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Challenges and facilitators in Norwegian SME's scaling process

Master's thesis in International Business and Marketing
Supervisor: Kjersti Kjos Longva
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Abstract

Tens of thousands of firms are established each year in Norway, but a considerable amount of these fail to scale-up and achieve long-term success (Statistisk sentralbyrå, 2023). The aim of this thesis is therefore to explore the challenges and facilitators that Norwegian scale-ups encounter during a scaling process. By gaining knowledge within this field, it can help strategies and policies that can support the development of successful scale-ups, which in turn can drive innovation, create jobs, and contribute to economic growth and prosperity (OECD & European Union, 2019; Reve, 2017).

This thesis is based on a qualitative research approach. Five semi-structured interviews were carried out with one informant each from five different firms located in Western Norway. All of these firms have achieved successful scaling and therefore possesses valuable insight regarding challenges encountered and actors who have played a crucial role in the scaling process. Together with the data collected from the sample, relevant theories and studies on entrepreneurship and scaling were employed to answer the research question.

This study identified seven distinct challenges that may emerge during a scaling process. These were challenges regarding recruitment, internal capacity, internal reorganization, investors, internationalization, supply chain disruption and cycle time. While no single challenge emerged as the most difficult for all firms, each firm identified different challenges as the most demanding. However, certain challenges such as recruitment and internal capacity were recurrent across multiple firms. This study also explored facilitators that contributed to the growth of firms. Four distinct sources of growth were identified: financing, network, competence and sale. For each of these sources there are various actors who were found to facilitate firms' growth. Among these four, finance and network were found particularly significant for growth based on the study's findings. The most important facilitator for finance was public support systems and investors, while personal network was found to be the most critical facilitator for network. These finding adds to the limited research on scaling by providing valuable insights into the challenges and facilitators that constrain and enable firms' growth.

Norsk sammendrag

Hvert år etableres det titusenvis av bedrifter i Norge, men en betydelig del av disse klarer ikke å skalere opp og oppnå langsiktig suksess (Statistisk sentralbyrå, 2023). Målet med denne oppgaven er derfor å utforske utfordringene og tilretteleggere som norske skaleringsbedrifter møter under en skaleringsprosess. Ved å tilegne seg kunnskap innen dette feltet kan det hjelpe strateger og politikere som kan støtte utviklingen av vellykkede skaleringsbedrifter, som igjen kan drive innovasjon, skape arbeidsplasser og bidra til økonomisk vekst og velstand (OECD & European Union, 2019; Reve, 2017).

Denne oppgaven har en kvalitativ forskningstilnærming. Det ble gjennomført fem semistrukturerte intervjuer med én informant fra fem ulike bedrifter lokalisert på Vestlandet. Alle disse bedriftene har oppnådd vellykket skalering og besitter derfor verdifull innsikt angående utfordringer som oppstår og aktører som har spilt en avgjørende rolle i skaleringsprosessen. Sammen med dataene som ble samlet inn fra utvalget, ble relevante teorier og studier om entreprenørskap og skalering brukt for å besvare forskningsspørsmålet.

Denne studien identifiserte syv forskjellige utfordringer som kan dukke opp under en skaleringsprosess. Dette var utfordringer som gjelder rekruttering, intern kapasitet, intern omorganisering, investorer, internasjonalisering, forsyningskjedeavbrudd og syklustid. Det var ikke én enkelt utfordring som var felles for alle bedriftene, derimot uttrykte de ulike utfordringer som mest krevende. Imidlertid var visse utfordringer som rekruttering og intern kapasitet som ble nevnt av flere av bedriftene. Denne studien utforsket også tilretteleggere som bidro til vekst. Fire distinkte kilder til vekst ble identifisert: finansiering, nettverk, kompetanse og salg. For hver av disse kildene er det ulike aktører som ble funnet å være tilretteleggere for bedrifters vekst. Blant disse fire ble finans og nettverk funnet spesielt viktig for vekst basert på studiens funn. Den viktigste tilretteleggeren for finans var offentlige støttesystemer og investorer, mens personlig nettverk ble funnet å være den viktigste tilretteleggeren for nettverk. Disse funnene bidrar til den begrensede forskningen på skalering ved å gi verdifull innsikt i utfordringene og tilretteleggerne som begrenser og muliggjør bedrifters vekst.

Table of contents

List of tables and figures	VII
List of abbreviations	VIII
1. Introduction.....	1
<i>1.1 Background.....</i>	<i>1</i>
<i>1.2 Relevance of topic and research question</i>	<i>1</i>
<i>1.3 Outline of the thesis</i>	<i>3</i>
2. Theoretical background	4
<i>2.1 Entrepreneurship</i>	<i>4</i>
2.1.1 The entrepreneur	5
2.1.2 Entrepreneurial ecosystem	7
<i>2.2 Start-up</i>	<i>7</i>
2.2.1 Types of entrepreneurships and start-ups	8
<i>2.3 Scale-up.....</i>	<i>9</i>
2.3.1 Scaling internationally	10
2.3.2 Importance of scale-ups	11
<i>2.4 Challenges in a scaling process.....</i>	<i>12</i>
<i>2.5 Facilitators in a scaling process.....</i>	<i>14</i>
2.5.1 Bank	14
2.5.2 Investors.....	15
2.5.3 Public support system	16
2.5.4 Network.....	16
2.5.5 Cluster	18
2.5.6 Incubators.....	18
<i>2.6 The Norwegian context</i>	<i>19</i>

3. Methodology	21
3.1 <i>Research design</i>	21
3.2 <i>Sampling</i>	22
3.2.1 <i>The sample</i>	22
3.3 <i>Preparing and conducting the interviews</i>	25
3.3.1 <i>The interviews</i>	26
3.3.2 <i>Transcription</i>	26
3.4 <i>Data analysis</i>	27
3.5 <i>Quality of research</i>	27
4. Analysis	30
4.1 <i>Presentation of the firms</i>	30
Firm A	30
Firm B	31
Firm C	32
Firm D	32
Firm E	33
4.2 <i>Challenges in a scaling process</i>	34
4.2.1 <i>Lack of qualified workforce in the recruitment process</i>	35
4.2.2 <i>Limited internal capacity</i>	37
4.2.3 <i>Challenges with internal reorganization</i>	39
4.2.4 <i>Challenges of obtaining investors</i>	41
4.2.5 <i>Challenges regarding internationalization</i>	43
4.2.6 <i>Challenges with supply chain disruption</i>	46
4.2.7 <i>Challenges with long cycle time in product development</i>	48
4.2.9 <i>Summary of challenges</i>	50
4.3 <i>Facilitators in a scaling process</i>	51
4.3.1 <i>Financial facilitators in a scaling process</i>	52
4.3.1.1 <i>Investors</i>	52

4.3.1.2 Public support systems.....	53
4.3.1.3 Bank	55
4.3.1.4 Summary of financial facilitators.....	56
4.3.2 Facilitators providing network	56
4.3.2.1 Incubator	57
4.3.2.2 Personal network.....	58
4.3.2.5 Cluster	61
4.3.2.6 Summary of network.....	62
4.3.3 Facilitators providing competence	62
4.3.4 Facilitator for increased sale	64
5. Conclusion	66
References	74

List of table and figures

Table 1: Sample of participants	25
Figure 1 – Challenges in a scaling process	35
Figure 2 – Facilitators in a scaling process	51

List of abbreviations

CEO	Chief executive officer
CFO	Chief financial officer
CTO	Chief technology officer
HGF	High growth firms
IDE	Innovation driven enterprise
NSD	Norwegian center for research data
OECD	The Organization for Economic Cooperation and Development
R&D	Research and development
SME	Small and medium-sized enterprises

1. Introduction

1.1 Background

Every year tens of thousands of firms are established in Norway (Statistisk sentralbyrå, 2023), and these firms contribute significantly to the improvement of society and the promotion of economic growth in the country (Nielsen et al., 2022). Firms also contribute to growth through generating employment opportunities and fostering innovation, productivity growth and competitiveness for national economies (OECD & European Union, 2019; Reve, 2017). Despite the widespread belief that entrepreneurship is a path to success and wealth, the reality is that many businesses struggle to scale-up and achieve long-term success. Surviving the first year of operation is a significant challenge for many firms, with a considerable number of them failing to do so. The odds of firms surviving for five years or more are even lower, making sustained success a rare achievement for new businesses (Statistisk sentralbyrå, 2022). Nordic countries are above the OECD average on establishing new firms, but they struggle with growing to scale. Thus, Nordic start-up firms are not achieving their full potential and they miss out on growth opportunities (Nordic Innovation, n.d.). In 2022 there was established approximately 75 500 new firms in Norway, but according to statistics, a large number of these firms are unlikely to survive. During 2019, the rate of survival for newly established firms in Norway was found to be just 44,4%, with a mere 26% of these enterprises managing to survive over a five year period (Statistisk sentralbyrå, 2022). This statistic indicates a need for improvement in terms of mapping out reasons behind business failure and how firms can ensure long-term survival. One step towards achieving this is through further research on firms' scaling process.

1.2 Relevance of topic and research question

The issue presented in the introduction highlights the potential value of investigating the challenges and facilitators that arise during a scaling process, as research on challenges and facilitators in a firm's scaling process is limited in the literature. Previous studies have explored scaling, but much of the focus has been on identifying what scaling and scale-ups are (Autio et al., 2022). So far, few studies have attempted to identify challenges and facilitators that arise during a scaling process in organizational contexts. Therefore, it is important to conduct research that

emphasizes the “how” aspect of scaling, rather than solely defining what scaling is (Shepherd & Patzelt, 2020). In order to improve the chances of success for any entrepreneur, it is crucial to comprehend the actions that can be taken to increase the odds of success, in addition to the obstacles that may hinder the success of a venture (Vinturella & Erickson, 2003). Further research on the scaling process of businesses can lead to a more comprehensive understanding of the factors that contribute to business success and failure, which can inform future strategies for long-term survival. Such insight is not only essential for entrepreneurs, but also for policy makers who can help foster the growth of more scale-ups (Iris Group, 2019).

Given the significance of businesses in society and the scarcity of research on the challenges and facilitators businesses meet in a scaling process, the following research question has been formulated:

What are the challenges and facilitators in the scaling process for SMEs in Western Norway?

To fill the gap and answer the research question, relevant theories and studies on scaling will be employed in conjunction with data collected from a selected sample of SMEs in Møre and Romsdal. These firms are all high growth firms (HGF) according to the definition from the Organization for Economic Cooperation and Development (OECD) (Statistical Office of the European, 2008). Each of these firms has surpassed the five year mark and experienced rapid growth. Møre and Romsdal represents a region characterized by a robust industrial sector, however, statistics indicate that business in this area also are encountering challenges in terms of growth and sustainability (Statistisk sentralbyrå, 2022). By identifying the challenges and facilitators that have emerged during the scaling process for these HGFs, it is possible to enhance knowledge and comprehension regarding the mechanisms that enable firms to achieve long-term success, thereby contributing to local and national advantages.

1.3 Outline of the thesis

With the background, research gap and research question established, the rest of the thesis will be structured as follows. The next chapter (Chapter 2) presents the theoretical background that forms the foundation of the thesis. Here, the theoretical framework of entrepreneurship that underpins the study will be presented, in conjunction with the outcomes and discoveries from a range of pertinent studies. Chapter 3 contains a description of the methodology employed in the study. A detailed description of the method selection and the process of interviewing, transcribing, and coding will be provided in this chapter. Next, the main part of the thesis is presented in Chapter 4. This chapter is divided into three parts. The first part will provide some introductory information regarding the participants involved in the study, while the second and third part will present the findings, categorized into challenges and facilitators. Lastly Chapter 5 presents the conclusion, including main findings, implication for research and practice, limitations of the thesis and suggestions for further research.

2. Theoretical background

This chapter presents the theoretical background including both traditional theories and newer research which form the foundation of this master thesis. The chapter starts with defining entrepreneurship in addition to a brief explanation of different types of entrepreneurships and who an entrepreneur is. Furthermore, theories about start-up and scale-up is presented. The scale-up section also highlights the importance of scale-ups. Next, the main subjects for this thesis, challenges and facilitators, are viewed in the context of scaling. Finally, the last section presents the public support system and incubators in a Norwegian context.

2.1 Entrepreneurship

Entrepreneurship is a global phenomenon with a long history, and hence there are many different definitions of entrepreneurship in the literature. For instance, Schumpeter (1983) defines entrepreneurship as carrying out new combinations of firm organization like new products, new sources of raw material, new methods of production and new markets. Entrepreneurship is also defined as uncertainty bearing, coordination of productive resources and provision of capital (Hoselitz, 1952), and Dollinger (2008) describes that entrepreneurship entails creation of a new business where a business did not exist before.

Two different approaches are often used by researchers studying the phenomenon. The first is *behavioral approach* where the entrepreneur is seen as a set of activities that is involved in the creation of organization. The second is *trait approach* where the entrepreneur's traits and characteristics are used to explain entrepreneurship as a phenomenon (Gartner, 1988). Researchers have for a long time tried to answer the question "who is an entrepreneur" by studying entrepreneurs' traits and characteristics. Gartner (1988) were one of the first to suggest switching this viewpoint. He believes this question neither will lead to a definition of the entrepreneur, nor help to understand the phenomenon of entrepreneurship. He states that entrepreneurship is the creation of organizations, and thus one should look at what the entrepreneur does, not who the entrepreneur is. The focus should be on the process by which new organizations are created.

Shane and Venkataraman (2000) created another conceptual framework for the phenomenon of entrepreneurship. Up to the date of their research, most researchers has applied behavioral and trait approaches and defined entrepreneurship in terms of who the entrepreneur is and what that person does. Shane and Venkataraman (2000) on the other side define the field of entrepreneurship as the research of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and then exploited. According to their framework some people engage more in entrepreneurial behavior. When they argue with this, they refer to the tendency certain people have to respond to the situation cues of opportunities. Another factor in their framework is that entrepreneurship can include creation of a new organization, but it is not required. Third their framework complements sociological and economic work where researchers have explored the population-level factors that impact firm creation. Their framework contributes to strengthening the process view in research on creation of firms.

The awareness and literature of entrepreneurship has increased significantly the last few decades as it is strongly associated with economic progress and growth. The increased awareness of entrepreneurs' impact on economic growth in a society has led to a change in policy making. The importance of entrepreneurship has prompted policy makers to create and enact entrepreneurship-friendly environments by building a robust ecosystem of financial resources and venture capital that is attracting for entrepreneurs (Mahto & McDowell, 2018). Entrepreneurs constantly push new ideas, services, processes and products into the market and these activities results in occurrence of new industries and markets. Entrepreneurship can therefore be seen as a contributor in the development of healthy competition in the economy (Løwe Nielsen et al., 2021).

2.1.1 The entrepreneur

The entrepreneur is the core of entrepreneurship as the actor responsible for creating a start-up (Mahto & McDowell, 2018). According to Thompson (1999), an entrepreneur is an individual that has a vision who spots new opportunities and is desired to take action to start something. An entrepreneur creates organizations (Gartner, 1988), and as the markets mature, the competition grows, and the entrepreneur cannot solely rely on their products or services (Keller & Richey,

2006).

It is discussed whether one can be born an entrepreneur or if everyone can become one. On one side, it is argued that people are born with personality traits that makes them more capable of success in an entrepreneurial journey. As mentioned in the previous section this is called the trait approach in the literature, where the entrepreneur is assumed to be a specific personality type (Gartner, 1988). Several studies have investigated entrepreneurial skills needed for success. For instance, Ibrahim and Goodwin (1986) found evidence that entrepreneurs' personality attributes are perceived as a key success factor in small businesses. The study found that properties and behaviors such as creativity, flexibility, extroversion, risk taking, and intuition facilitate the development of a successful business. This is because business leader's personality is seen to be influencing the strategic decision processes and strategic actions which have implications for the firm's performance (Nadkarni & Herrmann, 2010).

On the other side, it is argued that individuals that are genetically predisposed for success in starting firms is a myth (Barringer et al., 2019), and that entrepreneurship can be taught (Aulet, 2013). Many believe that traits such as flamboyance and boldness are correlated with success. Aulet (2013) disagrees and asserts that it is not the personality traits that determine the chance of success. Rather, entrepreneurial skills such as people management and sales skills play a much bigger role in the entrepreneurial success, and these skills can be taught through education and experience. Although an individual is not born an entrepreneur, some common traits and characteristics are often found in entrepreneurs. This includes traits such as creative, persuasive, decisive energetic among others (Barringer et al., 2019).

Research has also shown that entrepreneurs with a larger and a more diverse network are more successful than entrepreneurs with a smaller network (Witt, 2004). This is related to the amount of resources and support they receive from this network. The resources entrepreneurs gain from their network are often cheaper than market transactions and sometimes not available via market transaction at all. These network partners can be all types of people, including friends, business partners, other entrepreneurs and also contact persons at institutions such as large firms,

universities and authorities (Witt, 2004). Even though some have a larger network and therefore a better foundation for success according to studies, not everyone succeeds on their first try as an entrepreneur. But some will succeed eventually after a number of attempts (Dollinger, 2008), and can begin the journey from start-up to scale-up.

2.1.2 Entrepreneurial ecosystem

Over the past decade the concept of entrepreneurial ecosystems has gained considerable attention from practitioners, policymakers, and researchers. Cohen (2006) defines entrepreneurial ecosystem as *an interconnected group of actors in a local geographic community committed to sustainable development through the support and facilitation of new sustainable ventures*. An entrepreneurial ecosystem consists of several unique elements that interact in complex ways but are always present in a self-sustaining system (Isenberg, 2011). Isenberg (2011) grouped the main components of the entrepreneurial ecosystem into six domains: policy, markets, finance, human capital, culture and supports. Some of these domains will be further elaborated later in this chapter. These are: policy, market, human capital and finance. A newer study on entrepreneurial ecosystem by Stam and van de Ven (2021) propose an integrative model for the entrepreneurial ecosystem, which encompasses ten elements and entrepreneurial outputs. These ten elements are operational constructs that represent the broader concepts of institutions and resources in the entrepreneurial ecosystem. The institutional arrangements component is captured by three elements which is formal institutions, culture and network elements. The resource endowment component is comprised of five elements. These are physical infrastructure, finance, leadership, talent, knowledge, intermediate services and demand.

2.2 Start-up

A start-up is a venture initiated by entrepreneurs who has an idea or a problem with potential for significant business opportunity and impact (Zhao et al., 2019). There is not a lack of start-ups in the market as tens of thousands of firms are established each year. What most of these firms have in common is that they are start-ups wanting to become scale-ups. To develop their products and services, the start-ups need growth potential requiring both capital and human capital (Albertsen et al., 2021). Hence, newly established firms need investors who are willing to invest and lay the

foundation for future growth and network to facilitate access to key resources.

2.2.1 Types of entrepreneurships and start-ups

There are a variety of different types of start-ups and entrepreneurship operating in today's market. When it comes to entrepreneurship, it is possible to distinguish two distinct types. That is small and medium enterprise (SME) entrepreneurship and innovation driven enterprise (IDE) entrepreneurship (Aulet, 2013). The first type focus more on local and regional markets only, and innovation and competitive advantage is not necessary to SME establishment and growth. The latter type has a focus on global and regional markets and the firm is based on innovation and potential competitive advantage. Another distinction between the two is that in SME entrepreneurship the firm typically grows at a linear rate, while in IDE entrepreneurship the firm starts by losing money but will have an exponential growth if they become successful. The firms examined in this master thesis can be regarded as both small-medium enterprises and innovation-driven. This is due to the fact that these firms possess the characteristics of SMEs, but are innovation driven and aim to attain exponential growth.

When it comes to types of start-ups there are several different categorizations, but three common ones are *salary-substitute firms*, *lifestyle firms* and *entrepreneurial firms* (Barringer et al., 2019). Many small firms often fall into the salary-substitute firms category where firms generate a level of income for the owner or owners that is comparable to what they would make as employees in another firm. The products and services these firms offer are often common and easily available, and not particularly innovative. Secondly, lifestyle firms are firms that offer the opportunity for the owners to pursue a particular lifestyle and simultaneously earn a living. Personal trainers and tour guides are examples of firms in this category, and it is not unusual to only employ the owner or just a few other people. Lastly, entrepreneurial firms are innovative firms that produce new products and services to the market. Regardless of the resources they currently control, they create and seize opportunities and create value to customers. In this master thesis, entrepreneurial firms will be the main focus as these are firms that are most likely to scale and creates the most value for the society (Barringer et al., 2019). Usually, the start-ups run a deficit in the beginning, but over time the successful start-ups with growth potential will scale up and reap the return of

investments as revenues and profitability (Albertsen et al., 2021). The firm has then eventually gone from start-up to scale-up.

2.3 Scale-up

While start-up is in its early stage, a scale-up is more established and has already validated its product in the market, as well as proven its sustainability (Zhao et al., 2019). There are no universal definition of scaling (Deiglmeier & Greco, 2018), but several different definitions of a scale-up are used in the literature of scaling, where each is chosen based upon the relevance of the specific analysis (Albertsen et al., 2021). For instance, the number of employees, annualized growth and period of time may vary in different research. Some researchers notes that growth in sales is a better measure, while other measure growth through market share (Hechavarria et al., 2019). Consequently, it is challenging to compare results among different studies and generate cumulative results (Delmar et al., 2003).

The terms scale-up and high growth firms (hereafter HGF) are also used interchangeably (Autio et al., 2022). Morelix et al. (2017) describe scale-ups as employer businesses that is over a year old and less than 10 years old, who have started with less than 50 employees and have grown to employ more than 50 people during the first 10 years of operation. Tippmann et al. (2023) have a more general definition stating that scaling in an organizational context is persistent rapid growth to deliver a viable business model. A commonly used definition among researchers is the definition by OECD who define a HGF as *an enterprise with average annualized growth greater than 20% per annum, over a three year period, and with 10 or more employees in the beginning of the observation period* (Statistical Office of the European, 2008). This is the definition that will be used in this thesis. Similarly, Iris Group (2019) define scale-ups as fast growing firms that meet three different criteria which is: 10 or more full-time equivalent employees, annual turnover of EUR 2 million or more in the first year of observation and average annualized growth in number of employees greater than 20% over a three-year period. Many of these firms are referred to as *gazelles*, which is fast growing innovative firms that creates buzz and jobs (Dollinger, 2008). The high number of definitions of scale-ups and HGFs is a result of no such thing as a *typical* growth firm. Firms' growth pattern differs from each other and generate many different variations of

growth. It is important for researchers and practitioners to recognize that high growth is multidimensional in nature and occurs in a variety of ways (Delmar et al., 2003). It is also important to note that not all firms have the ability or willingness to become a scale-up (Wiklund et al., 2003).

As mentioned above, many have the tendency to use scale-up and HGF interchangeably (Autio et al., 2022), but it can be discussed whether these terms are the same or not. Coviello (2019) argue that scale-ups and HGFs are not interchangeable, stating that scaling is not just about high growth. They argue that the OECD definition of a HGF miss the premise of scaling which is to identify and leverage economies of scale. If a firm is able to do this, they have potential to grow their revenues faster than the costs, and thus scale the organization. Monteiro (2019) addresses that there is a confusion connected to the theme of scale-up. This confusion comes from the fact that any scale-up is an HGF, but not every HGF is a scale-up, and that so far there is no precise definition of scale-ups in the literature.

2.3.1 Scaling internationally

Scaling up often involves expanding internationally and many firms therefore choose to expand their business by going abroad. International expansion offers several advantages, and it is proven that internationalization is associated with high growth of turnover, employment and innovation activities (EIM Business & Policy Research, 2010). The economy in many firms' home markets are limited and therefore their growth potential is related to access to export markets (Grimsby et al., 2018). Competition is increasing in the home markets, and as a result firms need to seek new markets, improve their efficiency, acquire natural resources and gain access to strategic assets internationally (Santangelo, 2021).

There are different factors that influence firms to consider export as a possible strategy. These are called "attention-evokers", and one can distinguish between internal and external attention-evokers. There are two main groups of internal attention-evokers, where the first internal factor is unique competence. The exploitation of world markets through trade and investment can also be driven by the firm's internal unique competence (Wiedersheim-Paul et al., 1978). Knowledge can

be challenging and costly to imitate (Ambrosini & Bowman, 2001), and the opportunity cost of exploiting this unique resource to other markets is close to zero or very low. When a firm identifies their own opportunities, it is more likely to search for wider exploitations of its advantage. This includes testing markets abroad (Wiedersheim-Paul et al., 1978). The second factor is excess capacity in the resources of management, marketing, production or finance. This can be excess capacity in present or anticipated free capacity in the firm's resources. To utilize its free resources firms can examine expansion possibilities like export (Wiedersheim-Paul et al., 1978).

External factors are factors that is operative in a firm's environment (Wiedersheim-Paul et al., 1978), and are outside of the firm's control (Frynas & Mellahi, 2015). One external factor is fortuitous orders from foreign customers (Wiedersheim-Paul et al., 1978). Such proposals can be hard to withstand and can therefore be the reason a firm goes international (Frynas & Mellahi, 2015). Another factor is market opportunities. If a firm discovers a new market with many potential customers, it may affect the internationalization decision. A third factor is competition. Firms may feel pressured to go abroad when domestic competitors go abroad, or when competition in the domestic market increases due to domestic and foreign competitors (Wiedersheim-Paul et al., 1978). Competing firms often follow each other's strategic choices. If one firm goes international the competing firms may be concerned to be left behind if the internationalizing firm acquires competitive advantages in overseas markets. Therefore, if one firm internationalizes it can create a "bandwagon" effect which leads to the competing firms also starting expanding to foreign locations (Frynas & Mellahi, 2015). A fourth factor is government export stimulation measures. Government stimulation can have direct financial effects in addition to giving firms access to information about market opportunities in a foreign country (Wiedersheim-Paul et al., 1978).

2.3.2 Importance of scale-ups

When the firm starts to grow, they can begin to take benefit from the advantages of size. As production efficiency rises with higher volume, firms can strengthen their bargaining power, which enhances their appeal to suppliers, customers, financiers and other stakeholders (Hisrich et al., 2007). As the firms begin to grow, so do the benefits. Scale-ups are important for a number of reasons. Firstly, it creates many new jobs in the area of the start-up, and potentially other areas.

From 2017 to 2020, scale-ups within manufacturing, wholesale and knowledge-intensive services were accounted for 66,900 jobs (in full-time equivalent number of employees) in the Nordics (Reve, 2017). Secondly, scale-ups are key for triggering economic growth and innovativeness of the economy (Mussapirov et al., 2019; Nielsen et al., 2022). When firms pay salaries to their employees, taxes to the government, and profit to the owners, they create economic growth and generate value for the society (Albertsen et al., 2021). Thirdly, start-ups that have scaled in terms of employment, turnover, profitability and market share is also a driver for innovation, productivity growth and competitiveness for national economies (OECD & European Union, 2019).

In summary, scaling up firms is important for the economy and wealth creation in a country and is of great interest for policy makers. However, not all firms may have a desire to grow to scale. In contrast to dynamic fast moving innovative industries, other industries provide relatively standardized products or services to an already existing customer base. Restaurants, dentists and real estate agency are examples of such businesses that start small and stay small of size throughout the lifecycle. Reasons for firm to remain a definite size can be the benefits gained from a small firm size (flexibility, control), the firm is operating in low natural efficient scale industry, or simply be that the entrepreneur do not wish to grow (Wiklund et al., 2003). Nevertheless, high growth is difficult to achieve and sustain, and many start-ups fail to scale.

2.4 Challenges in a scaling process

Although there is a lot of research on scaling, there is limited empirical insight into how firms maneuver in the scaling process. Studies on challenges in firms' scaling process is thus scarce. Most research on barriers focus on the barriers to innovation and innovation performance. D'Este et al. (2012) identified and categorized innovation barriers into the four categories *cost barriers*, *knowledge barriers*, *market barriers* and *regulation barriers*. Although innovation barriers also to some extent apply to the process of start-up to scale-up, this research do not cover the whole process of scaling, and some barriers of scaling remain unidentified. Despite the limited research on scaling, a few studies have managed to identify some of the challenges that emerge during the scaling process.

It is understandable that it is difficult to scale up firms. Scale-up firms grow much faster than most firms and firms change a lot when they grow. For instance, when firms grow from being 10 to 100 employees or from 500 to 1000, they go through different requirements for management, capital, skills and organizational structure and can change beyond recognition. Due to shifting demands employees in scale-up firms can experience "growing pains". This can cause firms to derail from their rapid growth path (Coutu, 2014).

In terms of challenges, a major challenge for scale-ups is access to qualified labor, which is one of the elements in the entrepreneurial ecosystem. More precisely labor falls into the human capital domain. In a study by Grimsby et al. (2018) firms in growth consider access to qualified labor as the biggest limitation to further growth. As much as 55% of the participants expressed that it has been challenging to recruit competent workforce. The main challenge here was for firms to gain access to high educated people with competence within IT and digitalization processes, as these are in high demand in today's market. The same results have also been found in other studies. Findings shows that accessing people with technical and business skills, both young and more experienced people, was found to be what scale-up firms struggle with the most (Coutu, 2014). A second factor many firms consider as a limitation to further growth is capacity within the firm (Grimsby et al., 2018). It is reasonable to believe that these two challenges correlate. Absence of high qualified workforce can entail increased work for employees within the firm when the firm is unable to employ the necessary workforce. Competition from other firms and access to investors or mentors are two other factors that limits firms' growth (Grimsby et al., 2018).

Other obstacles were identified in a study by Lee (2014). In this study they investigated obstacles perceived by firms in high growth and firms with potential high growth. The results in this research indicated that firms with high growth perceived six different obstacles which were: recruitment, skill shortages, obtaining finance, cash flow, management skills and finding suitable premises. Firms with potential high growth had other obstacles as they felt held back by the economy, obtaining finance, cash flow and their management skills.

By identifying challenges and discover facilitators, more firms will be aware of these and can more easily avoid challenges and focus on solutions that enables them to scale. Some challenges are more visible and identifiable than others and conceivably vary across firms, industries and countries.

2.5 Facilitators in a scaling process

Similar to challenges, there are little research on facilitators for scaling. Research identifying the facilitators for scaling is therefore needed to close the gap of missing insight and overview of factors and circumstances that helps start-ups to become scale-ups. There is a lot of facilitators, where some are more visible and identifiable than others. Many start-ups participate in scaling programs to increase and share their knowledge and expand their business network. The bank and investors are also facilitators providing financial support (Vinturella & Erickson, 2003). More invisible facilitators might be the entrepreneurs' different abilities, knowledge and skills. Studies have also shown that entrepreneurs who possess a larger and more diverse network tend to achieve greater success than those whose network is limited in size and diversity (Witt, 2004).

Welter (2001) identified some key factors influencing scale-ups growth. These are human capital, the environment and institutional infrastructure, and entrepreneur-specific characteristics. However, these modes of action need to be studied to make sense of as well as investigate the interaction between entrepreneurs and their environment. Going from a start-up to a scale-up is not uncomplicated, and it is hard to go through the process alone. The size and use of network will therefore also play a big role not only for the start-up process, but also for the scale-up process (Hoang & Antoncic, 2003). However, little studies show to what extent network plays a role from start-up to scale-up. The next sections will briefly talk about external facilitators in the entrepreneurial ecosystem that most firms come upon. These can be important contributors in both the start-up phase and in the scale-up phase.

2.5.1 Bank

Banks are part of the complex entrepreneurial ecosystem as an actor of finance providing financial support (Isenberg, 2011). Adequate capital is needed to start up and run a business, and debt and

equity are the two primary sources of financing. For many firms the bank has been an important source of resources both in the start-up phase and in the scaling process (Vinturella & Erickson, 2003). The banking sector plays a central role in meeting businesses financial needs by offering several financial products and services. They are in possession of a unique market position due to their deep market knowledge and experience across all economic sectors. Banks have also one of the widest networks and client bases, and thus holds a lot of power (Wang, 2016).

Many start-ups find it challenging to raise funds in the beginning of the business journey (Brown et al., 2012), but the process is crucial as lack of capital is a major inhibitor and barrier for business success (Vinturella & Erickson, 2003). Bank loans are therefore found to be especially important for firms without business operation experience and limited access to other types of financing (Cassar, 2004; Cole & Sokolyk, 2018). It is also more likely that start-ups with intention to grow use bank as a way of funding finances. This is because they have intensives to establish credit relationships as early as possible in the scaling process (Cassar, 2004). It is important for firms to have a close and tidy relationship with the bank, as it is found that start-ups that opt for maintaining a unique bank-lending relationship are more likely to survive for longer periods of time (Alcoforado Farinha & Santos, 2006).

2.5.2 Investors

Another actor in the entrepreneurial ecosystem providing finance is investors who provide equity (Isenberg, 2011), which is the second financial source. Obtaining equity involves exchanging funding for partial ownership of the firm and this funding does not require a specific date or form of repayment. Equity capital may not burden a new business with loan repayments and interest charges, but it can limit the venture team's control and their share of the business's profits (Vinturella & Erickson, 2003). Scaling of firms requires investors that are willing to make long-term investments (Zhao et al., 2019). To find the right investors can be challenging as they frequently have short-term goals which do not align with firm's long-term goals (Coutu, 2014; Zhao et al., 2019). In addition investors try to minimize the investor risk by collecting as much information and description of the firms current and future plan (Allen, 2002). However, when investors at the end decide what to invest in, their decision is affected by their beliefs and

preferences. Investors tend to favor certain investments over others due to their familiarity with them (Sahi et al., 2013).

2.5.3 Public support system

Policy is a part of the ecosystem where the public support system is an actor that influence businesses (Isenberg, 2011). Various means from the government support innovation and creates and regulate business opportunities across sectors. The government facilitate new businesses and create value for businesses through funding and rewards, but also manage their growth through market regulations. Alliances with public support systems is found to enable access to important social resources. This enhance the legitimacy of start-ups and makes them more attractive for investors (Doblinger et al., 2019). The government are concerned with creating value for the society, but it can be discussed whether it is the number of new businesses or the “quality” of the businesses that give rise to economic growth. Shane (2009) stated that promoting more people to establish new businesses will not increase economic growth nor create a lot of new jobs. Instead, policy makers should focus on the subgroup of business with high growth potential rather than subsidizing the creation of typical start-ups. It is the encouragement of establishing high growth firms that can increase job creation and economic growth (Shane, 2009). Research have supported this and suggest a need for greater focus on large firms. It is these firms that have a notable share of employment, and they have a higher productivity growth compared to small firms (Ayyagari et al., 2011).

2.5.4 Network

Isenberg’s (2011) entrepreneurial ecosystem includes network as an important part of the market domain. Many entrepreneurs rely on network consisting of other people, businesspeople and entrepreneurs (Dollinger, 2008). Globalization and new simpler communication channels have made it possible to reach out to a larger number of individuals and organizations which has made it much easier to exploit these relationships (Hagedoorn, 1995). Many entrepreneurs have a professional-support network who provide support and advice in fundamental business activities such as finance, accounting, marketing, law and management. These networks can also contribute to strengthen the entrepreneur’s intention when the belief of their ability to access critical resources

to the successful achievements strengthens (Hisrich et al., 2007). There is a lot of research on network when it comes to entrepreneurship, but there is not sufficient research on what role networks has when it comes to scaling of firms. Relatively little is known about how a nascent entrepreneur's initial business network can lay a foundation for future survival (Löfsten, 2016). Nevertheless, it is likely to think that a meshwork of connections can be key to a successful business.

Network can be defined as relations for connection and interaction and is used within the business ecosystem to share and exchange resources such as knowledge (Wulf & Butel, 2017). The entrepreneur's network can be comprehensive or limited and categorized into formal and informal network. Formal network includes suppliers of capital such as banks, creditors and other venture capitalists, in addition to other professionals like lawyers, accountants, and other trade associations. Informal network consists of more personal relationships such as family, friends and close business partners (Birley, 1985). According to Welter (2001) the social environment like networks have impact on facilitating or constraining growth. Study shows that both formal and informal networks are linked to the survival of firms, but only formal networks are connected to the growth of firms (Watson, 2007). Several research have found and come to the conclusion that network is important for entrepreneurship as it provides access to necessary resources, such as information and advice (Hoang & Antoncic, 2003; Jenssen & Koenig, 2002). A lack of contact and network is found to be a barrier for growing internationally. The firm's network is therefore becoming more and more important as it seems to be positively related to the firm's ability to scale (Grimsby et al., 2018). Entrepreneurs seldom have all the required resources to take opportunities, like taking the first step abroad. An important contribution of networks to the venturing process is therefore to accumulate resources. A potential strategy for acquiring the deficient resources is to leverage their external network as a substitute for the inadequate in the internal resources (Elfring & Hulsink, 2003).

Despite the importance of network, there is a lack of research on the relation between network and scaling. More research on network's role in the entrepreneurial scaling process is important and needed to identify which start-ups that has potential to scale up. It also enables start-ups to see

relevance and importance of network.

2.5.5 Cluster

Clusters are part of the infrastructure in the support domain of the entrepreneurship ecosystem (Isenberg, 2011), and consist of a group of firms and institutions in a specific field that are located close to each other and work together. Clusters includes a variety of related industries and other important entities that are essential to competition. Being part of a cluster enables firms to source inputs more efficiently, because they can assess the information, technology and institutions they need, collaborate with other related firms, in addition to measure and encourage progress (Porter, 1998). Previous studies have shown that firms located within geographic clusters have better innovation performance, growth rates, and survival rates compared to firms outside of clusters (Gilbert et al., 2008). It has also been found that being a part of a cluster seems to have a positive influence on becoming a high growth firm (Temouri et al., 2021). Access to knowledge spillovers is one of the main reasons firms has higher growth performance than firms located outside of the cluster (Mazzucato & Parris, 2014). This is because cluster membership enables greater access to knowledge linkages, transfers, and leakages (Temouri et al., 2021).

2.5.6 Incubators

Along with clusters, incubators are also a part of the infrastructure in the support domain of the entrepreneurial ecosystem (Isenberg, 2011). Incubators have become an essential part of the framework for developing industries (Alpenidze & Pauceanu, 2019). An incubator, also called business incubator, is an innovation firm, or part of an innovation firm that assists start-ups and firms in the early developing stage through a variety of services. They are thus seen and used as contributors to establishment and development of new growth firms through the providing of resources that enhance the founding of new small firms (Löfsten & Lindelöf, 2002; Siva, n.d.-a). Incubators can especially be of value for start-ups who often lack network, experience and resources, as incubators provide services that assist firms to get through the initial hurdles that often occurs in the early stages of starting a business (Alpenidze & Pauceanu, 2019). Incubators' role on firms' entrepreneurial process has evolved over the years. Previously, the role of the incubator in the entrepreneurial process was just being a business center with office facilities. The

role has later changed to offer consulting, training and networking to startups (Peters et al., 2004). Now the aim of incubators is to encourage people to start their own business, and support other start-ups in their development of innovative products and services (Aernoudt, 2004). Incubators also contribute to create growth in established businesses by offering and making consulting within business development and commercialization available at a subsidized cost. In addition, incubators provide a professional and social environment where entrepreneurs, firms, academia, R&D environments, investors and others connect (Siva, n.d.-a). Thus incubators can play a vital role in reducing business risks and encourage business innovation (Mahmood et al., 2016). In a study by Stokan et al. (2015) it was found that incubators had a positive effect on job creation. In addition, their study found out that incubated firms receive more business services compared to nonincubated firms. Other findings have found that incubator tenancy has negative effect on sales revenues. It has also been found that even though there might be a slow start in the first two years after the foundation of a firm, firms sales revenue increase faster when the firm is located in a business incubator compared to non-incubated firms (Lukeš et al., 2019).

2.6 The Norwegian context

Given that this study focuses on Norwegian SMEs, it is pertinent to have a certain degree of familiarity with the Norwegian context. A common challenge for a lot of firms is to grow to scale and therefore they do not reach their full potential (Nordic Innovation, n.d.). This also applies to many firms in Norway. The Norwegian government can facilitate firms' growth through regulations and support systems. Norwegian governmental support systems develops, owns, and finances a national infrastructure for innovation and business development which consists of incubators, business parks, catapult centers, innovation firms in addition to industrial buildings and innovation centers (Regjeringen, n.d.; Siva, n.d.-b). Through partnership with actors across the country, they have built up a national infrastructure for innovation and business development. Through this structure firms acquire networks, partners, expertise and facilities, where they can benefit from the experiences of others (Siva, 2022). One of the most well-known public support systems in Norway is Innovation Norway.

For many Norwegian firms Innovation Norway is a door-opener into the business support system. They work as a sparring partner offering several different aids to firms with growth ambition. Expertise, capital, and network are offered to new established firms and scaling firms in many different variations (Innovation Norway, n.d.-a). For start-ups in the establishment phase Innovation Norway offers various types of advisory. Amongst other things, it is possible to discuss business ideas with advisors, receive objective advice on intellectual property rights, or have a personal follow-up of the firm over time cooperating with a mentor suitable for the business. Financial services for start-ups include grants for market clarification, commercialization and innovation contracts, innovations loans and startup loans. Additionally, there are several courses and meetups where entrepreneurs can increase their competence and build network (Innovation Norway, 2022). Similar services are offered to established firms with capacity to growth, and firms planning to export and grow in markets abroad.

In Norway there are many incubators spread throughout the country. These incubators offer different support programs that help start-ups and scale-ups with different aspects of the business. Among other things they offer scaling programs for firms with desire to scale up their business. In order to participate, the firms must sign up to the program and are required to pay a fee. Through participation in the program, firms will have the opportunity to acquire diverse methods that can serve as tools for growth. Simultaneously they broaden their network by interacting with other participating firms.

The theory that will be the foundation of this thesis has now been presented. This chapter consisted of six parts. The first part presented some general theory of entrepreneurial concepts and who is an entrepreneur, followed by some theory about start-ups and scale-ups. Here, the latter part highlighted the importance of scale-ups, which is one of the main motivations for conducting this study. Then, the main subjects for this thesis challenges and facilitators were viewed in the context of scaling. Lastly, the function of support systems and incubators in the Norwegian context were presented. The following chapter will present the methodology employed in this thesis.

3. Methodology

This chapter contains a description and rationale of the methodology that has been applied to the thesis and is divided into five parts. The first part of the chapter includes a presentation of different research methods and the method chosen for this research. In the following section, the sample selection process will be described in detail, including an overview of the sample. Part three of this chapter describes how the interviews were conducted, in addition to the transcription process that followed. Next, the method and process of analyzing the data is presented. Lastly the quality of research will be reflected upon by using Guba and Lincoln's (1989) four criteria of trustworthiness to evaluate the research.

3.1 Research design

The focus of the study is challenges and facilitators in firms' scaling process. To the best of our knowledge, there are limited existing literature on scaling. Therefore, an explorative design was considered appropriate as this allows to explore and develop theories, rather than trying to confirm something that is already well known. Thus, we find a qualitative approach most suitable for this research. Next, we had to consider whether the research should be conducted from a deductive, inductive or abductive point of view. A deductive approach starts with collecting theory that often comes from reading academic literature, and then the research strategy is designed to test the theory. An inductive approach starts with collection of data to explore a phenomenon. Then the data is used to generate or build theory which is often referred to as a conceptual framework. Lastly an abductive approach is when the data is collected to explore a phenomenon, identify patterns and themes, and thereafter placing them within a conceptual framework and test this through further data collection and so forth (Saunders et al., 2019). This research is based on an assumption that Norwegian firms encounter both challenges and facilitators in their scaling process. The aim is to identify which challenges occur and which facilitators might contribute to the resolution of these difficulties and promote growth. In other words, we will identify themes and explain patterns to modify existing theory on scaling through additional data collection. In doing so, we are applying an abductive approach (Saunders et al., 2019).

Taking it a step further, we had to consider which data collection method would fit this study best. Methods used in qualitative research include, focus groups, in-depth interviews, participant observation and surveys to mention some (Brinkmann & Kvale, 2015). For this study, we decided to employ in-depth interviews as our primary method. Semi-structured interviews are interviews where we as researchers have a list of predetermined themes and questions. We decided to use semi-structured interviews as they provide us with the flexibility to ask follow-up questions on interesting themes that require additional exploration during the interviews. Furthermore, this approach is considered favorable for a multiple case study, as some degree of structure may be required to ensure cross-case comparability (Bell et al., 2019).

3.2 Sampling

To collect and study data from a whole population is not always feasible due to restrictions in time, money and access (Saunders et al., 2019; Taherdoost, 2016). Unless the population the researcher is interested in is small, it is necessary to divide the population into smaller subgroups called samples. In research, it is therefore a common technique to study one or more samples to represent a whole population (Saunders et al., 2019). This enables the researcher to reduce the amount of data that is needed to be collected, and still be able to make generalizations in relating to existing theory or inference about a population (Taherdoost, 2016). However, according to Walle (2015) qualitative research that is conducted in naturalistic settings are unique, which makes the process of generalization impossible. The results are therefore context specific. When selecting a sample for the research, there are several different methods to choose between (Taherdoost, 2016), depending on the research question, methodology, scope of the study and availability of resources such as time and funding, amongst other things (Koerber & McMichael, 2008).

3.2.1 The sample

The first step towards data collection is to collect a small sample of the population to study. To study the whole population would in this case not be plausible. Nor would it be fitted for the study as it is an exploratory study where the purpose is to obtain a deeper understanding of challenges and facilitators in a scaling process, rather than being superficial about the topic. It is believed that a sample of the population in some cases can be more suitable to study as it enables the researcher

to collect more detailed information and gives more time to check and test the data for accuracy prior to analysis (Saunders et al., 2019). However, it is also argued that fewer interviews do not benefit most studies in terms of having more time to prepare and analyze (Brinkmann & Kvale, 2015). After conducting five interviews, we found that our data was becoming saturated. The responses were starting to become repetitive, and we were seeing fewer and fewer new insights. Therefore, we concluded that five interviews were sufficient for this study.

To find relevant firms for the study we contacted Håvar Risnes at Ålesund Kunnskapspark (ÅKP) who have long experience and knowledge about start-ups and scale-ups in the region. ÅKP is a well-known incubator in the region, and are currently Sunnmøre's leading provider for entrepreneurship, innovation and networking. In addition they facilitate one of the country's most complete incubator systems and many other national and international projects (ÅKP, n.d.). Risnes suggested six different innovative firms who all have managed to scale up their business. These firms are pertinent for our study as they fulfill our criteria being that the firms had to be located within the region Møre and Romsdal and be innovation driven enterprises. Additionally, they are entrepreneurial firms. These are the firms that have the highest probability of scaling and creates the most value for society (Barringer et al., 2019), and most likely have the experience we are looking for. The reason why we chose to limit the location to Møre and Romsdal was to be able to conduct the interviews in person. Furthermore, we wanted the firms to go under OECD's definition of high growth firms having an average annual growth of 20% or greater over a three year period, and 10 or more employees in the beginning of the observation period (Statistical Office of the European, 2008). The period we are interested in extends from 2019 to 2022. During this period the Covid-19 pandemic occurred and had great impact on businesses all around the world, both positively and negatively. By using OECD's definition, it allows us to include firms who might have been negatively affected by the pandemic or other situations in the observation period. Greater growth in other years outweigh the negative growth, making the firms HGFs and hence pertinent to our study. Later, we discovered that one of our firms (Firm A) did not fulfill the HGF definition. Despite this, we chose to include the firm in our study anyway. Numbers shows that although they had a significant decline in turnover from 2020-2021, they have had significant growth in years before and after the downturn. As we all know, the end of 2019 and the following years were characterized by the Covid-19 pandemic. This have affected even the strongest

businesses, including Firm A. We chose to include this firm as it can provide useful insight to the study through their history of going through a tough and challenging period.

An e-mail was sent out to the key informants in each firm including a short description of the purpose of the research and how the interviews will take place. Out of six requests we first received three replies, all wanting to participate in the study. After a few weeks we sent out a new e-mail to those who did not reply the first time, asking again if they would like to participate in the study. This time we sent it to the firms' post e-mail, so the receiver could forward it to the right person if we previously sent it to the wrong e-mail address. We then received two more replies, both willing to participate. This gives us a total of five respondents.

Table 1 below provide an overview of the five firms and participants who were interviewed in the study. The table presents which industry the firms are in, the interviewees current position, the year the firm was established, number of employees and average annualized growth in a three year period. In addition, we have included an overview over which firms have received financial support from Innovation Norway and participated in a scaling program, which will be discussed in the analysis chapter.

	Firm A	Firm B	Firm C	Firm D	Firm E
Industry	Manufacturing	Manufacturing	Software	Agriculture	Maritime
Current position of interviewee	CEO	CFO	Founder & CEO	Founder & CTO	Founder & CEO
Firm age/start year Year of establishment?	1984	2016	2012	2011	2010
Number of employees	35	47	68	52	25
Average annualized growth (2019-2022)	15,6%	400%	37%	80,3%	21,8%
Received financial support from Innovation Norway	No	Yes	No	Yes	Yes
Participated in scaling program	Yes	Yes	No	No	No

Table 1: Sample of participants

3.3 Preparing and conducting the interviews

The interviews were conducted based on the participants' preferences. Four were conducted at the informants' office or workplace, and one was digital due to the geographic distance of the firm's location and our location. Before the interviews, an application was sent to NSD – Norwegian center for research data. This application included an interview guide (see Appendix 1) and a consent form (see Appendix 2) with information about the study. The research was approved after a few days (see Appendix 3). The consent form was later sent out by e-mail to the informants a few days before the meeting, so they could read it prior to the interview and be ready to sign and give consent before the interviews started. Although the language of the thesis is English, the interviews were conducted in Norwegian. This was an intentional choice as both the interviewers and interviewees had Norwegian as mother tongue. The conversation then becomes more natural, and language do not become a barrier for any of the parts. During each interview, one had the role

as the interviewer following the interview guide, and the other as an observer. These roles were switched each interview so both had the opportunity to try each role. Although one was leading the interview, both were welcome to ask follow-up questions and make conversations which lead to good flow and great conversations.

3.3.1 The interviews

The interviews started with asking the informants about the history of the firm, and their role as an entrepreneur or leader. Following the interview guide, we then asked about the three topics facilitators, challenges and network to collect information that could answer the research question for this thesis. The sequence of topics is deliberate, as we do not directly want to start ask questions about problems and challenges within the firm as this can be seen as disrespectful. Instead, we start by asking questions about their thoughts on growth and how they work with scaling. This way, we get relevant information about the firm, and insight into how they have worked with scaling till now, in addition to future growth plans. After having a good flow for a while talking about scaling and facilitators, they were hopefully more open to share challenges they have experienced in their scaling process. We then moved on to talk about challenges and barriers followed by network. At the end of each interview the informants were asked if they had something they would like to add. Finally, we let them know that we appreciated their time and participation and that they are welcome to get in touch if there was anything else they would like to add.

3.3.2 Transcription

After each interview we reflected upon the answers together and discussed similarities and differences with previous interviews and studies. The transcription was carried out as promptly as possible, either the same or the next day while the conversations were still fresh in memory. We imported the audio files into Microsoft Word and utilized the transcription feature to turn the voices into text. Although this tool was helpful in the transcription process it still needed a lot of correction due to major and minor errors in the transcript, and we had to listen to the audio several times to edit the mistakes. Finally, we listened through the audio files while proofreading the transcript together and corrected overseen spelling errors. Overall, all the transcriptions ended up

being between 12 and 22 pages long.

3.4 Data analysis

The transcription process made us well acquainted with the data that we were going to analyze. Which coding method that is most suitable for a study depends on the nature of the research questions (Saldaña, 2013). We chose to code the interviews in Microsoft Word since we are familiar with the Microsoft Office software. We also decided to code the transcriptions individually first, and then compare and discuss each other's codes. By doing this we were able to get different perspectives and the opportunity to clarify our ideas to each other, thus we got a wider analytic net over the data. The coding process started with adding descriptive codes regarding the main topics of this study, including codes such as "scaling", "challenges", "facilitators" and "network". Since the transcriptions were already in a Word document, we found it most suitable to use the comment function rather than move the data and familiarize ourselves with a new program. Microsoft Word also allows us to work on the data simultaneously and can be stored in Microsoft Teams where the rest of our work is stored. After adding descriptive codes regarding the main topics, the transcriptions were reread and several subcodes were made and put into four different tables to get a clear overview of the subcodes in the different main codes. The five firms' data were divided into different colors to make it simpler to distinguish between them. This method made it easy to work with the data since the tables provided a good overview over all the data to be analyzed.

3.5 Quality of research

The study's ability to be utilized and serve as a foundation for future research is contingent upon its quality. Scholars have proposed that the evaluation of qualitative research should be conducted using different criteria than those employed in quantitative research (Bell et al., 2019). To evaluate our research, we utilize Guba and Lincoln's (1989) four criteria of trustworthiness: credibility, transferability, dependability and confirmability.

Credibility

Credibility in qualitative research is equivalent to internal validity in quantitative research, which refers to how believable the findings are. Emphasis is placed on ensuring that the participants' description of their experiences in the study accurately reflect their intended meaning (Saunders et al., 2019). After each interview, we discussed and reflected on the findings to ensure comprehension and avoid misinterpretation of the information conveyed by the informants. Furthermore, the interviews were transcribed either immediately after or the day after they were conducted, because then we would still have the interviews fresh in our memory. The transcripts were reviewed by both authors to ensure accuracy. Further we first coded the data individually then we compared our individual codes to ensure consistency and accuracy. We believe that implementing the measures we have described have contributed to the credibility of our study.

Transferability

Transferability is a principle that is similar to external validity and generalizability, which considers whether the study's findings can be applied to other contexts. In other words, transferability seeks to establish whether the results of a research study can be transferred to other settings or populations (Bell et al., 2019; Guba & Lincoln, 1989). Qualitative research typically involves an extensive investigation of a small group. As a result, qualitative findings tend to focus on the unique context and significance of the social world aspect being studied (Bell et al., 2019). Hence, our findings are not generalizable to a large population, but they may be applicable to studies with similar contexts. We have provided a comprehensive and detailed description of the research question, design, context, findings, and interpretations. This enables the reader to evaluate the transferability of the study to other contexts (Saunders et al., 2019).

Dependability

Dependability is the third criteria of trustworthiness and is similar to reliability in quantitative research. In the dependability criterion the credibility of the study is measured. To gain high dependability, one should provide a detailed and accessible description of all stages of the research process. This includes problem formulation, sample selection, fieldwork notes, interview transcripts and data analysis decisions (Bell et al., 2019). To ensure the dependability of this thesis

we have presented a detailed description of the methodology used in this study in Chapter 3 to provide a clear overview of the research process. Here we describe choice of methodology and the process of sampling, interviewing, and coding. Additionally, the consent form, approval from NSD and the interview guide are attached in Appendix 1, Appendix 2, and Appendix 3 to strengthen the dependability of this study.

Confirmability

Confirmability is related to objectivity and is a fundamental criterion in qualitative research that aims to demonstrate that the researcher conducted the study in good faith and that their personal beliefs or theoretical leanings did not significantly impact the research or its results (Bell et al., 2019). The findings and conclusion of the research should be neutral, and hence be written objectively and impartially without any personal bias and influence such as priorities, opinions, motivations, and others (Guba, 1981). Our research aimed to maintain objectivity throughout the study, and we believe that we have successfully achieved this goal. We made several modifications to the study, including shifting our focus when we discovered that the results were different from our initial expectations. We believe this is an important step in achieving neutrality in a study. Hence, we consider our research to be trustworthy.

4. Analysis

The purpose of this chapter is to answer the research question and gain a more profound understanding of challenges and facilitators Norwegian scale-ups face in their scaling process. We use the data collected from the five interviews together with theory presented in Chapter 2 to form the basis for discussion. The analysis chapter is divided into three main parts. First, the chapter begins with a brief explanation of each firm to give the reader some relevant background information and insight into the sample. Next, we present the analysis which is divided into two parts. The first part addresses challenges participants identify as a hurdle for the firms' growth, and the second part address facilitators that have been identified as having positive impact on firm growth. Direct quotations are included to provide an in-depth understanding of the perspectives and experiences shared by the informants.

4.1 Presentation of the firms

In Chapter 3 the sample is presented in a table providing a simple overview of the participants in this study. Below the five informants are briefly presented in addition to a more detailed presentation of the background of each firm. During the interviews, each informant was asked about their thoughts on growth. This question provides insight into their ambitions and future growth plans which gives us a perception of how they will work in the future. Each reply on thoughts on growth is included in the descriptions below.

Firm A

Our first informant has worked as the CEO in Firm A since 2018. The firm was established in 1984 and were previously a family business until the family sold out of the firm a few years ago. Today, Firm A has 35 employees and mainly works within the manufacturing industry (Proff, n.d.). The firm were previously an agency business, but in the beginning of the 2000s they started developing, producing, and selling their own products to customers. Their customer base mainly consists of Norwegian buyers, and their products are sold to several different markets in Norway which creates potential and opportunities for growth. Recently in 2019, Firm A participated in a scaling program arranged by a local incubator at Sunnmøre and are still actively in cooperation

with the incubator. The participation in the scaling program created great opportunities for Firm A. This will be further elaborated in the analysis.

When we asked the informant in Firm A about his thoughts on growth, he said that they have ambitions to grow in near future.

“We have ambitions for great growth because there was a fund that invested in the firm in 2021, and they have strong ambitions for growth. The ambition is to grow quite significantly over a 3 to 5 year period.”

Firm B

The next informant works as a CFO in Firm B which operates within the manufacturing industry. The founder of Firm B was previously hired in another firm working on a project. Eventually they decided to create a separate firm to further develop the project. This was the beginning of Firm B. The firm was established in 2016 and has currently 47 employees (Proff, n.d.). To get hold of machines required for the production, the founder contacted several relevant firms but were met with resistance. Eventually, he found a firm abroad to cooperate with, and after some time he bought this firm, and they are now producing their own machines in this factory abroad. Until recently they have only worked with one large customer due to lack of capacity to inquire others. Now they have started to ask others, and many are interested in what they do. During the last three years Firm B have scaled significantly with an average annualized growth of 400%.

When asked about his thought on growth, he emphasized that they have great ideas about growth.

“We have big ideas about growth, because what we see is that there is a very high demand for what we do. So, we believe in significant growth both in Norway and abroad.”

Firm C

The third informant is one of three founders of a firm that was established in 2012, and the only founder left in the firm. Today they have 68 employees with offices in three different cities in Norway, and one in South America. They work within the software industry, offering several digital services to customers. Their main customers are Norwegian businesses, but since the services they sell is a software, it is easy for Firm C to offer these services to businesses in foreign countries without having to increase their staff or cost too much. They have the opportunity to provide services abroad simultaneously as they are located in Norway. In other words, they have high growth opportunities. In the beginning their services were free, and they managed to run the firm through earnings on side projects. Firm C acquired a large proportion of newly established firms in Norway. At one point, as much as 20% of newly established firms in Norway used Firm C's services. Eventually as they gained a great number of customers, they changed their business model and started charging their customers.

When we asked the founder about his thoughts on growth, he mentioned that they are forward-looking and wants to grow.

“We have ambitions to grow both nationally in Norway and internationally, both in terms of what we do, but also with doing more things that suit what we do.”

Firm D

Our next informant started to work on his idea in 2008 and later on founded his firm in 2011 which operates within the agriculture industry. The beginning of the establishment mostly consisted of financing, development of the product, development of prototypes, and documentation. They have since grown, and Firm D has now 52 employees (Proff, n.d.), and are located in several places in Norway, as well as in USA and a few other countries in Europe. Their products consist of a combination of hardware and software components that work together to provide a complete solution to their customers. In terms of competition, there are only 6 competitors in the world (to their knowledge) that are producing similar solutions as Firm D. However, these do not have as many products on the market as Firm D, although they might have a much higher number of

employees. Hence, Firm D is at the forefront in their field.

When we asked about his thoughts on growth, he stated that his thoughts about growth applies to the quality of the hardware solution. Further he stated that it is important to have satisfied customers:

“We need real satisfied customers, and they must be satisfied because of a robust product. Before that time, it is very intimidating to grow fast, because then the consequences of mistakes become so enormous.”

Firm E

Our last informant is the founder of Firm E. In his previous job he saw other and much greater opportunities than his managers did in relation to innovation and development. They were not interested in further developing this idea, and he then decided to leave his old job and established Firm E in 2010. Some other employees from the old firm saw the same opportunities as the informant did and started working in Firm E a few weeks after start-up. The firm is in the maritime industry, and they now have 28 employees (Proff, n.d.). Their customer segment is currently only in Norway, as their products are adapted to the Norwegian waters. Similar products exist on the market, but they have a vision to be at the forefront of solutions in everything they do, which they use to motivate and encourage innovation. They have an ongoing project today, with financial support from Innovation Norway.

When asked about his thoughts on growth, he stated that they have a growth strategy. He also mentioned that the firm has to grow if it wants to succeed:

“To be successful in this industry you have to be of a certain size to be successful, especially in this industry. If you want to succeed, you have to grow.”

Hopefully, these summaries give a better insight and overview of the sample in this study that can be useful to know when later reading about their challenges and facilitators in the analysis. To sum up this section, all of the five informants are quite different in terms of industry and has unique products and services offered to their customers. When it comes to their ambitions of growth, they all have quite great ambitions and plan to scale their business further. There are many ways to scale up a firm, where one option is by going international. Although the majority of the firms currently have their customer base located primarily within Norway, several of these possess the potential to expand internationally. This, in addition to other interesting topics will be further elaborated in the findings below. While this section has presented the background and growth ambitions of each firm, the next sections will dig deeper into their present and past by analyzing the informants' responses regarding challenges and facilitator in their scaling process. We are interested in identifying which challenges arises in this process and identify which facilitators have been important to overcome these challenges and stimulate growth. Are there any challenges and facilitators that recur in several of the firms? Are there any similarities and differences between the industries?

4.2 Challenges in a scaling process

Even with the necessary planning, resources and strategy, many firms struggle to scale and face several challenges in the process from start-up to scale-up and further growth. Thus, having an understanding of the hindrances that may hold back the success of a firm is important for enhancing the likelihood of success for the entrepreneur (Vinturella & Erickson, 2003). Interviews of the sample, conducted with five different informants across five distinct firms reveal the challenges encountered during the scaling process of these firms, and the findings from these data are presented in Figure 1 below. A total of seven challenges were identified in this study. These were recruitment, internal capacity, internal reorganization, investors, internationalization, supply chain disruption and cycle time. All of the challenges presented in Figure 1 has been experienced by more than one firm in this sample. In the upcoming sections, we will elaborate on each of the points presented in the figure and provide an explanation of the challenges and obstacles that the firms encounter when scaling. Furthermore, the discussion will be connected to the theoretical framework presented in the theory chapter.

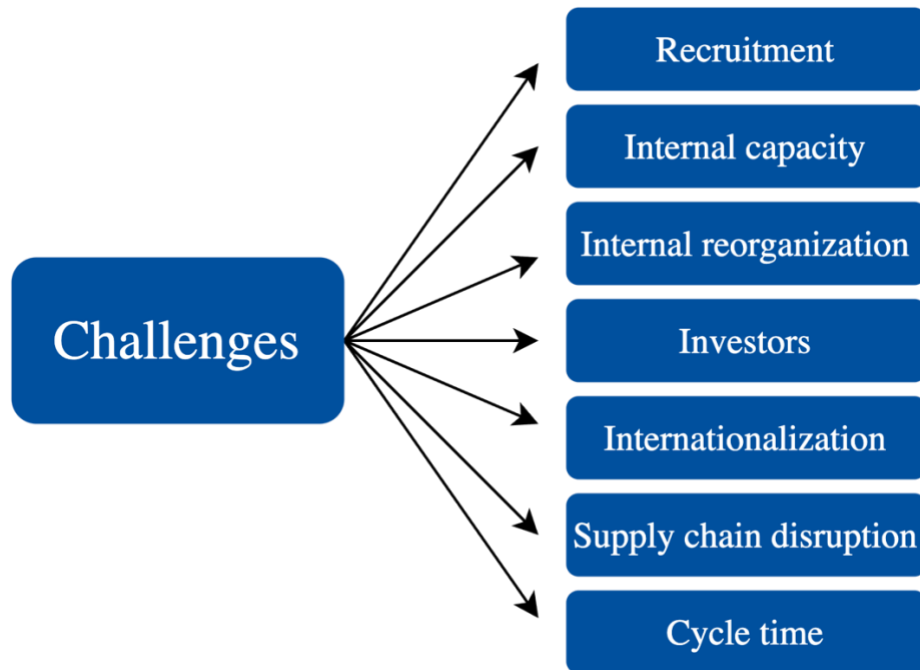


Figure 1 – Challenges in a scaling process

4.2.1 Lack of qualified workforce in the recruitment process

Businesses are impacted by human capital in the entrepreneurial ecosystem, both positively and negatively. Human capital refers to the knowledge, skills and abilities that individuals possess and contribute to the success of an firm (Isenberg, 2011), and as mentioned in the theory chapter, there is a shortage of qualified workforce in the market (Grimsby et al., 2018). Although there is limited research on barriers in firms’ scaling process, results from a few studies indicates recruitment of qualified workforce as a challenge for further growth (Coutu, 2014; Grimsby et al., 2018). Lee (2014) also identified skill shortages and recruitment as obstacles for firms in high growth. Certain qualifications are in higher demand than others, thus there is a strong competition to obtain qualified workforce in certain areas. Engineers and people with business skills are examples of competence many firms find challenging to get hold of (Grimsby et al., 2018). Two informants specified that recruitment of qualified workforce was challenging, especially on the engineering side. Firm A are experiencing periods with difficulties to get hold of experienced people as engineers are in high demand in the job market.

“We have mostly received what we have applied for, but notice that it has been difficult lately. It takes time, especially on the engineering side. We have employed almost only recent graduates, we cannot get hold of very experienced people.” (Firm A)

Firm D faces similar difficulties as Firm A. Eventually as Firm D grow, it becomes necessary to recruit more people in various departments. Especially one department was pointed out as challenging in the recruitment process.

“It has been quite easy to get hold of people in sales and support. Very hard to get hold of engineers. (...) Engineering is struggling to recruit, so we are not getting the people we want.” (Firm D)

Firm D needs engineers to develop their product, but the high demand for engineers makes it difficult to recruit qualified workforce. Another factor that affects the access to qualified workforce is their location. The informant in Firm D stated that they need more employees, but the growth will not happen at their current location. Since they are located in a small municipality in Møre and Romsdal access to qualified labor is scarce compared to larger cities. Recruitment of qualified workforce was also to some degree challenging for Firm E a few times during their scaling process. He mentioned it could be difficult to find the right key persons when they searched for specific qualifications. They found the process of marketing and choosing the right employee resource intensive. However, it has mostly not been a challenge to get hold of qualified workforce, and they have often received applications without advertising a position. In other words, it has not been a major barrier for Firm E compared to Firm A and Firm D.

For the last two informants' recruitment of qualified workforce has mainly not been a challenge at all. Although Firm B require engineers to perform essential work, they have managed to get hold of the people they need. The informant explained that as long as they get to talk to people they are able to convince them to work there. In addition, they have introduced a bonus scheme where they encourage employees to make suggestions about people they know. The employees receive a bonus if the firm ends up employing people they suggested. This bonus scheme may have

contributed to reduce the difficulty to obtain qualified workforce. They also have a department that works with recruitment and state that access to labor has not been a barrier until now. Similarly, lack of labor has not been a problem for Firm C although he mentioned that it could always be more. However, in the start-up phase, as most firms, they were not well known in the market. For this reason, they had to use their network to obtain employees.

To sum up this section two of the responses (Firm A and Firm D) are consistent with the findings in Coutu (2014) where firms found recruitment of qualified workforce as a challenge for future growth. Common for these two firms is that they need engineers to develop products and services, which are in high demand in the market (Grimsby et al., 2018). The lack and high demand of engineers creates a strong competition to obtain qualified employees. A consequence of not getting hold of the competence they need is that they do not grow as fast as they potentially could.

4.2.2 Limited internal capacity

Similar to recruitment above, internal capacity is linked to human capital, but one distinction is that internal capacity also pertains to other physical resources. More specifically, internal capacity refers to the firms' available space in the premises and the in-house people and the amount of workforce they have available. This factor were also previously found to be a limitation for further growth in many firms (Grimsby et al., 2018). Firms with internal capacity as a limitation can often experience that certain people get too much work at hand. A consequence of this may be overworked and burnt-out employees. Another consequence of limited internal capacity is that it takes longer to develop the products or services. Thus, firms are not able to produce and launch their products to the market as quickly as desired which slows down potential growth. In this study four of our informants experienced internal capacity as a barrier to varying degrees and for different reasons. Most affected is Firm D, who is currently facing these challenges. The respondent in Firm D points out that lack of internal capacity led to the work being unevenly balanced between the departments.

“(...) And then you get a skewed distribution that causes creaks in the culture. It becomes quite challenging, both for those who will not be able to do what they were employed to

do, but also for those who cannot manage to do everything that should have been done.”
(Firm D)

As mentioned in section 2.4 *Barriers in the scaling process*, it is reasonable to believe that the two barriers recruitment and internal capacity correlate. This was the case for Firm D. They cannot get hold of enough engineers and their current employed engineers becomes overworked. The sales department rely on and require things from the product and engineering department which then ends up with loads of work. As shown in Firm D’s citation they end up with a skewed distribution when engineers have too much work and sales are unable to complete their work tasks, which makes it demanding for all departments.

The respondent in Firm E mentioned that no matter how well they plan they often end up behind schedule. They believe they can manage it with available resources but discover that they have shortage of human resources and need to hire more people. This often effects the CEO that must overtake responsibility for much of the work.

“It may be that there’s not enough resources internally all the time, so then the work lands on my table. Then I have to drag the wagon forward, and eventually, people jump into the wagon and help me pull it.” (Firm E)

For firm A, internal capacity has been a major obstacle for growth.

“We could certainly have grown even faster if we had more people.” (Firm A)

The reason Firm A have not got hold of people as quickly as they would like can be linked to the fact that they do not have room for more employees in their premises. They have limited space at their current location and plan to move to another location with more space in near future. In contrast to Firm A, this is not the case for Firm B. They have high growth ambitions and this is

reflected in their choice of premises.

“If we see the premises here, we have quite a lot of space, and that is because we are going to grow. We rent premises that are bigger than what we need right now, but we have room to grow.” (Firm B)

Although Firm B have premises which facilitates growth, internal capacity is still the most decisive limitation for how fast they can manage to grow. The informant stated that key persons only have 24 hours in a day, and when they grow fast this becomes a limitation for growth.

In summation, four of the informants mentioned internal capacity as a challenge and limitation for further growth. This is in consistent with the findings in previous studies (Grimsby et al., 2018; Lee, 2014). The findings in this thesis show that the challenge with internal capacity can derive from limited workforce and lack of space in the premises. For Firm D, challenges with internal capacity arose when they struggled to recruit engineers. This created limited internal capacity within the firm and caused a skewed distribution between the departments and creaks in the culture. For Firm E, the CEO who is one of the key persons within the firm, experienced having to solve a lot of the problems that arose when the firm periodically lacked internal resources. Similarly, Firm B found it challenging that key persons have limited time during the day. They expressed that this limitation has the most impact on the firm’s growth. Firm A was the only one mentioning internal capacity in their premises as a challenge. They have outgrown their premises and thus they do not have room to hire more employees, which slows down their growth.

4.2.3 Challenges with internal reorganization

Entrepreneurs that are able to take their firm on to the persistent high growth path are those who manage to rapidly and successfully make a transition from the managerial role to an entrepreneurial and strategic role, and these are often called high growth entrepreneurs. Internal reorganization is an internal shift within the firm where responsibility for various tasks shifts from one person to another. This can for instance involve a shift of people in the board or new employees in the firm. It is important that entrepreneurs manage to delegate managerial tasks to other people in the firm

during the high growth period as this allows them to focus on strategically important issues and facilitate further high growth (Dillen et al., 2019). However, our findings show that it is not necessarily an easy task. Two of our informants mentioned challenges regarding internal reorganization. Firm C experienced difficulties in the transition from start-up to scale-up when they were to transfer tasks to new employees. He explained that the entrepreneurs were used to do everything themselves and struggled to give up their responsibility.

“In the beginning you do everything yourself. You are a marketing manager, you are a sales manager, you are a developer, you are a business developer, you are an economist, you kind of have all the roles at once. What we saw in our growth was that some people got stuck in that role. They wanted to have an overview of everything all the time, even when we were growing. They struggled to give up their tasks, so then people get burnt out or they don't let others do their work.” (Firm C)

The informant referred to this as “growing pains”. When scale-up firms grow fast, employees can experience “growing pains” as the firms change a lot. When firms grow from 10 to 100 employees they face different requirements for capital, skills, management and organizational processes (Coutu, 2014). As Firm C grew, they hired specialists to different departments, but they became overrun by the founders that previously performed the role. The entrepreneurs had a hard time giving up the role to others which Dillen et al. (2019) mentioned was important to facilitate further growth. In the start-up phase entrepreneurs wears many hats and they are responsible for the whole firm. They need to make a variety of key decisions and have a wide range of roles and responsibilities. These roles could greatly affect firm growth, and as the firm grow their required roles change (Mathias & Williams, 2018). The informant in Firm C explained that some entrepreneurs that previously managed for example marketing through the start-up phase wanted to continue to do so. This caused a lot of discussions and fights internally regarding how they should further develop the firm and became a major barrier for them.

Likewise, Firm A had challenges when they were to change management a few years ago. The previous owners found it hard to transmit the control of the firm to the new CEO and new external people in the board.

Mathias and Williams (2018) divided entrepreneurial role identity into two categories: “give up the hats” and “wear all the hats”. The first perspective involves managing and narrowing the entrepreneur’s roles by subtracting their own roles and seeking others to perform these roles. The latter perspective involves continuing wearing all the hats and retaining and adding more roles than they subtract. Although some growth opportunities arose for entrepreneurs with this perspective, growth seemed unlikely because it meant they were given more roles than they could manage. Adding this approach to our findings, the entrepreneurs in Firm C can be considered having both perspectives. As the firm grew, they hired specialists that could perform different roles, which indicates that they were willing to “give up the hats”. However, when new employees were to take over the role, they were not willing to hand over responsibility. They now wanted to “wear all the hats”. This caused internal conflicts and was a great barrier for growth.

Being able to give up responsibilities to other employees is important for further growth (Dillen et al., 2019). When the entrepreneurs and other employees are unwilling to “give up the hats” it becomes challenging to grow as they get more roles than they are able to manage. This was the case for Firm C who experienced internal conflicts due to these challenges. It was also challenging for the previous owners in Firm A who had to hand over the control to a new leadership. Giving up the control is not an easy process and is identified as a challenge firms can face during the scaling process.

4.2.4 Challenges of obtaining investors

Many firms will at some point in their start-up and/or scale-up process turn to external financing, but to find the right investor can be challenging (Zhao et al., 2019). Another following challenge for many is to convince venture capitalists to invest in their business. This is especially challenging when the entrepreneur and business is unknown, as formal sources of capital often require an operating history to reduce their risk (Vinturella & Erickson, 2003). Investors’ fundamental

investment objectives is to seek safety, income and growth (Allen, 2002).

Two of the firms had difficulties in search of investors, but experienced different challenges in the process. Firm C had an unusual business model which were unfamiliar for many at the time of their start-up. In the beginning customers were offered the service for free. In other words, they did not make any profit, which is contradictory to investors' objectives (Allen, 2002). The informant has been in meetings with large well-known investors and banks to explain their business, but without success. Investors did not believe in their business model and the informant believe this is because they have not understood their business and business model. This was a barrier for growth because:

“When we didn't have capital, we had to find other things to make money on. So then we had to work on other services here and there that took the focus away from the core business.” (Firm C)

According to Sahi et al. (2013), investors have a strong preference for certain investments simply because they are familiar with them. This is because they gain a sense of security and comfort when they have knowledge and experience about such investment products. This security that investors seek may have contributed to Firm C's difficulties in getting hold of investors. Most investors were not familiar or interested in their freemium business model and did not believe it would cover their interests. Their unusual business model and lack of investors therefore forced Firm C to have several side businesses to finance the further development of their core business.

Firm D did not experience difficulties in acquiring investors that believed in their vision. However, spending time on finding investors took valuable time that could have been spent elsewhere, which the founder of Firm D found as a barrier for growth.

“That is one item on the list of things that is difficult, really difficult. Spending time on finding investors because it's an extremely time-consuming process, and no one has time

to deal with it because there are so many other things that should have been done.”
(Firm D)

Informant in Firm D further explained that although they find it very time-consuming to find investors, it is a necessary process because they eventually run out of money. He explains that money and investor is a major challenge. Constantly they have to prioritize and select what to spend their time on.

Investors were not seen as a barrier for the three other firms, as they have mainly obtained the capital they need from investors. Although the process of obtaining investors were challenging for some, several mentioned investors as a facilitator in the scaling process. This will be further elaborated in section *4.3.1.1 Investors*.

Only two of the firms experienced investors as a challenge in their start-up and scaling process. Firm C struggled to convince investors to invest because they did not believe in their service and business model. This hampered their growth as they had to run side businesses to fund the main firm. On the other hand, Firm D found it difficult to use crucial time on finding investors that they preferably would use on development of the product. Even though it can be challenging to use time on and find investors it needs be prioritized because firms eventually run out of money.

4.2.5 Challenges regarding internationalization

Expanding internationally can create great opportunity for firms' growth as internationalization is associated with increased growth of turnover, employment and innovation activities (EIM Business & Policy Research, 2010). However there are risks involved, and many find the process to be challenging as they have to renew their products, services and business model to fit the foreign markets (Iris Group, 2019). For Norwegian firms the growth potential is related to access to export markets as the Norwegian economy is limited (Grimsby et al., 2018). Each firm in the sample of this study are selling their products and services in Norway, and while some already to some degrees are established abroad, others are planning internationalization in the future.

Firm E from the maritime industry has not expanded abroad yet, but they have plans and are looking at the possibilities to do so. Their product is specifically adapted for the Norwegian coast, and if they move abroad the product must be adapted to the foreign market, a process that requires a lot of resources and time. The informant mentioned that he has been in contact with potential customers in a country outside of Norway, but they do not need such solid products that they offer due to geographical differences. Internationalization is therefore challenging for Firm E, that needs to make major changes and modifications to adapt to foreign countries dissimilar to Norway. The development of new products can be time consuming, expensive and not least risky. In addition, it often require new skills and expertise (Iris Group, 2019).

Firm A still has a lot of growth opportunities in Norway, but they believe export will be important for them and that most of the firm's growth in the future will come from expanding abroad. In the citation below the CEO of Firm A pointed out that going abroad is challenging as it requires a different mindset.

“Otherwise, a barrier for us... If we are going to go out and export and go from being somewhat reactive where we only get requests because we're known, to having to start really pushing export, that's a barrier. It's not that easy. It's such a different mentality when you really have to go out.” (Firm A)

One specific challenge was brought up regarding the process of expanding abroad. Firm A finds it difficult to promote themselves in foreign countries, which they see as a major barrier for them regarding internationalization. They find it challenging to make the right search terms on promotion sites such as Google, as they have to adopt English language which uses other search terms than they are used to. The informant stated that they have not yet managed to promote themselves well enough abroad.

In contrast to Firm A, promotion abroad has not been a barrier for Firm C. They promoted themselves through search words on Google which turned out to be a great success. They have developed an English version of the website where people can register their e-mail and get

notification when the service becomes available in their country. For them, the e-mail registration has almost worked as a market survey since they can detect which countries most people register. They identified market opportunities in a large Asian country by analyzing the data from the e-mail registrations. One of the reasons why firms expand internationally is to take advantage of business opportunities, and this has been the case for Firm C (Wiedersheim-Paul et al., 1978). Interestingly, they are using a very similar business model as they had in the start-up in Norway for the international services, meaning that they are offering their services abroad for free for the time being.

Further, two of the informants experienced challenges with internationalization connected to other countries' law and regulations. For instance, foreign laws and regulations slows down Firm D's growth being that they have a product that is not allowed in some countries. They find this challenging as it is a determinant they do not control.

“Then of course it is the consideration of laws and regulations that slows down our growth to a certain extent. Something we cannot control as much as we would like.” (Firm D)

Further, the informant in Firm D gave an example of a country in Europe where their product is not allowed. If the product shall become legal, it has to be documented that it is a product that can in some way be granted an exception in the law. In another country in Europe the sale is difficult if the product is not on the country's subsidy list. He explains that the country can use up till one and a half years on research on the product. Then eventually they decide whether the product will be implemented in the subsidy list or not. These types of laws and regulations slows down Firm D's growth as the establishment of the product in these countries takes longer time. This finding is similar to the findings by Grimsby et al. (2018) where 25% of the firms state that they experienced lack of harmonization of legislation and different frameworks across geographical regions as barriers to establishing themselves in new markets.

Similarly, although the informant in Firm B did not specifically point it out as a barrier, he mentioned that there are other laws and regulations that must be taken into considerations when

moving abroad. In addition, Firm B has experienced challenges connected to other countries' culture. More specific, they have had challenges with invoicing and payments within a country in South America. The invoices sent to that country must be in a certain way, if not they will not pay. The challenges Firm D and Firm B describes are consistent with findings in other studies. For instance, it is found that cultural mindset and supply chain network complexity is two of the most challenging factors in the global supply chain. Trust between the supply chain partners is also challenging, but trust plays a crucial role as it is the foundation upon which knowledge sharing and collaboration are built (Balan et al., 2006).

To sum this section up, the majority of the firms has faced challenges regarding internationalization to varying degrees. Expanding abroad can create great growth opportunities but can also be a challenging, risky, time consuming and costly process (Iris Group, 2019). Firm E have plans to expand internationally but need to adjust their products to fit the foreign markets. Firm A believes that most of the firm's growth in the future will come from export, however they struggle to promote the firm internationally in contrast to Firm C who have succeed to promote themselves on Google. For Firm B and Firm D foreign laws and regulations were found to be a challenge in the internationalization process. The growth in Firm B is not highly affected by this, but it is challenging and is something they have to spend time on. On the other side foreign laws and regulations have negatively impact on Firm D's growth, because even when a country has great potential, they cannot sell their product until it is approved by the government in this country. To briefly summaries firms face different challenges with internationalization.

4.2.6 Challenges with supply chain disruption

A firm's supply chain is not only one-to-one, business-to-business relationships, but consist of a network of various businesses and relationships (Lambert et al., 1998). Supply chains directly affects production and business activities of firms and therefore plays an extremely important role (Ho & Tien, 2022). For many businesses it is important to successfully manage the supply chain, but external factors can affect the different dimension of the supply chain and cause supply chain disruptions. Lately, Covid-19 has affected various supply chains significantly all over the world. For instance, firms' finance, lead time, demand changes, access to raw materials and production

performance are some of the variables that has been affected by Covid-19 (Allam et al., 2022; Moosavi et al., 2022).

In our sample of five, three firms depend on various components to produce their products, and these three expressed delivery time as challenging. Firm A were affected by the Covid-19 pandemic and have worked hard to get hold of components they need. Reasons for this can be that many countries closed their borders during the Covid-19 pandemic and the shipping activity were sharply reduced due to lockdowns, which lead to supply chain disruptions across the world (Jean-Paul, 2022; Moosavi et al., 2022). This was especially challenging for Firm A as it is generally really long delivery time on components they need in their production, and thus the delivery situation became a limiting factor for growth. The informant explained that their turnover decreased in 2021, and they believe this was a consequence of Covid-19 and the delivery situation that followed.

“I think that the delivery situation, Covid and things related to the delivery situation led to a decline in 2021. It went from 90 million to 76, but then it went up again last year.”
(Firm A)

Delivery time was also a limiting factor for Firm D and still is. They face the same challenges as Firm A as they struggle with getting hold of the components needed for production due to the Covid-19 pandemic. The founder explained:

“Last year we produced maybe... no we didn't produce close to what we had planned because there was a lack of components. We couldn't get hold of components, and it's still a problem because there are such long delivery times.” (Firm D)

He further elaborated on how this have affected their present work. In February 2023 Firm D were super busy finding out what they are going to produce next year (2024). They needed to order parts, and a major challenge they faced was to decide which and how many products they intend

to produce in 2024. Consequently, products they will sell in 2024 needed to be fully tested during the spring 2023. This challenge was a result of long delivery times on essential components and obstructed growth. Firm D is not the only one struggling as it is difficult and sometimes impossible for policymakers and supply chain managers to control the duration or propagation speed of the disruption (Moosavi et al., 2022).

In 2021 the global supply chain disruption started to become less congested as the bottlenecks that caused the issues began to clear up, but things became tense again due to Russia's war in Ukraine (Ho & Tien, 2022). Covid-19 were not a limiting factor for Firm E. Instead, they exploited some opportunities which turned out to be a great success, and their turnover increased significantly. However, recently Firm E has struggled with long delivery time and high prices on goods they use in their production, and this is a result of the war between Russia and Ukraine that escalated February 2022. Firm E import raw materials from these countries and thus, not surprisingly, the war caused disruptions in their supply. Even though they were affected by this, he stated that the extended delivery time and increased prices has not stopped their production or sale.

Common for three of the firms is that they faced challenges with supply chain disruptions. Firm A and D considered long delivery times due to Covid-19 as a challenge. The pandemic has disrupted supply chains all over the world (Moosavi et al., 2022), and has among other things lead to long delivery time on components these firms needs. This is still a major challenge for Firm D because they have to plan their production a year ahead due to high demand and long delivery time on certain components. For Firm E the war in Ukraine affected the access to raw material, and as a result the prices increased and the delivery time became longer. To sum up, firms' supply chains play an extremely important role (Ho & Tien, 2022), and several of the participants experienced challenges with unforeseen things that lead to supply chain disruptions and affected their growth.

4.2.7 Challenges with long cycle time in product development

It is argued that firms will be most successful if they have high quality products and a faster product development cycle than their competitors (Meyer & Utterback, 1995). Shorter cycle time can also give firms competitive advantage. Although there are advantages with having a short product

development cycle, it may not always be the most effective approach. Technological firms need to use time on their product development process to digest and analyze technical problems. If not it can result in development of products with poor quality (Karlsson & Åhlström, 1999).

Although long cycle time can be a significant challenge in product development, some of the informants may not acknowledge it as such due to its prevalence and the difficulty of avoiding it. Only Firm C and Firm D pointed out long cycle time in product development as a challenge. Common for these two firms is that both use software. Despite this, they are very different, as Firm C develops software while Firm D uses software in their hardware. The progress of software projects often deviates from its initial plans. These projects often take longer time than planned (Van Genuchten, 1991).

For Firm C, the software development process has taken longer than desired, but the informant stated that creating high-quality software requires a significant amount of time. One plausible explanation of the delay can be their numerous side projects, which have taken the focus away from their core business. As stated by the informant:

“There are some things that you may not be able to avoid, which is that things always take much longer than you think. Especially software development.” (Firm C)

They have lost a lot of time on their side projects, but as previously mentioned they were almost forced to have side projects to finance their core business. They could not get hold of capital from banks and investors as they did not believe in their business model. The informant in Firm C stated that he thinks their biggest competitor would not have existed if they had focused on the software. This indicates that long cycle time has had an impact on their growth. The development of the software could probably have taken less time if they had solely focused on their core business.

Firm D has to use a lot of time on developing and testing their product in order to produce a high-quality product and this has affected their growth.

“What has hampered our growth the most is the work with quality. (...) You have to spend time to know if a product is going to last for 5 years.” (Firm D)

The informant pointed out that there has been intense work with a lot of testing of the product where they discover weaknesses that must be corrected. This process can take a few months, making their cycle time long. This happens at the same time as customers want more products. Then a dilemma arises, where they have to choose whether to produce more of what they know has poor quality, or say no to customers and fix the problem and deliver something that has better quality. He thinks that the balance between making money today and seeing a bright future in three years is difficult. The fact that the development of the product take long time affects their growth as they miss out on the potential growth they could have had if the quality on the product had been sufficient. Although the development of a high-quality product is often a time-consuming process, it is crucial that they take the time it requires. While reducing cycle time can create competitive advantage, it can also result in production of inferior products due to the emphasis on speed over quality (Karlsson & Åhlström, 1999). The informant emphasized the importance of delivering a superior product when the firm is experiencing rapid growth. Scaling too quickly without a product with robust quality could have severe consequences for Firm D. It is evident that the time-consuming process of achieving good product quality affects their growth, as it is necessary to allocate sufficient time to digest and analyze technical problems (Karlsson & Åhlström, 1999).

4.2.9 Summary of challenges

To summarize, this section addressed seven distinct challenges firms face during a scaling process. These challenges were recruitment, internal capacity, internal reorganization, investors, internationalization, supply chain disruption and cycle time. All of them had a significant impact on firms' growth. The firms experienced many of the same challenges, but the degree of impact often varied, and sometimes they faced different challenges within the same category. Challenges related to investors were an example of this. In the following part of the analysis, we will examine

the actors who have facilitated and contributed to firm growth.

4.3 Facilitators in a scaling process

Understanding the actions that entrepreneurs can take to increase their chances of success is important for improving their probability of success (Vinturella & Erickson, 2003). Based on the interviews, we have been able to identify several different facilitators that have been significant in contributing to the growth of these firms. The findings are presented in Figure 2 below. Based on the responses, the sources to growth can be classified into four different categories: financing, network, competence and sale. Within each of these categories, there are various actors who have been important facilitators for each of these categories. To obtain financing, investors, public support system and bank have been important facilitators and sources for the firms in the study. Facilitators for network are identified to be incubator, personal network and cluster. For competence, only mentors were mentioned to contribute with advice and mentoring, and only customers were mentioned to positively affect the sale. With the exception of cluster, each facilitator has been mentioned as important for more than one firm.

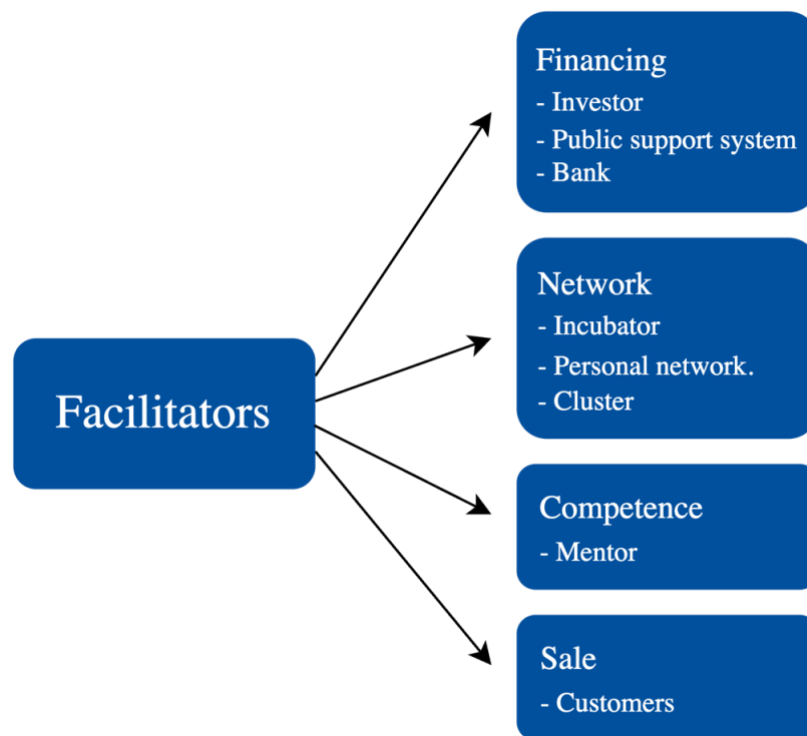


Figure 2 – Facilitators in a scaling process

The upcoming sections will examine the different categories and facilitators that were uncovered during the five interviews. They will provide a more comprehensive explanation of how and why these various actors have been significant and contributed to the scaling process. Additionally, the findings will be connected with theory from the theory chapter.

4.3.1 Financial facilitators in a scaling process

An essential part of operating any business is financing, and firms' persistence and its potential for growth can be jeopardized when there is inadequate access to finance (Rahaman, 2011). There are several actors that facilitate access to capital. During the interviews, three actors were repeatedly mentioned as important during the start-up and scale-up process. These were investors, public support system and banks as shown in the top box in Figure 2. The next sections include a more in-depth description of how each actor has contributed to facilitate firms with financing.

4.3.1.1 Investors

As seen in Figure 1 and challenge section, some of the firms experienced challenges with obtaining investors. Despite this, investors have been an important facilitator for the majority of the firms in this study. Investors' capital can be the entry point to the start-up of the firm, new projects and new employment, amongst other things (Vinturella & Erickson, 2003). This was the case for four of the firms and will be illustrated and further discussed below.

For Firm E investors were especially important in their start-up phase. The founder explained that when he was to establish his firm, he got hold of several shareholders which facilitated a quick growth of the start-up. In addition, investors have shown interest in their firm in recent years, but up till now they have declined the offers. The reason for this is that they have not needed it, and the firm is valuable to him and is not something he wants to give away easily. The price is also a factor. However, if Firm E need capital later on, they already have investors that are willing to invest and thus be a facilitator for future growth.

As mentioned in the theory section, scaling of firms requires investors that are willing to make long-term investments (Zhao et al., 2019). In our sample Firm B has such investors. Their board and shareholders want the firm to aim high and grow quickly and therefore allow them to lose money to make profit later. Firm B's first priority is to grow fast and therefore capital is crucial for them. So far, investors have been the main source of capital and they have experienced great interest from investors in the region as stated by the informant:

“I think capital is the most important thing. (...) Last year we raised 50 million, which we raised from investors mostly in the area around here and which we use to grow.” (Firm B)

Investors were also important for Firm A, and particularly one investor was of great importance. This was the fund that invested in Firm A in 2021. The fund and the capital they provided has contributed to finance the hiring of new employees. This enabled them to focus on growth by increasing the number of employees without having to worry about spending too much money.

The last firm who mentioned investors as a facilitator was Firm D. The founder previously stated that they find it challenging to find investors because it is a very time-consuming process. Even though it takes time they have been able to find investors that believe in their vision. Further, he pointed out that investors are an important facilitator when they run out of money.

4.3.1.2 Public support systems

Many firms use public support system as a source to resources during the start-up process and/or the scale-up process. Through public support systems, the government can by funding and rewards facilitate and create value for new and established businesses. It is found that use of public support system enable access to important social resources (Doblinger et al., 2019), which was also discovered in our findings. Many Norwegian firms use the public support system Innovation Norway which is a door-opener into the business support system. They work as a sparring partner offering many different variations of capital, expertise, and network to new established and scaling firms (Innovation Norway, n.d.-a). Three of the firms have previously received grants and/or loans

from Innovation Norway several times. The firms specified that the financial support from the public support system Innovation Norway has been important both for the start-up and scale-up phase. A few citations are added to illustrate the importance of public support system for each firm:

“We have received both grants and loans. We wouldn't have gotten to where we are today without them.” (Firm B)

“We have received financial support in several rounds. Absolutely super important. They are important together with the investors.” (Firm D)

“Innovation Norway, yes definitely. We have had a close collaboration with Innovation Norway. We have an ongoing project today” (Firm E)

A preliminary survey conducted by Oxford Research for Innovation Norway measures the customer's expectations of the benefits of the services received from Innovation Norway in 2021. Additionality is a central indicator measured in the research. The study shows that 71% of the projects had a high additionality score, which signifies that without support from Innovation Norway the development of the project would happen at a later stage on a more limited scale, or not be carried out (Brastad et al., 2022). Our findings are similar with the findings in this survey. Three of the firms stated that financial support from Innovation Norway has been important, but the informant in Firm B especially pointed out that Innovation Norway was important to include as an essential facilitator. Innovation Norway has been important from the very beginning for Firm B. When they established the firm, they received financial support from Innovation Norway and in recent years they have received both grants and loans. Innovation Norway has therefore been a key financial facilitator for Firm B throughout their journey. These findings are also similar to findings in a study conducted on SMEs in South Korea. The study by Doh and Kim (2014) revealed a positive relationship between governmental financial support and innovation. It highlighted the crucial role by such support in generating innovation and firm growth, similar to the discoveries

that have been made in this research.

4.3.1.3 Bank

Banks plays a central role in meeting the financial needs of businesses through the offers of several financial products and services (Wang, 2016). All of the participants have most likely been involved with the bank at one or several stages, but only two firms mentioned the bank as an important facilitator in consideration to financing. The CEO in Firm A brought up one specific occasion where the bank was important for them:

“The bank is important to us. When I got here, I had to go out and increase the overdraft because we almost didn't have money to pay our suppliers. Now we have very good liquidity. The bank has been involved for a long time, so they have been an important external partner.” (Firm A)

The informant in Firm A narrated a challenging time for the firm before he started working there. During this period the bank was the most important external contributor in a tough and challenging time. As he mentioned in the citation above, they now have very good liquidity and therefore do not need as much financial support from the bank as previously. Hence, the bank is important in periods where firms need quick access to financial support, and they contribute to support further growth.

A close and tidy relationship with the bank is important, as it is found that start-ups that opt for maintaining a unique bank-lending relationship are more likely to survive for longer periods of time (Alcoforado Farinha & Santos, 2006). Statements from the informant in Firm E corresponds with this as he stated that it is important to have close contact with the bank. This close relationship is one of the reasons they have received bank guarantee when needed without waiting for several months. Thus, the bank has facilitated financing in periods where extra capital was needed.

4.3.1.4 Summary of financial facilitators

To sum up the financing section, this study identified investors, public support systems and bank as important facilitators for finance in firms' scaling process. To begin with, investors have played a crucial role in the growth of most firms in this study. Although investors can be challenging to obtain, they are identified to be an important source of capital for firms, especially in their early stages. Public support system is another essential source of funding. In this study, three informants mentioned the public support system Innovation Norway as a particularly important partner in their success, as they have provided necessary funding to help start up and scale up the firms. Lastly, the bank was mentioned as vital in a challenging time. The bank serves as a quick source of capital in times of need, thereby necessitating the establishment of a close and tidy relationship with the bank. Next facilitators providing network will be discussed.

4.3.2 Facilitators providing network

Entrepreneurs usually lack the necessary resources to pursue opportunities (Elfring & Hulsink, 2003), and according to research, having network is therefore important because it provides access to necessary resources such as information and advice (Hoang & Antoncic, 2003; Jenssen & Koenig, 2002). As lack of network is found to be a barrier for growth, the firm's network becomes more and more important as it seems to be positively related to their ability to scale (Grimsby et al., 2018). Both formal and informal network can be used to build relationships and acquire essential resources. While formal network consists of bank, creditors, suppliers and other professionals, informal networks are personal relationships including family, friends, and close business partners (Birley, 1985).

There are various actors that can contribute with networking for firms. This study identified three different network actors who have been important for firms' scaling-process. These are incubators, personal network and cluster. In the following sections, each of the actors and a description of how they have been important for the firms will be presented.

4.3.2.1 Incubator

Incubators can be an important source of resources and support for newly established firms who often lack network, experience and resources (Alpenidze & Pauceanu, 2019). Incubators contribute to fill this gap by offering a variety of consulting, training and networking to startups in a professional and social environment (Peters et al., 2004; Siva, n.d.-a). Hence, incubators provide great networking opportunities by connecting entrepreneurs, firms, academia, R&D environments, investors and other (Siva, n.d.-a).

One of the enterprises owned by the Norwegian government, has through partnership with actors across the country built up a national infrastructure for innovation and business development. One prominent partner of this enterprise is located in Møre and Romsdal where the firms in the sample are stationed (Siva, n.d.-b). This partner is an incubator that has been important for many firms in Møre and Romsdal and are currently Sunnmøre's leading provider for entrepreneurship, innovation and networking (ÅKP, n.d.). As mentioned earlier in the theory chapter, Norwegian incubators offer various scale-up programs for firms with ambitions to grow. Here they teach a small group consisting of different firms various methods and tools that are useful in the scaling process. Two informants said that their firm has participated in their local incubator's scaling program. These firms are, as presented in Table 1 in Chapter 3, the two manufacturing firms Firm A and Firm B.

As mentioned, Firm A is one of the firms that recently has participated in the local incubator's scaling program. The scaling program focused mostly on a 24-step model, however it was networking that was most important for Firm A. The CEO of Firm A wanted to expand his network, thus the participation in the scaling program was most important for him.

“It was important mostly for me because I was looking for a network because I lived in Oslo for 30 years. So, getting to expand the network, get contacts, that was the most important thing.” (Firm A)

The informant in Firm A further stated that the program was informative and that they learned some methods they can use when planning for growth. Through the program, they also got to know other firms and formed collaborative partnerships. During the scaling program Firm A had a presentation in front of an investor committee. That committee included both the general manager and the manager of the fund that invested in their firm two years later. Thus, Firm A's network expanded as a result of their participation in an incubator scaling program, and they gained new investors and capital injections which stimulated the firm's growth.

Firm B is the second firm that has participated in the scaling program. Unfortunately, the informant in Firm B could not tell us much about the firms' participation in the program as this was before he started working for the firm.

It is also worth mentioning that although Firm C have not participated in any scaling program, the founder mentioned that if they were to start up today, he would definitely participate in the scaling program Firm A have participated in or something similar. The reason they did not participate is that the offer did not exist when they started the firm. Taking part of scaling program can provide many valuable tips for growing the firm, but it is also a useful facilitator for making new contacts and building new relationships and expand the network.

4.3.2.2 Personal network

Many entrepreneurs rely on their professional-support network who provide support and advice in fundamental business activities (Hisrich et al., 2007). Several studies have concluded that a broad network is important for entrepreneurship (Hoang & Antoncic, 2003; Jenssen & Koenig, 2002), and it seems to be positively related to firms' ability to scale (Grimsby et al., 2018). Personal networks can also be referred to as informal networks and they consist of personal relationships such as family, friends, close business partners and acquaintances (Ostgaard & Birley, 1994). There are several ways for entrepreneurs to establish and expand their personal network. Contacts can be developed through their personal life and professional career (Bratkovič Kregar & Antončič, 2016). In this study, all five firms expressed that network has been important during their scaling process, but four out of five firms mentioned personal network as a facilitator. These

four firms are Firm B, Firm C, Firm D and Firm E.

The informant in Firm B narrated that the founder has built up a network over many years, and that his personal network has been very important for the firm. A person that he earlier worked with and who is now chairman of the firm has been especially important for them, since it was him that connected them with their key customer. They have also many investors which has primarily come from the founder's personal network that he has built up over time. Aldrich and Zimmer (1986) noted that entrepreneurs depend on their personal and business connections which aligns with what the informant conveyed. The founder's network has provided them with significant information and resources during the start-up and scale-up process. Finding key employees in the scale-up process was also network-based. The first people who started working in the firm were people the entrepreneur or their key customer knew. Later when the informant joined the firm as CFO, they also hired five people he knew from before. Both the founder's and employees' personal network has thus been important for Firm B regarding finding key employees and customers.

Personal network has also been crucial for Firm C:

Networking has been important for my own personal development and not least for getting people to believe in our ideas. We've often had to use our network to get hold of people and to make them realize that our business is cool. (Firm C)

In the early phase, the founders of Firm C had to use their network in order to reach out to new potential employees. After being in touch with their network, individuals in their network recommended Firm C to others they knew and encouraged them to get in touch. When there is a deficiency of network, a potential strategy is to utilize the network to obtain the missing resources (Elfring & Hulsink, 2003), and by using their network as described, they created a spill-over-effect and were able to inform and convince people to believe in their work.

The founder in Firm D's personal network has meant a lot for them. He explained that his personal

networks give access to others network and thus he gets in contact with new individuals that can be essential for the firm. His personal network is therefore crucial for Firm D.

“Networking means an awful lot. When you get to know people, you are introduced to new people, and the people you meet there can mean an awful lot, and it has for us. And it's on the investor side, it's on the technology side and recruitment especially of manager. So network is important, absolutely certain. It is absolutely crucial.” (Firm D)

Personal network has been important in several ways for the founder in Firm E. He has worked within the same industry for over 30 years and has in this regard traveled around in Norway. This is how he has built up his network and relations. As mentioned in the presentation of Firm E the informant worked in a similar business before he established his own firm. When he decided to establish his own firm, it only took a few weeks before four people from his old workplace started working for him instead. His network has thus contributed to build up the firm from the very beginning. He expressed that network is very important and lack of network will make things challenging. This corresponds with findings of other studies. For instance it is found that a lack of network is a barrier for growing internationally (Grimsby et al., 2018). Network therefore plays an important role as the informant explains:

Networking is quite significant. Regardless of what you do in this world, either in private or business life, you depend on networks. If you don't have a network, it will be tough. Having acquaintances or having a large network, knowing people, the market, the area. That is very important. (Firm E)

Further, he mentioned that the firm grew from 0 to 76 million in turnover within five years. He said that this rapid growth was connected to the fact that he has a strong network and a very good knowledge of the market. In the last three years their strong network has also led to faster growth than expected. This rapid growth is also a result of customers' network and good word of mouth, as new customers place orders based on recommendations from previous customers.

Firm A did not specifically mention personal network as a facilitator, but as mentioned in section 4.3.2.1 *Incubator*, the main reason for their participation in a scaling program was that the CEO wanted to expand his personal network. One can therefore assume that personal network is probably important for Firm A as well.

According to Watson (2007) both formal and informal networks are found to be linked to the survival of firms, but only formal networks are connected to the growth of firms. However, this study has arrived at an alternative conclusion. Four informants mentioned personal network as a facilitator for growth. The types of networks they refer to fall under the category of informal networks, which contradicts to the findings by Watson (2007).

4.3.2.5 Cluster

Porter (1998) defines clusters as groups of firms and institutions in a specific field that are located close to each other. Research has found that being part of a cluster can increase the chances of a firm becoming a high growth firm (Temouri et al., 2021). Only Firm A mentioned cluster as a facilitator for network. They are a part of a large maritime cluster at Sunnmøre. The cluster consists of around 220 firms within shipping, ship design, shipyards and equipment suppliers. The cluster operates globally and supplies products to firms all over the world (Innovation Norway, n.d.-b). In other words, Firm A have access to a broad network and a diversity of resources. Firm A have participated in several network meetings organized by the cluster. Through travels with other firms in the cluster Firm A get in contact with others that can for example give tips on who to contact if they want to sell products abroad. Thus, the cluster contributes to network building for Firm A.

“The cluster is important because, for example, we have a number of joint agents abroad. We have the same agent as several other firms in Sunnmøre in a Nordic country. And then it is the cooperation over time in the maritime cluster. Through this cluster, people travel together, and then you hear about who may have had some common contacts. Maybe get some help and tips on who to use and how to sell things abroad. It contributes to growth in the network, it does.” (Firm A)

By being part of the maritime cluster Firm A has been able to expand their network. The cluster consists of a variety of related industries (Porter, 1998) and thus there are many different persons with unique competence and their own personal network which Firm A can benefit from. Through knowledge sharing within the cluster, they have exchanged contacts that has been useful in the scaling process.

4.3.2.6 Summary of network

To summarize this section, entrepreneurs typically lack the necessary resources to pursue opportunities (Elfring & Hulsink, 2003), and network is found to be an important source for gaining access to the resources needed (Jenssen & Koenig, 2002). In this study, three actors were identified to be important facilitators for network. These were incubators, personal network and cluster. All of the informants expressed that network has been important for both the start-up phase and the scaling process of the firm. Especially personal networks have been essential, as four out of five informants mentioned this as an important facilitator for growth. Incubators have also proven to be important for some of the firms, despite the fact that the primary focus of incubator scaling program often is to increase the firms' competence. In the next section, facilitators that entrepreneurs have utilized to acquire necessary competence will be presented and discussed.

4.3.3 Facilitators providing competence

Firms' effectiveness is closely linked to its competence. In other words firm's effectiveness and competitiveness are closely tied to its ability to develop and use its competence base to create value (Grønhaug & Nordhaug, 1992). When firms aim to expand, they often seek expertise from various sources such as clusters, suppliers, customers, mentors and incubators (Leiponen & Helfat, 2010). Firms that are part of a cluster can benefit from knowledge spillover, thus clusters can be an important facilitator for competence (Mazzucato & Parris, 2014). As mentioned earlier Firm A is a part of the maritime cluster at Sunnmøre. However, the informant in Firm A only mentioned the cluster as a facilitator for network.

An interesting finding in this study is that actors who provide competence has only been highlighted a few times by the informants, and mentors were the only actor they pointed out. The informants who have mentioned it have only talked about using mentors, not the importance of them. Three of the firms, Firm E, Firm C and Firm D mentioned that they have used mentors. These are mentors they have found through personal connections or met during the scaling process.

The informant in Firm E hired a chairman who has been kind of a mentor for him. He uses him as a discussion partner and said that it has been very helpful. The founder in Firm C have also actively used mentors.

“I have not been connected to any incubator environment, but I have actively used mentors. But that is people I have discovered myself over the years, who have either been customers in similar firms, or people I have come into contact with and then gotten to know and used as mentors and received advice along the way.” (Firm C)

In addition, he has received advice from experienced business leaders who have founded their own firms. The founder of Firm D has also received a lot of guidance and support from mentors. These are mentors he has found on his own and come in contact with through his personal network. Additionally, he has received consulting from Innovation Norway a few times, but unfortunately it has not been a success for him.

“I have received consultant from Innovation Norway a few times. And it is almost dumb to say it, but quite often it hasn't been the best people.” (Firm D)

However, the finding in this study do not provide enough information to establish a conclusive relationship between the role of mentors and the development of competence, since the informants only mention that they have used mentors and not elaborated on the significance of them.

4.3.4 Facilitator for increased sale

This study also identifies close customer relationship as important for firms' growth, with four participants pointing to satisfied customers as a key growth facilitator. These firms were Firm B, Firm C and Firm E.

As previously mentioned, Firm B has only had one main customer. Through communication and a close collaboration, this customer has been able to help Firm B throughout their journey and lift them up. The informant further explains that by providing quality to their customer and ensuring their satisfaction, they are able to grow their firm. By demonstrating their ability to deliver to their main customer, they are able to attract more requests and grow.

Positive word of mouth is a powerful marketing tool that involves the narration of memorable, enjoyable, or novel experiences, and the subsequent recommendation of those experiences to others (Anderson, 1998). Customers who buy the most are not necessarily firms most valuable customers. Researchers suggest that the most valuable customers for a business are those who can bring in profitable new customers through word of mouth, regardless of their own spending habits (Kumar et al., 2007). Firm C has experienced increased sales and growth as a result of their customers recommendation of the service to others, and it has served as a powerful form of word of mouth.

“The free customers recommended us to others who recommended us to others again, so even if some of them may have dropped out, it had great value because it was a bit like word of mouth.” (Firm C)

Positive word of mouth has also contributed to new customers for Firm E which has led to increased sale. The informant in Firm E stated that when one delivers a good product with high quality, it generates positive word of mouth and spreads very quickly.

The credibility of word of mouth recommendations surpasses even the most sincere salesperson.

It has the potential to reach a wider audience at a more rapid pace than traditional marketing methods such as advertising and direct mail, due to its ability to spread quickly. This makes it an effective tool for breaking through the clutter of competing messages (Silverman, 2001). This is consistent with the information provided by the informants in this study, as word of mouth has had a positive effect on sale for several of the firms. Thus, customer word of mouth has proven to be an effective source of new customers and increased sale, which ultimately contributes to firm growth.

5. Conclusion

The objective of this master thesis is to acquire a comprehensive understanding of the impediments that hinder growth in Norwegian firms, while also investigating the tools and resources that facilitate growth. A considerable proportion of Norwegian firms experience scalability challenges (Statistisk sentralbyrå, 2022), impeding their ability to attain their full potential (Nordic Innovation, n.d.). According to statistics from Statistisk sentralbyrå (2022), only 44,4% of newly established firms survived a one-year period, while only 26% managed to survive a five-year period in 2019. Additionally, the “how” aspects of scaling have received little attention in the literature, which has primarily focused on identifying what scaling and scale-ups entail (Shepherd & Patzelt, 2020). Hence, given the importance of scale-ups and the limited research on scaling, there is a need for more research on the process of scaling to provide more insights that can help firms scale more effectively. In light of this, the following research question have been put forward: “What are the challenges and facilitators in the scaling process for SMEs in Western Norway”.

The study was conducted with a sample of five Norwegian HGFs from Møre and Romsdal. They all have demonstrated significant growth the last few years, and thus were able to provide valuable insights into the challenges they have faced, and which key facilitators were instrumental in their growth. Drawing from the information shared during the interviews, the study was able to identify seven distinct challenges, and eight facilitators that can be categorized into four different sources of growth.

The seven different challenges that the firms encountered in a scaling process were: recruitment, internal capacity, internal reorganization, investors, internationalization, supply chain disruption and cycle time. All of the challenges were mentioned by two or more informants, and the different challenges were found to have varying impact on firms’ growth, depending on the specific challenge.

The study found that two participating firms encountered challenges associated with human capital, more specific in recruiting qualified labor. These challenges were associated with the high demand for engineers in the job market (Grimsby et al., 2018), which are necessary to develop the firms' products. This challenge can also be linked to internal capacity issues, which were cited by four out of five participants as a hindrance to growth. The shortage of qualified labor resulted in an increased workload for existing employees, which had negative implications for the firms' productivity and performance. Lack of internal capacity were the biggest challenge for Firm B, as key persons have too much to do in relation to time they have to complete their tasks. These results suggest that to in order to achieve faster growth, firms must create conditions that facilitate growth such as having sufficient space for expansion and proactively seeking qualified labor well in advance of capacity shortages. The study found that these processes are often challenging and time-consuming. Failure to address these issues may result in an increased workload for existing employees, which could negatively impact the firm's productivity and performance.

In similarity to (Grimsby et al., 2018), this study also identified internal reorganization, characterized by the reallocation of responsibilities and task from one employee to another, as a challenging process for two of the participants. This is an important task to manage (Dillen et al., 2019), however, the findings indicate that the process must be carefully managed to minimize disruptions to the firm's workflow.

Investor-related challenges were identified by two of the firms. While one firm identified time as a key challenge in securing investors, the other faced challenges in convincing investors to believe in their business model. The inability to secure investment may have been the service firm's (Firm C) biggest challenge, as it forced them to explore alternative methods of raising capital. This ultimately slowed their growth and highlights the importance of having a strong investor strategy at place. Despite the challenges associated with securing investment, the finding also shows that investors have played a critical role in helping the firms achieve growth.

Due to the limited size of the Norwegian economy, many businesses choose to expand internationally to access new growth (Grimsby et al., 2018), but although it creates great growth opportunities, it also comes with challenges and risks (Iris Group, 2019). Three firms mentioned foreign markets as a challenge in the scaling process, with some citing cultural differences as the main obstacle, while others found it difficult to promote and adapt their products to new markets.

Finally, the last challenges that were identified and discussed was supply chain disruption and long cycle time. These challenges are often the result of external factors that are difficult to predict and can have a significant impact on firms' performance. The Covid-19 pandemic and the war in Ukraine have had a significantly impact on the global supply chain (Ho & Tien, 2022), and affected three of the firms included in this study. Especially one firm was heavily affected by supply chain disruption, as they were forced to determine product demand a year in advance due to long delivery time, which created significant challenges related to supply chain management. The same firm was also one of two participants who mentioned time as a key challenge. The entrepreneur of this firm noted that it takes time to determine if the product is durable and of good quality, and this was their biggest challenge in the scaling process. The other firm who mentioned cycle time as a challenge noted that one of their biggest competitor would not have been as big if they had been able to focus more on their core business instead of having to use time on side projects to finance the firm.

Alongside challenges that can slow growth, there are a variety of facilitators that can help accelerate it. This thesis identified eight different actors who have been important facilitators for the participants. These facilitators are located within four categories which are sources for growth. These sources are financing, network, competence and sale.

Three different facilitators were identified for financing: incubators, public support system and bank. The most important facilitator for finance were found to be investors and public support system. Particularly Innovation Norway was highlighted as an important public support system in our context. Several of the participants have received support from them and have emphasized its significance in their growth. Especially one participant expressed the importance of this actor,

stating that they would not have reached their current positions without the financial support. Thus, the findings in this study aligns with previous research findings who have demonstrated the significance of support systems (Brastad et al., 2022; Doh & Kim, 2014). Additionally, investors serve as a facilitator for capital (Vinturella & Erickson, 2003), which have been demonstrated to be significant for four of the firms, particularly during start-up, but also in later times to raise additional capital. Similar to Alcoforado Farinha and Santos (2006), we have also found that a close and tidy relationship with the bank is important. The bank has also proven to be particularly crucial for one of the firms during a tough time, as it has been a significant facilitator for capital when quick access to fund was needed. In summary, there have been multiple facilitators for capital, among which the public support system and investors have exhibited the most substantial impact on growth.

Facilitators for network are identified to be incubators, personal network and clusters. Of these three, personal networks were found to be the most significant facilitator to network expansion and business growth. Previous research has found that only formal network contributes to growth (Watson, 2007). Our study contradicts with these findings. Our findings indicate that informal network, which includes family, friends and close business partners (Birley, 1985), has been important for firms' growth, as all of the firms have highlighted personal network as a contributor to expansion of both their network and firm growth. Another facilitator for network is incubators. Incubators can be a vital resource for firms with limited experience, network and resources (Alpenidze & Pauceanu, 2019). Two firms utilized a local incubator, with one firm highlighting the participation in the scaling program as instrumental in expanding network. This illustrates the importance of incubators and scaling programs, not only in educating firms on scaling practices, but also in forging connections with other industry networks that can impact future growth. Lastly, clusters are also a source for networks (Porter, 1998), and have been mentioned as contributing to the expansion of network for one participant.

The final two categories, competence and sale, were each facilitated by a specific actor who played an important role. In the category of competence, mentor was mentioned by three of the firms as a facilitator for advice and support. However, the findings on mentors as a facilitator do not provide

enough evidence to establish a conclusive relationship between the role of mentors and the development of competence, as the informant only mentioned that they have utilized mentors. Lastly, it was discovered that customers played a role in driving sales and fostering growth. Customer word of mouth has led to new customers and increased sales for several of the firms in this study. Thus, it can be concluded that customers' positive word of mouth serves as a facilitator for increased sales and growth in businesses.

Implications for research

When it comes to implications for research, this study contributes with research to the field of entrepreneurship. More specific, research on challenges and facilitators from start-up to scale-up is scarce. Our aim is therefore to contribute to a deeper understanding of what Norwegian scale-ups perceive as challenging and also identify which facilitators have been helpful in their scaling process. This new insight into challenges and facilitators in a scaling process provides a foundation and opportunities for further studies in the topic of scaling or similar topics. It would be interesting to know whether the findings in this study are unique for our sample of HGFs, or if the findings would be similar when studying other firms. The findings might also be relevant in discussions of explanations of HGF's success or failure.

Implications for practice

Thousands of Norwegian firms are established each year, but many struggle with growing to scale and are not achieving their full potential (Nordic Innovation, n.d.). Scale-ups are key for triggering economic growth, and entrepreneurs are key players. Our implications for practice are thus to share these challenges and facilitators with the entrepreneurs. By rising awareness of which challenges may occur and which facilitators have been important during start-up and scale-up, present and future entrepreneurs can benefit from being more prepared and detect and work on challenges earlier, and not least focus on growth. Government and policy makers may also benefit from the findings in this study. By having awareness of challenges firms faces and what contributes to growth, this might give the policy makers ideas of how they can help facilitate growth for start-ups and scaling firms through regulations, development, and adaption of the public support systems. Similarly, incubators could utilize this study to their advantage. This study highlights the

importance of not only building competence and knowledge, but also to incorporate networking into scaling programs as network is found to be of significantly importance for firms' growth. This also applies to educational institutions that creates program for students. Based on the findings, the entrepreneurial programs can be improved, and lecturers can include challenges and facilitators in the learning objectives and better prepare them for the entrepreneurial process.

Limitations

Most studies have limitations, and this thesis is no exception. The first limitation we want to highlight is that the results are context specific, and thus they cannot be generalized to an entire population of scale-up firms. However, this was not the purpose of this study. Triangulation could have been a possible approach to address this issue, but due to time limits this was beyond the scope of our thesis.

Another limitation worth mentioning is that not all of the informants were the founder of the firm. While three of the informants were the founder of their firm, the last two worked as CEO and CFO. Due to this there is a risk that we missed some challenges and facilitators experienced by the founder that the informants might not have been aware of. Challenges may have arisen in the time before the informants started working there, or which the founder for various reasons have chosen not to share with employees. These challenges will therefore not be identified in the study. In addition to interviewing the founders of the chosen firms, we could have interviewed more employees with different positions in the firm to lift the quality of the study up a notch. This would have given us an even deeper insight into challenges and facilitators perceived by different levels. However, due to time limitations that come with writing a master thesis, this was beyond the scope of what we were able to do.

Another limitation with the informants is that none of them were females. Female founders may face different challenges compared to male founders due to gender differences. Due to lack of gender diversity, this study may not have captured any instances of gender discrimination that could have taken place.

Lastly, a limitation is that firms that has struggled and not manage to scale up their businesses have not been included in this study. These firms may have experienced other challenges and could have provided good insight into challenges and facilitators in the scaling process. It would be interesting to determine the specific challenges that causes firms to collapse, but this was not feasible with the sample in this study.

Further research

The previous section highlighted some limitations of this study, and there are some interesting considerations that can be of value for further research. The first recommendation is to do similar research with focus on one or a few specific industries. This would allow for a more in-depth look into challenges and facilitators in certain industries and makes it easier to compare various industries. It would be interesting to know whether there are any similarities and differences between these. This could for instance be accomplished through the use of triangulation, which then also allows for generalization in addition to a more in-depth insight into the topic.

As mentioned in limitations, all of the informants in this sample were men. Thus, another recommendation for further research is to include female founders in a similar study on firms' growth. They could potentially contribute with an even deeper understanding of different challenges that occurs. Does gender have a say in which challenges arise? Do women face different challenges than men? This is an interesting topic with potential to be further studied.

Finally, in this thesis, the sample have consisted of high growth firms who have been able to scale up significantly. A suggestion for further research is therefore to include firms that have struggled and not managed to scale up their firm. By including such firm in a similar study, there is a chance for gaining a much better insight into the challenges and barriers for growth, and perhaps also identify which challenges have the greatest impact on growth. This type of study could also be industry-based, which provides the opportunity to identify any similarities and differences between industries.

The topic of scaling is interesting and of great importance in the field of entrepreneurship literature. Nevertheless, despite its significance, there remain several avenues for further comprehension of the topic. While this thesis has provided a preliminary glimpse into the subject of scaling, there is still a way to go to gain a comprehensive understanding of the subject. Consequently, there are numerous intriguing prospects for future research in this area.

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Appendix

Appendix 1: Interview guide

Intervjuguide

Introduksjon av intervjuer – informasjon om prosjekt og intervjuforløp

1. Fra start-up til scale-up

1.1 Kan du fortelle litt om prosessen fra da du bestemte deg for å starte bedrift til der du er nå?

Hvilke tanker har du om vekst?

Hvordan har dere jobbet med vekst og skalering?

2. Hjelpemidler

2.1 Hva har vært med på å bidra til skalering/vekst i bedriften?

Hva har vært til nytte i vekstprosessen?

Hvilke hjelpemidler har vært viktigst i vekstprosessen?

- *Har inkubator vært viktig?*
- *Har dere deltatt på skaleringsprogram tidligere?*
 - *Hvordan har det påvirket veksten til bedriften?*

3. utfordringer

3.1 Opplevde du noen utfordringer i vekstprosessen?

Hva var vanskelig i vekstprosessen?

Hvilke barrierer har hatt mest innvirkning?

- *Hvordan har tilgangen til kvalifisert arbeidskraft vært?*
- *Har kapasitet internt i bedriften påvirket veksten?*
- *Andre eksterne eller interne faktorer som har påvirket veksten?*

4. Nettverk

4.1 Kan du fortelle litt om hvilken rolle nettverk har hatt for bedriftens vekst?

Hvordan bidrog nettverket til vekst i bedriften?

Hvem var viktig i vekstprosessen?

Var det noen som var spesielt viktig for vekstprosessen deres?

Appendix 2: Consent form

Vil du delta i forskningsprosjektet "*Barriers and facilitators in the transition from start-up to scale-up*"?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å studere hvilke barrierer og hjelpemidler som hindrer og bidrar til vekst i bedrifter og hvilken rolle nettverk har i denne vekstprosessen. I dette skrevet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Undersøkelsen er en del av en masteroppgave ved NTNU Ålesund der vi ønsker å gjennomføre intervju for å identifisere barrierer og hjelpemidler i bedrifters skaleringsprosess. Formålet med prosjektet er å undersøke hvilke utfordringer og barrierer som oppstår og hindrer bedrifter i å skalere og hvilke ressurser og hjelpemidler som bidrar til vekst og skalering i bedrifter. Samt vil undersøkelsen utforske hvilken rolle nettverk har i bedrifters vekstprosess.

Hvem er ansvarlig for forskningsprosjektet?

Forskningsprosjektet blir utført ved NTNU Ålesund på instituttet for internasjonal forretningsdrift, der masterstudentene Majlen Borvik Nilsen og Pia Kvingedal Ramsvik sammen med veileder Kjersti Kjos Longva er ansvarlig for prosjektet.

Hvorfor får du spørsmål om å delta?

Utvelgelsen foregår ved å kontakte 5-6 relevante bedrifter som har skalert og forsøkt å skalere bedriften og som dermed kan bidra med erfaring og innsikt om vekstprosessen. Kontaktpersoner er ledere i bedriftene som deltar.

Hva innebærer det for deg å delta?

- Hvis du velger å delta i prosjektet, innebærer det at du deltar i et kvalitativt intervju som vil vare i ca. 30-60 minutter. Under intervjuet vil det bli stilt spørsmål om bedriftens vekstprosess med hovedfokus på hvilke barrierer og hjelpemidler som er knyttet til denne prosessen. Videre vil det bli stilt spørsmål om hvordan nettverk har påvirket vekstprosessen. Det er ønskelig at disse spørsmålene blir svart på så ærlig som mulig. Det vil bli tatt lydopptak og notater av intervjuet som senere blir transkribert. Et utvalg av utsagn fra transkriberingen og notater fra intervjuet vil bli brukt i oppgaven.
- Intervjuet vil gjennomføres etter avtale med kontaktperson, enten digitalt eller på avtalt sted.
- I tillegg til data innsamlet fra intervjuet kan det ved relevans innhentes informasjon om bedriften gjennom offentlige innsats.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket

tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

Vi vil bare bruke opplysningene om deg til formålene vi har fortalt om i dette skrivet. Vi behandler opplysningene konfidensielt og i samsvar med personvernregelverket.

- Det er prosjektansvarlige Majlen Borvik Nilsen og Pia Kvingedal Ramsvik samt veileder Kjersti Kjos Longva som vil ha tilgang til opplysningene. De innsamlede opplysningene fra intervjuet vil bli lagret i skytjenesten «Onedrive» som NTNU benytter. Dette gjør at informasjonen kun vil være tilgjengelig for prosjektansvarlige. Skytjenesten krypterer alle datafiler, som fører til at uvedkommende ikke har tilgang til informasjonen. Navn og annen kontaktinformasjon vil være lagret i et annet dokument som er adskilt fra datamaterialet innhentet fra intervjuet. På denne måten kan det ikke knyttes tilbake til deg. Transkribering av lydopptaket vil gjennomføres i transkriberingsprogrammet i Microsoft Teams.
- Bedriftens navn vil bli erstattet med en kode som lagres på egen navneliste adskilt fra øvrige data. Kodenaavnet vil også bli brukt i transkriberingen og oppgaven. Som deltaker vil du dermed ikke kunne gjenkjennes i publikasjon av oppgaven.

Hva skjer med personopplysningene dine når forskningsprosjektet avsluttes?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent. Fristen for innlevert oppgave er etter planen 15. mai 2023 og masteroppgaven vil ifølge NTNUs retningslinjer være ferdigsensurert innen 15. august 2023. Etter prosjektslutt vil datamaterialet med dine personopplysninger slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

På oppdrag fra NTNU Ålesund, institutt for internasjonal forretningsdrift har Sikt – Kunnskapssektorens tjenesteleverandørs personverntjenester vurdert at behandlingen av personopplysninger i dette prosjektet er i samsvar med personvernregelverket.

Dine rettigheter

Så lenge du kan identifiseres i datamaterialet, har du rett til:

- innsyn i hvilke opplysninger vi behandler om deg, og å få utlevert en kopi av opplysningene
- å få rettet opplysninger om deg som er feil eller misvisende
- å få slettet personopplysninger om deg
- å sende klage til Datatilsynet om behandlingen av dine personopplysninger

Hvis du har spørsmål til studien, eller ønsker å vite mer om eller benytte deg av dine rettigheter, ta kontakt med:

- NTNU Ålesund, institutt for internasjonal forretningsdrift ved masterstudent Majlen Borvik Nilsen på epost (majlenbn@ntnu.no) eller telefon 98879313, eller masterstudent Pia Kvingedal Ramsvik på epost (piakra@ntnu.no) eller telefon 41362374, eller veileder Kjersti Kjos Longva på epost (kjersti.kjos.longva@ntnu.no) eller telefon 70161294.
- Vårt personvernombud: Thomas Helgesen på e-post (thomas.helgesen@ntnu.no) eller telefon: [93079038](tel:93079038)

Hvis du har spørsmål knyttet til vurderingen av prosjektet som er gjort av Sikts personverntjenester ta kontakt på:

- Epost: personverntjenester@sikt.no, eller telefon: 53 21 15 00.

Med vennlig hilsen

Majlen Borvik Nilsen & Pia Kvingedal Ramsvik

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet [*Barriers and facilitators in the transition from start-up to scale-up*], og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i kvalitativt intervju
- at mine personopplysninger lagres etter prosjektslutt, til sensur er publisert

Jeg samtykker til at mine opplysninger behandles frem til prosjektet er avsluttet

(Signert av prosjektdeltaker, dato)

Appendix 3: Approval from NSD

[Meldeskjema](#) / [Barriers and facilitators in the transition from start-up to scale-up](#) / Vurdering

Vurdering av behandling av personopplysninger

Referansenummer

642205

Vurderingstype

Automatisk 

Dato

12.01.2023

Prosjekttittel

Barriers and facilitators in the transition from start-up to scale-up

Behandlingsansvarlig institusjon

Norges teknisk-naturvitenskapelige universitet / Fakultet for økonomi (ØK) / Institutt for internasjonal forretningsdrift

Prosjektansvarlig

Kjersti Kjos Longva

Student

Majlen Nilsen

Prosjektperiode

01.01.2023 - 01.08.2023

Kategorier personopplysninger

Alminnelige

Lovlig grunnlag

Samtykke (Personvernforordningen art. 6 nr. 1 bokstav a)

Behandlingen av personopplysningene er lovlig så fremt den gjennomføres som oppgitt i meldeskjemaet. Det lovlige grunnlaget gjelder til 01.08.2023.

[Meldeskjema](#) 



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