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Taking advantage of mutual synergies: A multiple case-study of CVCs and High-Growth Start-ups

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SUMMARY

This thesis explores how Corporate Venture Capital (CVC) firms and high-growth start-ups cooperate to attain mutual synergies. Specifically, how start-ups become scale-ups, and corporations obtain competitive advantages through cooperation. These synergies are gained through the sharing of heterogeneous, immobile resources in the process of resource mobilization. I employ case evidence from two CVCs as well as from three start-ups in rapid growth that have received investments and shared resources with these CVCs. This thesis examines the resource mobilization process through search, access, and transfer.

From this evidence, I derive five propositions regarding how this mobilization process transpires and how these resources achieve mutual synergies for both parties. **Proposition 1:** *When start-ups and CVCs search for each other to become strategic partners, they look for heterogeneous resources.* **Proposition 2:** *In the process when CVCs and start-ups decide to enter strategic partnerships, CVCs value founder-team quality, while start-ups value freedom from constraints.* **Proposition 3a:** *Resources that are shared by both CVCs and start-ups in strategic partnerships outside of projects create synergies for both parties.* **Proposition 3b:** *A mutual strategic project benefiting both the start-up and the CVC leads to a strategic advantage for the corporation and accelerated growth for the start-up, when they have complementary resources to offer each other.* **Proposition 3c:** *By creating an ecosystem where resources are strategically shared the CVC creates synergies for both portfolio companies and the mother company.*

This study offers two novel contributions: First, it shows that the benefits of sharing resources are mutual, enabling both synergies for growth for start-ups and competitive advantages for corporations. Second, it shows how sharing resources, cooperations and CVC-start-up ecosystems work to this benefit.

1.0 INTRODUCTION

Mutual synergies from CVC investments in high-growth start-ups that grow to become scale-ups have created immense wealth. General Motors is an example of this, fueling a large part of US economic growth since GM's beginning in the start of the 20th century. General Motors early on received a CVC investment from DuPont, and cooperation ensued. DuPont foresaw strong strategic synergies from investing in a company that would buy their artificial leathers, plastics and paint. DuPont also shared their strategic management expertise with GM as well as other resources. The investment paid off and already in 1929 accounted for half of DuPont's earnings. DuPont went on to have one of the biggest CVC departments of its time, while GM was for a long time one of the most powerful economic engines in the US in the 20th century (DuPont, 2014).

High-growth start-ups like General Motors become what researchers call scale-ups when reaching their growth phase. Scale-ups, account for 10 % of new companies in Norway, and just under a third of new jobs signifying their economic significance for driving the economy (Reve, 2017). Start-ups need capital and resources to succeed at the beginning of their lives and become scale-ups. Reve (2017) argues that fostering scale-ups happens best in a knowledgeable business environment. This is one of the reasons that Corporate Venture Capital has an important role in fostering start-ups to grow into scale-ups.

Corporations, through CVC funds, mimicking Independent Venture Capital (IVC) funds, can provide start-ups with capital to survive and grow to become scale-ups (Park & Steensma, 2012). Furthermore, they can offer cooperation giving the start-up access to heterogeneous immobile resources, such as sales networks, legitimacy, and competence needed in a critical strategic phase (Chesbrough, 2002). Some research even claims that when CVCs offer this advantage, they can outperform traditional IVC's (Gompers & Lerner, 2000).

The benefit of the cooperation does not just go one way, however. Corporations also demand knowledge and other complementary resources that start-ups can offer them in return (Teng, 2007). In fact, the concept of a corporation making

Corporate Venture Capital investments generally only makes sense if they yield such strategic synergies (Chesbrough, 2002). Still, there has been no research yet on the mutual synergies that CVC`s and high-growth start-ups have to offer each other. The research to date has only had either the start-up or the CVC unit as the locus of research and has neglected both how resource sharing affects both companies and the cooperation between the CVC and the start-up.

This motivates this thesis' research problem: How do high-growth start-ups and CVCs take advantage of mutual synergies?

This question is answered by also answering these supporting questions:

- How does cooperation and resource sharing with CVCs help start-ups grow to the scale-up stage?
- How does this cooperation and resource sharing with start-ups create synergies for the CVCs mother company?
- What does the resource mobilization process look like in this resource sharing and cooperation process?

I address these questions utilizing a multiple case study to analyze the cooperation and resulting synergies in 3 high-growth start-up portfolio firms and 2 CVCs. The start-ups are in the energy, property and fintech industries, while the CVCs are operating within energy and banking. The empirical evidence gives an overview of the resource mobilization process and the resulting mutual synergies. The main findings show first that the start-ups grow fast and are on a path to become scale-ups and that the CVCs attain a strategic advantage for their mother companies. This is a result of sharing heterogeneous immobile resources. Second, the findings show how cooperation and CVC ecosystems work to this benefit.

In answering these questions, I address a lack in the body of knowledge of CVC and start-up research with great merit for start-ups and corporations, as corporations wish to grow their competitive advantage, and start-ups seek to become scale-ups. First, it implicates that corporations and start-ups both benefit sharing their heterogeneous immobile resources, as they will get resources of the same quality in return, that is, assuming that the other party has resources that are

attractive to them. Second, it implicates that corporations and start-ups should seek to engage in mutual projects and build ecosystems to share knowledge.

This thesis is organized as follows. Section two describes the theoretical background of this thesis and presents the research model used. Section three describes the research methods undertaken. Section four presents the cases, while section five presents the findings. Finally, section six discusses the findings and section seven concludes the thesis, shows limitations and provides suggestions for implications this study has for research and management.

2.0 THEORETICAL BACKGROUND

The resource-based theory argues that to obtain a competitive advantage firms are dependent on bundling heterogeneous immobile resources (Barney, 1991). However, not all of these can be built internally, some need to be obtained externally. Corporations have a long history of investing in start-ups and sharing resources with each other that contribute to building a competitive advantage. However, the cooperation and mutual synergies of these two parties are yet unexplored. This literature review will first explore the background of this argument, 1) by examining how start-ups grow to become scale-ups. 2) by providing background on how corporations use CVCs to obtain external resources, and 3), by reviewing the Resource-Based Theory, giving background on how resources are used to create competitive advantage, before summing up the background and presenting the resulting research model.

2.1 How start-ups grow to scale-ups

High-growth start-ups that grow into scale-ups can be traced back to Birch (1981), who with his article “Who creates jobs” showed that what he called gazelles, rapidly growing firms, were responsible for the most employment growth, and thus were the greatest engines of the economy. In Birch’s findings these companies are characterized by their young age and the fact that they grow at least 20 % per year on average over three years. Scale-ups constituting a considerable part of job creation has been confirmed in other studies (Reve, 2017). Scale-ups have also been shown to play an important role in raising productivity and innovating new products

(Du & Temouri, 2015), as well as creating long-term value for shareholders and stakeholders such as venture capitalists (Coad, Cowling, & Siepel, 2016).

Yet, accelerated growth is not unproblematic. One study showed that only 3,5 % of the 700 000 new ventures started each year in the United States grow sufficiently to eventually become large firms (Barringer, Jones, & Neubaum, 2005). Gompers and Lerner (2002) found that 90 % of start-ups that don't attract investors fail within the three first years. This exemplifies the Death Valley curve that start-ups face in the liability of newness (Stinchcombe & March, 1965). This curve is shown in the figure below.

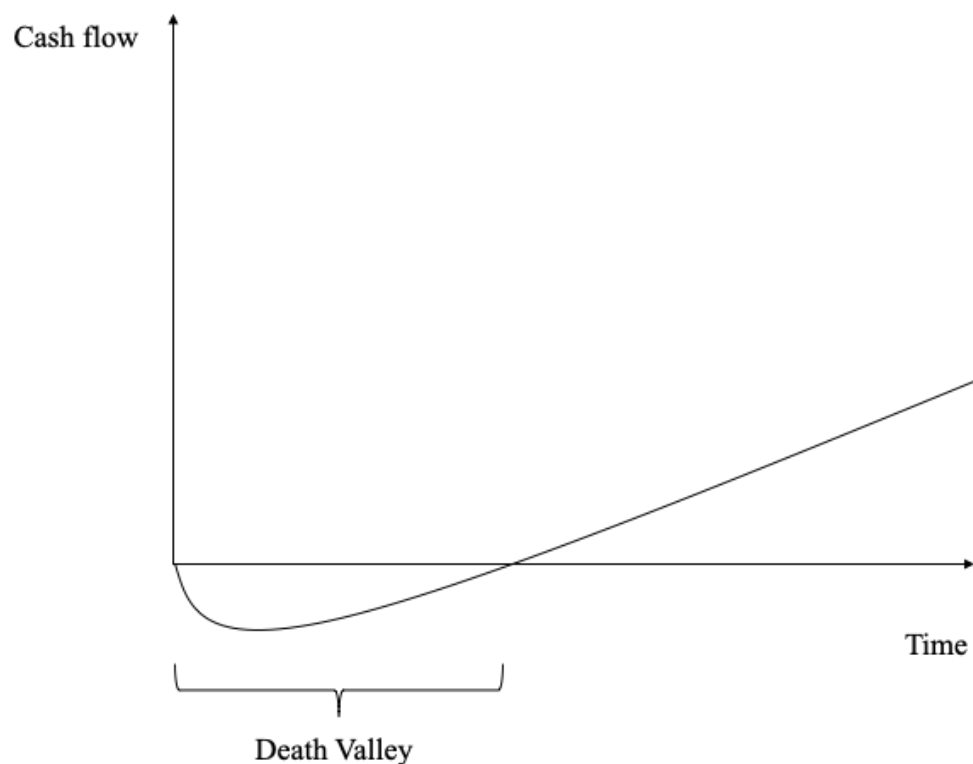


Figure 1. Death Valley curve adapted from Wilson, Wright, and Kacer (2018).

Kazanjian (1988) investigated growth patterns of start-ups, making a theory of growth stages. The first stage in the growth of a start-up is called Conception and Development, where the start-up develops a product or technology. Here the company also looks for financial backing and other resources. The second stage is known as Commercialization, where the start-ups' main focus is to develop the product or technology for commercialization. The third stage is described as the Growth stage, where the product is deemed mature by the market, and the start-up starts selling and attaining market share. This is also known as the scale-up phase.

The fourth and final stage is labeled Stability when the growth slows down, and the start-up has grown to a stable and functioning organization.

So, how do start-ups grow into the scale-up phase? Start-ups are dependent on resources to build a competitive advantage. This claim is also supported in existent research. Demir, Wennberg, and McKelvie (2017) review of high-growth firms research showed how five drivers were the most important for growing fast; knowledge resources, human resource management, strategy, innovation, and capabilities. However, developing internal resources are costly, and not always possible. This is why start-ups enter into inter-organizational relationships to obtain resources needed from other companies (Barringer & Harrison, 2000).

Furthermore, Venture Capital is a legitimizing source of acquiring resources for start-ups. Corporate Venture Capital is both a more complicated investor type and a richer source of external resources than Independent Venture Capital (IVC), because of the strategic interests and the many resources a corporation has. CVC, therefore, poses a salient source of examining how start-ups grow to the scale-up phase.

2.2 Synergies gained through Corporate Venture Capital

Corporate Venture Capital (CVC) investments are minority stake investments by established firms in entrepreneurial ventures (Dushnitsky and Shaver, 2009). A CVC unit can be set up in many different ways. Corporations often establish subsidiaries (McNally, 1997) with varying degrees of autonomy, but they also initiate in-house operating divisions. Research has shown that the more autonomy a CVC is given (Gompers & Lerner, 2000), and the more it emulates Independent Venture Capital (IVC) while keeping strategic synergies (Chesbrough, 2002), the better it performs.

Why do corporations want to establish Corporate Venture Capital units? Why do they not just let their investors invest in the start-ups themselves? CVC units have a financial rationale, like their IVC counterparts, but the rationale that bears the most weight is strategic (Dushnitsky & Lenox, 2006). Examples of strategic rationales for CVCs range from finding new suppliers and buyers or expanding

internationally (Winters & Murfin, 1988) to stimulate demand for existing products by supporting commercialization of complementary products (Chesbrough, 2002; Kann, 2000). Corporations also use CVCs to identify products that can replace their existing products as well as entering into markets where they are currently not present (Dushnitsky & Lenox, 2006; Kann, 2000; Keil, Zahra, & Maula, 2004). Other CVCs seek to support the commercialization of complementary products of the corporate parent's products (Kann, 2000; Chesbrough, 2002).

A study by Gompers and Lerner (2000), showed that when CVCs invested in activities related to their line of business, returns were competitive with IVC funds. This suggests that CVCs have something to offer new ventures other than capital (Gompers & Lerner, 2000), complementary resources. Confirming this, Park and Steensma (2012) found that the start-up performs better if the CVC parent possesses specialized complementary resources that the start-up needs. These resources are among others, brand name marketing and distribution networks (Winters & Murfin, 1988), legitimacy (Stuart, Hoang, & Hybels, 1999), as well as knowledge and capabilities (Keil, 2002), such as manufacturing capabilities and bargaining power with suppliers (Teece, 1986). CVCs also have different degrees of linking their operational capabilities and heterogeneous immobile resources to their portfolio (Chesbrough, 2002). Some earlier studies have focused on competent capital, where strategic resources are viewed more as added value to capital (Sætre, Toresen, Søliland, & Fossum, 2002) rather than as resources and capabilities valuable in themselves as they are seen in this study.

However, there are also potential constraints that may arise through investing strategically both for corporations and start-ups alike. CVCs want to maximize the value of their parent firms, and their interests can often conflict with these start-ups (Park & Steensma, 2012). Resource-sharing is dependent on adoption in top management, meaning a bureaucracy that an IVC does not entail (Miller, Spann, & Lerner, 1991). Also, corporate parents may produce products that compete with the venture's products (Hellmann, 2002) as well as expropriating intellectual property from the ventures (Dushnitsky & Shaver, 2009). Furthermore, a CVC investment may hinder the venture from looking for resources on the open market, because of competitors of the corporate parent are reluctant to work with ventures part-owned

by rivals (Park & Steensma, 2012). In the same way, the start-up can pose a threat to the CVC parent. They may compete for corporate resources (Fast, 1978), or cannibalize parent markets (Hellmann, 1997; Rind, 1981). In sum, a CVC investment is a source of opportunities and constraints for both the start-ups and the corporation.

2.3.0 Building a competitive advantage through mobilizing resources

Corporate leaders and entrepreneurs seek to build Competitive Advantage (CA) and achieve high growth through accumulation and mobilization of resources. However, they find it increasingly difficult because of market disruptions and fierce competition. Business researchers have therefore asked the question “How do firms build competitive advantages to grow fast?”. The answer, according to Barney (1991) is that it is dependent on building and maintaining a CA bundling heterogeneous and immobile resources to meet a market need in a superior way. This CA is built through creating a resource bundle building the firms strengths and minimizing its weaknesses so that it is able to meet its opportunities (market needs) and threats in the competitive environment. Resource-based theory thus considers the firm as a synergistic set of resources. Figure one shows how a firm’s resources are tied into the internal analysis of a firm and how this influences the external analysis.

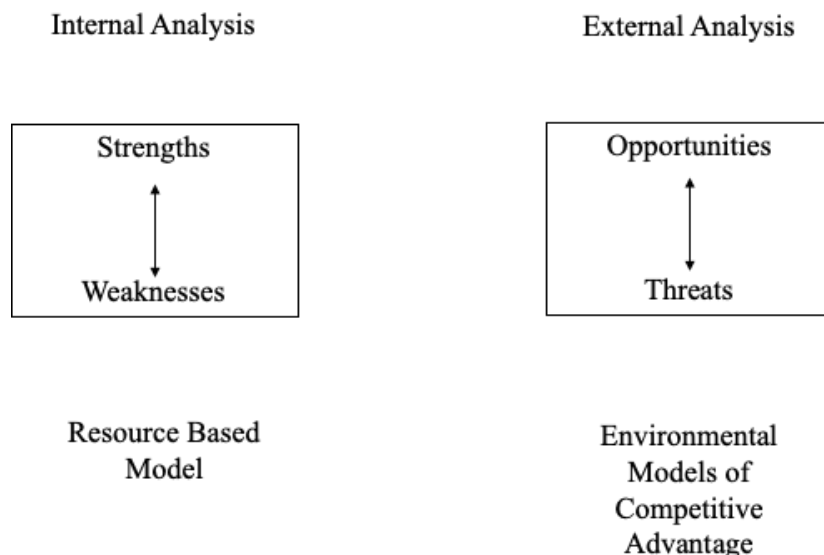


Figure 2. SWOT model adapted by Barney 1991.

2.3.1 Heterogeneity and immobility

Ever since Penrose (1959) showed that resources limit a firm's ability to grow, researchers have been looking into the firm's dependency on its resources. However, research up until Wernerfelt (1984) assumed implicitly that both firms and resources were homogeneous. But is this true? Wernerfelt theorized that both some resources and all firms were heterogeneous, thus giving a deeper insight into how some firms succeeded and others didn't in the same strategic groups (Michael E. Porter, 1980) and the same factor markets (Penrose, 1959). As such, heterogeneity is a key trait of resources that help firms create CA.

Wernerfelt argued that resources need to be heterogeneous to be a source of competitive advantage. But if these resources are fully mobile, they can merely be bought and traded between firms, and could then not be a source of competitive advantage. This is why Barney (1991) assumed there to be mobility barriers (Caves & Porter, 1977) that hinder these resources in moving freely. He theorized that because of the existence of these barriers, firms could keep their competitive advantage and not lose it to their competitors. Thus, heterogeneity and immobility are key assumptions in understanding which resources help create CA.

2.3.2 How to create value using external resources

As shown in 2.3.0, bundled resources can be a source of CA. Critics of Resource-Based Theory showed that although this might be true, it's hard to establish how the resources were used to create this CA. Sirmon, Hitt, and Ireland (2007) claim, that it is not enough to possess the resources, but that these need to be utilized in the right way to create a sustained competitive advantage, and thus growth. Their theory suggested how firms create synergies with their resources by bundling the resources to create capabilities, and how these capabilities were leveraged to provide value for customers, gain a competitive advantage and finally create wealth for owners.

Furthermore, attaining and mobilizing external resources happens through a process. This process is theorized by Clough, Fang, Vissa, and Wu (2019). Their theory takes the view of the entrepreneur, seeking resources from a resource holder, gaining access to the resource and receiving the resource through a

transfer. So, the process transpires through search, access, and transfer. However, as the research model of this thesis will show this process can also be used to describe the process in attaining mutual resources for both a start-up and the corporation through their CVC.

In reviewing the literature, I have shown that start-ups and corporations have gaps in their resource base that induce them to seek each other through Corporate Venture Capital investments so that they can share resources. Heterogeneous and immobile resources are what give companies a competitive advantage. However, there is a lack of studies into the mutual synergies that arise when start-ups and CVCs share resources and cooperate in projects. The next section will illuminate the research model I have used to fill in this gap of knowledge.

2.4 Research model

In this thesis, I will use Clough et al.'s (2019) framework as a loose guide to the research process, in examining how the CVCs and start-ups cooperated to share resources that resulted in mutual synergies. First, I will examine the important when CVCs and start-ups search for each other. Second, I will explore the important factors in gaining access to each other's resources stated by both parties. Third, I will look at different aspects of resource transfer; how it creates competitive advantages and growth for each party.

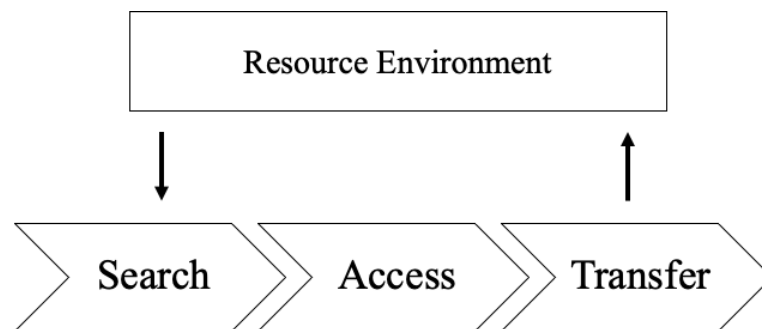


Figure 3. Model of resource mobilization adapted from Clough et al (2019.)

3.0 RESEARCH METHOD

This section presents the methodology used to gather data for examining how high-growth start-ups and CVCs take advantage of mutual synergies. The empirical foundation is a multiple case study of two CVCs and three start-ups. To show the thesis method, I will first describe the research design for the thesis, followed by how I chose the sample. Finally, I will elaborate on how data was collected, and which measures were taken to ensure research quality and show how the data analysis was conducted.

3.1 Research design

This thesis explores how CVCs and start-ups attain mutual synergies that enable start-ups to grow to the scale-up stage and corporations to obtain a competitive advantage. I wish to develop theory inductively, using qualitative data needed for theorizing (Edmondson & McManus, 2007). According to Yin (2009), research questions relating to “How” are answered best when using a qualitative approach. Furthermore, the Resource-Based Theory has challenges in identifying intangible resources as a source of sustained competitive advantage (Barney, 2001). Therefore, Rouse and Daellenbach (1999) argue that qualitative methods should be used to diagnose these kinds of resources, such as tacit knowledge. Because I wish to identify *how* start-ups and CVCs attain mutual synergies, the qualitative method fits well for this thesis.

The case study enables me to examine the “how” in my research question and to look at contemporary events. A case study is the preferred tool for investigation in this early phase of the thesis’ research area, which lacks precedents (Yin, 2009). It gives the advantages of rich case data and using different perspectives of describing the phenomenon providing the researcher with a deep understanding of the underlying mechanisms (K. M. Eisenhardt & Graebner, 2007). Moreover, the case study allows me to investigate a phenomenon in its context without clearly defined boundaries between context and phenomenon (Yin, 2009). I choose to follow a multiple case study because this enables me to explore the research question more broadly, and gives me more analytical power, which in turn yields

more robust, generalizable and testable theory than a single-case research would (K. Eisenhardt, 1989).

3.2 Sample selection

The purpose of this case-study research is to develop theory, not to test it, and so theoretical sampling is the most appropriate approach. Theoretical sampling implies that cases are selected because they are particularly suitable for examining relationships and logic among theoretical constructs (Eisenhardt, 1989). Yin (2009) argues that the single-case studies are chosen because they are unusually revelatory or offer opportunities for rare research access. However, for multiple case selection sampling is more complicated. Here, cases are chosen because of theoretical reasons, such as replication, an extension of theory, contrary replication and elimination of alternative explanations (Yin, 2009). Strauss (1987) argues that by theoretical sampling the researcher seeks samples of populations or other phenomena guided by his or her primitive, but emerging theory. New cases are therefore chosen to replicate and extend emerging theory and to rule out alternative explanations for outcomes (K. M. Eisenhardt & Graebner, 2007; Yin, 2009).

3.2.1 Exploratory phase sampling

In the exploratory phase of the research for this study, the focus was on the effect of the CVC investment on high-growth start-ups that showed indications that they would grow to become scale-ups. With the case focus on start-ups in this phase, several criteria were chosen to obtain salient data on how start-ups grow into scale-ups. The initial criteria are listed below. These criteria are also valid for start-up cases in this thesis.

Criteria for the chosen firms

1. It is a company registered and founded in Norway
 2. It is at least two years old, but not older than five years
 3. It has minimum 5 employees
 4. It has had 20 % revenue growth so far on average year-on-year
 5. It is an independent firm, not a subsidiary
 6. It has a minority stake from Norwegian CVC
-

Table 1. Criteria for chosen firms

The first criterion was chosen because it was easier to gain access to data and generate a willingness to be interviewed for firms in Norway. Also, conducting interviews in our shared native language promised to give more relevant information as the interviewees could speak freely. Second, the age criterion was chosen to exclude the earliest stages of start-up. The third criterion regarding the number of employees serves to enforce replicability and eliminates start-ups in the earliest stages. The fourth criterion of revenue growth was established because this measure is most common to identify scale-ups (Birch, 1981; Demir et al., 2017). It implies that the start-ups are high-growth start-ups and have a greater chance of growing to the scale-up stage. The fifth criterion was selected to single out independently started ventures and not subsidiaries of existing larger corporations. Finally, criterion six was chosen because of the research question's focus on CVC and the fact that this is a signaling effect of the company potentially being a high-quality venture that CVCs believe will scale up. Also, it provides a larger picture of why a CVC investor is chosen, and which role it plays in the investor mix.

The chosen criteria helped narrow the search for start-ups in the exploratory phase for the present study, and thus also strengthen the study's replicability, provides an extension of theory and eliminates alternative explanations.

3.2.2 Final selection

Initially, over 35 start-ups were identified from Norwegian CVC portfolios. However, 32 did not make the cut due to among other things in-adequate growth in revenues, the companies being too young or too old or for being subsidiaries of larger corporations. Finally, I identified the first CVC, SavingsBank CVC, that had two successful high-growth start-up cases as well as resource sharing taking place. Further, to replicate this, I chose a start-up with several corporate investors, SunCo, and then finally EnergyCo CVC. Interviews with start-ups and CVCs showed indications of mutual synergies in further data analysis. Because of this I made the also studied the CVCs as case studies. A total of five cases were, in the end, identified, two CVCs and three start-ups.

| Company | FundTech | BigDataCo | SunCo | SavingsBank | EnergyCo |
|------------------------------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------|
| Industry | FinTech | AI/FinTech | EnergyTech | Banking | Energy |
| Founding year | 2016 | 2016 | 2016 | 1976 | 2000 |
| Revenue 2018 | 2MNOK | 14MNOK (2017) | 77MNOK | 5320 MNOK | 10 223 MNOK |
| Revenue growth to last fiscal year | 144 % | 2950 % | 90 % | 7 % | 18 % |
| Amount of interviews conducted | 2 | 2 | 2 | 4 | 1 |
| Archival data used | Annual reports, website | Annual reports, website | Annual reports, website | Annual reports, website | Annual reports, website |

Table 2: Overview of sample

3.3 Data

3.3.1 Data collection

This thesis will be based on both primary and secondary data, but primary data will constitute most of the analysis in the form of semi-structured interviews. The main body of data has for this thesis been semi-structured interviews. This approach matches my aim to answer *how* CVCs and start-ups take advantage of mutual synergies. Yin (2009) claims that the best way to collect data for exploratory research is to conduct interviews, which underpins my previous choice of qualitative method.

Before the interviews, I prepared an interview guide, with a structured list of issues to be addressed, as well as questions that were linked to the theory and propositions listed above. The semi-structured form allowed me to ask follow-up questions when I wanted the interviewee to elaborate, and to avoid questions the interviewee already answered in his or her previous comments. This helped to avoid bias, by being able to ask again if something was unclear. Because of resource constraints and time limitations, I conducted interviews with the span of thirty minutes to an hour for each interview. Although face-to-face interviews were preferred in line with Yin (2009), some interviewees did not have time for anything more than a telephone interview, and access was thus prioritized. Analyses of data were sent to interviewees for approval.

During the evolution of this thesis, the questions in the interview guides were first guided by Sirmon et al's (2007) framework theorizing on how companies mobilize resources to create competitive advantages. However, as I observed that the CVCs cooperated with start-ups at arms-length distances while their model looked at internal value creation, the study necessitated another model. Thus, the resource mobilization process of Clough et al (2019) was implemented. Furthermore, the locus of research shifted from mainly looking at the start-up to looking at mutual synergies of start-ups and CVCs. Because of this, the interview guide evolved to accommodate the emerging theory.

I chose to interview multiple stakeholders in the cases, to get a sense of how the resources were utilized. I interviewed both C-suite leaders in the start-ups and CVC-managers, as well as board members. I did this to confirm or rule out findings in individual interviews, as I could ask parties on several ends of the spectrum. This helped eliminate bias in answers. In total eleven interviews were held.

To gain access to the cases, I received introductions from my supervisor, Torger Reve to one of the CVCs in question and to NVCA (Norwegian Private Equity and Venture Capital Association) and Abelia. NVCA helped me with introductions to more CVCs I wanted to get in touch with. The CVCs introduced me to their portfolio companies, and I followed up on e-mail or telephone to obtain permission to interview and use findings from interviews with CVCs.

| Primary interviews with executives of case firms | | | | |
|--|-------------|-----------------------------|---------------|----------|
| Interview | Company | Position | Date | Duration |
| 1 | SavingsBank | SVP Business | June 2018 | 0:30 |
| 2 | EnergyCo | Investment Manager | January 2019 | 0:45 |
| 3 | SavingsBank | CVC CEO | February 2019 | 0:30 |
| 4 | FundTech | CEO | February 2019 | 0:30 |
| 5 | BigDataCo | CCO | March 2019 | 0:35 |
| 6 | SavingsBank | SVP Communication | May 2019 | 0:25 |
| 7 | SavingsBank | SVP Business | May 2019 | 0:20 |
| 8 | SunCo | CFO | May 2019 | 0:35 |
| 9 | BigDataCo | CCO | May 2019 | 0:15 |
| 10 | SunCo | CFO | May 2019 | 0:15 |
| 11 | PropCo | SVP Investments (BoD SunCo) | February 2019 | 0:45 |

Table 3: Primary interviews

For this study, the amount of secondary data is limited because the companies in my sample are start-ups with little historical data. However, I examined public accounting and ownership data provided by Brønnøysundregistrene and Proff Forvalt, media articles and websites of the start-ups where applicable. I also conducted five secondary interviews to gain insights into the phenomenon and background for the study, which were especially important in the exploratory phase of the study.

| Secondary interviews for background on topic and exploratory phase | | | | |
|--|-------------------|------------------|--------------|----------|
| Interview | Company | Position | Date | Duration |
| 1 | West VC | Managing Partner | June 2018 | 1:00 |
| 2 | LearnTech Scaleup | CEO | January 2019 | 0:30 |
| 3 | FMCG CVC | CVC CEO | January 2019 | 1:00 |
| 4 | ConsultCVC | Managing Partner | January 2019 | 0:50 |
| 5 | MobTech Scaleup | CEO | May 2019 | 0:20 |

Table 4: Secondary interviews

3.3.2 *Research Quality*

According to Yin (2009), for a study to be recognized as valid empirical social research, it must cumulatively meet four prerequisites: 1) Construct validity, 2) Internal validity, 3) External validity and 4) Reliability. I will, therefore, go through each of these, in turn, to explain the tests and show the measures taken in the study.

First, internal validity seeks to find causal relationships, where certain factors are believed to lead to other factors, distinguished from spurious relationships (Yin, 2009). Internal validity is not relevant for this study, however. It is only relevant for studies that seek to establish causal relationships (Yin, 2009). It is therefore not relevant for an exploratory case study, such as this thesis. Second, construct validity seeks to identify correct operational measures for the concepts studied (Yin, 2009). To ensure validity, the researcher must use multiple sources of evidence, establish a chain of evidence and have key informants review the draft of the case study report. To establish multiple sources of evidence I sought to interview several stakeholders (as mentioned above in the interview section), so they could confirm or deny findings from other stakeholders. I also searched for other forms of secondary data, but there was limited available data of this nature that could bring insights into the mutual synergies, as this information is mostly strategic in nature.

Third, external validity inquires to define the domain that a study's findings can be generalized to (Yin, 2009). To ensure validity the researcher must use replication logic in multiple case studies. To ensure external validity I have chosen a multiple case study, as this allows me to compare and contrast findings in line with K. Eisenhardt (1989). Fourth, reliability is about demonstrating that the study's operations can be replicated and repeated achieving the same results (Yin, 2009). To ensure validity the researcher must make the operations of the study as clear as possible, which can be done by using a case study protocol and develop a case study database. In this thesis, to ensure the minimization of errors and bias, and thus enforce reliability, I have tried to achieve this by describing my process in the methods section, as well as including the interview guide in the appendix.

3.3.3 Data Analysis

The data collected was analyzed using an iterative and structured approach based on Miles and Huberman (1994) and Gioia, Corley, and Hamilton (2013). First, I applied open coding to the data from interviews by assigning different codes to the text passages. These codes were derived from the evolving research model, to examine how the resource sharing created value and synergies. In the next step, I cleaned up the coding structure, checking to see if the quotes in a given category were similar across the data. I combined similar codes to similar themes and discarded codes that weren't relevant to the thesis question. During the next phase, I combined codes to aggregate dimensions (Gioia et al., 2013), giving the thesis its building blocks for theory. From this, I compared across cases to analyze findings, and to investigate the consistency of the findings. When in doubt, I used the secondary data and existent research to support the findings. The final data structure consisted of three main categories: search, access and transfer, and three sub-categories under transfer: resource-sharing, cooperation, and ecosystem. Furthermore, to support this process, I used field notes and a journal to write down thoughts after each interview was completed and to see connections between theory and the findings from the different interviews. I also used this to sketch figures and see connections between the codes. Finally, from these categories and codes, five propositions were derived under the three categories. Table 5 presents an overview of these propositions and how they are represented in the cases.

| Number | Proposition | SavingsBank CVC | BigDataCo | FundTech | EnergyCo CVC | SunCo |
|--------|--|--|---|---|---|--|
| 1 | When Start-ups and CVC's search for strategic partners, they look for heterogeneous resources. | SavingsBanks stated strategic rationale is to invest in companies yielding a strategic benefit. Also in companies that have knowledge surrounding potentially disruptive business models to the bank. | BigDataCo looked for a customer with data. | FundTech was looking for a Bank that could offer a distribution network, give legitimacy and knowledge in seeking concession from the Ministry of Finance. | EnergyCo CVC looked for Startups that could 18% further customer lockin for their daughter company. | SunCo was looking for strategic investors in their first funding rounds to validate their concept. |
| 2 | In the process when CVC's and start-ups decide to enter strategic partnerships, CVC's will value founder-team quality the most, while start-ups value freedom from constraints. | SavingsBank chose to invest in the Startups because of their model and their founder-team. | BigDataCo valued the ability to have several banks as customers. SavingsBank sharing their customer leads enabled quicker sales for BigDataCo, and thus also more data for the model, working both for making the product better for SavingsBank and BigDataCo. | FundTech saw SavingsBank CVC as a long-term investor giving them freedom to operate. Board members from SavingsBank brought competence and weight into the board, validating strategies. However, this has also meant knowledge has been shared to SavingsBank leaders. | EnergyCo CVC has member in Board of Directors of SunCo, acquiring shared knowledge from SunCo. | SunCo stated they took the freedom to have multiple strategic investors and being able to use different sales networks for granted |
| 3a | Resources that are shared by both CVC's and Start-ups in strategic partnerships outside of projects create synergies for both parties. | SavingsBank has received knowledge, press and other strategic synergies by sharing resources with the portfolio companies. | BigDataCo through the cooperation received data, enabling their proof of concept. | Sharing of SavingsBank sales distribution potentially means both increased sales for FundTech and customer lockin for SavingsBank. | EnergyCo sharing their sales and distribution network with SunCo has benefited EnergyCo with customer lockin. | EnergyCo CVC has member in Board of Directors of SunCo, helping to validate their strategies. |
| 3b | A mutual strategic project benefiting both start-up and CVC leads to a strategic advantage for the corporate and accelerated growth for the start-up when they have complementary resources to offer each other. | SavingsBank received strategic benefits from the cooperation with BigDataCo, receiving a superior technology for customer service and cooperating with FundTech to create customer lockin. | Reports of some sharing of knowledge with other portfolio companies through meetings in the CVC offices. | CVC tech designers have helped FundTech with product strategy. Also, knowledge is shared between FundTech and the other ventures in the CVC office. FundTech is also going to use the compliance software developed by SavingsBank CVC tech designers. | - | - |
| 3c | By creating an ecosystem sharing resources strategically the CVC creates synergies for both portfolio companies and the mother company. | The CVC created an ecosystem sharing in-house developers with the Startups. Portfolio companies share knowledge with each other, several of the portfolio companies use the banks services and the banks accounting company. And, the CVC developed compliance software used by both the bank and several portfolio companies. | - | - | - | - |

Table 5. Propositions and supporting findings.

4.0 CASE PRESENTATIONS

In the next two sections, I will first present the cases. The companies have been given aliases and the employees named after their position in the company (CEO, CFO, SVP etc.). The other details are not fictitious. Second, I will analyze the cases through the research model and make the resulting propositions.

4.1 SavingsBank CVC

SavingsBank is a mainly regional bank with an annual turnover of 5,3 BnNOK and 300 employees. It has several daughter companies, operating in real estate brokering, private banking, accounting, investment banking as well as a Corporate Venture Capital unit. Historically it is the result of mergers with several banks in the same region and with the same profile. It is a member of an alliance of several banks in different regions in Norway but is allowed to compete with others in the alliance. For a long period, the bank had depended on Oil and Gas companies as clients, thus being risk-prone in connection to the oil price. This led the bank to want to diversify their client portfolio and expand to other parts of the country and look into new related industries and strategic synergies through their new CVC arm, SavingsBank CVC. The CVC is the bank's innovation offensive and a hub for new ideas that challenge the bank's business model. It was modeled after a German CVC setup case study, where the portfolio companies have access to a full-stack developer team as well as a co-working space in compliance with regulations set by the Ministry of Finance. As such, it is a combination of a start-up and a Venture Capital company. Before this CVC structure was formed, the bank invested in two companies, FundTech and BigDataCo. Today, they have invested in more than six companies. They are to invest 250MNOK in their first vintage that is to be invested in the next few years in start-ups in the early stage. In presenting FundTech and BigDataCo, the collaboration with SavingsBank will be explained.

“Our perspective is on the long-term and we are happy if we make a little money per customer. The start-ups, on the other hand, are focused on finding out what the customers want. In the cooperation with the start-ups, we have received insights into competence that we wouldn't have otherwise.” – SVP Business, SavingsBank

4.2 FundTech

FundTech is a FinTech start-up providing funding to more risky ventures than a bank in Norway would, by linking would-be investors with ventures and facilitating loans and equity crowdfunding in addition to marketing the fundraising through social media. Thus, the business model is not just selling to their service to businesses, it also functions as a broker between these businesses and their investors. FundTech was started by a serial entrepreneur and a leader of a tech consultancy department. FundTech started early 2016, launched in 2017, and now has 11 employees.

FundTech received an investment from SavingsBank in 2017 and today has three board members from SavingsBank. After this investment, before any mutual synergies could be taken advantage of, FundTech and SavingsBank had to collaborate on an application to the Ministry of Finance to be granted a concession to operate. With help from SavingsBank, FundTech was granted a concession, but only after an eight-month wait, for a process that usually takes three months. After investing in FundTech, SavingsBank recruited FundTech's then CEO as the CEO of their CVC setup.

Receiving the concession, FundTech started operating, attracting its own business clients who needed loans. They also developed their crowdfunding initiative, based on social media and recruited investors. After several successful crowdfunding initiatives with loans, they have started with equity crowdfunding and with a mutual project with SavingsBank. This mutual project is to get loan advisors in SavingsBank to send good businesses that they can't give loans to – to FundTech. This project creates extra sales for FundTech but also enables the business to stay with SavingsBank as a client, as they don't have to change their bank to obtain a loan from a competitor.

“We scaled up our own sales, by recruiting our own investors and business clients. We have so far not seen the benefit of external resources, but now it's clearer that we have built credibility and experience.” -CEO FundTech

However, this project is just starting, and FundTech has experienced some difficulties from the loan advisors not adopting the project. After the interviews with FundTech and SavingsBank, SavingsBank acquired FundTech. Their communicated rationale in the media was to position themselves nationally new companies' bank of choice, which the acquisition of FundTech would help them do.

4.3 BigDataCo

BigDataCo is a company creating chatbots for companies so they can automate a larger part of their customer service. The chatbot technology is based on Artificial Intelligence (AI) interpreting messages based on customer data from earlier customer requests. After starting in 2016 with one customer, BigDataCo in 2019 has 96 customers in several European markets as well as in the USA. Their revenue growth from their starting year 2016 to 2017 was 3000 %, with a shockingly positive bottom line at 40 % of revenue. So, what enabled this rapid growth? After their start in early 2016, BigDataCo was looking for problems to solve with its AI technology to get its first customer, and thus also access to data. After a thorough search, they came across SavingsBank through an incubator program. Together they understood that they could solve a major pain for SavingsBank's customers, the customer service queue.

“There were many problems we could solve with AI. SavingsBank had several products and an increasing volume but didn't want to hire more people. In addition, the younger generation expects answers quickly and doesn't want to wait in a phone queue for ten minutes. So, in collaboration with SavingsBank, we decided to remove this queue and increase user experience. I mean, who wants to be in a queue?” - BigDataCo CCO

The following summer, BigDataCo was given access to SavingsBanks customer interaction databases and developed the chatbot based on this data and the founder's source code. The following fall the chatbot was launched. The launch gave BigDataCo additional data to improve its model for the chatbot to be more responsive to customer requests. They also automated several processes, such as loan applications and canceling credit cards. Once this project was deemed a

success, several leads and introductions were made by SavingsBank to other banks that might be interested in buying BigDataCo's product. Now, BigDataCo could offer a plug-and-play validated product that worked to new customers. Additionally, from these customers even more data was collected, for the benefit of all clients, as the chatbot was improved, creating a positive snowball effect.

4.4 EnergyCo CVC

EnergyCo is a renewables company operating hydroelectric power generation, electricity distribution, electricity commodity trading and services for business and private customers. It is based in Norway with an annual group turnover of 14 BnNOK. It is owned by the cities in the counties it operates in. EnergyCo has the most customers in the counties where it produces energy but sells energy to the rest of Norway as well. Their Corporate Venture Capital (CVC) arm was established in 2007 and is a subsidiary in the group. The strategic rationale of the CVC is to invest in cleantech and energy-related companies and take an active approach to create value and extract strategic synergies as well as financial synergies for the mother company. These companies can be in early and in more mature stages. The CVC has invested in nine companies and indirectly in two Venture Capital vintages. Employed in the CVC are former consultants, investment bankers, and entrepreneurs. Most of their portfolio is majority-owned, while they have a minority stake in SunCo.

We generally follow up with the companies we invest in closely. SunCo is the exception. However, with over 10 % we are their biggest investor. So, we follow them closely, but not as closely as the other companies in our portfolio. -

Investment manager, EnergyCo CVC

4.5 SunCo

SunCo, established in early 2016, sells solar panels to Norwegian homes, taking responsibility for the whole process from planning to installation. Many parts of the process are automated, from the price quote to the customer's roof, to the market for installers who bid for contracts to install solar panels. The founder-team of SunCo consists of a former CEO of an IT company, a former IT founder,

and an energy tech VP. This combination of talent combined with a unique value proposition gave SunCo considerable attention in the press, as well as early client and investor interest mere days after starting up. Already in March of their founding year, they had signed their first client. The following summer they were also able to deliver to several clients, leading them to have served 250 clients already in their first year of existence.

SunCo has in the two first years of existence attracted many strategic investors both from the property industry and the energy industry, and thus also participated in several collaborations. However, for this thesis, I will only analyze the collaboration between SunCo and EnergyCo.

EnergyCo invested in SunCo at the end of summer 2016, with the interest of locking in customers to their products as switching costs are very low for private individuals or families buying power to their homes. They saw the potential of solar panels themselves but preferred to invest in SunCo rather than starting a costly internal corporate start-up. Also, EnergyCo CVC believed in the business case as they saw a potential significant financial reward. As SunCo already had a proof of concept, EnergyCo's salespeople could start selling SunCo's products, entailing customer lock-in, as well as extra revenue through the kick-back fee. For SunCo this project meant access to EnergyCo's sales network, a heterogeneous resource, thus boosting their sales.

What attracted us was that they were an industrial actor, understanding the energy market. This gives other investor's confidence, especially for a new case like this that hasn't been done before. - SunCo CFO

5.0 FINDINGS

In the following section, I will present the thesis' findings using Clough et al's framework. First, resources CVCs and start-ups look for when searching for each other. Second, factors that were important to CVCs and start-ups in giving access to each other's resources. Third, examine consequences of resource transfer between the parties. Most of the findings were established through the exploratory

findings in the cases. However, in the ‘Search’ section, a precision was made to the proposition through findings in the existent literature. This precision, that the analysis from the cases pertains to Strategic partnerships, also has ramifications throughout the other findings.

5.1 Search

Examining the search for partners in the cases revealed that the CVCs and start-ups searched for heterogeneous immobile resources when searching for strategic partners.

First, EnergyCo CVC looked for a specific product and technology that would enable them to extract strategic synergies. SunCo looked for a strategic investor giving them legitimacy towards financial investors in later rounds. Second, FundTech needed legitimacy and competence and looked for an established, trusted corporate partner. SavingsBank CVC was looking for knowledge in disruptive business models. Third, The BigDataCo and SavingsBank case showed that BigDataCo had a technology that could work for most kinds of companies with a high interaction rate with customers, thus enabling it to work for many kinds of industries. Thus, when SavingsBank was made aware of their technology and began discussing their issues, BigDataCo could adapt their technology to fit SavingsBanks needs. This shows that they were also searching for heterogeneous resources. Last, as the literature shows clearly that start-ups can only look for capital when looking for CVCs (Chesbrough, 2002). Therefore, I deduce from my findings that the heterogeneous immobile resources and capabilities are important when looking for CVC as a strategic partner, rather than just an investor.

“The rationale behind the investment in SunCo was that it fit well with our daughter company that has a large group of customers. We ask ourselves what the customers want. Here we saw a link to SunCo. Instead of our daughter company starting a company in their business, we could take strategic ownership in SunCo, with their equipment and their infrastructure.” - EnergyCo CVC Investment manager

In conclusion, common to all cases is the fact that the CVCs and start-ups searched for heterogeneous immobile resources when searching for strategic partners.

Proposition 1:

When start-ups and CVCs search for each other to become strategic partners, they look for heterogeneous resources.

5.2 Access

The cases revealed that in the process when CVCs and start-ups decide to enter strategic partnerships, CVCs will value founder-team quality, while start-ups value freedom from constraints. I interpret the process to gain access to mutual resources through securing attention and agreement (Clough et al, 2019) as the factors that were most important for the resource holder to open up and share their resources. First, all the CVCs valued the founder team expertise. However, the CVCs in these cases did not only choose start-ups with serial entrepreneur experience, such as in the FundTech case. In the SunCo case, the founder-team consisted both of industry experts, but also seasoned managers with C-suite experience from mid-sized corporations. On the other hand, for BigDataCo, the most valuable asset in the founder-team was the CEO that had rare expertise in artificial intelligence.

“When we assess cases to invest in, we look at the people behind and the driving force of the leaders. We ask ourselves: how fast can they change their business model? How well do they market themselves?” EnergyCo CVC Investment Manager

“The strong founder team has been extremely important for us getting investors on-board. Our CEO and the AI team has had the most value here, having some of the best AI-minds in the world in our team.” – CCO BigDataCo

Second, all the start-ups valued freedom from constraints and limitations from the CVC the most. In all the cases, the start-ups were given freedom to both ally with

and sell to competitors. This is an aspect all the interviewed start-ups have said they valued.

"...all other investors we have taken onboard have given us the same freedom. This has been governed by our contracts." SunCo CFO

So, for all cases, in the process of deciding to give access to their resources, the CVCs looked first and foremost at founder-team quality, while the start-ups were looking for freedom from constraints from the CVC.

Proposition 2:

In the process when CVCs and start-ups decide to enter strategic partnerships, CVCs value founder-team quality, while start-ups value freedom from constraints.

5.3.0 Transfer

In transferring resources this thesis has several findings from the cases analyzed. First, all of the resources shared showed indications that sharing them led to mutual synergies for both parties. Second, cooperating in a project also led to mutual synergies. Third, the CVC ecosystem in SavingsBank show several indications of both financial and strategic synergies for the different parties.

5.3.1 Resource sharing

In the cases in this study, there have been several resources shared between CVCs and start-ups.

One resource that has been shared is legitimacy. The most evident from the cases is that the corporations give legitimacy to the start-up, both through media, but also to clients and other investors. However, some of the start-ups in these cases also have given legitimacy to the corporations as an investor. As an example, all start-ups and investors were in the press following the investment showing some indications of this effect.

"Why does SunCo want us as owners? Because our investment represents a "stamp of approval" from a professional owner." "Normally we don't invest in

companies without a bigger customer group. In this instance it was right when the founder-team was so strong and because of the synergies for our daughter companies.” - EnergyCo CVC Investment manager

Second, in the cases, the CVC has been given a place on the Board of Directors (BoD). In the cases, the interviewees from the start-ups have assigned varying importance to the BoD in day-to-day operations, but a general heavier importance for validating strategies. Furthermore, the BoD and start-ups also reported share competence and knowledge with each other in their different fields of expertise.

“[SVP Communications] and [SVP 2] offer weight, credibility and competence into the board. They have a considerable position in SavingsBank and the bank in their backs for better and worse.” - FundTech CEO

Third and last, start-ups have also been given aid from other company resources, such as controllers, law experts, and product designers from the corporation. And although the benefit at first hand seems to be most for the portfolio company, the corporations also benefit indirectly through the portfolio companies succeeding and being able to continue sharing knowledge and other strategic resources.

“The money was important at the time, but we’ve also received help for practical things, like law experts and contact with other VCs.” - BigDataCo CCO

Proposition 3a:

Resources that are shared by both CVCs and start-ups in strategic partnerships outside of projects create synergies for both parties.

5.3.2 Mutual project

As shown in the case presentations, all the start-ups and investors in this study found a mutual project leading to synergies for both parties. However, these synergies were different for the corporation and for the start-up. For the corporation, the synergy came in the form of a strategic advantage through taking advantage of the heterogeneous resource from the start-up. For both SavingsBank

and EnergyCo, this meant being able to sell or refer to a product enabling customer lock-in. And in the last case, SavingsBank received a product enabling them to grow without increasing cost.

“...there is a special competence in FundTech that we don’t have. When we observe mutual synergies, we create projects.” SVP Communication SavingsBank

On the other hand, for the start-up the collaboration led to access to the core market (FundTech), a validation of the product (BigDataCo) or access to sales- or distribution networks (FundTech and SunCo). Common for all these synergies are that they are characterized by increasing the start-up’s growth as they were given access to heterogeneous resources, they would have difficulty getting access to otherwise.

“The banks are turning down good loans like for instance airway companies. Not because it’s a bad company, but because they have to because of regulations. If they get a yes, they have to move their business to another bank. Instead of saying no the bank can say: ‘Try FundTech!’ ...it’s a way of protecting your portfolio.”
-FundTech CEO

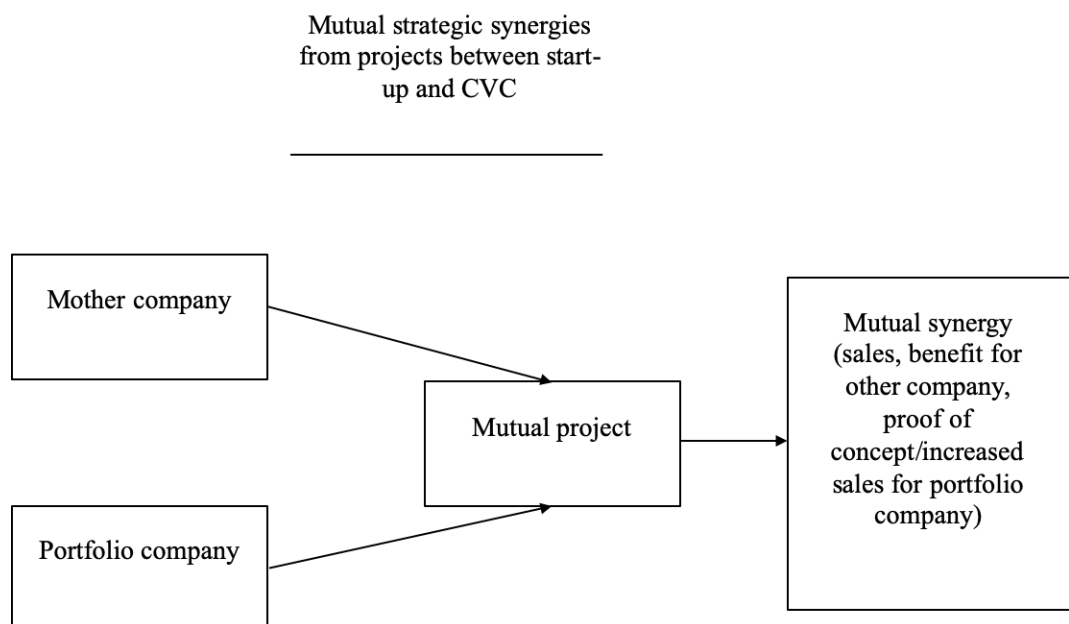


Figure 4. Mutual strategic synergies from projects between start-up and CVC.

Proposition 3b:

A mutual strategic project benefiting both the start-up and the CVC leads to a strategic advantage for the corporation and accelerated growth for the start-up, when they have complementary resources to offer each other.

5.3.3 CVC Ecosystem

SavingsBank CVC has with its setup created an ecosystem that creates synergies for both the mother company and the portfolio companies. SavingsBank CVC provides the portfolio companies with help with administration and a co-working space complying with the Ministry of Finance regulations. The portfolio companies also become customers of SavingsBank banking and accounting services. In the ecosystem, the portfolio companies and the mother company share knowledge and competence, through both cooperations with the bank and in meetups between portfolio companies regarding knowledge that increases the start-up's value.

“FundTech are sitting in our offices in Oslo with [our CVC]. It's not a pure venture capital company, but a factory where we put competence into these companies and put them in the same room as others in the same situation. They build new products and services together. Our greatest chance of succeeding is to be open like this.” -

SavingsBank SVP Communication

Furthermore, identifying a common need for several portfolio companies for compliance software, SavingsBank CVC created a new venture developing the software after the specifications from the portfolio companies that needed this product. The compliance software will also be used by the mother company, thus yielding strategic synergies they would not have attained otherwise. Finally, the full-stack team in the CVC also adds value to the portfolio companies by helping in tech development.

“For companies like FundTech and BigDataCo, we have office spaces adapted to young companies that can't pay that much. The Ministry of Finance demands what you would from a big bank, in terms of security measures. We give the

companies a place that complies with this, along with providing facilities and services that simplify their lives. There is a lot of competence that is shared between the companies. None of our portfolio companies compete with each other. They are in our ecosystem and can build long-term relationships with each other. We also have several meetups in AI, tech, architecture and more.” -

SavingsBank CVC CEO

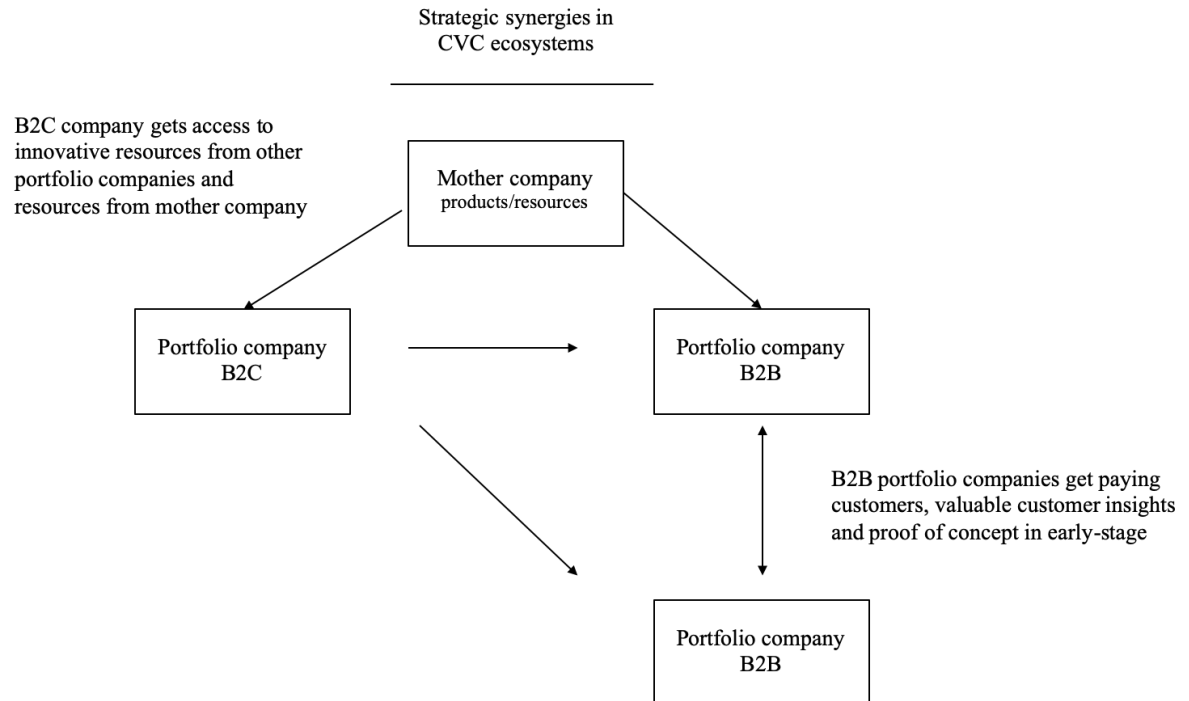
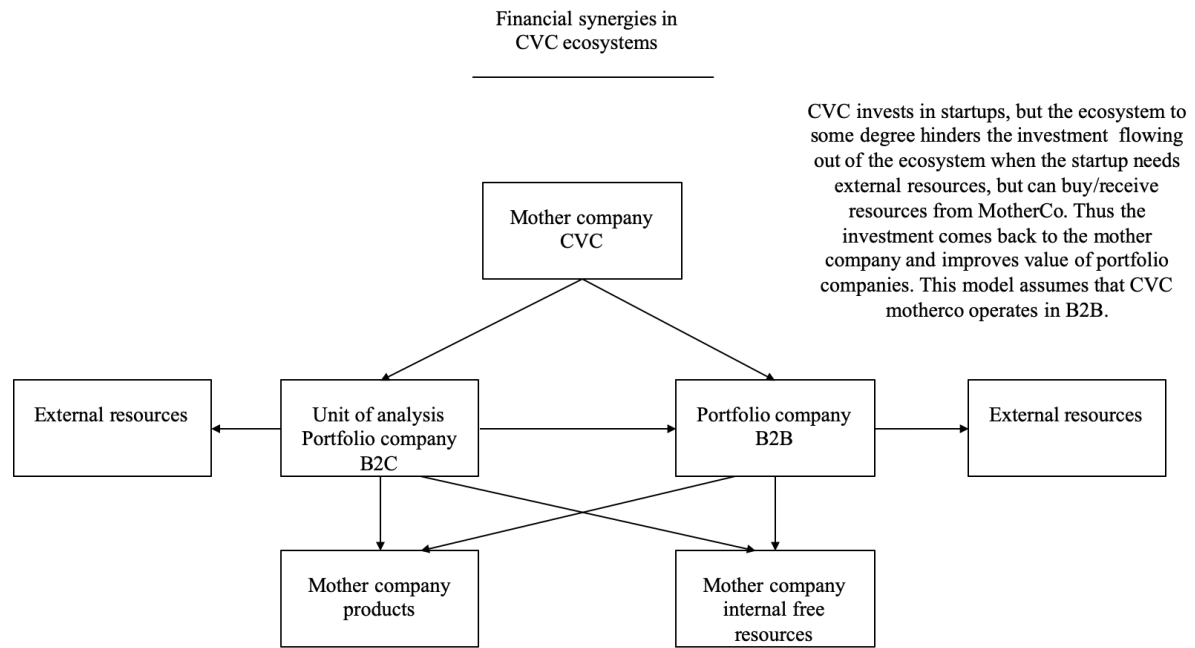


Figure 5. Strategic synergies in CVC ecosystems.

Moreover, the CVC ecosystem also indicated financial synergies attained through the ecosystem. As mentioned earlier, several of the portfolio companies bought banking and accounting services, received access to internal resources such as legal help as well as buying the services of the compliance software. This means that less of the invested capital leaves the bank’s ecosystem.



Model 6: Financial synergies in CVC ecosystem

In conclusion, SavingsBank CVC’s ecosystem shows that both financial and strategic synergies can be gained through a functioning ecosystem.

Proposition 3c:

By creating an ecosystem where resources are strategically shared the CVC creates synergies for both portfolio companies and the mother company.

In the findings, we have first seen which resources CVCs and start-ups look for when searching for each other; heterogeneous and immobile resources. Second, the founder-team was important to CVCs and freedom for constraints were important for start-ups in giving access to their resources. Third, the resource transfer showed that in sharing resources, cooperating in a project and creating a CVC Ecosystem the parties created mutual synergies for both parties. In the following section I will discuss the findings.

6.0 DISCUSSION

In the thesis discussion, I will first motivate the study of mutual synergies. In the second section, I will systematically support each proposition with findings in the research literature, before I examine differences between the cases.

6.1 Single synergies versus mutual synergies

Research on Corporate Venture Capital and start-ups to date has not examined mutual synergies between start-ups and corporations. There may be many reasons for this. One reason may be that Corporate Venture Capital is made to emulate Independent Venture Capital (IVC). In this research context, it can be argued that it only makes sense to look at either the investment and surrounding aspects from the IVC's standpoint, or the start-up's perspective. Thus, the CVC investment might have been researched through an IVC lense. Second, an IVC is not as rich in capabilities or resources as a CVC, as many CVCs have a more hands-off approach which may have led researchers to look more at indirect synergies than direct. Third, start-ups obvious lack of resources may lead researchers to only look one way, at the effect of CVC resources on start-ups. Whatever the reason for this research gap, it begs the question: What motivates a study of mutual resources in CVC partnerships with start-ups?

Alliance theory, in accordance with this thesis, shows that there are fruitful avenues to examining mutual synergies between companies as it often examines both firms in relation to each other exchanging resources. Das and Teng (2000) confirm this in arguing that the resource-based view suggests that the rationale for alliances is the value-creation potential of firm resources that are pooled together. It can therefore be argued that the same is the case for CVC investments in start-ups.

Most definitions of alliances only look at partnerships without equity involved. However, Das and Teng (2000) examined minority equity alliances as one or more companies taking a minority equity stake in each other. The stake incentivized the party/parties taking the minority stake in the other to not act opportunistically and help maximize the value of the partner firm. This framework thus has strong linkages to the CVC phenomenon. It is therefore interesting to see in the framework that companies are analyzed to see if outcomes of the cooperation were successful and mutual synergies were attained. This background thus motivates the study of mutual synergies also for CVCs and start-ups.

6.2 Propositions in light of existing theory

Proposition 1 states that when start-ups and CVCs search for each other to become strategic partners, they look for heterogeneous resources. This is a novel claim, but not unsupported by existing research. Demir et al. (2017) showed that certain resources furthered the likelihood of growth for start-ups. This is also supported by resource-based theory logic that heterogeneous immobile resources are attractive for companies to create competitive advantage. Furthermore, Park and Steensma (2012) showed that these resources could come from CVCs. On average, CVCs created value for start-ups when they had complementary resources that were hard to obtain, immobile and heterogeneous in nature. Also, corporations have plenty of reasons for seeking immobile heterogeneous resources from Start-ups to fill their resource gaps (Teng, 2007).

Proposition 2 states that in the process when CVCs and start-ups decide to enter strategic partnerships, CVCs value founder-team quality, while start-ups value freedom from constraints. First, that CVCs or other investors value founder-team quality should not come as a surprise. Research shows support of a greater likelihood of success if the founders have industry experience (Siegel, Siegel, & Macmillan, 1993), management experience (Brüderl & Preisendörfer, 2000), or as serial entrepreneurs (Shuman, Shaw, & Sussman, 1985). Second, the same is the case with the reasons start-ups value contractual freedom. CVCs are known in the literature as potentially acting opportunistically reining in the start-ups' freedoms and acting opportunistically. This effect may also have consequences to which CVC investor start-up's choose when the CVC has complementary resources they need (Park and Steensma, 2012).

Proposition 3a states that resources that are shared by both CVCs and start-ups in strategic partnerships outside of projects create synergies for both parties.

Proposition 3b further states that a mutual strategic project benefiting both the start-up and the CVC leads to a strategic advantage for the corporation and accelerated growth for the start-up, when they have complementary resources to offer each other. These two propositions are tightly linked and follow Barney's (1991) logic of mobilizing resources to create competitive advantages. First, the propositions are supported by Littunen and Tohmo (2003) who showed that start-

ups that grow fast usually have outside help and inter-organizational relationships. Second, Teng's (2007) study on Corporate Entrepreneurship, argues that the gaps in resource bases in Corporate Entrepreneurship endeavors (such as innovation and R&D) can be filled through alliances with start-ups. However, the CEO of SavingsBank CVC said: "*The winners you spend little time on developing.*" This may mean that there is less need for resource exchange and cooperation for high-quality start-ups. Nonetheless, the start-ups, in this case, show that this is not necessarily the case, as they were all described as high-quality, and shared resources with CVC and vice versa. So, although there may be little time spent on developing the start-up, the mutual synergies are still evident.

Proposition 3c states that by creating an ecosystem where resources are strategically shared the CVC creates synergies for both portfolio companies and the mother company. This builds on the same logic as the two previous propositions, but with the added value from the ecosystem. The effect of this kind of ecosystem is close to Porter's (2011) cluster theory arguing that "competitive advantage is created and sustained through a localized process". This thesis argues that this kind of ecosystem, although much smaller, creates similar effects as a cluster, in its close proximity of strategic partners, sharing knowledge and other resources that enable the portfolio companies and the mother company to attain and sustain competitive advantages. The Xerox PARC case from the 1970s illuminates how such an ecosystem of technology can lead to significant innovations like the personal computer and the graphical user interface (Smith & Alexander, 1999). However, the innovations were not commercialized, and the ecosystem value was never realized. The SavingsBank CVC ecosystem, however, shows indications of the value being realized, through the knowledge shared that leads to value. This is exemplified in the CVC identifying the common need for an automated compliance system of a certain quality and developing this for portfolio companies and the mother company.

Regarding the justification of the ecosystem model presented in the findings, it is based on the observed ecosystem taking place among SavingsBank CVC, its portfolio companies and the mother company. However, when asked of the ecosystem effects, the SavingsBank CVC CEO explained that the portfolio

companies were not obliged to be clients of the bank or the accounting services. It was also not always in the start-ups' interest to buy services or products from each other as they catered to different customer groups. Nonetheless, the fact that this kind of activity took place, shows signs of existing synergies as well as possible synergies that could be obtained when exploring this avenue further.

Thus, the propositions are all supported by findings in existing theory.

6.3 Differences in the cases

In this thesis, the cases have shown great similarities, as the propositions attest to. However, there were also some differences which will be mentioned here.

First, the relationships showed different power balances. FundTech and BigDataCo showed indications of being more dependent on SavingsBank CVC for resources in their critical early-stage. FundTech needed the concession to be able to operate at all and were thus dependent on SavingsBank as a legitimizing factor as well as for their knowledge of concessions. After this phase, their dependence on SavingsBank diminished. BigDataCo also showed indications of this dependence, with their need for data and a proof of concept to be able to approach other customers effectively. However, for SunCo, EnergyCo CVC was one of many strategic investors, and thus also had less power. Nonetheless, EnergyCo CVC was also an important factor, but more in a supporting role, than a decisive one.

Second, the industry was different in all three of the start-ups, and between the CVCs. Where both FundTech and BigDataCo can be classified as FinTech, BigDataCo solves a broader problem that has been applied to several industries where an increased customer efficiency is needed. SavingsBank is a bank in the classical sense, although they have stated that they are moving more towards tech in the future. Furthermore, SunCo is in the bridge between Energy Technology and Property Technology, while EnergyCo is a classic Energy company.

Third, there are also some contrasts in growth speed and size. Of course, between the corporations and start-ups there is a significant difference in both growth and

size, where the start-up's are smaller and grow faster, and the corporations are bigger and grow more slowly. Moreover, the start-ups grow at very different paces, where SunCo has grown the fastest, and FundTech grown the slowest. This can be attested to SunCo's ability to find and combine existing solutions in their platform, while FundTech's need for concession has hampered their growth in the initial phases. Also, the corporations showed some differences in growth and size. EnergyCo is roughly twice the size of SavingsBank in terms of revenue and had over twice the growth rate of revenue.

However, as the propositions indicate, the interviewees had similar answers to many of the questions in spite of the differences. The differences listed above as such support the overall findings of this thesis theoretical applicability as they span power balance, industry, growth and size differences. Therefore, I conclude that the theoretical sampling and replication of cases has been successful (Eisenhardt, 1989).

In conclusion, the discussion has shown that first, research on alliance theory motivates the study of mutual synergies, second, that each of the proposition is supported by findings in existent literature, and third that the differences in power balance, industry, growth, and size support the theoretical applicability of this thesis' findings.

7.0 CONCLUSION

This study offers two novel contributions. First, it shows that the benefits of sharing resources are mutual, enabling synergies for growth for start-ups and competitive advantages for corporations. Second, it shows how cooperations and CVC-start-up ecosystems work to this benefit.

Answering the research questions, these main findings show firstly how the start-ups grow fast and are on a path to becoming scale-ups through sharing their resources, attaining CVC resources, and cooperating with the CVCs and the corporation. Second, the findings show that the CVCs attain a strategic advantage for their mother companies as a result of sharing heterogeneous immobile resources and cooperating with the start-ups. Lastly, the findings show how a

CVC ecosystem can work to the advantage of mutual synergies for both portfolio companies, CVCs and corporations.

Moreover, the empirical evidence shows the resource mobilization process in three stages and the resulting mutual synergies. First, start-ups and CVCs search for each other to find heterogeneous immobile resources. Second, start-ups value freedom from constraints, while corporations value founder team quality in the access process. Finally, the transfer process shows mutual synergies being attained through a) sharing of heterogeneous immobile resources, b) cooperating in a project involving sharing this resource and c) through a start-up-CVC ecosystem where multiple layers of synergies are found.

7.1 Implications for managers

In these findings, I have addressed a lack in the body of knowledge with great merit for start-ups and corporations, as corporations wish to sustain and grow their competitive advantage, and start-ups wish to grow fast to become scale-ups. These findings also illustrate further the Corporate Venture Capital's role in the Venture Capital landscape and shed more light on when Independent Venture Capital actors should co-invest with CVCs.

First, it implicates that corporations and start-ups are better off sharing their heterogeneous immobile resources because they will get resources of the same quality in return, that is assuming that the other party has resources that are attractive to them. Second, it implicates that corporations and start-ups should seek to engage in mutual projects and build ecosystems to share knowledge. Third, it implies that corporations when establishing CVC units should look into possible advantages from ecosystems.

7.2 Limitations and future research

This thesis has several limitations as all case studies do. First, since it is a case study it may suffer from retrospective bias as well as a self-selection bias in answers given. Second, propositions were made from three industries, which raises questions of external validity. Third, the thesis looks at success cases where

mutual synergy was attained and does not compare and contrast with failure cases. A broader study could also include failure cases.

Fourth, in the cases in this thesis, the CVCs have had a more hands-on approach that other CVCs might have. In these cases, CVC managers and C-suite executives (CEO, CFO, etc or SVPs of the corporations) sit in the boards of the start-ups and have taken a more active role as driving investors (Chesbrough, 2002). However, there are many enabling CVCs that are more hands-off (Chesbrough, 2002), and act as passive investors instead exploiting strategic synergies that do not involve resources in as great a detail, but focus more on how the portfolio companies enable the corporation to increase demand for their products or create more competition among their suppliers. Therefore, another study could look more at linking portfolio companies from CVCs to Porter's Five Forces and specifically Supplier and Buyer Bargaining power (M. Porter, 1989).

Finally, like alliances, Corporate Venture Capital cooperations with start-ups are fragile (Chesbrough, 2000), and this thesis has focused on how this kind of cooperation can give mutual synergies, and not looked at the behavioral aspects of this kind of cooperation and sharing of resources (Clough et al, 2019). Trust and contract application can also be factors worth looking at when looking at these inter-organizational relationships and the instabilities they may entail (Das and Teng, 2000).

Therefore, to further study the findings of this thesis a new semi-structured study could take place as the cooperation unfolds to avoid retrospective bias, and from other industries than studied here, and also include failure cases to discover when these kinds of strategic partnerships go wrong, and look more deeply into behavioral aspects of cooperating. Another study could also seek to find more hands-off cases, where the CVC and start-up are in not as much contact.

To further study the findings from this thesis in a more structured way, a structured survey can be applied asking more direct questions related to the findings of this thesis and examining mutual synergies arising from sharing resources, cooperating and entering into ecosystems, increasing the sample and

thus the validity of the findings. However, this form of data collection can have reliability issues, for example when respondents exclude negative information about their company or themselves.

Otherwise, to avoid the weaknesses of a survey, a regression analysis of the Thomson Private Equity database, combined with hand-collected data on resource-sharing, cooperations and ecosystems can be utilized to further study different aspects of mutual synergies in CVC-start-up relationships. A reference study for this method can be Park and Steensma (2011). However, the hand-collected data will, in this case, have to be modified to fit the scope and theory of this study.

With these questions raised and other issues that may remain unanswered, I believe that this thesis opens for interesting avenues in research to come.

7.3 Before and after analyzing data

The most significant revelation that came from analyzing the data in this thesis is the discovery of mutual synergies. Before analyzing the data, I was looking at one unit of analysis, the start-up, and the effect CVC resources had on its growth. My goal was to look at how the start-ups used these resources received from CVCs to shed light on the CVCs role in the start-up growing.

However, as the analysis progressed, it became apparent that the corporations also benefited. Both from sharing their resources, but also receiving resources from start-ups, cooperating, sharing knowledge and more. It became apparent that there were mutual synergies gained from sharing resources, cooperating and creating an ecosystem. These phenomena suddenly struck me in the analysis, comparing with existing theory and I decided to make this the main focus of this thesis.

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APPENDIX – A Interview guide exploratory phase

Intervju av CVC / Corporate

Om CVCen

- Kan du fortelle om din rolle i CVCen?
- Hva slags selskaper fokuserer dere på til porteføljen deres?
- Hva er strategien med CVCen?

Om selskapet / porteføljestyring

- Hvordan passer selskap X inn i dette?
- Hva var viktig for dere da dere valgte å investere i selskap X?
- Hva er deres mål for selskap X?
- Hvordan bidrar dere for at selskap X skal nå dette målet?
- Hva bidrar selskap X med til dere?

Om kundeforhold / allianseforhold

- Opptrer dere som kunde/alliert for selskap X?
- Hva opplever dere at dere har bidratt med som kunde/alliert av selskap X?
- Hvordan har selskap X brukt det dere har brakt til bordet?

Nettverk

- Har dere bidratt med nettverk og introduksjoner til selskap X?
- Har dere hjulpet til med å skaffe penger i nye investeringsrunder?

Strategi

- Har dere hjulpet start-upen med strategi? Isåfall hvordan?
- Hvilken rolle fyller du i styret (hvis i styret)?

Ressurser / ansatte (human capital)

- Har dere delt av firmaressurser til selskap X? Isåfall hvilke?
- Er det ansatte hos dere som har bidratt til å utvikle selskap X?
- Har dere delt kunnskap med dem?
- Hvordan brukte de kunnskapen?
- Hva er din opplevelse av hvordan selskap X har dratt nytte av de ressursene dere har gitt dem?

-
- Tror du selskap X har fått legitimitet av investeringen deres?

Skalering

- Hvordan opplever dere at dere best har bidratt til at selskap X har skalert salget?
- Hvordan opplever dere at dere har bidratt til at selskap X har skalert produksjon?
- Hvordan opplever dere at dere har bidratt til at selskap X har skalert støttefunksjonene deres?

Intervju av start-up leder

Resource structuring accumulating

- Hva var viktig for dere når dere utviklet gründerteamet deres?
- Hvordan tror du dette har påvirket tilgangen på CVC-investeringer?

Resource structuring acquiring

- Hvordan har dere valgt ut investorene deres? Hvorfor har dere oppsøkt og takket ja til investeringer fra akkurat disse?
- Hvilke ressurser annet enn kapital kunne de tilby som tiltrakk dere?
- Hvordan identifiserte dere kompetansen de ulike CVCene sitter på?
- Hvordan har dere jobbet for å utvikle kompetansen i styret deres?
- Hvordan jobber dere sammen med CVCene for å utvikle strategien deres på styrenivå?

- Har dere brukt samarbeidet med CVCene for å komme inn på nye markeder? Hvordan så isåfall dette ut?
- Hvordan har dere brukt samarbeidet med CVCene for å skaffe dere ressurser dere ikke ville fått ellers?
- Har de strategiene og ressursene dere har utviklet med CVCene vært med på å skape verdi for kundene deres? Og isåfall hvordan?

Støttespørsmål:

Skalering

- Hva har vært viktigst for å skalere salget deres?
- Hva har vært viktigst for å skalere produksjonen deres/brukermasse?
- Hva har vært viktigst for å få skalert støttefunksjonene deres?
- Hva kunne vært gjort bedre i skaleringen?

CVC og skalering

- Hvordan har CVCene bidratt til å hjelpe dere å skalere salget deres?
- Hvordan har CVCen bidratt til å hjelpe dere å skalere produksjonen deres?
- Hvordan har CVCen bidratt til å hjelpe dere å skalere støttefunksjonene deres?
- Hvilke av CVCene har vært viktigst for dere i å skalere og hvorfor?
- Hvordan har dere tatt i bruk ressursene de har bidratt med?

Evt snakke CVC-investeringene har gitt dem legitimitet, nettverk og bruk av deres salgsnettverk o.l.

APPENDIX – B Interview guide final phase

Intervju av CVC / Corporate

Om CVCen

- Kan du fortelle om din rolle i CVCen?
- Hva er strategien med CVCen?

Om selskapet / porteføljestyring

- Hvordan passer selskap X inn i dette?
- Hva var viktig for dere da dere valgte å investere i selskap X?
- Hva er deres mål for selskap X?
- Hvordan bidrar dere for at selskap X skal nå dette målet?
- Hva bidrar selskap X med til dere?
- Hvilke andre ressurser kunne dere tilby annet enn kapital for å tiltrekke dere selskapene?

Om kundeforhold / allianseforhold

- Opptrer dere som kunde/alliert for selskap X?
- Hva opplever dere at dere har bidratt med som kunde/alliert av selskap X?
- Hvordan har selskap X brukt det dere har brakt til bordet?

Nettverk

- Har dere bidratt med nettverk og introduksjoner til selskap X?

-
- Har dere hjulpet til med å skaffe penger i nye investeringsrunder?

Strategi

- Har dere hjulpet start-upen med strategi? Isåfall hvordan?
- Hvilken rolle fyller du i styret (hvis i styret)?

Ressurser / ansatte (human capital)

- Har dere delt av firmaressurser til selskap X? Isåfall hvilke?
- Hva er din opplevelse av hvordan selskap X har dratt nytte av de ressursene dere har gitt dem?
- Hvordan har selskap X har fått legitimitet av investeringen deres?

Skalering

- Hvordan opplever dere at dere best har bidratt til at selskap X har skalert salget?
- Hvordan opplever dere at dere har bidratt til at selskap X har skalert produksjon?
- Hvordan opplever dere at dere har bidratt til at selskap X har skalert støttefunksjonene deres?

Capability enriching, pioneering and mobilizing

- Har dere samarbeidet for å hjelpe start-upen å komme inn på nye markeder? Hvordan så isåfall dette ut?
- Har dere samarbeidet for å skaffe start-upen ressurser dere ikke ville fått ellers?
- Har de strategiene og ressursene dere har utviklet sammen vært med på å skape verdi for kundene til start-upen? Og isåfall hvordan?
- Har dere vært med på å forbedre kjernevirksomheten deres?
- Har dere gjennom styret hjulpet med å utforme strategien til start-upen?

Capability coordinating and deploying

- Har dere vært noe involvert i å sette strategiene til selskapet til livs?
- Har dere vært involvert med kundene deres?

Intervju av start-up

Resource structuring accumulating

- Hvilke ressurser var viktige for dere for å tiltrekke dere investorer?
- Evt som dere utviklet?

Resource structuring acquiring

- Hvordan har dere valgt ut investorene deres? Hvorfor har dere oppsøkt og takket ja til investeringer fra akkurat disse?
- Hvilke ressurser annet enn kapital kunne de tilby som tiltrakk dere?
- Hvordan identifiserte dere kompetansen de ulike CVCene sitter på?
- Hvordan har dere jobbet for å utvikle kompetansen i styret deres?

Capability enriching, pioneering and mobilizing

- Har dere brukt samarbeidet med CVCene for å komme inn på nye markeder? Hvordan så isåfall dette ut?
- Hvordan har dere brukt samarbeidet med CVCene for å skaffe dere ressurser dere ikke ville fått ellers?
- Har de strategiene og ressursene dere har utviklet med CVCene vært med på å skape verdi for kundene deres? Og isåfall hvordan?
- Har CVCen vært med på å forbedre kjernevirksomheten deres?
- Har CVC'en gjennom styret hjulpet med å utforme strategien deres?

Capability coordinating and deploying

- Har CVC'en vært noe involvert i å sette strategiene til livs?
- Har CVCen vært involvert med kundene deres?

Intervju av Internasjonalt scale-up

Which resources was important for you to attract investors?

Why did you choose the investors you chose?

What other resources did they have than capital that attracted you?

Do you have corporate investors?

If not, why?

Do you make use of the competence your investors have to offer? If so, how?

What benefit do your VC-investors provide to you except for investing money?

Have you used your cooperation with the VC to enter new markets?

Have you used your VC to get access to different resources you wouldn't have gotten otherwise?

Has the contribution of the VC helped create value for your customers? If so, how?

Has the VC been involved in shaping your strategies?

Have they been involved in putting your strategies into play?

Have they been involved with your customers?

APPENDIX – C Preliminary Thesis Report

Preliminary thesis report:

**How Corporate Venture Companies in Norway
help start-ups with resources to scale up**

Hand-in date:

15.01.2018

Campus:

BI Oslo

Examination code and name:

GRA 1973 Master Thesis

Programme:

Master of Science in Business, major in Strategy

Summary

Scale-ups have received increasing attention because of return on investment, job creation and more. A scale-up is a leveraged start-up, that produces scalable product, and not services. It has managed to grow over 20% on average per annum over three years. Start-ups need capital and resources to succeed in scaling up. Start-ups face a death-valley gap because of the difficulty of obtaining capital and resources. A CVC has, in addition to capital, resources such as brand name, marketing and distribution network, complementary assets, knowledge and capabilities that cannot be used within a parent company's core markets that can help the start-up overcome the death-valley gap and scale-up. There is little research connecting how CVC with how they share resources in helping start-ups scale up. This is therefore the focus of this thesis.

The method that is used to study this topic is an exploratory multiple case-study using semi-structured interviews. The literature review will be used to generate propositions that will be tested and refined through analysing the data. The data will be analysed through coding, categorizing and in the end obtaining grounded theory and new insight into the research topic. This method may come under scrutiny because of generalizability, but the multiple sources help mediate this issue. It is also beneficial because it allows for investigation of a phenomenon in a real-life context.

I have yet to gain permission from relevant cases, but I am in contact with several CVC's and will also receive help from NVCA and Abelia in obtaining this. I aim to gain consent from one CVC, as well as 2-4 start-up cases that all have been invested in by the same CVC.

My thesis aims to uphold the highest ethical standards in line with BI's ethical guidelines and NSD guidelines in data collection and treatment. This PTR also contains a thesis project organization structure and plan.

1.0 Introduction

Scale-ups, also referred to as high-impact entrepreneurs (World Economic Forum, 2014) or gazelles (Eurostat, 2007) have been receiving increasing attention both from media and investors. Stakeholders are interested in start-ups that become scale-ups because of their return on investment, job-creation, innovation and impact on society (World Economic Forum, 2014). The interest has culminated in considerable public attention in Norway (Dagens Næringsliv, 2018) and suggestions on how to stimulate the environment surrounding the entrepreneurs (Nikolaisen, 2016).

Start-ups need capital and resources to succeed in the beginning of their life and become scale-ups. In the US, the most known model of a start-up scaling up to reach an IPO, goes through an independent venture capital (IVC) fund, providing the company both with funds, but also resources helping the start-up to scale. However, in Europe IVC is not as mature as in the US (Hege, Palomino, & Schwienbacher, 2003), and especially so in Norway.

Nonetheless, start-ups are facing increasingly diverse funding sources. Where before independent venture capital (IVC) has been predominant, corporate venture capital (CVC) is becoming a larger phenomenon (Dushnitsky, 2006; Gaba & Meyer, 2008; Katila, Rosenberger, & Eisenhardt, 2008). Corporates can provide start-ups with capital in the death-valley phase and an alliance yielding resources, such as potential clients, legitimacy, complementary assets and competence sorely needed in a critical strategic phase. Research on strategic investments have shown that they provide start-ups with both opportunities and constraints (Baum, Calabrese, & Silverman, 2000; Gulati, Nohria, & Zaheer, 2000). It is therefore important for founders to know and understand these opportunities and constraints to better choose cooperation partners. Also, it is critical to generate insight for regulators to create laws protecting corporate, founder and other types of investments, as well as easing the entrance the starting of new businesses in a changing time.

In Norway many of the locally specialized large companies are now starting corporate ventures, because their business is potentially being disrupted. They

therefore need strategic alliances with start-ups to generate innovation in the company to retain their position. And perhaps most interestingly for Norway's start-ups, it seems like many of these CVC's are betting on internationally oriented start-ups with scaling ambitions to do help them.

Some of the CVC's, like Schibsted Growth and Orkla Ventures are also in a position to help start-ups scale abroad because of their international distribution networks and subsidiaries. Other locally oriented CVC's, like SR-bank's Finstart Nordic have already invested in scale-ups like Boost.ai producing a chat-bot that does not only serve banks but also other businesses. Boost.ai now has a valuation of 1BNOK at the age of barely 3 years. Nonetheless, the CVC's also demonstrate that they provide start-ups with constraints. Strategic investments and alliances such as a CVC investment can hinder start-ups catering to competitors of CVC mother-company (Gulati et al., 2000) and/or find the mother-company as a potential rival even acting opportunistically (Dushnitsky & Shaver, 2009).

2.0 Research questions and aim

Drover et al. (2017) identify a lack of deeper insights in to consequences of CVC investments to stakeholders such as start-ups. There is as of now, little to none research connecting corporate venture capital research, let alone venture capital research to why start-ups scale up. As corporates possess the capital and resources needed for these start-ups to scale up this is an area I wish to explore in my master thesis. I see CVC as a potential valuable contributor to building scale-ups in Norway, because of their investment size, resources and competence. I therefore wish to use this perspective to add to the body of knowledge to CVC research.

Thus, my tentative main research problem is: How have Norwegian Corporate Venture Capital invested resources and capital into start-ups that have helped them scale up?

My supporting questions include:

- Which resources that the CVC supplied were the most critical for aiding the start-up in scaling up?
- In which areas do CVC's fill in the scale-up capital gap?

-
- How can a CVC most efficiently provide resources to help their portfolio businesses scale up?

I wish to explore this field through an exploratory multiple case-study of start-ups with CVC investments to generate hypotheses surrounding how CVC's contribute to start-ups scaling up through providing key resources that are direly needed by the start-ups. To generate these hypotheses, I will research two-four start-up cases to gain new insight into how Corporate investors have contributed with resources that helped the start-up scale up. To explain why I have chosen this problem and research design, I will first review relevant literature, followed by a justification for my research methods.

3.0 Literature review

3.1 Scale-ups

A scale-up is defined as a start-up of less than five years of age, that has managed to grow over 20% on average per annum over three years. In terms of financing Duruflé, Hellmann, and Wilson (2018) have defined scale-ups as companies who have passed the Seed and Series A stage and are entering Series B or higher (see figure 1, and section 3.2). Not all scale-ups attract Venture Capital (Duruflé et al., 2018), but this thesis' focus is on those that do.

Researchers have increasingly realized the crucial role scale-ups play in growth innovation and its contribution to economic welfare (Acs & Armington, 2006; Acs & Audretsch, 2006; Schramm, 2006). Entrepreneurship is generally recognized as a force for lifting individuals out of poverty and providing for the growing and ageing population of countries (Acs, 2010). The scale-up entrepreneurs as some believe Schumpeter described as “promoters of new combinations”, see possibilities and meet market needs (Audretsch & Ács, 2003). Leverage is a key component of high impact start-ups. This means that they produce products and not services, therefore selling one thing to many, rather than custom products to individual clients (Acs, 2010). Another reason people are attracted to scale-ups are that they reach high valuations, some of them even reach “unicorn” status. Unicorns, popularly defined as start-ups that reach a \$ 1 BN valuation within 5 years of birth, are highly sought after by investors,

governments and other stakeholders. These unicorns have one thing in common, they have had to scale-up their production and grow extremely fast.

Start-ups face what Stinchcombe and March (1965) coined as the “liability of newness”. It is a known fact that many start-ups will die after few years. There are differing views on the mortality rate, but one estimate is 23,7% within two first years and only 37,3 % survival past six years (Timmons & Spinelli, 1994). The reason for this mortality has been called the “death-valley” or “valley of death” or simply a gap the entrepreneur has to traverse. For a start-up to scale up it faces a gap in lack of both capital and resources. To address these issues, first I will present previous research on how scale-ups are financed, and where there is an equity gap in general and in Norway. Second, I will present the critical need for resources providing another gap. Here, the resource-based view will provide the main framework. Third I will present two ways of mediating these gaps in capital resources, by reviewing existing research on venture capital and corporate venture capital.

3.2 Funding new ventures

Start-ups need capital in order to develop their product, establish product market fit and scale up the product to meet different market needs. They need money for employees, offices, R&D and production facilities, and most importantly to buy time until the product is developed and can start to produce revenue. Capital for start-ups in high growth ventures is hard to come by in traditional ways, like through bank loans or public stock. P. A. Gompers and Lerner (2004) argue this is because of four critical factors: uncertainty, asymmetric information, the nature of firm assets and the conditions of the relevant financial and product markets. Firstly, start-ups have a large likelihood of dying, which entails a large amount of uncertainty for investors. Second, entrepreneurs may exploit their knowledge of the project and the investors lack thereof, thus leading to asymmetric information. Third, firms often have tangible assets that can serve as collateral in loans. Start-ups often have intangible assets, that are not suited for this purpose. Lastly, market conditions may influence the difficulty of finding financing. The price of capital may vary substantially, as well as competitive intensity or the nature of the

customers. For these reasons, the start-up has to look elsewhere for this kind of risk-capital. Let us look into these ways of obtaining capital.

Capital is homogeneous in itself and can be obtained by start-ups in a number of different ways in different phases. One is through the founder, through bootstrapping. Bootstrapping is here defined as acquiring use of resources without raising equity (Freear, Sohl, & Wetzel Jr, 1995), that is using your own capital to fund the venture. Bootstrapping is often used in the start-up phase. But, it is rare that entrepreneurs have enough capital to realise a company (P. A. Gompers & Lerner, 2004). As the company starts to take form, family and friends can supply small pools of capital (Sohl, 1999) . Nonetheless, it is private investors that is the largest source of capital in the seed and start-up phase (Gaston & Bell, 1988; Wetzel, 1983). They are also people that often have a substantial business and entrepreneurial experience (Sohl, 1999). Some refer to these individuals as Business Angels (Mathisen, 2018). Seed financing funds the development of the business concept, with production of business plan, prototypes, research and more. This is all done before the product is brought to market (BVCA, 2018). Other early stage venture financing is done for companies who have completed their product development and require more funds to initiate commercial manufacturing and sales. Late stage venture is financing for firms that have reached a stable growth rate. Expansion venture is sometimes referred to as development or growth financing, which is invested so that a profitable company can expand. This capital may be invested in increasing production capacity, market or product development and/or to provide working capital for the company (BVCA, 2018).

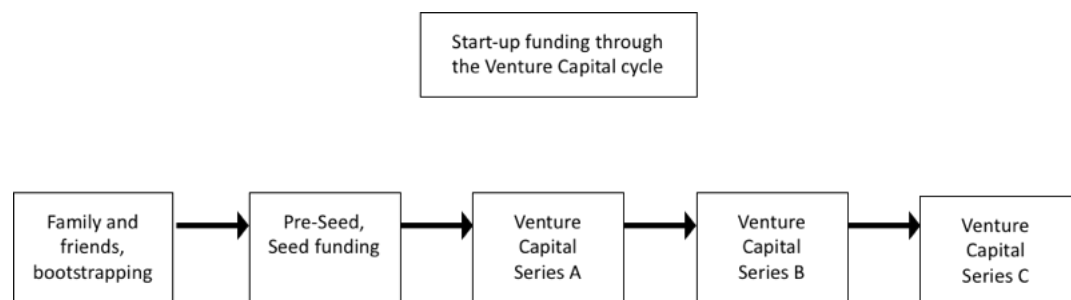


Figure 1. Start-up funding through the Venture Capital cycle.

3.2.1 The Equity Gap

Start-ups, especially high-tech, will with high likelihood face difficulties in financing. This happens especially in early stages, where debt financing is not a good fit. This lack of fit is due to factors like risk aversion, adverse selection, moral hazard and intangible assets (Carpenter & Petersen, 2002). These start-ups cannot produce collateral and thus loans will have too high a risk. There is also an information asymmetry that hinders bank loans. Material information to the contract are available to one party, but not to the other party (Binks, Ennew, & Reed, 1992). Equity is more suitable for new ventures in need of capital because it can cater to risk-loving investors. Start-ups scaling up will have a much larger cash-burn and run a considerable deficit in expanding its operations. Therefore, some define the equity gap as the amount of cash that is hardest to raise from investors. One informal study in the US, showed it especially hard to raise capital between US \$ 1,5M - \$ 4M (Payne, 2012). However, Duruflé et al. (2018) although not finding any conclusive evidence as to where the financing gap is, they argue that funding gap in Europe is larger at the scale-up stage than the start-up stage.

3.2.2 The Equity Gap in Norway

The Norwegian Government has commissioned a report about the difficulty of raising capital in early stages in Norway named “Kapital i omstillingens tid”. The commission reports a funding gap from “pre-seed level to venture and early-expansion” (Kapitaltilgangsutvalget, 2018). The report also refers to an EVCA (2013) report that Seed has the lowest return of the Private Equity segments in Europe and suggests government intervention. As a remedy it recommends a government fund-of-funds governed by the later-stage government VC Investinor that invests in VCs focused on investing in early stage ventures.

3.3 Resource Gap

Start-ups also face a gap in valuable resources as a source of sustained competitive advantage. J. Barney (1991) presented the resource as the key source of competitive advantage for a firm. It described the firm as a set of resources that can provide a sustained competitive advantage if the resource is Valuable, Rare, In-imitable and Non-substitutable (VRIN). Barney assumes unlike earlier

researchers that these resources are immobile, and difficult to attain. This makes acquiring the resource difficult yet attractive. Barney classified three main categories of resources that may be VRIN. The first being physical capital, such as technology, plant and equipment, geographic location or access to raw materials. Second being human capital, such as training, experience, judgement, intelligence, relationships, insight of individual managers and workers. And finally, organizational capital such as reporting structures, planning, controlling, systems, informal relations among groups with a firm and between a firm and its surroundings. Start-ups are most often in lack of all of these (Baum, 1999; Fichman & Levinthal, 1991).

So, to scale up they have to acquire resources to survive. Duruflé et al. (2018) point out that there is little expertise in Europe on how to scale start-ups independently, therefore many start-ups become acquired by larger corporations. Acquiring these resources are often costly, so the entrepreneur has mainly two choices, either acquire and develop the resource themselves, or pursue an inter-organizational relationship to mediate the lack of the resource (Baum et al., 2000; Gulati et al., 2000).

There are different inter-organizational relationships, main of which for mature firms are joint venture, network, consortia, alliance and trade association (Barringer & Harrison, 2000). Although many of these apply for start-ups, the start-ups also have the possibility of relationships like client relationships, venture capital investments and corporate venture capital investments that are more attractive to them because of more valuable resources (McNally, 2002).

To show how resources can be acquired through CVC I will first look at VC, because CVC is built on the VC model to varying degrees. Finally, I will examine Corporate Venture Capital, and justify through theory my choice of this phenomena as an independent variable for helping start-ups with resources to scale up.

3.4 Private Equity and Venture Capital

In order to explain the phenomena of how Corporate Venture Capital mediates the Death Valley gaps for start-ups, I will first give a brief overview of what is relevant of Private Equity and Venture Capital for this thesis' purpose. One valuable way of overcoming the Death Valley gaps for start-ups is Venture Capital funding. Venture Capital companies not only provide start-ups with capital, but with valuable resources, such as serial-entrepreneurship experience, an extensive network and legitimacy.

The difference between Venture Capital and Private Equity can be a bit unclear and varies from Europe and the USA. One acknowledged definition by P. A. Gompers and Lerner (2004) is that Private Equity involves venture capital, leveraged buyouts, mezzanine, consolidations and distressed debt, and also other hybrids of venture financing such as venture debt. Wright and Robbie (1998) define Venture Capital as the financing of new or radically changing firms which contrast in many important informational ways to established companies quoted on a stock market, notably the problem of asymmetric information." A VC fund has solely a financial motive for investing in new ventures.

A Venture Capital fund is run by the general partners, people employed by the fund with a venture screening, developing and selling expertise. It raises funds from so-called limited partners, such as high-net worth individuals, family offices as well as pension funds and other institutions (Sahlman, 1990). General partners are compensated with a fee from the total fund per year depending on which stage it invests in, as well as a carried interest usually at 20% of accumulated profits of the exited fund after the required rate of return (P. A. Gompers & Lerner, 2004; Sahlman, 1990). The carried interest aligns the motivation of the general partners with that of the limited partners, so that they do not act opportunistically with the invested capital (Sahlman, 1990).

A Venture Capital firm is dependent on constantly discovering new start-ups to consider for its portfolio. Although some IVC's seek to diversify their portfolio, and invest in start-ups across industries, others specialize in certain areas. Empirical evidence points to specialization IVC firms obtaining better results (Norton & Tenenbaum, 1993). These specialist IVC's benefit from obtaining

institutional knowledge and sharing this resource with their portfolio firms (Sahlman, 1990). According to (Bygrave, 1987, 1988) IVC's syndicate with other investors that can add value through their specialized knowledge in the demanded areas of expertise for the start-up. IVC's also with specialist skills have been shown to add value and be better at controlling risks than other firms (Manigart et al., 2002). Network is also a resource that IVC's possess and share with their portfolio firms. The better networked IVC firms have also been shown to perform better than their competitors (Hochberg, Ljungqvist, & Lu, 2007). Nonetheless, some researchers are critical to if IVC's can add value in the longer term through resources (Steier & Greenwood, 1995).

3.5 Corporate Venture Capital

Corporate Venture Capital has been seen by some to bridge the equity gap for start-ups (McNally, 2002), and have many other resources to offer start-ups such as client relationships, distribution and complementary assets (Dushnitsky & Lenox, 2005; Katila et al., 2008).

Corporate Venture is defined by Keil (2002) as "...the overall activity of building new businesses in an established organization." Corporate Venturing is a way of meeting the change of pace in today's markets for corporations to build their resource pool and acquiring resources (Keil, 2002). There is therefore a clear strategic rationale of CVC for the companies that use this strategic tool, in addition to the financial motivation. A CVC can be set up in many different ways. Corporations often establish subsidiaries (McNally, 1997) with varying degrees of autonomy, but they also initiate in-house operating divisions. Research has shown that the more autonomy a CVC is given (P. Gompers & Lerner, 2000), and the more it emulates IVC but still keeps strategic synergies (Chesbrough, 2002), the better it performs according to some scholars. Although it in many ways is similar to IVC, it also differs because of its strategic rationale, and important aspects such as compensation (Sykes, 1992).

Examples of strategic rationales for CVC's range from finding new suppliers and buyers, or expanding internationally (Winters & Murfin, 1988) to stimulate demand for existing products by supporting commercialization of complementary

products (Chesbrough, 2002; Kann, 2000), to identify novel products to replace existing products as well as entering new markets (Dushnitsky & Lenox, 2006; Kann, 2000; Keil, Zahra, & Maula, 2004).

A CVC investment may therefore pose an opportunity and a constraint to a start-up as mentioned earlier. Winters and Murfin (1988) observe that Corporate investors have resources like company brand name, marketing and distribution network. Furthermore, Park and Steensma (2012) found that the start-up performs better if the CVC parent possesses complementary assets that the start-up needs. Also, Keil (2002) argues that there are large amounts of knowledge and capabilities within an organization that cannot be used in the parent's core markets and can thus be used in portfolio firms or spin-offs. Strategic corporate investors as such pose a source of obtaining immense resources for cash- and time-strapped entrepreneurs.

However, there are also potential conflicts of interests that arise. CVC's want to maximize the value of their parent firms, and their interests can often conflict with the ventures (Park & Steensma, 2012). Resource-sharing is dependent on adoption in top management, meaning a bureaucracy that IVC does not entail (Miller, Spann, & Lerner, 1991). Also, Corporate parents may produce products that compete with the ventures products (Hellmann, 2002) as well as expropriating intellectual property from the ventures (Dushnitsky & Shaver, 2009). Also, a CVC investment may hinder the venture in looking for resources on the open market, because of competitors of the corporate parent are reluctant to work with ventures part-owned by rivals (Park & Steensma, 2012). In the same way the start-up can pose a threat to the CVC parent. They may compete for corporate resources (Fast, 1978), or cannibalize parent markets (Hellmann, 1997; Rind, 1981).

Durufié et al. (2018) propose that scale-up investors should possess four qualities, which are deep pockets, smart money, networks and patient money. They see among others, Corporate Venture Capital funds as possessing these qualities, and especially networks and smart money, which can be seen as valuable resources.

4.0 Method

The main goal of my thesis is to analyse how Corporate Venture contribute with resources to help Norwegian Start-ups scale-up. Therefore, I have chosen to use an exploratory case study of two-four start-ups. I will use this section to explain why I have chosen this methodology for the thesis. I will first address the research design, followed by my research strategy. Then, I will explain how the data will be collected and analysed. Finally, I will examine the validity issues concerning the methods I will undertake.

4.1 Research strategy

4.1.1 Research design

Research design is described by (Bryman & Bell, 2015) as a framework and plan for collecting and analysing data. They distinguish between five research designs, the first being experimental and related designs, second cross-sectional design, third longitudinal design, fourth case study design and lastly comparative design.

4.1.2 Quantitative and qualitative research

Scholars differentiate between quantitative and qualitative research designs, or a mixed-method approach where the two schools are combined. Quantitative research entails a deductive approach to test theories. It has incorporated practices and norms of the natural scientific model and of positivism and takes the view of social reality as external and objective. Qualitative research, on the other hand, emphasizes words rather than numbers and uses an inductive approach to generate theory. It rejects the practices and norms of the natural scientific model and positivism and takes the perspective of the social reality as shifting and a property of individuals creation (Bryman & Bell, 2015).

According to Yin (2009), research questions relating to “How” are answered best when using a qualitative approach. I wish to identify how start-ups scale up using different resources attained from corporate ventures. Resource based view has challenges in identifying intangible resources as a source of sustained competitive advantage (J. B. Barney, 2001). Therefore, Rouse and Daellenbach (1999) argue that qualitative methods should be used to diagnose these kinds of resources, such as tacit knowledge. This is why I have chosen to take

4.1.3 Exploratory approach

My research problem opens for an exploratory approach. According to Cooper and Schindler (2014) exploration is useful when researchers lack a clear idea of the problems they will meet during the study and need to develop concepts more clearly. Managers in CVC's and in early stage start-ups all want the same thing – for the start-up to succeed and scale-up so that owners more likely will obtain return on investment. An exploratory approach thus induces me first to generate knowledge from existing research about the topic, as well as published sources on my chosen cases as well as interview with information gatekeepers to understand the true management dilemma and not just its symptoms. Following this, I will word the dilemma in precise propositions and questions. Second, I will explore through interviews with further information gate-keepers to solve the dilemma posed. This will lead me to the final hypotheses and research questions that need to be examined by quantitative researchers (Cooper & Schindler, 2014).

4.1.4 Multiple Case study

Yin (2009) argues that questions related to the How or Why of a problem can be investigated best through a qualitative case study. Bryman and Bell (2015) state that multiple-case study designs have become very common in business and management research. It is used to compare cases that are included in the study. In my multiple case-study I wish to research two to four start-ups under relatively similar conditions, that all have an investment from the same Corporate Venture Capital company. This will allow me to compare and contrast the findings from the cases and look for differences in the resources employed (Bryman & Bell, 2015). If the findings support the hypothesized contrast, the results are a strong start towards a theoretical replication (Yin, 2009).

The choice of the two-four start-ups will hinge on the start-ups being as comparable as possible so that the one case can be seen as a theoretical replication of the other, as they will have contrasting results (Yin, 2009). I have chosen to do two-four case-studies because of the comparability they provide and not more because of the time limitations of a master thesis. Although analysing a sustained competitive advantage requires a longitudinal analysis (J. B. Barney, 2001), this is too much of a challenge with the time constraints a master thesis at BI. Therefore,

I have chosen to only look at what resources lead a start-up to scale up, and not if the resources yield a sustained competitive advantage

I have yet to gain consent from a corporate investor and start-up cases, but an example of a fitting case could be Finstart Nordic, SR-Bank's CVC. Thus, I would through analysing two-four of their portfolio start-ups with an age of over 3 years, discover how their resources and capital have helped their start-ups scale up to varying degrees. I have yet to gain permission from a fitting case but aim to gain this permission during the next week, using my network, but also the network of NVCA and Abelia who have said they will help me with this.

4.2 Data collection

4.2.1 Primary data

I will collect primary data to analyse and understand the underlying resources in corporate venture and how they have benefit start-ups. The main data I will collect using semi-structured interviews with open-ended questions. The semi-structured form provides this thesis with flexibility and answers regarding a specific issue that would not be attained in a structured survey.

In conducting these interviews, the interviewee will be given leeway in how they will reply. I will also pick up on things the interviewees say, and ask follow-up questions (Bryman & Bell, 2015). I expect to conduct 30-35 interviews, depending on if I need second interviews with some subjects. If the subjects give their written consent, I will record the interviews. Otherwise, I will take notes on a laptop as the interview progresses. I intend to interview the founder(s), corporate venture capital fund managers, other corporate key stakeholders and syndicators such as other venture capital funds and business angels. Since the investments are recent I expect rich data from the stakeholders I interview.

4.2.2 Secondary data

I will collect secondary data from the Norwegian Venture Capital and Private Equity Association, as well as other international VC organizations on the topic. In addition, I will study company documents both from the start-up and the CVC's of the two-four cases to generate insight into resource sharing and

performance. Also, to understand the industry of the two-four cases, I will study online material of competitors, industry reports and more.

4.3 Data analysis

According to Yin (2009), analysing case study evidence is difficult, because the techniques are not clearly defined. Therefore, I will follow a general analytic strategy, with priorities for what to analyse and why I will analyse it.

Before I start interviewing, I will generate theoretical propositions from existing theory as to what results I will find in my study. These will guide the interview questions I choose to ask, posed from my semi-structured interview guide. When the interviews are done, I expect to use one to two months transcribing the interviews and coding the interviews. Following this, I will look for emergent categories or patterns to develop a rich and full explanation of the case, in response to my research problem. These in turn will yield synthesized core concepts which will become the foundation of this thesis' grounded theory (Saldaña, 2015) and hypotheses about the research problem that can be tested by quantitative research.

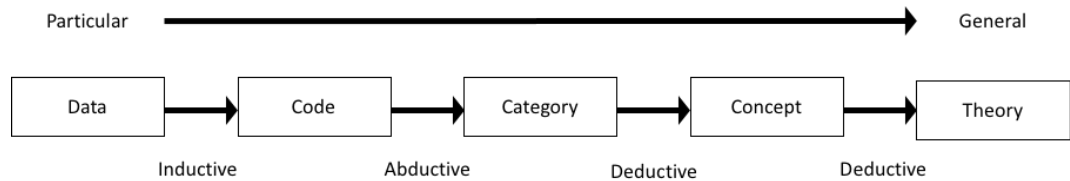


Figure 2. Qualitative Data Analysis model based on Saldana (2015).

I will separate the case studies to be able to write separate case reports in the thesis. In my analysis I will regard CVC investment as an independent variable that can yield resources that leads the start-up to scale up. The start-up scaling up or not is therefore the dependent variable.



Figure 3. Research design.

4.4 Validity and reliability in this case study

Bryman and Bell (2015) state that the most important criterion for research is that it is valid. Validity looks at the integrity of the conclusions reached through the research undertaken. The relevant facets of validity for qualitative case studies are 1) construct validity, identifying of the right operational measures for the phenomena under research, 2) internal validity, the examining the accuracy of causal claims and 3) external validity, the examining if the results of the research are generalizable (Yin, 2009).

This multiple case study of how CVC's sharing of resources may lead to a start-up scaling up may pose generalizability issues (Bryman and Bell, 2015).

Nonetheless, Yin (2009) argues that multiple case studies are stronger than single case studies. However, this can be viewed as one case, as I am researching the resources that lead to different outcomes. This is therefore to be viewed as a limitation to my study. However, the case-study is argued by Yin (2009) to be beneficial because it allows for investigation of a phenomenon in a real-life context.

According to Herriott and Firestone (1983), multiple sources of evidence are important for a case study approach to be valid, which is why I have chosen, both several case studies, and to interview several key stakeholders surrounding the start-ups as mentioned in 4.2.1. If there are theoretical links that require clarifications, I will perform follow up interviews to ensure complete validity of my findings.

Reliability of this case study means that another researcher will achieve the same results if conducting the same case study. Reliability is ensured if I can demonstrate that the operations of my study can be repeated with the same results. Therefore, I will document the steps I have taken so to ensure that the study can be replicated (Yin, 2009).

5.0 Ethical considerations

Ethical values and arrangements have implications for how I conduct research and what can be researched (Bryman & Bell, 2015). I will take a universalist approach, where ethical precepts should never be broken, because they are wrong in a moral sense (Bryman & Bell, 2015). Diener and Crandall divide ethical issues into four areas: 1) if there is harm to participants, 2) if there is a lack of informed consent, 3) if there is an invasion of privacy, and 4) whether deception is involved.

As such, I will make sure that my study minimizes the risk of physical, social and psychological harm for participants. I will inform the participants of the research I will undertake and the object of study. I will also make sure that if the information obtained is obtrusive that it will be anonymized, so that it does not invade their privacy and that it does not deceive them in any way.

There are obviously no conflicts in funding sources, as there is no funding of this research. Participation happens of the subject's free will. The participant can choose to withdraw their consent at any time of the study. I will not ask leading questions and ensure that the case will be studied with an open mind. I will also not ask uncomfortable questions to the participants.

Also, I will follow BI's ethical guidelines from BI's Research Ethics committee. An information sheet will be produced and distributed to the participants being interviewed, which also will be reviewed by BI's Research Ethics Committee. I will also seek approval for my research method and ethical guidelines from my supervisor and BI's Research Ethics Committee. I will also send in the necessary forms to NSD for approval of data handling of personal data.

6.0 Project organization, management and timeline

Bryman and Bell (2015) stress the importance of working out a timetable and finding out which resources I have at my disposal. They also recommend making use of the supervisor allocated to the research project as much as the researchers can. My research project will be managed by me and supervised by Torger Reve, who has great competence in this area. I will communicate with him through meetings and e-mail correspondence and draw from his expertise as much as I can

by recording our conversations, so I do not miss advice he gives, and try to follow his advice as well as I can.

Although, as mentioned earlier, a case study is a bit more fluid than other studies, I will try to structure the research into four main areas: the literature review, data collection, data analysis and writing up my thesis. The time table enclosed shows roughly this time distribution. I will try to finish one case report, before I begin on the other to separate the studies. But I might have to go back to some of the participants for second interviews, to verify findings.

| | January | February | March | April | May | June | July |
|-----------------------------------|------------------|------------------|-------|------------------|------------------|-----------------|-----------------|
| Hand-in preliminary thesis report | 15 th | | | | | | |
| Finalize literature review | | 20 th | | | | | |
| Data collection | | X | X | | | | |
| Data analysis | | X | X | X | | | |
| Write first draft | | | | 20 th | | | |
| Write second draft | | | | | 10 th | | |
| Write final draft | | | | | | 1 st | |
| Hand-in final thesis | | | | | | | 1 st |

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