and heads of the corresponding BUs. To facilitate dialogue, some CVCs had summarized their findings in cluster-based strategy recommendation papers and had also been invited to participate at C-level strategy dialogue.

6.5.9. Involvement in M&A dialogue

An exchange with the M&A department was seen as an “important” value driver by respondents but this does not always take place. There are some collaborations for BU deals that are of key interest to the portfolio companies. This practice is more likely to be seen that most of the strategic return is generated by collaboration projects, and it brings good financial returns when it works well. CVC activities and due diligence were recognized as future oriented, and the CVC unit could help identify disruption or strategic fit even for M&A activities. Examples were given where significant M&A investments of millions of euros had been undertaken with no strategic or joint growth perspective realized. This situation could have been avoided if the investments had been analyzed or even strategically discussed in advance with the CVC units.

6.5.10. Involvement in R&D dialogue

An exchange with the R&D department was seen as a “very important” value driver. Respondents indicated that the “not invented here” syndrome often prevented frank discussion with the corporate mother. However, this dialogue is considered crucial for a coherent corporate strategy. Other CVC units stated that they have a close relationship with the CTO and are even prioritized by major R&D projects and their budgeting.

6.5.11. Collaboration: BU involvement

Collaboration with the BUs was also seen as a “very important” value driver with a major part of strategic return obtained through collaboration projects. When working well, respondents felt that these relationships delivered good financial returns. However, some interviewees indicated that for some deals BU cooperation did not occur, even if the deal was also of central interest to the portfolio companies. The primary reason which respondents gave for this was that BUs often thought in silos and lacked the right incentives for engagement initiated by the management. Several interviewees were of the opinion that collaboration should be funded by the BUs, but that would be dependent on a certain entrepreneurial mindset, venture commitment, interest and an enthusiasm for open innovation.

6.5.12. Creation of new culture

The creation of a new corporate culture through CVC was considered “important” with some companies placing more emphasis on it than others. Respondents made a number of observations regarding culture creation including that CVC resembles the connection between the corporate and entrepreneurial world and hence promotes mutual understanding. In this regard, a company must think and act more entrepreneurially in the context of working with startups. Nevertheless, respondents felt that the extent of corporate culture change via CVC influence was limited but could be supported via executive training whilst working with entrepreneurial founders in fast changing eco-systems. Interviewees believed that intense dialogue with startups and associated collaborations challenged the openness of corporates to outside-in innovations, as opposed to those often invented by organic internal R&D, making a mindset shift imperative. Working with select talent and academics in agile and complex digital spaces would challenge old-fashioned management skills and traditional hierarchical work patterns, decision-making processes and corporate policies.

6.5.13. Decision making speed

The speed of decision-making was primarily rated “very important” by respondents. In line with its cultural nature, decision making speed was found to mirror the dynamics and mechanisms of the CVC unit. CVC units would often struggle with the decision-making speed of corporates since corporate dynamics are much slower than those of startups. Respondents indicated that the conflict in decision making speed leads to the loss of opportunities, mutual distrust and potential failure of the collaboration. Accordingly,

the achievement of required speed for CVC decisions is rather dependent on a corporate culture and on the corporate governance and organizational structure in place.

6.5.14. Talent search

Talent search is an “important” value driver in the eyes of the interviewees, especially the intake of talent with entrepreneurial niche startup background and the carve out of corporate talent to run the CVC unit. Respondents indicated that, more often than not, CVC units did not have this dual focus talent combination, and when they did, the mindsets typically did not match. The was because the nature, preferences and skills of people required to run startups and large companies are very different. Consequently, interviewees recommended that it was better to find professionals within each community. In contrast, some corporate executives see opportunities by acquiring talent from outside.

6.5.15. Entrepreneurial teaching as part of leadership program

Entrepreneurial teaching or executive training does not receive the same attention in all CVC operating companies. On average, it is seen as an "important" value driver of CVC, as it is critical to achieving a strategic return on investment, accelerating collaborative projects, and changing the corporate culture. Nevertheless, it was not considered synonymous with making money by some and was perceived more as an incubation function. However, it was accepted that the skills relevant to a founder are very similar to those in business development or those with a mandate to start something new from within: strategic thinking, risk-taking, resource planning and monitoring, and a clear business plan and execution even in uncertain, rapidly evolving, complex, and young eco-

systems. Some CVCs offered leadership training for selected ambitious future executives and would like to see it mandatory to have worked with startups and even for them to take a board seat.

6.5.16. Brand awareness and marketing / reputation

Creating brand awareness and using CVC for reputational purposes was rated as an “important” value driver. Some respondents stated that it was “a must” to continually invest in the best startups and to use these as a figurehead of great CVC operations. Respondents believed that collaboration with startups should be part of a company's innovation strategy and should directly feed into the company's value. In particular, having great startups in ones’ portfolio would result in great returns and hence attract more and better talent for further CVC operations. Conversely, some respondents emphasized that the expected brand impact was not as big as anticipated because most of the top companies, such as those in the Fortune 500, already have a very good reputation and do not need CVC for marketing purposes as other, cheaper brand awareness options are available. However, interviewees felt that in times of disruption, a solid innovation strategy and an obvious interest in open innovation and collaboration with startups would help the corporate to be recognized as an innovation leader with a "healthy appetite" for investment and growth. Partnerships with startups initiated by CVC units are in the public spotlight and are always of great interest.

6.5.17. Environmental responsibility

Using CVC to drive and correspond to environmental responsibility is an emerging phenomenon. Overall, this value-add was rated as “important” by those interviewed. However, respondents indicated that most corporates and their CVC activities are not yet familiar with how to best leverage it as a value driver. Nevertheless, it is clear that environmental responsibility is recognized as a priority for CVC investment in that field.

6.5.18. Social responsibility

Similar to environmental responsibility, social responsibility is a rather new, emerging topic. There are some signs that it will become a central value driver in the future, but the majority of the companies interviewed have not shown any signs of this so far. The overall questionnaire feedback rating was between “no answer” and “important”.

6.5.19. Shortening of R&D

Respondents replied that CVC is used as a shortening of R&D processes, hence gave it an “important” rating. Nevertheless, no heavy emphasis was laid on it by BUs with R&D mainly focusing on core business and incremental innovation. Respondents indicated that large R&D organizations were disrupted when outstanding innovations come from startups rather than corporate R&D, and some struggled to raise new budgets for the activity.

6.5.20. Strategic financial gains

Financial gains are highlighted as a necessity for CVC investment success and were rated as "very important". Revenue and profitability growth is the key CVC mandate with the goal of discovering growth options, organic and inorganic, for the parent company. In addition, interviewees commented that it was necessary to motivate and attract BUs to participate in a joint project in order to make a statement to startups that the CVC unit is seeking appreciation and performance growth.

6.5.21. Value-add for ventures

Consistent with the CVC objective of demonstrating financial returns, generating value for ventures was considered "very important." Value creation is important for attracting promising startups and generating good investment opportunities from other VC/CVCs. Being seen as a "good investor" was considered a core value driver.

6.5.22. Value-add for customer solutions

Creating value for selected key customers through direct startup communications is a rather untapped goal and interviewees felt that the potential had not yet been exploited. No rating was given. However, it was made clear that by adding startup technologies or new business models to customer projects, that this would leverage resources if these startups are directly involved in those selected customer projects. It would also add value to Proof-of-Concept projects. At the same time, through these "real" customer projects, the corporate will experiment and verify new startup solutions or apps in real business opportunities.

6.5.23. Direct investments

Direct investment was rated as a "very important" value driver and was found to be common practice. Respondents emphasized that it was very rare to pursue Fund of Fund (FoF), which was thought to be more of a complementary strategy for gaining further market insights. In addition, FoF needs to be well managed to deliver the expected results and interviewees commented that employment of key professionals with VC/CVC experience and corresponding capabilities was paramount.

6.5.24. Other value drivers

In this section of the questionnaire, respondents were given the opportunity to comment on other value drivers for achieving strategic goals and several additional value drivers were highlighted.

First, one comment by a respondent referred to the value driver of seeing the CVC unit as a Swiss Army Knife that is multifunctional and provides a variety of supporting tools ranging from technology and disruptive trend monitoring to strategic insights for top management. A second respondent highlighted that the search for startups as suppliers of complementary products to strengthen the corporate platform was an additional value driver. In this context, CVC activities were mentioned as a means to promote the entire ecosystem. Finally, a third interviewee emphasized the personal development of top management, who want to better understand the VC/startup world. In this context, VC is perceived as "cool" and top managers want to learn and enrich their personal skills and know-how through high-growth startups.

6.6. Further anomalies and additional comments

At the end of the questionnaire, further questions were asked on the subject of judgement on the strategic value drivers and interview responses and are detailed below.

6.6.1. What is required to realize the full potential of strategic value drivers?

Leaving aside the perspective of ventures, respondents indicated that two perspectives must be considered in order to unleash the full potential of sCVC.

Firstly, there is the corporate perspective. The corporate parent must enable an open and welcoming culture to work with startups on disruptive and risky projects and have an appropriate budget available. Inputs on explicit business strategy plans must be shared with the CVC unit. The corporate must make a long-term commitment that cannot be reversed, and it must be prepared for a high percentage of failures in early-stage investments, but with some value-creating winners, sometimes even "unicorns". Additionally, respondents stated that hiring highly experienced executives with an entrepreneurial mindset and a global innovation network, as well as a track record of success (even awards) was imperative.

Secondly, there is the perspective of the CVC unit. Interviewees believed that the CVC unit must be able to make decisions independently and quickly, operate under VC conditions and VC cultural lean, and must have extensive experience as a good investor to attract the most promising investment targets. The CVC unit must also have a close relationship with the board of directors, who should be highly and sustainably supportive of early and growth-stage CVC activities, and a continuous, trusting strategic dialogue must be established in order to share confidential information and create awareness. For

CVC units aligned with the BU, clear expectations of potential strategic value must be defined at the outset for the corporate mother so as to receive maximum support and advice. The CVC unit setup was perceived as indifferent by respondents because it can be adjusted over time. It was clear from responses that there was no clear correlation between success and failure rates of the ventures and the CVC fund set-up - dependent versus independent, integrated versus self-sufficient. What does appear to be important is that the CVC unit has freedom in its decision-making and has C-Level access to ask for advice. Experiences of the individuals interviewed showed that the more independent the CVC unit is then the more freedom it will have and the quality of the CVC leaders, CVC operators and supporters are crucial. People who have credibility and the ability to communicate effectively, including the ability to translate and realize opportunities through storytelling, are critical. These are the individuals who have passion and the belief that the CVC can add strategic value, no matter how difficult. It was the general view of respondents, that without this mentality, CVC investments would end up as normal independent VCs with little value-added to the company and that the CVC would be discontinued over time. Another related obstacle highlighted by those interviewed was frequent top management rotation. CVC programs typically have strategy cycles which are more than twice as long as the CEO tenure (CVC unit horizon is 10 years with a five year investment cycle where as. top management tenure is typically ~three years). It was the general view of those interviewed that recruiting and retaining great people required good compensation mechanisms including venture-style carries, corporate shares and other sales incentives or profit sharing mechanisms.

6.6.2. Whom do value drivers serve / support most?

Interviewees shared the view that first and foremost, the CVC unit needed to demonstrate some USP that served the portfolio companies, otherwise it would not be able to invest in the best ventures, which was its primary goal. In addition to this, other stakeholders were identified that need to be supported. For example, it was considered advisable that the CVC unit establish a direct relationship with the board, most likely through a specific BU. In addition, the investment and potential advisory committees, if any, were considered high priority in terms of existing value drivers. The investment committee usually comprises relevant executive board members, but often also includes significant stakeholders from specific BUs. Overall, respondents felt that value drivers had the purpose of creating strategic value for the company by acting as a strategic vehicle of external innovation.

6.6.3. What do others do differently? Any learnings?

The questionnaire and the interviews revealed multiple learnings from different angles, and these are set out below:

- The CVC unit has to be clear about the "why" and stick to it. The best vehicle for this is to visualize the positioning and integration of CVC activities within the ecosystem of the corporation, highlighting any potential strategic value-add.
- Accompanied by the question of "why", corporates often provide inconsistent or missing mandates. Hence no strategic mission or implementation guidance is given.
- Long-term commitment by leadership is crucial. Unlike traditional CVC, sCVC works with a fund for at least 10 years and with a generation of funds typically for two

decades or more. Management buy-in is paramount as well as a very well-staffed investment committee, since they are critical for aligning strategy with CVC investments. Commitment for CVC investment practices must be demonstrated, whilst educational enhancement for a better understanding was often recommended by respondents. Leadership must also understand the J-curve of startup success, where there is a high dependence on the economic cycle and a high failure rate of investments. The J-curve reflects the trend line of showing an initial loss of returns of a startup or a company in general, followed by a significant return increase. The J-curve got its name because of the shape of the capital development.

- Clear objectives and expectations are required with an appropriate CVC unit structure to achieve them. Interview feedback indicated that it was best to align expectations with well-defined milestones. A staged approach with wide consultation and the development and usage of a CVC roadmap throughout the program duration has found resonance. In this regard, the biggest obstacle to avoid and potential challenge to overcome, is that there has to be traceable evidence of (strategic) CVC impact on the corporate mother and growth. Many companies with CVC activities found it difficult to show impact correlations caused by CVC investments in their corporate ecosystem. Respondents indicated that one possible means of proof was documentation. For example, if R&D uses the New Product Vitality Index (NPVI), the contribution of the CVC unit can be tracked and "measured" in some way for growth.
- In order to realize the mandate and the objectives and expectations set, the right people must be hired and retained. A good balance of people operating and supporting the CVC practice must be established, with an understanding of corporate

characteristics as well as entrepreneurial ones. Accordingly, incentives and compensation for these individuals was considered a prerequisite. CVC is predominantly a people business; hence motivation and engagement is key.

- Clear internal and external communication about the objectives and USP of the CVC unit must be introduced with understanding and awareness a prerequisite. For example, some of the CVC units interviewed mentioned the hosting of a CVC summit for awareness purposes, where key stakeholders and other practitioners were invited for knowledge sharing and for letting go of any concerns and prejudices. It was felt that CVC team networking was extremely beneficial and that this should be encouraged as much as possible. For example, by co-investment in targets, new business partnership is built e.g. when negotiating terms or sharing board seats of ventures. These partnerships usually have a positive, fruitful effect for the corporate mothers.
- Independent decision making is required, and corporate meddling and bureaucracy must be prevented. Respondents recognized that the CVC unit needed to operate in an agile, fast and rather independent manner in order to grasp investment potential when it is offered; there is no time to wait for hierarchical processes and corporate "approval". In order to respond quickly, the CVC unit must have a strong entrepreneurial spirit and investment experts with demonstrable good judgement.
- In line with corporate integration, interview respondents felt engagement with the corporate was crucial as well. This was considered particularly important when the focus was on strategic value creation and a strategic dialog with corporate strategy and collaboration with BUs and venture investments was required. Permanent

engagement with other departments such as R&D and corporate strategy (mostly including M&A) were also considered beneficial for strategic alignment.

- Interviewees stressed that corporates should know their experts and should understand best practices. In addition to those directly related to CVC, the CVC unit should also learn as much as possible about VC. Respondents believed that the CVC team should be aware of potential pitfalls and allow feedback and should demonstrate that it would adapt if necessary.
- Interview respondents stated that CVC units provided the benefit of challenging strategies, but it was important to avoid making wrong decisions and preventing the corporate mother from losing money. Accordingly, insights and lessons learned must be shared, discussed, analysed, documented and then corrected for future investments.
- Respondents commented that a "no" should be taken as an opportunity to ask "why" and it was important to be clear about it and to communicate it. The rejection should be embraced and further calibrated and through a better understanding of the "why", appropriate changes could result in a "yes" for a certain decisions or important resources needed.
- Active cooperation and operative support of ventures should be practiced. Respondents believed that ventures should be able to choose the support they needed, whilst profiting from corporate resources such as knowhow, R&D, networks and finances amongst others. It was recommended that the CVC entity take a seat on the startup board or be an observer only in order to advise and help the startup

meet agreed-upon business plans, oversee management, and provide corporate governance to the founders.

- Respondents expressed the view that CVC was an options game. More specifically, CVC delivers or offers a set of options and opportunities to its mother, which can then decide whether or not to experiment, collaborate or exercise them. In most cases, the corporate mother did not choose to exercise the options, but respondents were clear that when the CVC-mother game works, even occasionally, it can create tremendous value-add. Increasing numbers of good examples are encouraging corporates to engage more or partner more with startups. Therefore, in the long run, interviewees stated that it was not just about creating options but making sure that the corporate mother discussed and considered them, then exercised them to create real value and sustainable growth. In the current context, CVC alone cannot do this because it does not make decisions about material aspects. More often than not, the final stage of involvement for the CVC unit is merger with top management of the venture. Hence, the CVC unit not only has an advisory role through board membership but is also given sufficient resources and authority to exert a lot of direct influence. Respondents provided examples of companies such as Tencent or Softbank, which are already testing this idea with the CVC fund becoming increasingly more important than the parent. When the CEO of the corporate mother company begins to master the CVC option game it becomes a fully integrated part of the strategic development and growth driver.

6.6.4. Further comments

Further comments made by interviewees related specifically to the question of the ideal CVC setup, which is often treated as the holy grail or secret recipe of success. The most common set-up types identified were:

A. Fully integrated e.g. Intel Capital: This set-up can work well and can be sustainable if it is supported by top management and reaches a critical size. However, this set-up type has several pros and cons - weaknesses include: lack of carry incentives, and corporate instability. Strengths and advantages include: fundraising ability, great brand, strong network, emotional/cultural fit between parent and CVC.

B. Fully independent, single corporate LP e.g. Hitachi Ventures, Saphire Ventures. This was identified as potentially the best performing set-up combining the best of both worlds (great brand association and independent VC culture), as well as very long-term sustainability. Possible risks associated with this set-up model are associated with the parent company and whether it experiences changes in strategy or leadership over time and also if changes occur within the CVC team. The latter one is also affecting other CVC set-up types too. As for the fully independent CVC, it is based on trusting relationships between a CEO and a CVC unit, and this is seen as both its greatest strength and its greatest weakness due to employee turnover.

C. Hybrid, corporate and multi-external LPs e.g. Swisscom Ventures. This set-up type was also considered to be potentially very powerful as it combines both corporate brand equity and LP financial leverage. However, it is still to be proven how sustainable the set-up type is culturally, as the CVC unit must operate in both the corporate and LP world, and it may be difficult to strike the right balance. Respondents commented that if

managed well, this set-up type could become very sustainable. This was because there was very little financial dependence on an LP, or on the anchor corporate investor. If one or other disappeared, the other partner was still there to finance the fund.

Overall, no matter which set-up type is chosen, successes and failures are to be found in all of them. The importance in terms of sCVC however is that strategic value from CVC is directly correlated with the impact on the corporate mother – as a matter of definition. CVC can impact almost all functions (board, CEO, finances, operations, strategy, COM, PR, HR etc.), at all levels such as from operational issues to very top strategic considerations. Best in class examples reflected by the respondents are for instance:

(i) Napster investing in Tencent (or Softbank in Alibaba) demonstrating a fundamental strategic change.

(ii) 3M New Ventures questioning a planned M&A investment due to lack of long-term strategic fit and probably saved some multi-million USD for 3M Ltd. and did not invest as valuation decreased significantly after poor performance few years later.

(iii) Axel Springer, Alibaba, Intel Capital, Saphire Ventures and others digitalise the company away from the printed media ecosystem and thus initiate new business and a cultural shift.

6.7. Review questionnaire framework and participant selection

After completing the analysis and findings sections, a few changes of the questionnaire and interviews in general would have been beneficial. It was striking that, as mentioned above, interviewees were selected along a variety of different backgrounds and positions. The reason for this selection was that the author wanted to cover a broad spectrum of CVC-related individuals in order to gain broad and deep insights of the underlying dynamics and mechanisms of CVC investing. However, this selection also made it quite difficult to compare answers and their implications. Some answers made perfect sense from a certain perspective but showed contradictory views from another one. The rating classifications of value drivers in the questionnaire also had some drawbacks. Ratings ranging from important to very important to superior. Sometimes during the interviews, the author had to ask for further clarification as to why a certain ranking had been selected to determine what was meant exactly. For example, in the case where a respondent had not given importance to a certain value driver, was this simply because they were not aware of a certain value driver or was it due to a lack of understanding of the value driver presented. Differentiating these possible answers in advance would have saved some time during the research process. Evaluation of the validity of the answers also caused difficulties, due to the number of outliers, which were found, and the lack of a weighting system for the responses. In hindsight, a weighting system for different questions would have aided the evaluation process. In addition, CVC units interviewed were diverse either because of their degree of maturity or sector background. This meant that some of the answers given could be very specific to a certain industry or service line and some degree of differentiation would have been helpful for

analysis purposes. Finally, the interviews were conducted over a long period of time, as this dissertation experienced several breaks due to other commitments of the author. As a result, some responses that can be compared are older than others, and accordingly, the CVC units have experienced different economic circumstances as well as different opportunities. Another possible methodological approach would have been to conduct case studies, as the overall concept and dynamics would have been considered as a whole. However, using case studies would have meant that the answers would have been even more difficult to compare and as elaborated before would not have underlined the need for immediate action.

6.8. Summary

As already stated in the literature, interviews confirmed the increasing significance of CVC with two dominant orientations present: the financial oriented and the strategic oriented CVC practices. In particular, the growth of sCVC could be recognized because of the increasing controversies with traditional CVC practices, but even more because of the multiple benefits that sCVC can offer to corporations. However, the sCVC potential is still misjudged and not yet fully exploited, neither in science nor in practice. A thorough understanding of the underlying dynamics and mechanisms of sCVC practices is still in its infancy, since sCVC gained popularity around 2010 (Napp and Minshall, 2011). Over the past three to four years, the author has personally witnessed increasing numbers of corporates adopting a more strategic direction and asking their CVCs to become more strategic also. The CVC units started collaborations with startups and demonstrated value-add and impact to corporate businesses.

Looking at academia, no agreed uniform definition of sCVC can yet be found. Scholarly work has tended to focus on the challenge of finding the right combination of strategic objectives and their operational implementation (Napp and Minshall, 2011). There is also insufficient meaningful evidence on the most relevant strategic objectives that contribute to the value creation of the corporate parent. This lack of evidence goes hand-in-hand with the ideal setup and operation of sCVC practices and integration into the CVC landscape. As academia tries to understand the best timing to apply and implement sCVC activities (Pinkow and Iversen, 2020), scholars are making an effort to gain an understanding as to why some sCVC programs flourish while others fail (Teppo and Wüstenhagen, 2009; Hill and Birkinshaw, 2014). An even more crucial element of sCVC practices in this regard is the lack of the ability to easily capture and measure sCVC operations. Consequently, it is almost impossible to properly control, intervene, or to determine whether the full potential of sCVC has been realized (Poser, 2003). The first academic work in this area has been carried out but with limited results to date (Chiang, 2018).

Looking at the interviews conducted, those respondents who described academic deficiencies considered them from a practical perspective with special emphasis on the organizational form of the CVC unit, their portfolio approach and, most importantly, the value drivers to achieve either financial or strategic objectives.

The initial picture of the organizational form of the CVC units investigated during this research is quite heterogeneous. Even though respondents generally stated that they worked at a CVC unit with a predominant strategic focus, the CVC approach judgement showed a slightly deviating picture with a 50/50 split of strategic and financial orientation.

Also, no consistent governance form, either operating independently or as an integrated arm, could be found. The organizational structure (either balance sheet or fund) showed no direct correspondence to the budget size or the reporting line.

Concerning the portfolio approach, the majority of the CVC units analyzed showed a strong tendency towards early-stage investments, but the ticket size targeted showed great variance. In general, all CVC units held typical VC preferred rights, with no plans to integrate any ventures into the parent company. In this context, the scouting procedure showed a homogeneous result with a general proactive approach but with a time span of deal closure being highly variable.

In general, the direction of a CVC program and thus the CVC objectives it pursues, are the foundation of the entire CVC program. Interviewees confirmed identical financial objectives with similar importance and application level. These objectives were also found in the literature and are to be further discussed in detail in the next chapter.

CHAPTER 7 – DISCUSSION OF FINDINGS

7.1. Introduction

This chapter focuses on summarizing the main findings from interviews conducted and compares them to the theoretical background section. Specifically, respondents were asked about the financial and strategic objectives they were pursuing, with an emphasis on the latter, since sCVC is the main theme of this dissertation. Based on the results gained, the "House of sCVC" model has been created and is further elaborated in detail along with the supporting "pillars" and underlying "foundations". Overall, the interviews conducted provided the basis to verify or reject the research hypotheses and questions which were initially defined, as well as to provide implications and future research areas.

7.2. Financial objectives

The financial objectives primarily fall into four categories, including: (i) Financial returns; (ii) IRR / multiples; (iii) Being a good investor and (iv) Exit strategy. These categories are described in detail below.

7.2.1. Financial returns

Financial returns comprise the money made or lost through an investment over a certain period of time (Allen and Helvert, 2007). Accordingly, financial returns, the IRR or multiples go hand-in-hand since the returns expected are reflected in a defined IRR or multiple set at the beginning of the investment. Consequently, financial returns of CVC programs and corporate expectations are difficult to compare. Some of the corporate KPIs

used to evaluate financial returns including: Costs associated with legal, audit, governance, corporate accounting and consolidation services.

7.2.2. IRR / multiples

As stated previously, returns are expected on a fund investment over a period of time (mostly the Fund cycle time of 10+ years) with the exact sum being either an IRR of >10-20% or a fund equity multiple between 2-4x, which is achievable for approximately only the top 20% of fund investments (author's own reference). IRR or multiples are favored by corporates, as they are relatively easy to define and measure. However, it is important to agree whether it is the fund IRR or complete CVC activities IRR (including all corporate costs for audit, setup and operations at corporate level) which is being assessed.

7.2.3. Being a good investor

CVC units intend to characterize themselves as "being a good investor" in terms of not only financially supporting the venture with their realization of their business plan, but also by growing and replicating their business model globally. CVC units define and offer some support to startups and claim board seats or board observer seats to advise the startups' top management as well as to monitor and control their performance. A "good investor" is the one who helps to execute the startups' business plan, supports and advises the management with all possible entrepreneurial experience and patience, ideally without their own hidden agenda.

7.2.4. Exit strategy

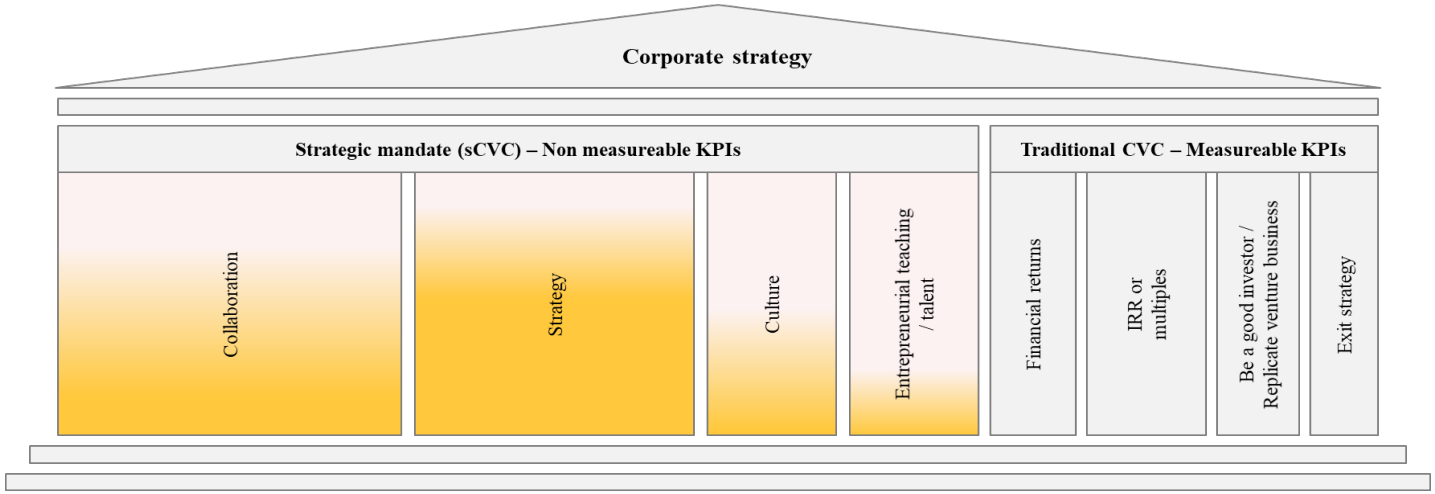
The exit strategy of the ventures is a significant KPI. The right timing is crucial and thus determines the financial returns and IRR / multiples achieved overall. The exit strategy always aims to stay within a ten-year active fund time but historically has been longer (around 12 years). “Exit” does not necessarily mean integration with the lead investor. Only very few examples are successful and do not affect startup speed, culture and their disruptive approach. Many other exit scenarios exist like IPO or trade-sale. If the startup is not successful, then the exit strategy might simply be a “divestment” of the venture.

7.3. Strategic objectives (House of sCVC)

With regard to the strategic objectives, the results from the interviews in this dissertation were used to define a new model to represent the strategic insights in a coherent, holistic manner. The model developed is referred to as the **House of sCVC**, which is shown in *Figure 12* and explained in the following sections.

It is important to mention, that not all respondents commented on all the value drivers suggested, nor did they assign the same level of importance or implementation to them. Nevertheless, four overarching categories could be identified, and these are laid out in *Figure 12, the House of sCVC – The pillars.* The categories are not entirely separable as often interrelationships and interdependencies exist between them. The categories are: (i) Collaboration, (ii) Strategy; (iii) Culture; (iv) Entrepreneurship / Talent. Each category is elaborated in detail below.

Figure 12: House of sCVC



Governance / Organization	**Orientation**	Strategic	Primary strategic but with financial prerequisite	Financial
	Structure	Other	Balance sheet funding	Separate fund
	Autonomy	CVC arm under corporate governance		Autonomous CVC arm
	Expectation CVC returns	Long-term		Short-term
	Supervision	Corporate	Advisory Board / Sounding Board (e.g. CEO, CSO, CTO, EVPs)	CFO
	Committees	Corporate investment committee		CVC investment committee
	Reporting line	Directly to e.g. CEO, CSO, CTO		CFO / Corporate board if 100% subsidiary
	CVC budget (% of fund size)	3% decreasing over fund time		Avg <= 2% and decreasing after investment period
	Compensation	Corporate salaries plus bonus plus shares	Standard salaries and market standard carry (20%)	VC market standard ("Skin in the Game" investment but carry >20%)
	Incentives	Non-financial corporate incentives	Non-financial and financial incentives	Other financial incentives on top
Processes	**Venture scouting**	Proactive, lean, focused	Mix	Passive and collecting
	Collaboration with corporate strategy	Intense strategic dialogue and alignment		No collaboration
	Collaboration with R&D	Intense dialogue and alignment		No collaboration
	Reporting	Standardized corporate standards	Mixed – as appropriate	Classic VC reporting
	Collaboration with BUs	Intense dialogue and alignment – POC and regions		No collaboration
	KPIs	Strategic KPIs		Financial KPIs
Management practice	**Leadership style**	Traditional corporate style (hierarchic, strict governance, policies, processes, legal terms, etc.)		Entrepreneurial / Investor style
	Open innovation / learning	Interest and openess vs. "not invented here"		N/A
	Venture support	Operative support (board seat, coaching, active support, resources, etc.)		Very limited / no operative support (maybe board seat)

Source: Author's own illustration — Ideal setup — Note: Color toning of the pillars is indicating the degree of potential usage

7.3.1. House of sCVC (The pillars) – Collaboration

“Collaboration” symbolizes one of the most important value drivers highlighted by the respondents. Collaboration is the activity that is enabled, occurs, and is implemented between the startup and one or several selected business units or corporate R&D department. With regard to the former, an intensive exchange, even partnering with selected BUs, is recommended. Information and insights gained through due diligence checks of potential ventures and their markets should be shared with the relevant BUs. The BUs may then be challenged and continuously complemented by the CVC activity. In return, the ventures will be offered support to prosper and grow especially if collaboration with the R&D department is encouraged. Corporate R&D and the CVC unit should work collaboratively to foster and establish innovation and to challenge and complement each other. The most highly valued areas of collaboration are co-development projects and adopting a joint focus on specific applications. In summary, the overarching intention of collaboration is to understand and challenge or even foster business strategies and to promote business growth. Growth is initiated in various ways, for example by supporting and pointing out weak points, starting POC projects with “real” customers or in new regions and thus adding value to the corporate parent. It is important that the BUs are motivated and can provide budget for these extra programs and projects that might initiate new findings for business development needs. However, what is often the case, and the reason why collaboration has not yet reached its full potential, is that the necessary openness and trust for cooperation or dialogue is missing or significantly slows down collaboration ideas. The result is that information and resources are not shared as needed and there is often a competitive "against each other" attitude rather

than an aligned "with each other" mentality and this is compounded by a “not invented here syndrome” within the corporate. In addition, overarching regulations, corporate policies, hierarchy and standards result in slow processes, which further complicate the situation. This is exacerbated by the corporate versus entrepreneurial disruptive culture including speed, decision making and management processes. Overall, top-down executive support and some collaboration budget provided by BUs and other resources are mandatory to enable collaboration with startups. Most of all BUs need to be enabled and motivated, even excited to have the chance to work with quick scaling startups operating in relevant niches of adjacent business areas and welcome open innovation. Collaboration often helps corporates a lot to experiment with new business model approaches and disruptive new technologies. Furthermore, collaboration helps to understand the need to adopt technologies in new regions or in upcoming markets and the footprint of new territories.

7.3.2. House of sCVC (The pillars) – Strategy

The "Strategy" category, similar to the "Collaboration" category, encompasses the indispensable need for strategic dialog between various stakeholders internally and externally. Firstly, between the CVC unit and corporate strategy to challenge and promote the current "overall strategy" following a corporate’s vision as well as its "cluster strategies". This effectively means the strategy of all business areas both current and future. Existing strategies must be validated, aligned or supplemented to avoid wrong decisions and loss of money or potential disruption. Consequently, strategic dialogue should be conducted with relevant senior or executive management, e.g. Executive Vice

Presidents (EVPs). To obtain a high level or global perspective then it may even be appropriate to consult the Board of Directors. Interviewees stressed the importance of transparency and involvement in strategic dialogue to be able to keep abreast of the latest developments and decision-making in the company. The company's agreed and desired strategy should be understood and communicated, and then implemented and realized accordingly. However, what most respondents recognized was that there is often a lack of mutual trust between the corporate and the startup. It was accepted that a new level of openness is required for important strategic dialogue to take place effectively. Effective strategic dialogue with corporate strategy or business development on sCVC insights and recommendations from their cluster (search area) deep dives of specific technology fields or markets or niche ecosystems promises alignment and learning, will help drive corporate and business strategies. The CVC arm will even review or challenge today's corporate strategies. Often, certain stakeholders or departments feel that they would lose control or power through such a dialogue, sharing information and resources. Some have a more regional focus and do not have access to global activities and momentum in their business domain or an upcoming new market. In addition, and perhaps even more essential, is the dilemma of the phenomenon of "organizational ambidexterity." This is the dilemma of company’s middle management aiming to secure and advance current business activities, whilst top management is trying to promote and stimulate new business areas. Consequently, resource allocation in terms of finance (budget), people and information are often conflicted with existing activity often taking priority over development of new business areas. Overall, the strategy category aims to encourage dialogue and guidance on an ongoing basis and is perceived to have the strongest

leverage of CVC. This is because it is anchored to corporate strategy and business development. Having said that, respondents felt that there is still significant potential to be unlocked here. CVC activities are increasingly seen and even embraced as a “sparing-partner” and strong tool, some even say strategic “weapon”, by successful corporates.

7.3.4. House of sCVC (The pillars) – Culture

The "Culture" category is one that should not be underestimated. In particular, CVC activities resemble a people business, so culture is key to success. The best setup identified by interviewees was the acceptance of an entrepreneurial culture in the CVC unit through independent structures and autonomous processes. The presence of employees who understand both the startup and the corporate worlds was also identified as a necessary capability to enable optimal collaboration. Not only hiring and retaining the right people in the CVC unit, but also identifying the right people in the appropriate counterparts to the CVC unit such as the strategy department, BD department, BUs, R&D, etc., of the corporate is essential. Respondents indicated that a corporate culture of welcoming and embracing open innovation is often missing or rejected due to traditional habits and conservative ambitions (“organic growth” from inside out) and success factors. Even practicing, using and improving the English business language often causes blockages for fluent and borderless conversation and dialogue between all parties. This clash of cultures is being observed between management and employees who have different religions, origins (region), ethics, corporate hierarchies or academic education. A company practicing CVC must be receptive to new or different expertise from the outside and at the same time be willing to take risks, be open to failure and be prepared

to make autonomous decisions and work quickly. It must show a certain willingness to learn from others and to challenge old systems and processes. However, this challenging aspect should not be seen as a threat, but rather as an opportunity to grow and gain strength. Similar to the collaboration category, trust plays a major role. Without trust, openness and mutual support, an appropriate culture is not possible, and without it, no action is necessary to guarantee an appropriate cultural setting. Incentives, financial and non-financial, are often helpful because they can reinforce and elicit a certain intended behavior. At present, respondents indicated that culture is only partly covered and realized as a value driver to achieve sustainable strategic value-add. Great potential is still to be realized in this area and thus a degree of significance to be assigned to it. Currently, the most recommended aspects of cultural behavior in sCVC are: “Be open for innovation, take risk, evaluate fast”.

7.3.5. House of sCVC (The pillars) – Entrepreneurial teaching / Talent

As mentioned earlier, the CVC practice is a people business and thus "Entrepreneurial teaching / Talent" is the "elixir" to make it work. Interviewees emphasized that more work needs to be done in (a) hiring the right people for the corporate job with the right entrepreneurial and business mindset, (b) training of current employees and (c) retaining the talent which is hired and trained. In particular, senior leaders need to understand that the majority of startup investments will not be successful (from their perspective) because CVC is characterized as high risk. Accordingly, making mistakes and being open to failure is essential, but at the same time dealing with these and solving issues quickly is essential. Strategic thinking must be encouraged and taught, and the

traditional entrepreneurial mindset of "taking the safe route and avoiding all risk" must be proven wrong. In this category, most value drivers are not realized as superior. Some respondents confirmed that their corporate mothers and their CVC departments had begun to realize that CVC can only work with excellent talent and if employees were trained and the appropriate talent was in place. Only one respondent explained that their CVC had been given some selected global corporate talent with C-level ambitions to help the individual foster an entrepreneurial skillset by undertaking deep dives into strategic focus areas and working with founders of startups. Nevertheless, this category remains in its infancy but is a good additional tool to foster entrepreneurship and this training should be mandatory for all future global talent executives.

In summary, the outcome of interviews has resulted in the identification of the four categories described above. These are encompassed within the strategic objective value drivers of the questionnaire and found in the literature review. The interview results reflected a heterogeneous picture of the degree of importance and implementation of these value drivers and thus revealed further potential in all areas - in some more than in others. The interview analysis showed that the scope of the objectives pursued, and the degree of importance assigned depended on the mandate in question. The corporates with CVC operations in focus showed different mandates with different weightings and importance. All CVC units investigated saw the opportunity to expand their mandate or to achieve more value-add and potential with CVC related activities than is delivered presently. One decisive factor identified out of the interviews is regarding the CVC set-up and integration into the parent company. Respondents doubted whether this potential could be realized at all.

What the "right" setup for a benchmark sCVC structure looks like, is summarized in the lower part of *Figure 12* “The House of sCVC – The foundation”. This setup is a “best of” version of the known CVC set-ups, which incorporates the findings from the CVC units, which were interviewed. The set-up is structured in three parts (v) governance and organization, (vi) processes and (vii) culture.

7.3.6. House of sCVC (The foundation) – Governance and organization

Results of the interviews indicated that the ideal CVC alignment is primarily strategic, but with a financial prerequisite. Strategic value drivers should primarily be pursued according to a predefined mandate with defined goals and expectations. The CVC unit should operate as a separate fund and should take advantage of the greater degrees of freedom that this set-up type gives rise to - full autonomy is key. The CVC unit should then hold a long-term orientation, which should last up to ten years. This duration should be anchored in the mandate. However, it is often the case that that C-level executives require first results after three years and this is not conducive for sCVC practices. Furthermore, supervision should be established by the advisory or sounding board, which can be composed of the CEO, CSO, CTO or EVPs. Some interviewees strongly recommended that a classic CFO should not be invited into the CVC-board as it is key to align strategies and not to monitor financial performance. Emphasis should be on oversight only with the board providing advice and recommendations in active strategic dialogue, rather than direct control of the CVC unit. With regards to committees, those interviewed agreed there should be a CVC internal investment committee which should be as lean as possible and staffed by CVC personnel – primarily the MD and partner representatives. In terms of an advisory budget, respondents recommended that a CVC budget of ideally 2 to 3% per year (possibly even declining after investment period) be allocated from the fund as a management fee, and a 20% performance fee (carry) of total fund size should be agreed as compensation - this level is viewed as the market standard. In addition, non-financial and financial incentives, such as rewards, responsibility or bonuses, etc., must be introduced to reward and facilitate good performance. Finally,

interviewees felt that governance and organizational arrangements should enable the CVC unit to have the opportunity to invest in targets even if these may not result in collaboration or obvious value-add at the outset. In this situation, target investments may predict exciting and valuable business opportunities when the corporate does not have a clear strategy already established and could be an investment for the future.

7.3.7. House of sCVC (The foundation) – Processes

Ideal processes embrace practices and systems related to external and internal CVC activities. External CVC processes include areas such as venture scouting, which should be proactive, lean and focused, as too many opportunities exist. Passive scouting, where startups approach a corporate, has a much smaller hit rate. In parallel, active external network building and development, throughout the complete process from scouting to advisory till exit, with peers in venture capital and academia is recommended in not only hot spots, but also regions with upcoming intense startup momentum. A reliable permanent network with industry advisors, market experts and Venture Partners also helps the CVC unit to get quick and solid outside-in advice regarding niche markets.

The internal CVC processes such as collaboration with the corporate strategy, the R&D department and relevant BUs, are also to be conducted proactively. A strategic dialogue and information exchange on an ongoing basis is crucial. CVC reporting is also an important internal process and should include some corporate standards but should also be flexible and customized to CVC requirements. Financial accounting and consolidation requirements by corporates are mandatory but consume time without value-add. Finally, one of the core and important elements of an ideal CVC process set-up are the use of strategic KPIs. Nowadays, many CVC units claim to be strategically oriented but still only use and report on financial KPIs such as the IRR or multiples. Instead, KPIs which really track and capture strategic value-add should be utilized such as milestones met on time, new key markets discovered, or new technologies adopted or integrated. Additional indicators for monitoring successful sCVC are the number of strategies agreed or redefined jointly with the corporate or the number of collaboration projects established

that are likely to generate or initiate multi-millions USD revenues of new businesses in the next 5-10 years.

7.3.8. House of sCVC (The foundation) – Management practice

The ideal management practice includes the management style, the mentality towards innovation, and the interactivity with the venture portfolio. In contrast to the traditional management style of a corporate, the ideal practice of the CVC unit should be more in line with the entrepreneurial and investor-like approach, where clear business plans are the result of an intelligent strategy process, even if they are always somewhat challenging. Agile processes, structures and decision-making, flat hierarchies and quick feedback are essential. In addition, there should be strong interest and openness to open innovation and learning and a mentality of risk-taking and embracing "no" and "failure" is highly valued and enables some experimenting in new territories. Failure and rejection should be seen, as an opportunity to grow and to challenge the status quo and ventures should receive operational support. Operational support can include coaching, provision of resources such as information or other active support, and a seat on the board. In a financial-oriented CVC program, interaction with the portfolio is very limited and predominantly concentrates on financial support in terms of investments and permanent account monitoring.

7.4. Summary

As a conclusion to this chapter, research **Hypothesis 1** *(see section 2.4.2.)* states that non-financial objectives are the ones which are not yet derivative or measurable in terms of value-add generation for the corporation. The results of the research interviews demonstrate that this hypothesis is verified by the four pillars identified in the *House of sCVC* (collaboration, strategy, culture and entrepreneurial teaching / talent). This finding contributes to the overarching research question forming the basis of this dissertation.

The research **Hypothesis *2*** *(see section 2.4.3.)***,** which states that there is unleashed CVC potential i.e., non-financial potential that cannot be realized with financial KPIs alone, is also verified. Both literature and practice have shown that there is more potential than just the traditional CVC. However, the non-financial CVC capability is still difficult to decipher. This potential is primarily triggered by developments and changes in the startups, corporates and the CVC ecosystem. For example, markets are evolving, and disruptive technologies are emerging. In particular, new markets are emerging as a result of social, environmental and health challenges and this is causing disruption and increased competition. These changes in the CVC ecosystem are creating some startup momentum, with a growing demand for startups by companies and a growing demand by startups to partner with companies. Startups are seeking more guidance and collaboration because they need access to real customer projects to validate their business models. Startups see the strategic advantage of working with a company that has great knowledge of regional specifics and cultures, as it gives them access to new markets to easily replicate their business models in new regions. In the past, startups were afraid of being integrated and absorbed by the corporation, whereas today they are

more likely to see the benefits of working and even partnering (collaborating) with a "good investor" to grow faster and to be more sustainable and operate in new regions. Corporations also see the benefits of investing in a startup, as detailed above, but have limited corporate attitudes and openness to CVC because the C-level and employees involved demonstrate a lack of trust and are not sufficiently informed about what sCVC can contribute. Corporate structures and processes often do not support or even allow for certain CVC objectives. Full development of sCVC is not yet possible for the corporate community in general. Nevertheless, interviewees emphasized on numerous occasions that implementation of sCVC would result in much greater added value than is currently conceivable.

In summary, the overall **Research Question** of "*has Corporate Venture Capital been misunderstood and used simply for a financial purpose?"* can be affirmed *(see section 2.4.1).* There is no doubt that financial performance and growth of a startups is important and proves a good investment for corporates. But in addition, there is a lot of "s" (strategic) in sCVC, meaning strategic value-add for corporates. The potential offered by sCVC should be elaborated and targeted more within corporates so as to realize this value-add. Even though strategic value-add is difficult to measure, many objectives promise significant value-add for corporates today through their venture arm. There is still some lack of proper understanding of what CVC is and what it can be used for or contribute to, and thus its overall potential has not been fully realized to date. In particular, the misconception that traditional financial returns of CVC are higher and therefore more valuable than sCVC has been a major source of underestimation. CVC is more fruitful when corporates demonstrate a strong interest in strategic value-add, learning and

partnering with startups directly. Since financial CVC practices are simply marginal or not visible at a corporate level, they are often not considered shareholder relevant for the corporate mother. Financial CVC targets remain important and should not be neglected otherwise, startups may interpret this as the CVC not being interested in financial success of the startups, which is clearly not the case! If corporates and their sCVCs demonstrate interest and partnership with their invested startup, for example through the development of collaborative projects, trust and true partnership is built. Establishment of a trusting partnership between the corporate, sCVC and startup will ensure that the startup better understands the win-win position and is encouraged to meet expectations, milestones and execute their agreed, often challenging, business plan. The value of financial returns and impact on consequential business growth is key. A corporate should be clear about why it wants to pursue CVC and should set clear objectives and expectations. A corporate with CVC activities should provide an appropriate mandate to enable value creation and focus on how CVC can be appropriately integrated into the company and aligned to core objectives. Finally, to make sCVC more successful and adopted more widely by corporates, it is essential to demonstrate how it has made a contribution that adds strategic value and consequential growth to the corporate parent. Education and process improvements are needed here, as well as more awareness, transparency, communication and openness. To sum up, as the **Title** of this dissertation states: *Has Corporate Venture Capital unleashed its full potential yet?; T*his dissertation provides evidence that is has not and calls out for further research (*see section 8.3*).

CHAPTER 8 – CONCLUSION

8.1. Introduction

In this dissertation, the main objective was to create a better understanding of sCVC practice and thus improve the practical application of sCVC. Long-term CVC success, fulfillment of expectations, and realization of expected benefits are targeted. Accordingly, a qualitative analysis was conducted to highlight the untapped potential of sCVC and, by extension, the untapped potential of CVC as a whole. The analysis has been based on conceptual fundamentals and the landscape of CVC and the theoretical background has been elaborated and research evaluations and findings outlined in previous chapters. Results have shown that CVC has been underestimated as a corporate vehicle or tool to establish world-class strategies and sustainably contribute to growth for years. This misperception is based on a shift in the CVC ecosystem, which is not only reflected in changing corporate requirements, startup expectations or needs and disruptive market trends, but also in a lack of entrepreneurship amongst C-level management and “old-school” investment managers or CVC experts. These individuals lack a proper understanding of CVC dynamics and the need for global strategies and mechanisms to set clear new targets and to evaluate the outside-in contributions from disruptive adjacent eco-systems. In the following section, the various knowledge contributions from this research study are outlined along with potential limitations and identification of future areas of research.

8.2. Implications

This study has addressed theoretical and practical implications of CVC, with the latter being the primary focus. Previous research has shown that CVC has offered particular contributions to the literature of open innovation and venture capital and CVC.

Implications are made towards the open innovation necessity and therewith the ongoing innovation paradigm shift. This has been emphasized by the elaborated theoretical foundation set out in this study and the practical enrichment of certain CVC elements and their underlying dynamics. As Vanhaverbeke, Vrande and Chesbrough (2008) stated, traditional investments in centralized R&D started to become more and more obsolete as CVC investments increased (Vanhaverbeke, Vrande and Chesbrough, 2008). Findings in this paper showed that one of the key drivers for increased CVC awareness and application is the need to keep up with competition and disruptive markets including changes in customer requirements. Corporates are experiencing the diverse benefits of embracing external ideas, abilities and resources at an increasing rate even though the potential of CVC has not yet fully been exploited as a means of open innovation. As mentioned in the literature review, open innovation practices carrry the potential drawback of organizational conflicts. However, results of this dissertation have shown that with the right mindset and focus of objectives, these conflicts can be avoided through the appropriate setting and management of CVC. With the support of educational work on open innovation and in particular on CVC, obstacles such as the “not invented here syndrome” can be negligible. Open innovation can even foster corporate innovation from the outside-in, contributing towards out-performance of the competition and thus long term survival of the corporate.

In line with the previous observation, the CVC literature provided clarification on the proper understanding and usage of CVC. Insights were obtained on the motivation, goals and expectations that a corporation can have for starting CVC investments and how these are interconnected and operationally interdependent. Most notably, details on the untapped potential of sCVC have been presented, together with its defining characteristics and benefits. Accordingly, verification on why corporates should start or consider restructuring their CVC program to being more focused on strategic value-add and start-up involvement (collaboration) is provided. Relevant non-financial objectives have been described and analyzed and differentiation and significance level of these have been outlined. A clear outcome and contribution of this research has been a detailed understanding of the correct objectives on which a CVC unit and corporate should focus to meet goals and expectations. Furthermore, current CVC challenges and obstacles are outlined and guidance on the handling of these is made in order to run CVC programs effectively.

Not only are implications made about the theoretical and practical aspects of CVC as part of this research, but also regarding the overall CVC ecosystem. With regard to the CVC ecosystem, insights are provided on changes to markets, corporates and startups and also the three core elements required for configuring CVC investments. Market changes and emerging mega trends and their effects such as zero carbon, circular economy or digital health, with platform contributions from AI or IoT, have been detailed. Looking at changes by corporates, the shift towards a more sCVC approach with an increased operative collaboration with startups has been recognized and analyzed. In this context, changes in startup requirements have been found which show a great effect on

the development of corporate CVC orientation and operations. In general, a better awareness of the interrelated elements and underlying dynamics of the CVC ecosystem have been demonstrated and particular attention paid to the potential pitfalls of failure.

8.3. Limitations and future research

In general, the research conducted in this thesis encompasses only certain aspects of CVC and consequently leads to several limitations and possible future research directions. Primarily, most of the limitations are due to the methodology which has been used, particularly the use of semi-structured interviews. In addition, the rather limited literature which is available on confidential topics has also been a limitation.

The interviewee selection has been based on personal contacts of the author as well as on the availability and willingness of corporates with CVC activity to participate. The author's long association with the GCV community, the many years of experience with several Fortune 500 corporate CVCs were very helpful and crucial in this context. Consequently, the sample size used was very selective**,** with fourteen interviews conducted over an extended period. Consequently, results may not allow full generalization. The focus of the current research was to survey a broad representative range of different CVC-related individuals, such as people from C-level, the CVC operations team, and experts and was not an in-depth study of respondents with similar profiles. Future detailed surveys of individuals in specific areas of CVC should be carried out.

The size of the interview cohort also meant that it was not possible to consider several CVC characteristics such as specific industry sectors, the location, the CVC

program age and the autonomy status of the CVC. From the industry perspective, those interviewed were predominantly industrial corporates who were selected due to the rich experience and personal contacts of the author in this field. In terms of the location, no regional differentiation or specialties were considered. In addition, neither the program history nor the program autonomy status was further investigated. For the current research study, a particular focus on characteristics such as those outlined above was not considered crucial as the general sCVC phenomenon was assumed to be independent of them. Now that this research has been completed, it would be beneficial to build on the current research findings and to conduct more focused in-depth studies on these specific characteristics.

Another limitation are the insights gained which might be grounded in biases, such as the social desirability bias and the case selection bias. Those are elaborated in *chapter 5*, including some countermeasures to avoid biases in future research.

In addition to the methodological limitations, there is a shortage of in-depth CVC literature or publications. This is because very little is published or communicated outside of business organizations relating to corporate strategy. Confidentiality reasons are the underlying reason for this. Beyond this, the most basic and crucial requirement is a clear differentiation between strategic and financial CVC in published literature. Academia has not yet provided an answer to this, nor has practice found a unified approach so far. This deficiency causes an indispensable research gap, since without a clear definition of the target phenomena, no comparison or proper analysis can be carried out. All future assessments, especially of sCVC investments, could be vulnerable to attack without a precise definition with clear boundaries.

In parallel, there are very few corporate tools which exist that clearly articulate the origins of successful growth. It is typical for many of the top management of companies to claim valuable growth as inside-out rather than through open innovation approaches. They claim that the growth is due to their leadership, strategy and management. Of course, to some extent this is true, but the underlying influence and momentum created, or even re-initiated by the company's CVC department, is rarely mentioned for a variety of reasons. Some of individuals are certainly of the "not-invented-here" category and have concerns about internal competition of the business units and the confidence of the management. These issues present significant drawbacks to successful sCVC implementation and underpin the reasons why monitoring measurable and traceable data, that underlines the added value, importance, and impact of sCVC, should be considered. Consequently, the development of a CVC tool to guarantee transparency and measurability of value-add is paramount. More and more frequently, CVC programs are being closed due to changes in leadership and tools and systems demonstrating the value-add of sCVC would provide organizational continuity even though leadership has changed. New key stakeholders need to prove themselves primarily through a quick return on investment. In the case of sCVC, most of the added value cannot yet be captured or presented to the leadership board, so it may appear that such a program is just burning money instead of adding value to the company.

In line with the research limitations set out above, the following section outlines three specific Future Research Projects (FRP) which the author believes offer the greatest future potential in sCVC research. FRPs described in *sections 8.3.1, 8.3.2. and 8.3.3* only address future research needs which have been identified by the author in

various discussions with other CVC arm managers and work is required to further detail and develop these.

8.3.1. Future Research Project A: Measuring strategic value-add of CVC arms and develop a global sCVC index

Over the past decade, the question has been asked repeatedly by executives in the CVC industry, particularly by CFOs: "How can we measure the strategic success of a CVC division in growing and building new business? And what would be the ideal KPIs for top management to monitor?" Today, there are only very classic, old-fashion tools that capture some innovation data and even these are rarely used for performance monitoring in large companies. These tools and KPIs are inappropriate for the needs of today's sCVC programs and future systems, and metrics should be a question of leadership, entrepreneurship and how to deal with open innovation in general. Many organizations remain very traditional and conservative with strict hierarchies, working in silos or subunits with different missions, goals, or visions.

One tool that should be considered is the NPVI (New Product Vitality Index), which measures the impact on revenue of products that have been new to the company's portfolio for less than five years. Tracking products and services from startups that will one day contribute to the company's revenue is highly recommended by the author. Such a tool provides some understanding of the investment contribution of startups, even if it cannot always be fully accounted for, but it is potentially a great indicator of sCVC value. As outlined in this dissertation, here are many valuable objectives (*see chapter 7.3.*) that contribute to the strategic value-added of companies, and certainly some of them could

be measured or somehow tracked and monitored. It may be difficult to develop a single index which represents strategic value-add, like NPVI, due to the different types of companies in different industries., Tracking and monitoring key objectives and associated KPIs for sCVC would be a very beneficial approach to create transparency and publicize the significant work and contribution of CVC arms adding value to the corporate parent, supporting the shift towards a modern, sustainable and responsible culture, and promoting entrepreneurship and risk-taking, not only for top management.

All these measuring and tracking tools for strategic value-add should lead into the concept and opportunity to initiate a setup of a sCVC index and become a global standard and benchmarking opportunity for all sCVCs.

8.3.2. Future Research Project B: The ideal set up of a sCVC arm

Research is needed to understand what the ideal structure would be for a corporate VC arm structure, as several have failed over the past three decades. Only recently have CVCs been asked to become predominantly strategic and to contribute to corporate growth. As a consequence, there are capability shortcomings which are required to create the ideal CVC structure. For example, CVC units often lack incentives, autonomy, and a highly experienced CVC management team and network.

The example of Hitachi Ventures, of which the author of this dissertation is the managing director, can be used to demonstrate a best practice example for the optimal design of an sCVC program. Hitachi Ventures was established in April 2019 as a highly strategic CV arm, following a two-year consulting project and several benchmarking studies with other CVCs. Hitachi Ventures mission is to become an "innovation weapon" for the Hitachi Group. A few months later, Hitachi Ventures was then ranked 25th in the GCV Powerlist 2021 (GCV, 2021). That rank was especially due to the sCVC arm's good performance, its lean structure, a very experienced team and fast processes. In addition to this, numerous collaboration projects and partnerships had been initiated, facilitated, and fostered between selected startups and Hitachi's business units. A highly experienced and dedicated management team was recruited and given operational autonomy. Alignment of CVC objectives to those of the corporate parent and a supportive culture were also important factors which, were considered by Hitachi Ltd. Future research should consider in depth the ideal structure for a sCVC arm. With reference to *chapter 7.3. "Strategic objectives*" and *Figure 12 "The house of the sCVC",* the parameters which have been identified in the House of sCVC are key parameters and

prerequisites for success. These parameters should be researched in more depth as part of a future research study. The interfaces, interrelationships and interdependencies of the parameters are obvious and should be evaluated and discussed further. In addition, a company's history with VC in general has an impact, as do current challenges and the willingness or need to outperform competitors and accelerate or even shorten R&D activities with such a fast and effective tool. Hitachi Ventures' setup is already a benchmark, but there is always room for improvement, as some parameters depend on stakeholder experience in corporate history, their function within the organization, their implementation of corporate visions, and their understanding of the need for competitive business strategies.

8.3.3. Future Research Project C: More data and mapping software platforms

In this era of cloud services, AI-based tools and data platforms, there is not enough data available. Data that would provide better access, analysis and insights if made available and transparent in an AI-based smart data platform is mostly kept secret by companies or CV/CVCs. Improved collaboration between academia and the venture community would result in greater learning and provide better guidance on how to use resources and corporate budgets more effectively to achieve synergies, invest in open innovation, and address global challenges. The author's personal message regarding future research proposals is: "I would be happy to see these future research projects started, implemented and communicated, as I see great benefit for all global companies that have started or want to start sCVC activities. There could be a series of multiple FRPs encompassing different regions, different industries and investment opportunities having a significant impact on ideal sCVC structures and their establishment. I hereby commit to invest some of my resources, knowledge, and network to facilitate these extremely valuable FRPs and I am convinced that they would give many corporate executives or boards a more positive momentum and confidence to successfully establish sCVC arms."

8.4. Concluding remarks

This dissertation investigated whether strategic Corporate Venture Capital has already reached its full potential. For this purpose, literature was researched and semi-structured interviews with a questionnaire conducted. As a result, the research question could be confirmed that CVC has been underestimated for years as an entrepreneurial and very strategic vehicle and as a tool for generating sustainable business growth. However, CVC has been gaining relevance for several years. In general, the research has found that companies mostly conduct CVC activities without a coherent CVC mandate in terms of setting objectives and expectations, and without the right setup to execute CVC successfully to its full and significant potential. Appropriate involvement in business processes, continuous strategic dialogue and collaboration with businesses, alongside appropriate tools, and a globally experienced leadership team that embraces open innovation on the fly and fosters an open culture towards entrepreneurship, is not yet being leveraged.

Strategic added value was and still is simply underestimated, as there is still a problem with the measurability of the "impact" and outlining return on innovations from the outside-in. Most concerns are coming from CFOs, whilst CEOs, CSOs and CTOs more understand or even demand this added value. All of the representatives of the CVC units interviewed saw the need for the financial success of CVC investments, but also that the contribution to corporate strategy is necessary, important and valuable to protect against disruption. sCVC can have a very positive impact on corporate open innovation, since it acts as a kind of a platform. Some companies making CVC investments are already demonstrating best-in-class examples of giving importance to and delivering on

specific strategic value drivers, while having a clear mandate after which they make appropriate alignments for the best set-up. These examples should be followed more in the future.

In summary, huge potential by sCVC exists but is often not seen, not fully understood, and not exploited. A corresponding mandate must be assigned, even strategic KPIs for corporate BUs and as there is often the discussion about setting financial and non-financial incentives, the author holds the opinion that not everything has to be incentivized to drive something forward, since that's how the author operates himself – driven with a huge passion for tech innovation and with an experienced entrepreneurial mindset – always motivated to work hard but constantly innovate and improve!

Stefan: I would like to encourage everyone to: Learn from collaborating and partnering with Startups. Please demonstrate, even advertise new ideas via storytelling, and even more welcome open innovation from outside-in by young agile companies though with still small expert teams, but with outstanding entrepreneurial mindset. Always be encouraged to "Out-innovate competition!" while you constantly and thoughtfully would need to "Be open for Innovation" – If you are in the role of and investor, please "Always stay a trusted investor and partner" and you will "become relevant and significant in the sCVC community". I appreciate if you share my research, promote strategic Corporate Venturing, and talk about these startup success stories that make the world a better place to motivate others.

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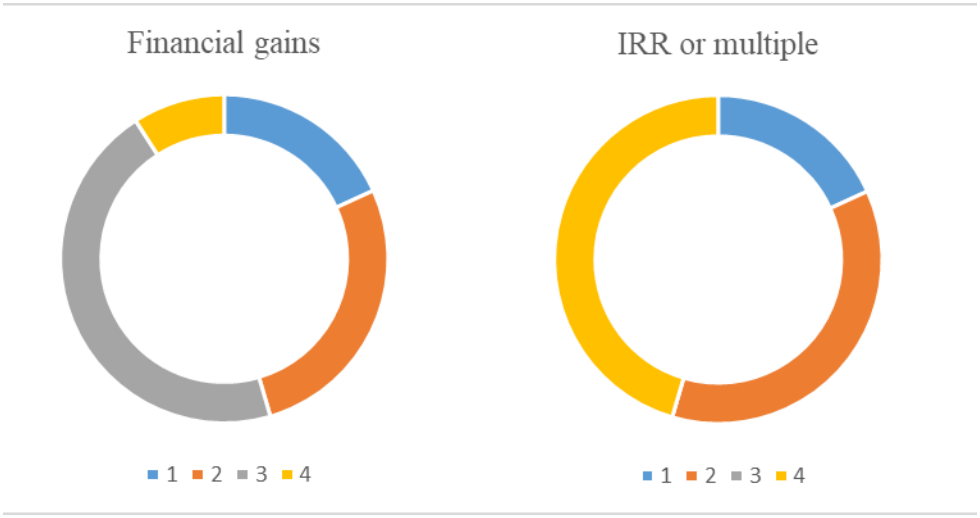
APPENDIX

APPENDIX 1: Value drivers towards financial objectives - Overview responses



Source: Author's own illustration; 1=no importance / relevance; 2="important"; 3="very important"; 4="superior"

APPENDIX 2: Ethic report

UNIVERSITY OF HUDDERSFIELD
SCHOOL OF COMPUTING AND ENGINEERING

PROJECT ETHICAL REVIEW FORM AND ADDITIVE INFORMATION

Applicable for all research, masters and undergraduate projects

Project Title:	Has Corporate Venture Capital unleashed its full potential yet?
Student:	Stefan Gabriel
Course/Programme:	PhD
Department:	
Supervisor:	Liz Towns-Andrews
Project Start Date:	

ETHICAL REVIEW CHECKLIST

		Yes	No
1.	Are there problems with any participant's right to remain anonymous?	☐	X
2.	Could a conflict of interest arise between a collaborating partner or funding source and the potential outcomes of the research, e.g. due to the need for confidentiality?	☐	X
3.	Will financial inducements be offered?	☐	X
4.	Will deception of participants be necessary during the research?	☐	X
5.	Does the research involve experimentation on any of the following?		
	(i) animals?	☐	X
	(ii) animal tissues?	☐	X
	(iii) human tissues (including blood, fluid, skin, cell lines)?	☐	X
6.	Does the research involve participants who may be particularly vulnerable, e.g. children or adults with severe learning disabilities?	☐	X
7.	Could the research induce psychological stress or anxiety for the participants beyond that encountered in normal life?	☐	X
8.	Is it likely that the research will put any of the following at risk:		
	(i) living creatures?	☐	X
	(ii) stakeholders (disregarding health and safety, which is covered by Q9)?	☐	X
	(iii) the environment?	☐	X
	(iv) the economy?	☐	X
9.	Having completed a health and safety risk assessment form and taken all reasonable practicable steps to minimise risk from the hazards identified, are the residual risks acceptable (Please attach a risk assessment form)	☐	X

STATEMENT OF ETHICAL ISSUES AND ACTIONS

If the answer to any of the questions above is yes, or there are any other ethical issues that arise that are not covered by the checklist, then please give a summary of the ethical issues and the action that will be taken to address these in the box below. If you believe there to be no ethical issues, please enter "NONE".

NONE

Additional Information provided by PhD Student (normally asked by the Business School)

Issue	**Please provide sufficient detail for your supervisor to assess strategies used to address ethical issues in the research proposal. Forms with insufficient detail will need to be resubmitted.**
Aims and objectives of the study. Please state the aims and objectives of the study.	Discussion of all objectives that add value to corporates while using strategic CVC activities (see interview questionnaire)
Brief overview of research methodology The methodology only needs to be explained in sufficient detail to show the approach used (e.g. survey) and explain the research methods to be used during the study.	An exploratory, action-oriented dissertation adopts an interpretivist research paradigm. Grounded theory is applied and semi-structured interviews conducted (see methodology part of dissertation)
Does your study require any permissions for study? If so, please give details	No
Participants Please outline who will participate in your research. Might any of the participants be considered 'vulnerable' (e.g. children)	All participants being interviewed are executives or senior experts in CVC (see anonymized interview list in dissertation).
Access to participants Please give details about how participants will be identified and contacted.	All participants being interviewed are selected from the CVC community. Most of them closely working with GCV association and voluntarily - but were selected with focus of sector and early stage investment approach. Participants are contacted via Email or phone.
How will your data be recorded and stored?	All interviews are conducted via either personal exchange or Zoom-calls. Interviews are neither recorded nor transcribed in order to maintain anonymity of C-Level executives and CVC experts. Information such as notes are store in a personal Dropbox and are password secured.
Informed consent. Please explain how you will inform your participants about the study and whether they will be in a position to give informed consent.	PhD will not be published due to commercial sensitivity as participants want to stay anonymous. Individual participants will be provided a summary of the research conclusions and outcomes.
Right to withdraw	Usage of consent form and guarantee of anonymity.

Please identify whether you are offering your participants a right to withdraw from the study and/or to withdraw their data from the study and how this will take place. If you are not offering a right to withdraw, please explain why.	
Confidentiality Please outline the level of confidentiality you will offer respondents and how this will be respected. You should also outline about who will have access to the data and how it will be stored. (This information should be included on Information your information sheet.)	All insights are kept highly confidential and are only revealed as anonymous contributions in the thesis.
Anonymity If you offer your participants anonymity, please indicate how this will be achieved.	All participants will be listed and given a number for later traceability in order to make sure they are not published.
Harm Please outline your assessment of the extent to which your research might induce psychological stress, anxiety, cause harm or negative consequences for the participants (beyond the risks encountered in normal life). If more than minimal risk, you should outline what support there will be for participants. If you believe that that there is minimal likely harm, please articulate why you believe this to be so.	All interviews are voluntary, supported with a questionnaire shared ahead and take only short period of time (1-2-hrs).

Retrospective applications. If your application for Ethics approval is retrospective, please explain why this has arisen.

I had no awareness of an ethic report requirement at an earlier stage in general.

The first round of interviews started in 2016/2018. The first questionnaire was adjusted and directed towards general value-add, while the questionnaire of the second phase is more focused on objectives for strategic value-add. Nevertheless, answers by the first phase of the questionnaire still hold validity. Interview partners are still in current network, while I (the author of this dissertation) started a new career with Hitachi Ltd.

STATEMENT BY THE STUDENT

I believe that the information I have given in this form on ethical issues is correct.

Signature: Stefan Gabriel Date: Sept. 18th 2020

SUPERVISOR RECOMMENDATION ON THE PROJECT'S ETHICAL STATUS

Having satisfied myself of the accuracy of the project ethical statement, I believe that the appropriate action is:

The project proceeds in its present form	
The project proposal needs further assessment by an Ethical Review Panel. The Supervisor will pass the form to the Ethical Review Panel Leader for consideration.	

AFFIRMATION BY THE SUPERVISOR

I have read this Ethical Review Checklist and I can confirm that, to the best of my understanding, the information presented by the student is correct and appropriate to allow an informed judgement on whether further ethical approval is required.

Signature: Liz Towns-Andrews Date: 15 September 2020

RETENTION OF THIS FORM

- The Supervisor must retain a copy of this form until the project report/dissertation is produced.
- The student must include a copy of the form as an appendix in the report/dissertation.

OUTCOME OF THE ETHICAL REVIEW PANEL PROCESS, WHERE REQUIRED

Tick One

1. Approved. The ethical issues have been adequately addressed and the project may commence. ☐

2. Approved subject to minor amendments. The required amendments are stated in the box below. The project may proceed once the form has been amended in line with the requirements and signed by the Supervisor in the box immediately below to confirm this. ☐

I confirm, as Supervisor, that the amendments required have been made:

Signature: _____ Date: _____

3. Resubmit. The areas requiring further action are stated in the box below. The project may not proceed until the form has been resubmitted and approved. ☐

4. Reject. The reasons why it will not be possible to address the ethical issues adequately are stated in the box below. ☐

For any of the outcomes 2, 3 or 4 above, please provide a statement in the box below.

AFFIRMATION BY THE REVIEW PANEL LEADER