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Scaling Up of Norwegian Firms

Master's thesis in International Business and Marketing
Supervisor: Siv Marina Flø Grimstad
June 2022

NTNU
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Acknowledgments

This paper is the final outcome of our master's degree in International Business and Marketing at NTNU Ålesund. The process of writing this master's thesis has been a whirlwind of emotions, ranging from stressful and frustrating moments to boosts of self-confidence and accomplishments. To say that it has been an interesting journey, is an understatement. We end this journey with a feeling of pride, and because of this, we would like to thank all of you who have helped us get here.

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Abstract

Scale-up firms and high-growth firms are important for creating jobs, boosting productivity, and spreading new technologies, many researchers agree, and that they, therefore, are essential for the common welfare. However, although it is considered important, only a few research studies have been conducted in the field of entrepreneurship, innovation, and international business that produce consistent insight into what makes start-ups successful. The aim of this master's thesis was to further progress the field of international entrepreneurship regarding scale-up firms and what can explain and facilitate the scaleup of Norwegian firms.

The design of the study is based on a mixed method. The thesis begins with a preliminary qualitative method based on semi-structured interviews with people with expert knowledge within the field of scaleup in Norway. The qualitative interviews were used to confirm the need for the initial propositions and to unveil potential important themes missed during the early research stages. This is thus followed by a quantitative survey for Norwegian scale-up firms.

The major findings include that product-market fit is the most important explanation for the fast growth and scaling of Norwegian firms, however, an entrepreneur with a proactive and global mindset also contributes to scalable business models and the ability to take the firm internationally. In our sample, networks and incubators do not have significant explanations for what can explain and facilitate the scaleup of Norwegian firms. We believe this could look different if incubators worked more with both established firms and startups to create synergy effects of each other's weaknesses and strengths.

With a focus on digital products, it becomes easier to scale due to capacity constraints will be of less importance. Product-market fit and higher customer switching costs, make it easier for a firm to scale, as customers may feel inclined to stay with the firm, increasing customer loyalty. By focusing on such scalable business models, small firms will be better equipped at allocating their scarce resources more efficiently and established firms may see their bottlenecks more clearly, renew themselves, and keep up with competitors' developments.

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1. Introduction

1.1 Background

The goal of this master thesis will be to further progress and expand the field of international entrepreneurship about scale-up firms and their motivations and experiences with scaling, especially when internationalizing. Internationalizing is not a particularly new area, as trade flows and migrations have existed for thousands of years, but the increased globalization and the volatile, uncertain, complex, and ambiguous world (VUCA) (Buckley, 2019) make it an area of high importance in today's context. As the world is increasingly fast-paced, understanding the drivers and successes of scale-up when internationalizing is key to developing good business strategies in the future. With an entrepreneurial focus, it can be possible to unveil how organizations and individuals are tackling the uncertainties of the world at the same time as they are shaping them (Zucchella, 2021). According to Du and Temouri (2015), scale-up firms and high-growth firms, are pivotal for both creating jobs and boosting productivity, but also for spreading new technologies throughout communities and the economies. Most economists and sociologists (Delmar, 1997; Janssen, 2004, 2009) argue that job growth is the most important measure of business performance as it explains the contribution to the common welfare. Although scaling up and rapid growth are important, only a few research studies have been conducted in the field of entrepreneurship, innovation, and international business that produce consistent insight into what makes start-ups successful in addition to what supports established firms in scaling up new opportunities (Demir et al., 2017).

1.2 Context

The context of this master's thesis is Norwegian growth firms. Findings from a comprehensive study by Mind the Bridge (2019), show that Nordic scalers have an above-average "scaleup density" in Europe, where the EU generally has 1.9 scaleup companies per 100 000 inhabitants, the Nordics with 4.26, and the UK in the forefront with 5.39. The definition of a scaleup in this report differs from the rest of this master's thesis (">\$1M funding raised since foundation"), but it still provides an image of the Norwegian situation. These numbers indicate that the Nordics can have the ability to compete with the best scale-up hubs in the world, like the UK and Silicon Valley (Iris Group, 2019). Nordic growth companies are growing in number. However, Norway has had fewer scale-ups than Sweden, and from 2013 to 2016, Sweden had about double the scale-ups as Norway (1221 vs. 602), according to research by the Iris Group (2019). From 2010 to 2013 they had a much more similar number (895 vs. 817). Considering

Norwegian scale-ups have reduced in number by 26.3%, while Sweden managed to increase by roughly 36.5 %, can indicate a need for and the possibility of a restructuring of Norwegian firms. Rennie (1993) found that fast-growing firms can happen in all industries, however, 43% of scale-ups in the Nordics fall into the category ‘Software’, 20% in ‘Science and Engineering, and 20% in ‘Hardware’ (Iris Group, 2019). Many of the successful scale-ups were operating in the booming tech sector, including computer games, web marketing, and other online services, but there were also scale-ups in more mature sectors, like the food industry. 70% of Norwegian scale-ups are headquartered in Oslo (Mind the Bridge, 2019). Dagens Næringsliv (DN) has made its own list that is called the Gazelle list, which is a list of over 3500 companies that has the highest economic growth in Norway in different industries (Dagens Næringsliv, 2022).

1.3 Relevance of Topic and Research Question

The issues proposed in the introduction show that it could be interesting to understand what can explain and facilitate the fast growth of firms. This master’s thesis will study Norwegian firms because these are on a global scale still small since the resources to scale up are quite limited in Norway (Siva, 2022b). However, it could be helpful for micro-companies in Norway to find the success factors of the best scale-ups in Norway and what they can do to improve for example their business model, or way of thinking to gain a successful scale-up. This is a very relevant topic today because as mentioned previously, scale-ups are those that disproportionately provide more jobs (Delmar, 1997; Du & Temouri, 2015) and thus, also a greater level of societal welfare. Previous studies of scale-ups mostly focus on how to define scale-ups and building evidence for the importance of scale-ups as drivers for new jobs, productivity, and wealth creation (e.g., (Shepherd & Patzelt, 2022)). However, what is lacking is the understanding of what is needed for successful scaling, i.e., drivers and challenges they will face. Such insight is not only needed for the firms themselves, but also for policymakers who can assist in creating even more scale-ups (Iris Group, 2019). Perhaps it is possible to see differences within industries, particularly firms, which can grow faster than others, particularly outside the national borders of Norway. Previous research has focused on firm-level factors (e.g., Johanson & Vahlne, 1977; Tallman et al., 2004; Wincent et al., 2010), national factors (e.g., Bartelsman et al., 2009; Benito et al., 2002), or industry factors (e.g., Brouters et al., 2016; Cannone & Ughetto, 2014), but research on the entrepreneur seems to generally be lacking. What contributes to scale-up? Is it the entrepreneur’s expectations or relationships?

Incubators or other external factors? Intangibles of the firm? Networks? Completely random?
This leads us to our research question:

What can explain and facilitate the fast growth and scale-up of Norwegian firms?

The practical interest of this research question is that it can provide an understanding for both new and established companies, how they should allocate their resources, and what factors are needed or is most crucial to be in place for a firm to scale up nationally and across the border.

It also has implications from a welfare point of view. The oil and gas industry contributed to 60.1% of Norway's total export share in 2021 (SSB, 2022). This industry is generally considered environmentally hostile, and the country is in the process of reducing the high ratio of income from this industry (Siva, 2022b). Figuring out more details about what can assist firms to scale-up, it can contribute to increased value creation in the society when restructuring Norwegian business – without oil and gas.

1.4 Outline of this thesis

Chapter 2 will elaborate on the theoretical background for this thesis. Chapter 3 addresses the research design and data collection. In chapter 4 the result of the qualitative preliminary study is presented, whereas the quantitative findings are presented in chapter 5. Furthermore, chapter 6 discusses the findings of the main quantitative survey and provides suggestions as to what they mean to Norwegian firms who want to scale up, particularly internationally. Finally, chapter 7 provides the conclusion including the main findings, implications, and limitations for future research.

2. Theoretical background

2.1 Introduction

The theoretical background for this master's thesis includes traditional theories within the field of International Business (IB), Entrepreneurship (E), and International Entrepreneurship (IE). First, some classic IB theories which can explain why firms internationalize and how they grow, including the Uppsala stage model, network theory, resource-based view, and transaction cost economics. Then, theory of the entrepreneur on an individual level and findings on the entrepreneur and his or her social network is provided. Following this, IB and E studies will together explain international entrepreneurship (IE). According to Buckley and Casson (2019), the inside and outside of the firm are connected. The entrepreneur combs through the environment for interesting opportunities. Only when the opportunity has been uncovered will the entrepreneur establish the firm. The firm is thus an instrument of value creation, and its organizational structure is designed by the entrepreneur with this in mind. The most relevant theoretical background from the field of IE will be included, particularly newer articles on firm growth, high-growth firms, and scale-up, but the classic Born Globals (BGs) and International New Ventures (INVs) will also be explained for clarification and context. Because globalization has a lot of influence on IE, as can be seen throughout chapter 2, this is also included.

2.2 International Business

IB is a fundamentally complex subject due to its global context, the importance of innovation, and various ownership and location factors (Buckley & Casson, 2019:239). IB is the learning of economic activities across borders, of which trade and foreign investment are the most prominent areas (Guillén, 2001). In IB studies, for example, distance is perceived as a liability, with costs and obstacles. If there were no distance, there would be no information asymmetry, which according to Lipczynski et al. (2017) is needed to conduct business. When there exist information asymmetries between buyers and sellers, high and low-quality products and services can coexist (Nayyar, 1990). To encourage innovation, the patenting system exists and has been fundamental to market power and competition for hundreds of years (Fisher, 2019). If there was no form of reward for spending resources on innovation, it is safe to assume that the likelihood of development is minuscule. That is where information asymmetries come into play. When a firm has this knowledge, it can have temporary monopoly power in the form of hidden knowledge or a fully disclosed patent (Lipczynski et al., 2017). In IB literature, it is

suggested that the level of information asymmetry is higher across borders than in the domestic exchanges (Gençtürk & Aulakh, 2007).

IB has traditionally focused on the firm as the unit of analysis and Buckley and Casson (2019) argue that more emphasis on the individual is needed. IB has also mainly been studied in manufacturing firms, however, today 21% of high-growth firms stem from IT industries (Hathaway, 2018), which indicates the need for updating IB theories. Reuber et al. (2021) argue that early internationalizing firms are distinct from globally scaling firms, however, the literature on early internationalization still provides some important insights into firm-level and market-level facilitators of global scaling. Thus, early theories such as transaction cost economics, the resource-based view, and the Uppsala model will be explained next.

2.2.1 Early theories

Transaction cost economics

Transaction cost economics (TCE) was first introduced by Coase in the 1930s and further developed by Williamson in the 1970s. It is an institution-based view of IB, where the institutions, or ‘rules of the game’, differ from country to country and in different contexts and these affect firm performance (Peng & Meyer, 2019). Low TC occur when the market sets the prices and high TC where there are strict hierarchies. However, in between these extremes are long-term relationships that can reduce the need for formal contracts while still maintaining some control (Ketokivi & Mahoney, 2020).

Switching costs are costs that occur when a buyer switches between suppliers, but it does not occur if the buyer remains with the original supplier. It can be when changing a bank or service provider, or it can be for example compatibility or search or learning costs (Lipczynski et al., 2017). This also increases when a good service is tied to an aftermarket. Switching costs have recently gotten more exposure in terms of customer satisfaction and loyalty research (Agustin, 2005). According to El-Manstrly (2016), switching costs can be viewed as a provider of a competitive advantage that determines the customer’s switching behavior. Switching costs create ties between suppliers and customers, which can lead to a strengthening of the relationship between the supplier’s trust and the customers' involvement in developing new products. Customers with a weaker relationship with value, trust, and customer loyalty tend to switch to a competitor easier than the customers that have a strong relationship with the

suppliers. In these cases, managers need to focus on creating procedural switching costs so it is more difficult for this group of customers to switch to a competitor (El-Manstrly, 2016). Rahi (2016) found in his research that higher levels of switching costs in the internet banking sector would create higher perceived value for the customer which would lead to greater customer loyalty. According to a study from Fredericks (2001), manufacturing companies with explicit targets for retaining customers and increasing loyalty goals were 60% more profitable in terms of financial growth and shareholder value than competitors without such goals.

TC and switching costs are relevant when discussing internationalization and fast growth because distance increases TC (Tan & Mahoney, 2006) and incompatibility of technological standards can become a barrier to entering a new market (Lipczynski et al., 2017). During the 2000s, it became increasingly popular for firms to internationalize *parts* of their businesses. For example, production has commonly been moved to China or other low-cost countries, and IT services to Eastern Europe (Haugen, 2008). Now, trends are shifting yet again. Due to robotics and artificial intelligence, reshoring, and taking their businesses back home, is increasing (Meland, 2019). This is also a way of reducing TC, as they gain back control of the operations.

Resource-based view

The resource-based view (RBV) on organizations assumes 1) resource heterogeneity and 2) resource immobility (Barney, 2011). First, each firm is a bundle of resources. The heterogeneity of services from resources gives each firm its unique character, and effective use of resources and innovation takes place when the resources are in combination with other resources (Hoopes et al., 2003). These resources turn into competitive advantages that make it possible for the firm to grow into new activities and new markets (Peng & Meyer, 2019). These resources are both tangible like physical buildings, but intangibles like knowledge and especially experiential knowledge can provide the greatest potential for sustained competitive advantages. Experiential knowledge is hard to transfer and can be gained incrementally over time (Kogut & Zander, 1993). Second, the resource immobility. By immobility, it is said that some resources are hard to imitate or inelastic in supply, which is a necessary condition for trade (Kogut & Zander, 1993). This can explain how an innovative culture, knowledge, and organizational capabilities, i.e., intangible resources, are developed and taken advantage of by firms. RBV theorists argue that to have a unique bundle of controlled tangible and intangible resources is important to conceive and implement strategies (Barney, 1991). The Iris Group

believes that a key factor to success for scale-up companies is to constantly develop their business model, products, and services. To achieve this key success factor, companies can dedicate substantial resources to internal innovation activities (Iris Group, 2019).

In RBV it is assumed that knowledge can be a source of competitive advantage if combined with other resources, whereas knowledge-based theorists argue that knowledge is the most important strategic asset of a firm. The knowledge-based view focuses mostly on the intangible resources of the firm. A knowledge-intensive firm is defined as a firm where most of the work can be said to be intellectual and where well-qualified employees form the largest part of the workforce (Ferraz & Pereira, 2017). As elaborated later, 29% of the fastest-growing firms in America, in a 2017 study by Brookings Metro are high-tech or Information Communication Technology (ICT) firms (Hathaway, 2018). Knowledge workers are increasing in importance, and Roth (2019) has calculated that the world got its billionth knowledge worker in 2019. Demir et al.'s (2017) literature review on high-growth firms revealed that 51% of the articles address the issue of human capital in some way. According to both Siva (2022b) and Grimsby et al. (2018), it is believed that acquiring the right knowledge is a key barrier to scale-up. As companies expand, they typically experience a growing necessity to gain highly specialized knowledge workers because when they scale up the tasks tend to become more and more complex (Iris Group, 2019). Autio et al. (2000) found international sales growth as positively related to the knowledge-intensity of the firm. According to Peña (2004), the knowledge that is acquired through education is anticipated to improve the entrepreneurs' human capital and thus improve the firm's life endurance. In addition, recent evidence demonstrates the importance of firm dynamics and resource reallocation for aspects of creativity and learning to impact employment and productivity growth (Bartelsman et al., 2009; Haltiwanger et al., 2013; OECD, 2021).

Dynamic capabilities

In IB, knowledge provides certain advantages that facilitate market entry and operations in foreign locations (Kogut & Zander, 1993). It is important to recognize that innovation is a moving target, it is about building dynamic capability (Bessant & Tidd, 2011). Capabilities emerge through individuals within the organization and their ability to use the resources of the firm and combine them into the competence of the organization (Grant, 1991; Teece & Pisano, 1994). What is particularly of interest in the context of this thesis on fast growth, is Teece et al.'s (1997) theory on dynamic capabilities. It captures the value creation of firms in situations

where they operate in environments characterized by rapid technological change, where they need to have the capacity to change their abilities (Barney et al., 2021). As will be elaborated, globality is increasing due to, among others, rapid technological change. Through the Internet, new possible business models have emerged, and they are easier to scale, which allows niche activities to thrive and massive network effects where large, but scattered groups of small buyers and sellers meet on a global scale (Teece, 2018), for instance, platforms like eBay or Etsy. Several researchers agree that the fast assimilation of newly employed people is important to a firm's ability to grow rapidly (Garnsey, 1998; Reiche et al., 2019; Reuber et al., 2021). According to them, to cross national borders, a diversified workforce is increasingly important to find ways to replicate management across nations and cultures. According to Teece (2018), the strength of a firm's dynamic capabilities directs the speed and degree of corresponding the firm's resources, including the business model, with customer needs. For a firm to be able to do this, it must sense (e.g., identify opportunities in technological development) and seize opportunities (e.g., design and refine the business model), and regularly transform certain parts of the organization (e.g., align and reinvest in capabilities) to be able to address new opportunities and threats as they appear. Firms rarely excel at every aspect, and they may be exceptional at sensing new opportunities but weak at identifying new business models to exploit them (Teece, 2018).

2.2.2 The Uppsala Model

Distance between countries is a type of "liability of foreignness" which has been a rudimentary assumption driving theories for MNEs, where in this case distance is describing the differences between countries regarding geography, economy, administration, and culture (Zaheer, 1995), i.e., an objective view. In the Uppsala model, one has a behavioral approach to distance, i.e., also including subjectivity. Johanson and Wiedersheim-Paul (1975:308) define psychic distance as the "sum of factors preventing or disturbing the flow of information between firm and market". The Uppsala model is based on how firms internationalized in small steps in the 70s in Sweden (Volvo, Facit, Atlas Copco, and Sandvik), hence why it is referred to as a stage model (Johanson & Wiedersheim-Paul, 1975). This theory has the firm as the unit of analysis, and it is assumed that the firm strives to increase long-term profit, which is assumed to be equivalent to growth (Johanson & Vahlne, 1977). In addition, they aim to keep risk-taking at a minimal level. Firms are internationalizing by low control and low resource usage entry modes like exporting through an agent first, and once they gain experience and resources, they will

increase control and resource commitment, e.g., through a sales subsidiary and eventually production plants (Johanson & Vahlne, 1977), otherwise known as the firm's establishment chain.

Knowledge can be both objective knowledge which can be taught, and experiential knowledge, which can only be learned through personal experience (Johanson & Vahlne, 1977). Companies generally have a lot of experiential knowledge about their domestic market through lifelong experience (Johanson & Vahlne, 1977). In addition to this, knowledge can be divided into general knowledge and specific market knowledge. General knowledge can be transferred from country to country, whereas market knowledge must be experienced. Market knowledge is defined as information about a specific market, present, and future supply and demand, and operations in this market, i.e., knowledge of opportunities and problems and evaluation of alternatives. This market knowledge is easily accessible to the workers of the firm through their minds, stored in computers or other written material (Johanson & Vahlne, 1977). It is therefore also classified as a firm resource. Because market knowledge takes a long time to learn through experience, the internationalization process tends to happen slowly. The *state* of market commitment in terms of resources and market knowledge both lead to a *change* in resource commitment decisions and the performance of current business performances. These will in turn also change market knowledge and commitment (Johanson & Vahlne, 1977), creating a continuous loop of decisions and effects. The firms will keep risk-taking at a low level, but the perceived level of risk will decrease as they gain market knowledge. Netflix is a recent example of a large MNE that followed the Uppsala model, they had a good footing in its domestic market before venturing out to other countries 10 years after its founding. However, even though they followed the Uppsala model, they scaled exceedingly fast by entering 190 countries in just 7 years (Brennan, 2018). In the 1980s, most of the largest Norwegian industrial enterprises had most of their production in Norwegian facilities in addition to sales from Norway, but this number was reduced to about 25% in 2012 (Heum, 2013), somewhat indicating that the Uppsala model may have had some merit in Norway in the 1980s.

Since its initial publication in 1977, the Uppsala Model has received criticism and it has since been further developed. Since the 1970s, a lot has changed in the business environment, especially considering technological advances and globalization. Some argue therefore that the model is no longer valid to explain the changing environments and changing firms and it is unable to explain the non-linear dynamics of the internationalization process (e.g., Benito &

Welch, 1994; Chetty & Campbell-Hunt, 2004; Santangelo & Meyer, 2017). As a reply, 40 years later, they revised the model (Johanson & Vahlne, 2009). It still includes state and change variables as before, but now it includes that ownership is not required, but that networks can also provide the level of resources (knowledge included) needed to expand. Thus, the mode of operation (the establishment chain) is no longer a valid measure of the degree of commitment (Johanson & Vahlne, 2009, 2017). The Uppsala model was developed with large MNEs in mind (Johanson & Vahlne, 1977), and thus smaller firms like SMEs, BGs, and possibly many scale-ups fall out of the equation, and it can be considered insufficient to explore the internationalization process for these firms. After Johanson and Vahlne (2009) revised the model to exclude the necessity of ownership, it can be argued that the model can still be relevant for smaller firms.

2.2.3 Globalization

Gonzalez-Perez (2013:19) defines globalization broadly as “the process of the extension of the free market, embodying a political, social, cultural and economic revolution, which transcends previous nation-state boundaries and preceding sovereignties”. Robinson (1998) looks at it more narrowly, like global capitalism where MNCs turn into transnational corporations. MNCs are in this case the most prominent symbol of Western capitalism (Litvin, 2003).

On the other hand, Stiglitz (2006) defines it as a flow of ideas and knowledge internationally, including sharing cultures and the emergence of a global civil society and a global environmental movement, thus making national borders less important. By this definition, he does not highlight the capital market but expresses that it does not necessarily need to include the flow of goods and services, but a flow of knowledge and cultures. Due to technology, there is now a convergence toward a global culture (Levitt, 1983; Ohmae, 1989), which can make it possible to extend one’s products or services to new markets. However, there are still many differences in how people live their daily lives (Peng & Meyer, 2019). Globalization may have led to for example McDonald’s being available in every corner of the world, but globalization has also led to the possibility of eating Thai food one day and Mexican the next. It is this interconnectedness that is globalization. The economist Milanović has also presented a new perspective on globalization: Globalization has not only led to a reduction in inequality *between* countries, but unskilled workers tend to lose out, and thus inequality rises *within* countries (Milanović, 2018).

So even though the definitions of globalization may differ, the factors leading to globalization are rather universal. One can see that internationalization is one of the main drivers of globalization. And this is made possible with technological advances, reduction in costs and improvement of transportation and communication, and governmental trade barriers are lowered. Due to globalization, the internationalization of businesses is flourishing. Historically, internationalization has been reserved for large MNEs, but now even the smallest of SMEs can internationalize – and that quickly. Globalization has triggered firms to seek and exploit opportunities across borders, to gain entrance into new markets, untapped resources, or the search for new knowledge and capabilities (Aspelund et al., 2017). In the turmoil of globalization, new business models appeared in the shape of Born Globals and International New Ventures, as will be detailed in 2.4.1. Gray (2020) argues that the peak of globalization is over. Covid-19 shattered the current economic system and interconnectedness (Gray, 2020). We are becoming more virtual in our everyday lives, and it can be a turning point in history. It offers a new perspective, although Steger and James (2020) believe globalization is not over yet. According to them, globalization is not a single phenomenon based on world trade and financial flows across countries but is a multidimensional set of processes. Thus, the following statement by Guillén (2003:236) sums up all these differences into one definition of globalization:

“a process leading to greater interdependence and mutual awareness (reflexivity) among economic, political, and social units in the world, and among actors in general”

However, the emergence of advanced technologies through globalization is not enough. A firm must *capture* the value of translating the technology into innovations, through its dynamic capabilities and assets (Bessant & Tidd, 2011). By developing innovations that are difficult for competitors to imitate, they will exploit technological trajectories and develop important core competencies and sustainable competitive advantages. Innovation requires trial, error, and learning (Bessant & Tidd, 2011).

Norwegian firms that have been successful on the global market include Jordan, Stokke, and Helly Hansen, among others. All of these have focused on innovation, e.g., Jordan had success in Norway but when Per Lindbo, the sales consultant, went to London to expand the business, no one was interested (Tellefsen, 2021). The toothbrush was not good enough. He got back home, improved the toothbrush, and *then* London and the UK were interested. Following

expansion to the UK, they went to the Netherlands, Denmark, and more European countries (Tellefsen, 2021). Similar stories about the importance of innovation to reach a global market can be said about Stokke and Helly Hansen, for instance. In addition, when firms want to go global, Tellefsen (2021) argues that the network becomes increasingly important.

2.2.4 Network theory

Traditionally, there has been a clear distinction between a firm and the environment. The environment was therefore defined as anything that was not part of the firm itself (Miles, 1980). This clear distinction is getting increasingly diffuse, as, since the 1990s, firms have interacted at a higher degree with the environment. During the late 1980s and early 1990s, there was a growing number of literature that saw markets and industries as a group of relationships that were structured into networks (e.g., Håkansson & Snehota, 1989; Johanson & Mattsson, 1988). Due to globalization and especially the simpler communication lines, it has now become easier to take advantage of relationships to a greater extent. As complexity within firms increased, it became more important to exploit resources from outside the firm (Hagedoorn, 1995). Network theorists argue that firms can use their (external) network as compensation for a firm's lack of (internal) resources (Elfring & Hulsink, 2003; Freeman et al., 2006). Using the network, the firm is no longer limited to its organizational boundaries but can benefit from other stakeholders, including suppliers, customers, even competitors, and acquaintances (Solberg & Askeland, 2006). The relationships can be both formal and informal, and they can vary in terms of interdependence (Segal-Horn & Faulkner, 1999). According to Håkansson and Snehota (1989), the relationships link the resources and activities of one party to those of another firm. These linkages are relatively continuous over time, and not a one-time transaction as in transaction cost economies (Williamson, 1985). Because it is no longer a one-time transaction, the development of relationships and trust between the parties involved becomes much more important (Mwesiumo et al., 2018). The network of the firm is important for the survival of, especially small, firms. The entrepreneur acquires access to resources like capital innovation and advice through networks (Löfsten, 2016).

Emerging theories of the firm, including the knowledge-based view (Grant, 1996) and later extensions of the resource-based view (Lavie, 2006) acknowledge that a firm's lack of in-house capabilities and thus need to access knowledge is a crucial motive for them to enter networks. These networks may emerge based on a need for firms to access new technology, skills, or

other expertise to keep up with competitors (Lavie, 2006). Ahuja (2000) argues that networks have critical resources which are important facilitators for international entrepreneurial behavior. The networks thus have knowledge spillover effects, which is also why clusters are so sought-after (Autio et al., 2017; Nujen et al., 2018). The benefits of a network are many, for example, it can reduce risks associated with early internationalization (Baum et al., 2013), overcome resource constraints (Freeman et al., 2006), and help new firms to access international opportunities and resources (Brouthers et al., 2016; Coviello, 2006).

The Iris Group (2019) found several internal and external factors which are important for particularly Nordic scalers to be able to scale. Some of these will be elaborated on in later chapters, but one of the factors for successful scale-ups is international networks and business partners. They need to find international partners which can provide access to new markets, funding, or other resources needed to scale. Successful scalers are typically skilled at building networks, and this is especially so whenever the entrepreneur himself/herself lacks scale-up experience (Iris Group, 2019). Grimsby et al. (2018) found a lack of contacts and networks to be a barrier to international growth. Today, it is no longer the ownership of resources that necessarily brings a firm a sustained competitive advantage, rather, it is the *access* to these resources and capabilities and their ability to control them in a way (Freeman et al., 2006; Johanson & Vahlne, 2009), and so it is argued that a firm's network is becoming more and more important and seems to be positively related to the ability to scale-up.

2.3 Entrepreneurship

Entrepreneurship, as defined by Bessant and Tidd (2011:10) is “a potent mixture of vision, passion, energy, enthusiasm, insight, judgment and plain hard work which enables good ideas to become a reality”. Thus, entrepreneurship is about human characteristics which include both structure and passion, planning with vision, etc. Entrepreneurship matters for both new and established firms. For mature firms, it is important to renew themselves and keep up with competitors' developments. Innovation is about recognizing opportunities, finding the resources, developing the firm, and creating value (Bessant & Tidd, 2011). Innovation and entrepreneurship are about knowledge, about creating new opportunities through combining several bundles of knowledge. This is done in a very uncertain environment, and we do not know what the outcome may be. Managing this knowledge is about committing resources to

reduce the uncertainty (Bessant & Tidd, 2011), and the entrepreneur can be an important factor in managing the firm efficiently.

2.3.1 The Entrepreneur

The entrepreneurial firm is believed to be an extension of the entrepreneur, which motivates to study the character traits that are most likely to influence early and rapid internationalization (Jiang et al., 2020). International experience has a high value since entrepreneurs can recognize opportunities specific to a particular market due to their experience (Jiang et al., 2020). Earlier research and studies of innovation and entrepreneurship have been inclined to focus on the role of key individuals (Bessant & Tidd, 2011). Typically, they are passionately seeking to identify new opportunities, strictly focusing on a few of those opportunities, they are actionable in that they are not endlessly analyzing, and they are exploiting the expertise and resources of others through their network (Kaplan & Warren, 2009). These characteristics are in line with research that tells us about what cognitive abilities are crucial for both creativity and innovation (Bessant & Tidd, 2011). It can be expected that an entrepreneur who is strongly motivated to overcome the adversities of the initial years of business operations will most likely perform better than the rest of the entrepreneurs due to achieving challenging growth goals for their ventures (Peña, 2002).

According to Acedo and Jones (2007), some entrepreneurial characteristics, like being innovative, proactive, and gathering the necessary knowledge externally, are more important than others. Only then will they be genuinely motivated to grow the company (Iris Group, 2019). Torkkeli et al. (2018:9) explain a global mindset as an individual's capacity to function effectively in complex business environments across national borders. In research conducted by Felicio et al. (2016), they found linkages between having a global mindset and the speed of internationalization. Englis and Wakkee (2015) found a global mindset to be at the core of global growth and opportunities for entrepreneurial firms. Rhinesmith (1993) in Freeman and Cavusgil (2007) defines a global mindset as the ability to scan the world and look for unexpected trends and opportunities that may constitute a threat or an opportunity to achieve personal, professional, or organizational objectives. Proactivity is defined by Bateman and Crant (1993) as scanning the environment for opportunities, showing initiative, and persevering to change things and take advantage of these changes. Acedo and Jones (2007) found that a higher proactive disposition will reduce the levels of perceived risk. Lower risk perception was then associated with internationalization speed. Siva (2022b) found in their

research that one of the most important traits of the entrepreneur was a willingness to grow. This willingness can also be argued to be a proactive trait as they persevere to change things and take advantage of them.

Thus, it seems that entrepreneurial characteristics that are especially important for a firm's growth include having a global mindset or vision (Englis & Wakkee, 2015; Felício et al., 2016; Iris Group, 2019), proactivity, and seeking opportunities (Acedo & Jones, 2007; Siva, 2022b). These traits are bundled together as the individual's entrepreneurial orientation. Entrepreneurial orientation (EO) includes risk-taking, proactivity, and innovative behavior (Covin & Miller, 2014; McDougall & Oviatt, 2003). These entrepreneurial characteristics have been proven to be important for firm performance (Wiklund & Shepherd, 2003), and dynamic capabilities (Zahra et al., 2006) and it can therefore also indicate the importance of the firm's ability to scale (Siva, 2022b), proactivity and seeking opportunities (Acedo & Jones, 2007; Siva, 2022b).

However, it is not only the individual's personality that seems to be related to a firm's ability to scale up. A factor often mentioned is an entrepreneur's prior business experience, including having a higher education (Barringer et al., 2005; Hölzl, 2009; Senderovitz et al., 2016) and prior work experience (Brüderl & Preisendörfer, 2000; Demir et al., 2017; Stam & Wennberg, 2009). Brüderl and Preisendörfer (2000) found that high-growth firms (HGF) have more founders with management experience. Barringer et al. (2005) found that HGFs differ from non-HGFs in that the founder had prior experience, education, and an "entrepreneurial story", which in addition, further emphasizes the entrepreneurial characteristics mentioned above. Stam and Wennberg (2009) found that managers' leadership and industry experience are positively associated with the likelihood of high growth. Based on this, it is apparent that experience can range from management to industry and international characteristics, but all are often positively associated with growth. It is expected that an entrepreneur with prior experience also has access to a broader and more useful network (Baron & Ensley, 2006; Mudalige et al., 2019) when it is time for his/her firm to scale, referred to as a person's social network. Education is included in prior experience because it is usually an early stage in a person's work life. Several studies highlight the importance of the entrepreneur's or founder's educational level for high growth (Barringer et al., 2005; Hölzl, 2009; Senderovitz et al., 2016).

2.4 International Entrepreneurship

According to Buckley (2019), IB has contributed a lot to solving empirical and philosophical problems, however, it has neglected some VUCA elements. The models are static and most have assumptions of for example complete information and opportunistic behavior (TCE), and ownership (RBV), however, it may be particularly unrealistic in today's increasingly VUCA world (Tulder et al., 2019). Volatility in terms of unexpected and/or unstable challenges such as currency fluctuations, stock market volatilities, climate risk, and increasing and new location and ownership factors (Buckley & Casson, 2019). Ambiguity can also happen to a greater degree, as unclear causal relationships and "unknown unknowns" (Tulder et al., 2019). So even though it has been a very valuable area of academics in the past, it does not make it invaluable today, but it needs to be complemented with more dynamic approaches to embrace the VUCA elements. Here is where IE comes into play.

According to Zucchella (2021), International Entrepreneurship (IE) creates a bridge between International Business (IB) and Entrepreneurship (E). IE is defined as the progress of international new ventures (INV) or start-ups that, from the very beginning, take part in international business, i.e., its domain market is international in origin (McDougall, 1989). As seen above, in IB studies, distance is perceived as a liability, with costs and obstacles, whereas in IE studies, distance is a way to expand opportunities, including information asymmetry coming from R&D and innovation projects (Davis, 2001; Miller, 2003; Shane, 2000) and according to Nayyar it can end up becoming "a potent source of competitive advantage" (1990:517) This means that in IE a more subjective approach to distance is required, through the lens of the entrepreneur (Zucchella, 2021). Distance will create diversity, and this diversity is important as a way of learning about growth and achieving improved performance (Zucchella, 2021). In some way, IE is a product of the age of globalization because the development of technology and digitalization makes the perception of distance smaller (Cairncross, 2001), and also trade liberalization and improved distribution systems made it possible for both quicker and earlier internationalization of firms. On the other hand, IB is a product of the post-war era with economic recovery and multinationalization (Zucchella, 2021). Researchers have tended to focus on either the 'I' or the 'E' components and not together as they were meant to. IE research has therefore lost some of its glory as it has failed to explain the creation, growth, and maturity of innovative firms (Gray & Farminer, 2014). However, by

connecting the dots between I and E, the firm and the individual, it can be possible to gain insight into the research question through IE.

2.4.1 Born Globals

According to Knight and Cavusgil (2004:124), Born Globals (BGs) are defined as “*business organizations that, from or near their foundation, seek superior international business performance from the application of knowledge-based resources to the sale of outputs in multiple countries*”. These are also sometimes referred to as International New Ventures (INVs) (Oviatt & McDougall, 1994) or Global Start-Ups (Jolly et al., 1992). They begin with a global focus, in contrast to the traditional Uppsala school of thought which requires learning in stages before increasing its scope. According to Chetty and Campbell-Hunt (2004), Born Globals also follow the psychic distance of the Uppsala model, but the only difference is that it goes much faster. For BGs/INVs to be successful it is agreed that the entrepreneur needs to have a global vision and growth ambition (e.g., Oviatt & McDougall, 1994; Wong & Merrilees, 2012), they are taking advantage of technological advances (Oviatt et al., 1995), tacit knowledge and innovations (e.g., Demir et al., 2017; Kogut & Zander, 1993) to create sustained competitive advantages with clear value for the customers. Because BGs are resource-poor in the traditional sense by lacking financial strength and experience at the firm level, they rely on the resources of others, namely their network (e.g., Johanson & Vahlne, 2002; Larson, 1992). Thus, calling BGs resource-poor as e.g. Larson (1992) did, is prone to criticism. Researchers tend to agree that they do in fact possess intangible resources, tacit knowledge, and networks (Verbeke & Ciravegna, 2018). Even though the firm itself is inexperienced, a BG is likely to have a higher success rate if the entrepreneur or top managers already have international experience (e.g., Demir et al., 2017; Kogut & Zander, 1993). Finally, BGs are also small and young. Small firms are less bureaucratic (i.e., more flexible to rapid changes) and thrive in small niches which are too small for larger firms (Bessant & Tidd, 2011; Wong & Merrilees, 2012). In older firms, the embedded structure tends to constrain future strategic choices (Knight et al., 2004). Unlearning deeply rooted routines becomes increasingly difficult as companies grow older because new knowledge that leads to new routines most often comes in conflict with their existing operations and even their procedures and technologies which used to be their competitive advantages (Autio et al., 2000). Young companies do not have this ‘baggage’ and are therefore freer to acquire knowledge, and to pursue new technology and innovation.

2.5 Firm growth and high-growth firms

Even though there are many different names for these firms, ranging from high-growth firms/companies/enterprises/ventures to gazelles, they are all firms that have high growth (e.g., Coad et al., 2014; Delmar, 1997; Henrekson & Johansson, 2010; Janssen, 2009; OECD, 2021; Praag & Versloot, 2008). However, what constitutes high growth has been under much scrutiny. Birch and Medoff (1994) originally defined a gazelle as a firm that has grown at least 20% per year for four consecutive years and should have doubled its revenue over that period. However, various definitions exist, both varying in growth thresholds, time, and other growth indicators (Coad et al., 2014; Henrekson & Johansson, 2010; OECD, 2021). OECD (2021) defines high growth firms (HGFs) as firms with 20% growth in either turnover or increase in employees, per year, over 3 years. Eurostat (2022) on the other hand, define them as growth by 10% or more, which is what OECD refers to as a scale-up (OECD, 2021). According to Janssen (2009), both increases in the number of employees and the increase in business turnover explain firm growth. However, they are just singular dimensions and should be treated together to explain HGFs. Most economists and sociologists (Delmar, 1997; Janssen, 2004, 2009) argue that job growth is the most important measure of business performance as it explains the contribution to the common welfare. HGFs have been found to contribute disproportionately to the job creation (Coad et al., 2014; Haltiwanger et al., 2013; Henrekson & Johansson, 2010; Praag & Versloot, 2008) which underscores the importance of understanding more about what both can explain and facilitate such firms. By Eurostat's definition, high-growth firms were in 2018 responsible for 16.80% and 11.71% of employment in the EU and Norway, respectively. In the same year, in Norway, the share of high-growth firms in the population of active enterprises was 6.77%. In Canada, high growth firms account for only 1.24% of firms, while they produce 63% of the net job growth (World Trade Centre Toronto, 2019). However, it can be important to note that even though such firms contribute disproportionately to job creation, other firms excluded from this definition account for about 40% of private jobs in Sweden during 2005-2008 (Daunfeldt & Halvarsson, 2015). Because many of the definitions for HGFs mention the threshold of 20% (e.g., Bravo-Biosca et al., 2016; OECD, 2021), and both turnover and employees (e.g., Coad et al., 2014; Janssen, 2009; OECD, 2021), this paper uses that definition.

2.6 Scale-up

Shepherd and Patzelt (2022:1) define scaling as “spreading excellence within an organization as it grows”. But what does that entail? Further investigation leads to the notion that there appear to be three main categories when defining scaling; rapid growth, economies of scale, and strategic management (Reuber et al., 2021). First, the entrepreneurship literature focuses on rapid growth as scaling. Here, scaling is normally operationalized as a growth rate exceeding 20% per year over three years, consistent with the HGF theories (e.g., Coad et al., 2014; Janssen, 2009; OECD, 2021). OECD (2021:9) define scalers or scale-up firms as: “firms that undergo a period of high growth in employment or turnover by transforming the way they operate”. Their turnover and employment grow by at least 10% per year over 3 consecutive years on average (OECD, 2021). Iris Group (2019:16) define scale-ups as enterprises that meet the following three criteria: 10 or more full-time employees, annual turnover of at least EUR 2 million in the first year of observation, and average annualized growth in several employees greater than 20% over a three-year period. By these definitions, they focus more on market dominance than on cost reductions. Second, in international business literature, they focus on economies of scale. Piaskowska et al. (2021) and Coviello (2019) argue that scaling involves the objective to attain economies of scale, by at least reaching the minimum efficient scale (MES) of the industry. According to Lotti et al. (2003), reaching MES is a motivational factor for small (and young) firms to grow fast. Categorizing based on numbers like employment and turnover may be convenient, but according to the ‘Scale-up UK’ report by Barclays (2016), scaling is not so ‘convenient’. Scaling can occur in both young and established firms and scale-up is a *stage* when a firm takes its proven concept and delivers it to a broader audience, usually through market penetration and geographic expansion. The Lazaridis Institute (2019) argues that the OECD definition does not identify and leverage economies of scale, and also recommends the definition by Barclays. However, there is also a third stream of literature that focuses on the strategic management and replicability of the business model. What facilitates scaling here is to have a business model that can be scaled with only minimal adaptation for its use in different areas (Szulanski & Jensen, 2008; Winter et al., 2012). A global business model is possible when there is uniformity in the firm’s value proposition across countries (Tallman et al., 2018). Scalable business models will be further elaborated on in the next sub-chapter.

Access to foreign markets is essential for rapid growth if they can provide for a larger market than the firm's home market (Coutu, 2014; Erasmus Centre for Entrepreneurship, 2018; Scale

Up Institute, 2021). Because firms with higher scalability appear to be those who internationalize quickly (Coviello, 2019), adding global to the term scaling can provide a more detailed explanation as to how Norwegian firms scale up. According to Reuber et al. (2021:1031), “global scaling is a logic of multinationalization that seeks rapid growth through the replication of a global business model (i.e., a model based solely on non-location-bound firm-specific advantages) across foreign markets”. Early internationalization theories differ from global scaling for two reasons: First, the resource commitment is usually left unexamined in internationalization theories because the focus has been on exports (Cavusgil & Knight, 2015; Chetty et al., 2014). Second, it is also focusing on the young age of firms internationalizing, but established firms can scale globally too (Brennan, 2018; Coviello, 2019). For example, Netflix was 13 years old before it entered another foreign market, and then it scaled globally (Brennan, 2018). However, this does not mean that firms that internationalize early cannot also scale globally (Reuber et al., 2021), but that they have crafted a scalable business model soon after inception.

The Lazaridis Institute sums it up by saying that a firm cannot be a scale-up without growing, but you can be growing and not be a scale-up (Coviello, 2019). Monteiro (2019) argues that a scale-up is an HGF *with a scalable business model* and not necessarily growing through an increase in market power, which is the definition by OECD. This shows that for the reader to truly understand a scale-up, a clarification of a scalable business model is also needed before a more complete definition of a scale-up can be made.

2.6.1 Scalable business models

The term scalability is used to identify achievable and worthwhile changes in size and volume (Nielsen & Lund, 2018a). This makes a scalable business model one that is flexible where additional resources lead to increasing returns on the investment. Teece (2018) argues that a successful business model is one where it provides a customer solution that can support a high enough price to cover costs and leave a satisfactory profit. According to Nielsen and Lund (2018a), scalability is about achieving profitable growth for a firm and is therefore crucial for executives when developing their business models. If they fail to factor scalability attributes into their strategy, they run the risk of being left behind by their competitors. Profitability does not necessarily always go hand in hand with a growth objective, especially when resources are scarce (Zhou & Park, 2020). Zhou and Park (2020) found in their research that profit-oriented

firms are more likely to survive over time than growth-oriented firms. However, profitability is also a common measure when measuring scaleups because it is seen as a proxy of economies of scale. Monteiro (2019) also defines scalable business models in this fashion. A scalable business model has activities that can be replicated in a way to increase its revenue at a rate faster than its costs.

Hennart (2014) argues that business models with niche products that have few substitutes, with educated customers facilitate fast internationalization. Monaghan et al. (2019) further extend this by stating that digital business models are more flexible and scalable because they are quicker to develop economies of scale in core business processes. According to van Alstyne et al. (2016), scaling now trumps product differentiation when it comes to the internet economy, due to network effects. The more participants, i.e., the greater scale, the greater value is generated, which again creates more value in a never-ending loop. Having a digital business model is generally agreed upon as a great business model for scalability (e.g., Coviello, 2019; Hennart, 2014; Monaghan et al., 2019; Nielsen & Lund, 2018b). Many tech firms aim to build a business model with standardized, repeatable practices and automation wherever possible, sell across multiple market segments, and easily adapt the product to meet other countries' regulatory requirements (Coviello, 2019). Klarna is an example of a firm that has benefitted from its digital business model when scaling up. After entering France in 2020, in just 8 months they had accumulated over 1.3 million users (Klarna, 2022). After seeing how their loyalty program worked well in the United States and Australia, they decided to include this program in 9 other markets in just one year (Mind the Bridge, 2019). Because this loyalty program is a digital offering, they can distribute it simultaneously to several countries at a very low cost (Hennart, 2014). Van Alstyne et al. (2016) explain that global scaling is possible even for small firms if they are digital, because it has a limited need for high levels of capital expenditure, with low variable costs and fewer capacity constraints. As another example, Nielsen and Lund (2018b) argue that a business model where it creates platform-based value is scalable. These can be firms that act as a brokerage between a seller and a buyer (Johnson & Lafley, 2010) such as eBay, Finn, or Anbudstorget, all of which are digital.

However, the same researchers that explain digital business models also argue that it is still possible without a digital platform (Hennart, 2014; Monteiro, 2019; Nielsen & Lund, 2018a). According to a 2017 study of the 5000 fastest-growing companies in America by Brookings Metro, 29% of them belonged to a high-tech industry (Hathaway, 2018). That means that a

substantial amount of the firms, in fact, are not high-tech. Nielsen and Lund (2018b) propose 7 different business models that are good for scalability. The common ground for these is that: the business potential is characterized by increasing returns to scale, they remove themselves from typical capacity constraints in the industry, partners enrich the value proposition without hurting the profits, stakeholders take several roles and create value for each other, and the business model becomes a platform that attracts new partners. For example, Zara removed itself from capacity constraints by integrating the value-adding process by controlling all the resources and capabilities (Gassmann et al., 2014), and Dell did so by delivering directly to the customer (Johnson & Lafley, 2010). Reuber et al. (2021) refer to a scalable business model as a global business model that is based on uniformity across country markets and embodies the non-location-bound firm-specific advantages – intangibles, learning capabilities, and networks – that reduce the costs and difficulties when entering foreign markets, thus enabling global scaling. Reuber et al. (2021) proclaim that a scalable business model is one that can be replicated in several markets, and replication is facilitated in global markets because in these markets there are similar competitors and customers that are seeking standardized products and processes (Lovelock & Yip, 1996), much like van Alstyne's (2016) argument for scaling trumping differentiation.

2.6.2 Size of the home market

The size of the home market is one of the reasons why firms go global at inception (Jiang et al., 2020). Rennie (1993) found that firms stemming from small home markets are more likely to follow early and quick internationalization by achieving economy of scale and profits. New firms choose to supply foreign markets rather instantly if their production capacity exceeds the home market's demand (Jiang et al., 2020). However, it is not only young firms that scale up globally. For example, Netflix had a rapid scale-up to 190 countries in 7 years (Brennan, 2018). Access to foreign markets is essential for rapid growth if they can provide a larger market than the firm's home market (Coutu, 2014; Erasmus Centre for Entrepreneurship, 2018; Scale Up Institute, 2021). The biggest markets in the world include countries like the United States, China, and Japan, collectively representing 48% of the share of the global economy (Silver, 2021). Comparingly, Norway only had a .43% share of the global economy in 2020 (The World Bank, 2021). In the United States, firms tend to stay within their domestic market for longer. For example, McDonald's was deeply rooted in the United States for over a decade before venturing out of its borders (McDonald's, 2022). Knight and Cavusgil (2004) compared Born

Globals in Denmark versus the United States and they found that the American firms had an average of 213 employees and \$36 million in annual sales whereas the Danish firms had 63 employees and \$10 million in total sales. They believed the difference reflects the size of the domestic market in each country. In these cases, internationalization is facilitating their rapid growth.

In addition to this, according to Bessant and Tidd (2011), firms from smaller countries, in general, have higher shares of foreign innovative activities. The entrepreneur and/or manager of growth-oriented firms from small domestic markets are more apt to develop internationalization-related competencies earlier than firms from larger markets (Reuber & Fischer, 1999), and are more likely to have a global vision to begin with and a scalable business model in mind more or less at inception (Reuber et al., 2021). Bell et al. (2003) suggest that the home market is not perceived as important to knowledge-intensive firms. A lot of these firms come from small domestic markets such as Norway, Finland, and New Zealand, or emerging markets like China and India (Jiang et al., 2020), where domestic demand can be limited, they opt for opportunities externally. Many Born Globals evaluated their domestic market as having poor demand conditions whereas the export markets were more favorable (Moen & Rialp, 2019). Their internationalization behavior is opportunity-seeking and facilitated by network development (Freeman et al., 2010). For a small, open economy like the Norwegian, with a very limited national market, successful scaling will usually anticipate success in the export market (Deloitte, 2019). The domestic market size may in other words facilitate global scaling. Firms stemming from small home markets go international early because international expansion is the only way they can scale up (Phan & Fan, 2007).

2.6.3 Incubators

Determining which policies and programs are most appropriate for promoting entrepreneurial growth continues to be a challenge for policymakers (Autio & Rannikko, 2016; Dvouletý & Lukeš, 2016). In this case, a better understanding of the characteristics of scalers is crucial for effective policy design to acknowledge growth barriers (OECD, 2021). Policies today target only a small share of potential scalers, i.e., new start-ups and/or high-tech firms (OECD, 2021), and researchers have concluded that policies which do not fully recognize the heterogeneity of potential scalers are likely to miss their targets (Schoar, 2010; Shane, 2009). The results of OECD's research also suggest that policies for scaling could aim to facilitate the integration

into global markets, for example through consultancy or related training (OECD, 2021). One aspect of such policies is incubators. An incubator is an organization, often public, which provides resources that enhance the founding or growth of firms, often new and small businesses (Löfsten & Lindelöf, 2002). The relationship between the firm and the environment is complex (Hagen & Zucchella, 2014). Governments, universities, research institutions, etc. are investing large sums of money into incubator systems and so it is of crucial importance for them to grasp the utility value of their investments (Lukeš et al., 2019). HGFs have been found to contribute disproportionately to job creation (e.g., Coad et al., 2014; Haltiwanger et al., 2013; Henrekson & Johansson, 2010; OECD, 2021; Praag & Versloot, 2008), increasing society's welfare, and so it will also be of interest to acknowledge the whole picture of scale-up firms.

Colombo and Delmastro's (2002) research concluded that incubated firms had a significantly larger number of employees in the survey data, all else being equal. Löfsten and Lindelöf (2002) found similar results, where incubated new technology-based firms had a higher rate of job creation. Newer research also confirms that incubated firms contribute to job growth, i.e., employee growth (Stokan et al., 2015). However, Lukeš et al. (2019) found contradictory evidence. In their study, they argue that incubators may serve as too safe harbors where innovative start-ups are allowed to underperform for a long time. Peña (2004) found that it was not the incubators, but rather the entrepreneur's characteristics, that led to firm growth. Although there are varying arguments for the effectiveness of incubators, considering several research are suggesting it has a positive effect (Colombo & Delmastro, 2002; Stokan et al., 2015), especially on employee growth, which is an important aspect of scale-up (OECD, 2021).

2.7 Conceptual model

What appears to be the most central based on the theoretical background, are 7 key concepts. First, customer switching costs which are costs that occur for the customer when he/she switches suppliers and can be e.g., monetary, search or learning costs (Lipczynski et al., 2017) and it can be considered a competitive advantage and can develop trust (El-Manstrly, 2016). It can also increase perceived customer value and thus loyalty (Rahi, 2016). Second, the network of the firm is important for the survival of, especially small, firms. The entrepreneur acquires access to resources like capital innovation and advice through the network (Löfsten, 2016). Third, the entrepreneurial orientation includes the entrepreneur's perceptions of proactivity, risk assessment, and a global mindset to increase the firm's scope across boundaries (Acedo &

Jones, 2007; Torkkeli et al., 2018). Fourth, it also appears that the entrepreneur's experience includes the entrepreneur's experience with starting up other firms, educational levels, and also the social network he or she obtained from these experiences (e.g., Barringer et al., 2005; Hölzl, 2009). Fifth, incubators are organizations, often public, which provide resources that enhance the founding or growth of firms, usually new and small businesses (Löfsten & Lindelöf, 2002). Sixth, scalable business models, are business models which are flexible with possibilities of increasing return on investment (2018b). Reuber et al. (2021) define a scalable business model as a global business model which is based on uniformity across countries with non-location-bound firm-specific advantages. Seventh, internationalization. Internationalization involves taking the firm's activities outside its national borders, either by selling or producing the product/services. As Reuber et al. (2021) define a scalable business model as a global one, and many argue that small home markets are the reason for internationalization (Coutu, 2014; Erasmus Centre for Entrepreneurship, 2018; Scale Up Institute, 2021), thus, these two concepts seem to be connected.

Based on these key concepts, a conceptual model has been developed based on relations to the main key concept, scalable business models. A conceptual framework explains the key factors to be studied and the presumed relationships among them (Miles & Huberman, 1994).

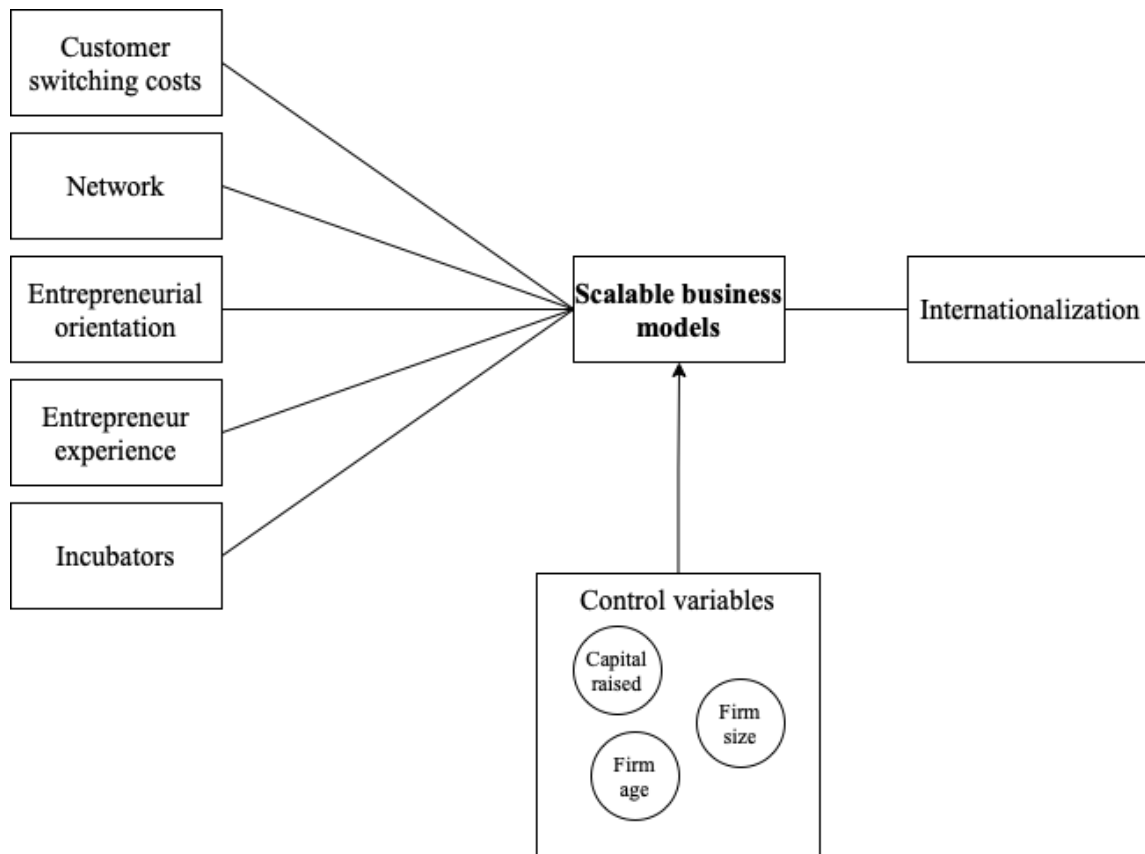


Figure 1: Conceptual Model

Rahi (2016) found that higher levels of switching costs in the internet banking sector would create higher customer perceived value, and the result of this would be an increase in customer loyalty. Looking at the manufacturing industries, the studies from Fredericks (2001) showed that manufacturers that focused on retaining customers and increasing loyalty would be 60% more profitable (i.e., financial growth) compared to competitors that did not track customer loyalty, resulting in higher financial growth and shareholder value. It may indicate a relationship between customer switching costs and scaling, creating the first proposition of this thesis.

P1: Customer switching costs are related to scalable business models.

The Iris Group (2019) argue that firms need to find international partners which can provide access to new markets, funding, or other resources if they are to scale. Successful scalers are typically skilled at building networks, and this is especially so whenever the entrepreneur himself/herself lacks scale-up experience. Grimsby et al. (2018) found a lack of contacts and

networks to be a barrier to international growth. A solid network is therefore the next proposition for this thesis.

P2: A firm's network is related to scalable business models.

One of the most apparent factors for successful scaling seems to be the entrepreneur's ability and *ambition* to scale from day one (Iris Group, 2019). Englis and Wakkee (2015) found a global mindset to be at the core of global growth and opportunities for entrepreneurial firms. Acedo and Jones (2007) reported that a higher proactive disposition will reduce the levels of perceived risk. Entrepreneurial orientation refers to qualities such as taking risks, being innovative and proactive (Covin & Miller, 2014). These entrepreneurial characteristics have been proven to be of importance for firm performance (Wiklund and Shepherd, 2003), and it can therefore also indicate the importance of the firm's ability to scale. Brüderl and Presiendörfer (2000), and Stam and Wennberg (2009) found that HGFs have more founders with management experience. Barringer et al. (2005) found that HGFs differ from non-HGFs in that the founder had prior experience and an "entrepreneurial story" (i.e., entrepreneurial orientation). These two, entrepreneurial orientation and previous experience, make up the two following propositions.

P3a: Entrepreneurial orientation (EO) is related to scalable business models.

P3b: An entrepreneur's prior experience is related to scalable business models.

Employee growth can be seen as an important aspect of scale-ups (OECD, 2021), and Colombo and Delmastro's (2002) found that incubated firms had a significantly larger number of employees. Löfsten and Lindelöf (2002) found similar results, where incubated new technology-based firms had a higher rate of job creation. Newer research also confirms that incubated firms contribute to the employee growth (Stokan et al., 2015). Thus, the next proposition is suggested.

P4: Incubators are related to scalable business models.

Monteiro (2019) argues that a scale-up is an HGF *with a scalable business model* and not necessarily growing through an increase in market power, which is the definition from OECD (2021). The term scalability is used to identify achievable and worthwhile changes in size and

volume (Nielsen & Lund, 2018a). Hennart (2014) argues that business models with niche products that have few substitutes, with educated customers facilitate fast internationalization. Reuber et al. (2021) refer to a scalable business model as a global business model that is based on uniformity across country markets and embodies the non-location-bound firm-specific advantages – intangible resources, learning capabilities, and networks – that reduce the costs and difficulties when entering foreign markets, thus enabling global scaling. Reuber et al. (2021) also proclaim that a scalable business model is one that can be replicated in several markets, and replication is facilitated in global markets because in these markets there are similar competitors and the customers are seeking standardized products and processes (Lovelock & Yip, 1996). This is the final proposition of this master thesis.

P5: Scalable business models are related to the internationalization of firms.

The table below shows all the propositions next to key references from the literature.

Propositions		Key references:
P1	Customer switching costs are related to scalable business models.	El-Manstrly (2016), Rahi (2016), Fredericks (2001), Agustin (2005)
P2	A firm's network is related to scalable business models.	Grimsby et al. (2018), The Iris Group (2019), Ahuja (2000), Cannone and Ughetto (2014), Colombo and Delmastro (2002), Löfsten (2016)
P3a	Entrepreneurial orientation (EO) is related to scalable business models.	Jiang et al. (2020), Acedo and Jones (2007), Wiklund and Shepherd (2003), Englis and Wakkee (2015)
P3b	An entrepreneur's prior experience, including education, is related to a firm's ability to scale-up.	Jiang et al. (2020) GEM (Global Entrepreneurship Monitor), 2022)
P4	Incubators are related to scalable business models.	Colombo and Delmastro (2002), Stokan et al. (2015), Löfsten and Lindelöf (2002)
P5	Scalable business models are related to internationalization of firms.	Reuber et al. (2021), Hennart (2014)

Table 1: Propositions

3. Research Design and Data Collection

3.1 Research Design

The choice of research design rests on the purpose of the study, including the research question. In addition, methodology choices also hinge on if you decide to seek a deductive or inductive technique (Okasha, 2002). In an inductive process, plans are made for data collection, after which the data are analyzed to see if any patterns emerge that suggest relationships between variables. The inductive approach does not set out to corroborate or falsify a theory, through gathering data, the inductive approach attempts to establish patterns, consistencies, and patterns (Gray, 2013). The deductive approach moves towards hypothesis testing, theories used for the research are the foundation of hypothesis formulations. The formulated hypothesis is then tested through observation, and will either be confirmed or rejected (Gray, 2013). The inductive and deductive processes are not mutually exclusive (Gray, 2013), and we can often see them applied within the same research study (Saunders et al., 2019), which is the case in this study. The first stage is more inductive, and the latter is more deductive, as will be seen.

Studies can be classified according to their purpose, the most common possible forms of study are exploratory, descriptive, and explanatory (Gray, 2013). The exploratory studies seek to explore what is happening and to ask questions about it. This study helps to decide whether it is worth researching the issue or not. The study is useful if you wish to clarify your understanding of an issue, problem, or phenomenon (Saunders et al., 2019). While conducting exploratory research, new information comes up, and the purpose of the study becomes clearer, which will lead to answers which show that flexibility is important for this kind of research. Going forward with the exploratory research, new information will become available, and the search for a solution may change direction (Ghauri et al., 2020). The purpose of descriptive research is to gain an accurate profile of events, persons, or situations, a picture of a phenomenon as it naturally occurs. Descriptive research may be an extension of exploratory research or a forerunner to a piece of explanatory research (Saunders et al., 2019). In descriptive research, it is necessary to have a clear picture of the phenomenon on which you wish to collect data before the collection of the data. The key characteristics of descriptive research are structure, precise rules, and procedures (Ghauri & Grønhaug, 2005:59). Descriptive research may include several variables. A researcher can be confronted with conceptual and definitional

problems, when it is solved, procedures on how to collect the data must be determined to procedure the data needed to answer the research question (Ghauri & Grønhaug, 2005:59).

The thesis is based on sequential mixed methods research which involves more than one phase of analysis and data collection. We start by using a qualitative method in order to elaborate and expand the initial set of findings (Saunders et al., 2019). This is a sequential exploratory research design which is one of the mixed methods strategies where qualitative research is followed by quantitative research. The qualitative phase will subsequently inform and direct the next phase in the data collection and analysis, the quantitative part of the thesis (Saunders et al., 2019). We chose this approach as the qualitative approach can be used to test theoretical propositions, to see if the informants can back up the theory used in earlier research, and further backed up by quantitative research to provide a richer theoretical understanding (Saunders et al., 2019). Considering scale-ups is a relatively new concept that lack research, a more exploratory approach has been used. Exploratory surveys can be used to uncover or bring forth preliminary evidence of associations among concepts (Karlsson, 2016). We lend questions from other fields of study, particularly IB and internationalization because exploratory studies can also help when exploring the validity boundaries of a theory (Karlsson, 2016).

3.2 Operationalization

Operationalization is the process of turning a theoretical concept into a measurable variable, which in turn gives meaning in an empirical context. Karlsson (2016) defines operationalization as the description of the observable characteristics of the concept to be able to measure it. Measures can be defined as “rules for assigning numbers (or other numerals) to empirical properties” (Ghauri & Grønhaug, 2005:76). It is important to note that measures of vague concepts can never be perfectly valid nor reliable, but researchers still work toward this goal (Knight, 1997). As this master’s thesis is based on both a qualitative and a quantitative element, the measurement problems are two-fold: First, for the qualitative part, the semi-structured interviews. However, the research literature deals only to a limited degree with measurement problems when it comes to exploratory and qualitative research (Ghauri & Grønhaug, 2005). That does not mean it is irrelevant. If the problem to be explored is only partially understood, the primary purpose will be to gain more understanding (Ghauri & Grønhaug, 2005). The interview must be based on an interview guide which is again developed by surveying previous studies (Ghauri & Grønhaug, 2005), which is also the case for this master’s thesis, see appendix 1 for our interview guide. Because the interviews in this research

are meant to gain more understanding to ensure a better-measured questionnaire, it has a more explorative approach with semi-structured questions. The interview guide was constructed based on the major themes we found the theoretical background. Especially when it came to clear-cut definitions of scale-up and firm growth, we wanted to see if the interviewees had the same definitions but indirectly asked them so they would not know what definitions we had. An example is ‘Can you explain what “scale-up” means to you?’, and if they did not mention any of our definitions, we would ask them about those as well (like turnover and employee growth).

The questions in the survey are not developed from the interview, instead, the interviews were used to find merit for our propositions, in addition to if there were any new themes we needed to address. We would then go back to search in articles to find the necessary information, more tailored, after the interviews. When it comes to the quantitative data collection, all questions in the survey are defined as a statement and are measured on a 7-item Likert scale where 1 = strongly disagree and 7 = strongly agree. We start the questionnaire with some descriptive questions before we have the measurements of the key concepts in the following sub-chapters. The full questionnaire can be seen in appendix 2.

3.2.1 Descriptive questions

Some questions are categorical and a few descriptive questions, in the beginning, are numerical to be able to use the numbers to create more detailed averages. The first descriptive questions are control variables that are included to estimate the causal effect of a treatment on an outcome (Hünermund & Louw, 2020). The first descriptive questions that are used as control variables are 1) “Firm age, in years?”, 2) “Number of employees (firm size)” (Wei et al., 2017), 3) “Capital raised, in million NOK, during the last 3 years?”. The rest of the descriptive questions are to acknowledge more information about the specific topics surrounding this thesis. To repeat the definition of scale-up firms most used: firms that grow in employment or turnover at an average rate of 10% each year over 3 years. They are sometimes referred to as employment scalers and turnover scalers, respectively (OECD, 2021). The use of different growth indicators defines a different set of high-growth firms (Coad et al., 2014), thus both indicators should be considered. In addition, according to OECD (2021), high-growth firms are a special case of scale-up firms, and thus the questions are extended to be able to characterize the high-growth firms too. High-growth firms are those that grow more than 20%

per year, in turnover and/or employees. Following this reasoning, we include Löfsten and Lindelöf’s (2002) scales for both sales and employment, as proposed by Lukeš et al. (2019). Peña (2004) also has a similar scale, further confirming the choice. Variables include 9) “Over the last 3 years, our firm has had an increase in employees of __% or more each year” and 10) “Over the last 3 years, our firm has had an increase in turnover (i.e., sales) of __% or more each year”. These questions have three categories, one below scale-up of 0-9%, one for scale-ups (10-19%), and one for high-growth firms (20+%). In addition, profitability is also considered an important measure of business performance (Löfsten & Lindelöf, 2002), which we also believe can be linked to Nielsen and Lund’s (2018b) scalable business models with increasing returns on investments and is therefore how we measure profitability in this thesis. We agree that an increase in employees and turnover may not be sufficient to classify scale-ups, but it is a starting point that generally has been accepted in previous literature and is also backed up by 1 of 3 interviewees. It is, therefore, crucial to also measure scalable business models.

Control variables	Questions
	1) Firm age, in years? 2) Number of employees? 3) Capital raised, in million NOK, during the last 3 years?

Table 2: Operationalization of control variables

Descriptive questions	Dimensions	Questions
	Scale-up	9) “Over the last 3 years, our firm has had an increase in employees of __% or more each year” 10) “Over the last 3 years, our firm has had an increase in turnover (i.e., sales) of __% or more each year”

Table 3: Operationalization of descriptive questions

3.2.2 Customer switching costs

Zott and Amit (2007) talk of scalable business models as ones that can handle small as well as a large number of transactions, and the next questionnaire items refer to transaction efficiency, i.e., customer switching costs. 28) “Our firm enables all participants (customers) we conduct

business with to make informed decisions (e.g., recommendations, news or experiences about the firm are easy to find)”, 29) “People must spend a lot of time to understand how to use our product/services” (Wu et al., 2014), 30) “To switch from our firm to a competitive firm requires a substantial cost for the customer” (Wu et al., 2014) (modified).

Customer switching costs	Dimension	Questions
	Construct	28) “Our firm enables all participants (customers) we conduct business with to make informed decisions (e.g., recommendations, news or experiences about the firm are easy to find)” 29) “People must spend a lot of time to understand how to use our product/services” 30) “To switch from our firm to a competitive firm requires a substantial cost for the customer”

Table 4: Operationalization of customer switching costs

3.2.2 Network

The network of the firm is important for the survival of, especially small, firms. The entrepreneur acquires access to resources like capital innovation and advice through the networks (Löfsten, 2016). We use measurement scales developed by Hughes et al. (2011), for what they call strategic network participation (the two former) and externalized social capital (the last). The questionnaire items read 20) “We find it necessary to involve ourselves in a business network”, 21) “We try to bring many participants into our business processes and projects early”, and 22) “Relationships with business network members are important to the growth of our business”. All are measured with a 7-item Likert scale.

Network	Dimension	Questions
	Network	20) “We find it necessary to involve ourselves in a business network” 21) “We try to bring many participants into our business processes and projects early”

		22) “Relationships with business network members are important to the growth of our business”
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Table 5: Operationalization of network

3.2.3 Entrepreneurial orientation

The success level achieved by firms can be explained by factors representing the human capital of the entrepreneur which again can be used to explain the effect of an entrepreneur’s individual attributes on the business performance (Peña, 2004). We are using four elements for the human capital of the entrepreneur; the level of education, business experience, the proactivity, and the global mindset of the entrepreneur, to measure the entrepreneurial characteristics. This is a mix of measurement scales from Peña (2004), Acedo and Jones (2007) and Torkkeli et al. (2018). However, due to the nature of the characteristics being based on two things; experience and personality, the human capital is split into two; entrepreneurial orientation and entrepreneur experience, and the latter will be operationalized in the next paragraph. For the proactivity part of the entrepreneurial orientation, we use measurement scales developed by Acedo and Jones (2007) and Kuivalainen et al. (2007), and the items read: 23) “The entrepreneur is very good at identifying opportunities” and 24) “The entrepreneur can see opportunities before others do”. To assess managers’ global mindset, a collection of Torkkeli et al.’s (2018) and Nummela et al.’s (2009) measurement scales are used: 25) “The entrepreneur/manager is willing to take the firm to international markets” and 26) “Internationalization is the only way for us to reach our growth target”. These are all Likert scales with a 7-item scale.

Entrepreneurial orientation	Dimension	Questions
	Proactivity	23) “The entrepreneur is very good at identifying opportunities” 24) “The entrepreneur can see opportunities before others do”
	Global Mindset	25) “The entrepreneur/manager is willing to take the firm to international markets” 26) “Internationalization is the only way for us to reach our growth target”

Table 6: Operationalization of entrepreneurial orientation

3.2.4 Entrepreneur experience

By using a dummy variable that uses the values of 0 and 1, we can use these values to indicate the presence or absence of something (Hair et al., 2019). In this regard, we want to find the presence of education and prior start-up experience. Based on measurement scales from earlier studies by Peña (2004) and Acedo and Jones (2007), the questionnaire items read 5) “The entrepreneur of the firm has a college degree”, 6) “The entrepreneur had prior start-up experience”.

Entrepreneur experience	Dimension	Questions
<i>(human capital)</i>	Education	5) “The entrepreneur of the firm has a college degree”
	International experience	6) “The entrepreneur had prior start-up experience”

Table 7: Operationalization of entrepreneur experience

3.2.5 Scalable business models

According to Nielsen and Lund (2018a), a scalable business model is one that is flexible and which has increasing returns on investments. Thus, it is important to measure firms’ business models on these two elements. How to measure increasing returns on investments is rather straightforward, and so we ask the respondents whether their 4) investments in the last 3 years have been diminishing, constant, or increasing. Flexibility, on the other hand, requires several items. Physical assets are more asset-specific due to the nature of the asset in that it is manifested in atoms (Autio et al., 2017), whereas digital products are re-programmable, Cannone and Ughetto (2014) refer to these as scalable products. These arguments are also made by our interview participants. To measure whether a firm has a digital business model, following measurement scales by Piaskowska et al. (2021) and Cannone and Ughetto (2014), it is asked to what extent they agree that 27) “The firm predominantly has a business model with a scalable product, (i.e., a product that can function well when it is changed in volume or size, e.g., a digital offering)”. However, some firms that are *not* digital firms, are also scale-ups (Hennart, 2014) and so it is important to measure flexible business models by several measurements. We used these items to measure innovative business models which are used as marker variables for flexible business models because “innovation and efficiency reflect fundamental alternatives for entrepreneurs to create value under uncertainty” (Zott & Amit,

2007:183). The measurement scales are adapted by Wei et al. (2017) and Zott and Amit (2007). The question is 31) “The business model enables new combinations of products, services, and information (e.g., through innovative production processes)”. These questions are asked because researchers, including Nielsen and Lund (2018b), agree that scalable business models enrich the value proposition without hurting profits (i.e., reduced costs for business model participants). This opens for firms without digital products, but rather use e.g., digitalization or automation in their production processes. All questions are made with a 7-item Likert scale.

Because intangible resources were focused on in the theoretical background, this is the focus here, although we recognize that other resources may influence scale-ups too. We measure a firm’s level of innovation by 17) “managers are encouraging employees to think outside the box” and 18) “our firm introduces innovations that are completely new to the market” (Latifi et al., 2021). In addition, following Piaskowska et al.’s (2021) measurement scale of 7) “number of patents granted” because according to Hagedoorn and Cloudt (2003), this is effective at capturing the innovative performance of firms. The number of patents granted is coded as a categorical variable. Knowledge intensity is measured by measurement scales by Autio et al. (2000), Cannone and Ughetto (2014), and Colombo and Delmastro (2002): 19) “There is a strong component of knowledge in our products and services”.

Scalable	Dimension	Questions
business model	Business model	4) “Investments the last 3 years have been diminishing, constant, or increasing” 27) “The firm predominantly has a business model with a scalable product, (i.e., a product that can function well when it is changed in volume or size, e.g., a digital offering)” 31) “The business model enables new combinations of products, services, and information (e.g., through innovative production processes)”
	Innovation	7) “Number of patents granted” 17) “Managers are encouraging employees to think outside the box” 18) “Our firm introduces innovations that are completely new to the market”

		19) “There is a strong component of knowledge in our products and services”
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Table 8: Operationalization of scalable business models

3.2.6 Incubators

Due to the time and capacity constraints of this master’s thesis, it will be too broad to focus on many elements in the policy mix, although important. However, one aspect of the policy mix is the incubators. To understand whether incubators facilitate the scale-up of Norwegian firms, we wanted to figure out whether the scale-up firms in the questionnaire had taken advantage of incubator opportunities and whether these were some of the reasons behind their success. We are using one variable based on Peña (2004): 32) “Intangible services (i.e., business course, monitoring, and consulting services) provided by the incubation center had a major positive impact on our firm success”. After the preliminary interviews, it became apparent that incubators can be beneficial for firms due to the incubator acting as a broker between incumbent firms. Thus, we also include a question from Hughes et al. (2011) to address this: 33) “Relationship with incubator businesses (i.e., other businesses within the incubator system) have been important in helping our business to grow”. Both are 7-item Likert scales. Because we do not know whether all our respondents have been members of an incubation center, we also need to address this with a question: 8) “Is or has the firm been a member of an incubator center (i.e., SIVA, ÅKP, other Innovation Norway incubators)?”. This is coded as Yes (1) and No (0). Those who state they have not been with incubators before, will not get the two latter questions.

Incubators	Dimensions	Questions
	Incubators	8) “Is or have the firm been a member of an incubator center (i.e., SIVA, ÅKP, other Innovation Norway incubators)” 32) “Intangible services (i.e., business course, monitoring, and consulting services) provided by the incubation center had a major positive impact on our firm success” 33) “Relationship with incubator businesses (i.e., other businesses within the incubator system) have been important in helping our business to grow”

Table 9: Operationalization of incubators

3.2.7 Internationalization

A firm's degree of internationalization, or globality, is also included in this conceptual model because Norway is such a small home market, that scaling tends to involve crossing the national border (Iris Group, 2019; Reuber et al., 2021). A common measure for the pace of internationalization, especially for Born Globals, is the export rate of the firms three years after founding, and also how fast they internationalized after start-up (Knight & Cavusgil, 2004). According to most research on Born Globals and INVs (e.g., Knight & Cavusgil, 2004; Oviatt et al., 1995), to be a Born Global the export rate must exceed 25% and this should happen 3 years or less since the firm's inception. About scaling, the number of resources committed to the markets, and the entry mode chosen were also measured. Following Cadogan et al.'s (2009) and Kuivalainen et al.'s (2007) scales, these measures the degree of internationalization both in terms of scale and scope, and the questions involved include 11) "How fast after start-up did the firm go international?" with categories 0-3 years, 4-6 years, 7-9 years, 10+ years, no export, and 12) "Percentage of total sales turnover derived from exports" with the categories 0%, 1-24%, 25-49%, 50-74% and 75-100%. The next question is 13) "What entry mode did your firm begin with?" with categories: Direct export, Agent/Distributor, Licensing/Franchising, Joint Ventures/strategic alliances, Wholly owned subsidiaries or No export, and 14) "How does your firm usually enter a new market?" with the same categories. To capture the geographic diversity or psychic distance, the respondents were asked to 15) "In which world region did your firm start its export business?" and 16) Which regions they are in today (from a list of eight regions as proposed by Cadogan et al. (2009)). All the firms in our questionnaire have Norway as their home country and so all have the same small home market. However, as researchers (e.g., Jiang et al., 2020; Phan & Fan, 2007; Rennie, 1993) argue that a small home market is facilitating fast growth internationally, we want to figure out whether this holds for our respondents as well. However, for this study, we want to know the *perception* of the entrepreneur regarding the size of the home market, considering how the Uppsala model argues for the importance of *perceiving* opportunities and risks when or if deciding to internationalize (Johanson & Vahlne, 1977) and thus also scale-up from such a small home market as Norway. We use a Likert scale by Cannone and Ughetto (2014) which assesses the weight attributed to the small domestic market as a reason to start internationalization. Rephrasing it into a statement for the questionnaire: 34) "The small domestic market was a reason we started internationalization". This question was only asked to the exporting firms.

Internationalization	Dimensions	Questions
	Pace of internationalization	11) “How fast after start-up did the firm go international?”
	Degree of internationalization	12) “Percentage of total sales turnover derived from exports”
	Resource commitment	13) “What entry mode did your firm begin with?” 14) “How does your firm usually enter a new market?”
	Geographic diversity	15) “In which world region did your firm start its export business?” 16) “Where do you export to now?”
	Home market size	34) “The small domestic market was a reason we started internationalization”

Table 10: Operationalization of internationalization

3.3 Sampling

A sample is a subgroup of a larger population. Sampling is a technique used to avoid collecting and analyzing data from the entire population, which is often not available due to restrictions of time, money, and access. The sample needs to represent the population in a meaningful way that can be justified concerning the chosen research question (Saunders et al., 2019). Different sampling techniques were used for the qualitative interviews and the quantitative survey, as presented in the next sub-chapters.

3.3.1 Qualitative interviews

The preliminary interviews were carried out by seeking insight from key informants. The choice of informants was made based on background knowledge of the organization in question. The informants have relevant positions in three organizations with knowledge of scale-up and internationalization. No standard procedures or rules exist for conducting a research interview (Brinkmann & Kvale, 2015). According to Brinkmann and Kvale (2015), there seem to be quite a few studies that would benefit from having fewer interviews so that they had more time to prepare and analyze. Because of the time constraints and the purpose of the interviews for this research is to develop a better questionnaire, we consider three to be

sufficient. The purpose was to gain a deeper understanding of the field of international entrepreneurship, fast growth, and high-growth firms and scale-up. Thus, we wanted to speak with organizations that have experience with such firms but do not have the bias of being one of these firms. If asking firms, we run an increased risk of respondent bias, where interviewees may choose to not reveal and discuss certain aspects, providing only a partial picture (Brinkmann & Kvale, 2015). The first key informant is Espen Halmøy (Mr. Halmøy) from Siva, an organization that works with facilitating the growth and development of Norwegian business (Siva, 2022a). The second informant is Mari Dorte Jønland Michaelsen (Ms. Michaelsen) from Innovation Norway which aims to contribute to sustainable growth and exports of Norwegian businesses (Innovation Norway, 2022). Finally, the third informant is Håvar Risnes (Dr. Risnes) from Ålesund Kunnskapspark (ÅKP) which has a goal of creating jobs in the future, making Sunnmøre an attractive region to live in (ÅKP, 2022).

The interviews were conducted based on the preferences of the participants, one was digital, one was on campus, and one was at their respective office. Alexander was the interviewer, basing his questions on a prepared interview guide (see appendix 1). Stine Mari was mainly the observer and took notes throughout the interviews. We felt this was a good approach as we could focus on different things, ensuring nothing (or less) fell through the cracks. The starting point of the interview guide is the conceptual model. One research question can be investigated by approaching it from several angles when asking multiple interview questions. This will provide richer and more varied information. Because this study has an exploratory nature, Saunders et al. (2019) advises the use of semi-structured interviews, which provide the interviewer with the opportunity to ‘probe’ a response, so that the informants can elaborate or explain their answers which was very helpful, so there was less miscommunication.

3.3.2 Quantitative survey

The first stage for any probability sample is a complete list of all the cases in the target population, the sampling frame (Saunders et al., 2019). The Norwegian population of growth companies was found through Dagens Næringsliv’s list of gazelle companies of 2021 (Dagens Næringsliv, 2022). These firms are considered growth companies by one of OECD’s definitions, namely turnover. The criteria for Dagens Næringsliv (DN) are that the firms have doubled their turnover in four years, with at least 1 million NOK turnover the first year, and avoided any negative turnover (Dagens Næringsliv, 2022). We realize these firms are not

necessarily always 100% the same as the OECD definition of scaleups, nor that they have scalable business models, but by sending out to all these firms, we could then exclude the ones that did not fit after reviewing the responses of the survey. We found the firms and their contact information, then we started to call and e-mail a random selection of the roughly 3500 firms in the population, i.e., a probability sample. They were randomly selected, by randomly choosing 20 firms starting with the letter A, 20 with the letter B, and so on. It is generally assumed that a random selection method is more likely to be representative of the population (Ghauri & Grønhaug, 2005). Sampling error occurs when the sample is not representative of the population (Ghauri & Grønhaug, 2005), and the larger the absolute size of the sample, the closer its distribution will be to the normal distribution and thus the more robust it will be (Saunders et al., 2019:300). To keep the sampling error to a minimum, we aimed to contact as many on the list of the population as possible, but due to time constraints, we had to limit it to 453 firms, where 16 were not considered relevant.

In addition to DN's Gazelle list, after the interview with ÅKP, we got a second list of firms to contact, which are considered scale-ups using ÅKP's definition of it. This was a list of 89 firms, and because that number was so manageable, we decided to contact all of them. 7 were not relevant. By choosing random selections of both these lists, the sample can be considered adequate to be able to find information about Norwegian scale-ups in our survey.

We distributed the questionnaire via e-mail and sent it from our student e-mails. This was a deliberate choice, as we believed this would increase the trustworthiness and legitimacy of the senders. We sent individual e-mails with greetings to the name of the receiver if available to hopefully make them read the e-mail. After a short introduction of the master's thesis and a link to the survey, we also offered to provide a report of the findings. We believe the firms became more interested in answering the survey when they felt they got something in return. This was possible for us to do as we had no confidential information in our master's thesis and the respondents of the survey would be anonymous.

Because of the time constraints, we managed to contact a total of 542 firms, where 132 responded to the survey, resulting in a response rate of 24.4%. This is considered good for B2B business surveys (Upland, 2022), although a higher response rate would always be preferred.

3.4 Data Collection

Data collection methods can be divided into observation, experiment, interview, and survey. The choice of data collection method rests upon the overall judgment on what kind of data is needed for the research question (Ghauri & Grønhaug, 2005). For that, it is important to know the unit of analysis. The context is scale-ups in Norway, and the unit of analysis in this thesis, is firms. The characteristics of the unit are that the firms are characterized as scale-up firms or high-growth firms in one way or another. As there exist various definitions of scale-up firms, it is deemed impractical to focus on only one and exclude important firms in our research. We include all sectors, and all firm ages, but they need to have grown either in the number of employees, turnover, and/or increasing return on investments. We rely on primary data for this research, which makes the data more tailored to the research question at hand (Ghauri & Grønhaug, 2005), although secondary data has extensively been used in the theoretical background and for the context of this thesis.

The approach to research methods is influenced by whether we think it is possible to measure an objective, or if we believe the real world cannot be measured in this way (Gray, 2013). There are many advantages and disadvantages of both qualitative and quantitative methods, but by combining them it is possible to gain benefits from both. Here, a qualitative approach is used as contextualization and interpretation as a separate process that will inform the next phase of the research (Brannen, 2005). A qualitative method is great for the sake of understanding (Ghauri & Grønhaug, 2005), and because scale-up is a relatively new term where different definitions and focuses flourish, getting more knowledge from the experts in the field seemed like an appropriate first step in gaining more knowledge and more confidence that our research will be good. The qualitative part of our thesis, was interviews. The interviews conducted in this thesis are semi-structured which gives us more flexibility and are according to Saunders et al. (2019) good when there are many questions to be answered or when they are complex and open-ended, which has been the case for our interviews.

Following the interviews, a quantitative method is applied. We used the interviews to make sure that our propositions from the theoretical background were necessary for the context of Norwegian firms, and if there were any new themes that needed to be addressed. Quantitative methods are suitable for research questions that aim to answer ‘what, who, where, how many, or how much?’ (Yin, 2018). As the research question involves a ‘what’, a quantitative approach

needs to be the main research method. The quantitative part of the research is conducted in the form of a survey, because we want to focus on contemporary events (Yin, 2018) considering scale-ups are increasingly crucial for the future of the country (Iris Group, 2019). This is good for hypothetical-deductive research where it is focused on testing hypotheses (Ghauri & Grønhaug, 2005). It is also important to address that the findings from the survey are not a direct answer to the research question, but rather to gain more understanding of the topic (Gray, 2013). According to Brinkmann and Kvale (2015), in the construction of a questionnaire, it is common to use pilot interviews to chart the main aspects and to test how the questions are understood. We also use interviews in this fashion, to obtain clear definitions to use in the questionnaire.

3.5 Data Analysis

3.5.1 Qualitative pre-study

The interview guide based on the theoretical background of this master's thesis was used to find similarities between different experts' viewpoints on important themes. These interviews were used to see if our propositions had any merit in the context of Norwegian firms, and if there happened to be any new themes we needed to include in the questionnaire. The interviews will be thoroughly written down as they happen to ensure that important elements are not forgotten. Right after the interviews, we will go through the notes along with the audio tape, to make sure that what we wrote down is the same. To make it easier to understand our reasoning, we provide a table of quotations as opposed to us rephrasing the material. We will find the most important and/or most interesting quote each interviewee had on the particular theme and put it into the table. The table is then used to find similarities and differences in their statements, which will be further presented and discussed in chapter 4.

3.5.2 Quantitative survey

The Statistical Package for the Social Sciences (SPSS) version 27 was used for the preliminary analyses and descriptive statistics from the data collection. The hypotheses were tested using confirmatory factor analysis and PLS-SEM. The confirmatory factor analysis was conducted to ensure that every item loaded on the specified factors as intended. The connection between the dependent (criterion) variable and multiple independent (predictor) variables was analyzed through Partial Least Square Structural Equation Modeling (PLS-SEM), because Wold (2006) argues that PLS has a broad scope and flexibility of theory and practice and is "virtually without

competition” in large and complex models with latent variables. To prepare the dataset for SPSS and PLS, when we download the answers from our respondents, they will have to be coded based on our codebook. For instance, the entry mode with the least amount of resource commitment will be coded as 1, and the most (wholly owned subsidiaries) will be coded as 5. The control variables will also be transformed into logarithmic variables, see chapter 5.4. 16 respondents were deleted from the dataset because they had no form of growth (declining return on investment, less than 10% growth in employees or turnover). We checked for errors by looking at the descriptive statistics to see whether maximum, minimum, and mean values were possible and made sense. Because we made every question mandatory to respond to, we had no issue with missing values. Table 3 in chapter 5.4.1 is the background for the final PLS model, figure 3. Some items were originally in factors based on the factor analysis, but were deleted when analyzing the PLS-SEM. This made some categories into single constructs. This includes Proactivity, Entrepreneur experience, Incubator, and Internationalization, in addition to the control variables. We first made a full model based on the theoretical background and interviews, before switching to the results from the factor analysis and removing insignificant variables with small effects to provide a concise model. A further description of the analysis and results are presented in chapter 5.

3.6 Validity and Reliability

3.6.1 Introduction

When we measure something, we want *valid* measures that capture what they are supposed to do (Ghuri & Grønhaug, 2005). What is often the case, is that they contain errors. The observed measurement scores may reflect the true score to a varying degree. The difference between these two scores is affected by systematic bias and random error (Ghuri & Grønhaug, 2005). Random error occurs when the measuring instrument is used in different ways, and systematic errors happen when the instrument is used and are constant between cases and studies (Frankfort-Nachmias & Nachmias, 1992). Examples of random errors include two respondents with the same opinion may rank it differently on a scale, or a particular mood can alter the response on that day. Another issue is when there are situational factors like time pressure or mechanical errors with the questionnaire (Ghuri & Grønhaug, 2005). Reliability refers to the stability of the measure. If the temperature is truly 20°C, but the scale is cut and starts at truly 5°C, it would repeatedly measure 25°C. This is a classic case of a measurement that is reliable, in that it is stable, but not valid, as it is not measuring the true temperature. A valid measure is

always reliable, but it is not necessarily true the other way around (Ghauri & Grønhaug, 2005). To reduce the eventuality of these measurement errors, attention needs to be paid to validity and reliability (Saunders et al., 2019).

3.6.2 The qualitative pre-study

“The concept of reliability is misleading in qualitative research. If a qualitative study is discussed with reliability as a criterion, the consequence is rather that the study is not good” (Stenbacka, 2001:552). Instead, Lincoln and Guba (1985) talk about the dependability and trustworthiness of a qualitative study. To account for this in qualitative research, it is important to have a detailed record of the interviews to have transparency and consistency in the interpretation of the data. The interviews were audio-recorded so that it was possible to go back to know exactly what was said. During the interviews, one interviewed while the other observed and took notes. After the interviews, both reflected on what had happened and the interviewer read the observer’s notes to ensure that both were on the same page. To increase the participation validation, the participants were asked to comment on the interview transcripts and if there were any misunderstandings those were corrected. When quotes and statements from the participants were used in the report, these were also sent for approval, to be better equipped to say that our interpretation is accurate. Based on the feedback from the participants, we are confident that we have satisfactory dependability and trustworthy use of the information provided by the participants.

3.6.3 The survey

To ensure the quality of the questionnaire, it is based on a sound theoretical background in addition to the pre-interviews. To make sure the items measure what they were intended to measure, we rely on previous studies with established measurements as much as possible. The interviews are mainly used to make sure important topics were not omitted. This way, the measurements had already been tested for validity and reliability. During the preliminary writing of the theoretical background for this master’s thesis, a substantial amount of journal articles and books were investigated. These were the starting point for the development of the measurements. The majority of these lacked the necessary measurement information but based on their sources and their sources (and so on), a considerable number of relevant measurements rose to the surface. However, some additional searches needed to be made in Oria and Google Scholar to find certain specific items. The items used have been reworded to suit the context,

either by switching to newer examples, rephrasing into a question or attitude etc. to make the questions easier to respond to. Considering scale-up is such a new term and research is lacking, measurements from internationalization theories and firm growth have been frequently used. Scale-up and firm growth are constructs required to explore due to the conceptual model, but it was not something the respondents necessarily needed to know the definitions for. This is to warrant that the respondents would not answer in a biased way. Thus, no definition of scale-up was provided, but the operationalization ensures that the constructs are measured adequately.

The survey was developed using Oslo University's Nettskjema because it is the safest solution in Norway when it comes to the data collection (Nettskjema, 2022). This was done after we got approval for our research from the Norwegian centre for research data (NSD), see appendix 3. NSD is important because they help the thesis by guiding the data management and data protection in the research, they also archive the data in line with international standards (Nettskjema, 2022). We developed the questions for the questionnaire in English, based on the operationalizations. However, it was later translated into Norwegian, with help from our supervisor. To ensure that the questionnaire is clear and understood in the way intended, a pilot study is recommended (Saunders et al., 2019). When the design of the questionnaire was done, it was tested on people that worked in scale-up firms. After a few grammatical tweaks, it was operational.

Testing for reliability can be done through internal consistency, which involves correlating the responses to the questions in the questionnaire with each other (Saunders et al., 2019). Cronbach's alpha (CA) is the most common method. Values of .7 or above indicate that the questions combined in the scale are internally consistent in their measurement. However, values over .6 are acceptable in explorative research (Hair et al., 2019). In our survey, we had CAs ranging from .678 to .830 in the factor analysis (see table 13) and thus we consider the reliability to be acceptable.

4. Qualitative Pre-Study

4.1 Introduction

The purpose of chapter 4 is to provide a more profound understanding of the context in question, namely scaleup and firm growth of Norwegian firms. The qualitative interviews were conducted to get a deeper insight into scale-up firms, firm growth, and incubators. The main questions asked were: What do firm growth and scale-up mean to them, and what is the difference between these two terms, what are the causes for scale-up, the importance of the entrepreneur's characteristics and the firm's intangibles, and critical success factors to succeed with scale-up internationally. Primary, we will provide a short summary of the information obtained in these three interviews. Taped interviews were transcribed immediately after the interviews were conducted. This allowed us to quickly identify any need to collect further information. Finally, we will summarize the main pre-study findings and propose some additional hypotheses to be tested in the quantitative survey.

4.2 The Interviews

When it comes to the term “scale-up”, all the participants knew of the term and used it in their daily work life. However, they used the term differently. Mr. Halmøy was aware that scale-ups are usually measured following the OECD reasoning of growth of employees and turnover over a 3-year period but did not agree that scale-ups should be measured like that. Instead, scaling up should be seen as a *phase* for the firm and not something that can be defined in absolute key numbers. Innovation Norway measured scale-ups as firms that have scalable business models where the firm can repeat an activity with increasing return on the investment, number of sold units, and new markets. Scale is a form of growth, especially in technology, even if it is about volume or size. Digitalization is now a classic example on a scalable business model, such as firms like Airbnb or Spotify, and Ms. Michaelsen explains that these firms have become new types of business models, recognized by many (“Our business model is like Airbnb”).

Ms. Michaelsen mentioned the Norwegian unicorn firm, ODA. She assumed ODA scaled up physically, but it was only possible through automizing the production by using robotics. Keep in mind that this is her own thoughts, as Ms. Michaelsen says she has no sensitive insight into the company. Dr. Risnes from ÅKP defines scaling up as finding a market where it is possible for a firm to grow, choosing the right entry mode, and having a good product-market fit. Siva

uses growth and scale-up interchangeably, not only scale-up and return on investment but also on the bottom line. Examples can be that fixed costs do not increase proportionally with higher income (i.e., increasing return on investments). Ms. Michaelsen says that firms do not use the word scale-up much, it is more the occasional entrepreneur that uses the term, especially within software tech companies. Dr. Risnes says that most firms have the ambition to grow, ÅKP wants to challenge the ambition of the firm by asking what the firm's actual potential is. Mr. Halmøy says the internal reasons why a firm scales up are: "The management must have the competence and will to grow, recognize which competence they lack, and how to acquire new competence". Mr. Halmøy also mentions scalable business models as important, to design a business model that can operate a firm's scale-up. Something which can affect scale-up and the demand is customer switching costs. Ms. Michaelsen explains that switching costs can be economic, but also emotional/social switching costs for the customer. Dr. Risnes uses the example of Apple versus Android, Apple's system is only made by themselves, but Android has different companies/users that come together. Apple is unique, they manage to lock the customers to their products which can create a dominant market position. Customer switching costs can be important, but if the solution of a product is not good enough, then the customer wants to take the switching costs sooner or later, that's why competitive advantages are so important, according to Ms. Michaelsen.

Something that caught our attention was when Mr. Halmøy talked about product-market fit, where many firms trap themselves by not verifying if their product fits the market. It is crucial that this must be clarified before scaling up. Ms. Michaelsen also points out product-market fit as a success factor, verifying that a product solves a problem, and that export starts from home. Dr. Risnes states that a company that has a good product-market fit is in a really good position to scale-up, i.e., the demand is insatiable. Ms. Michaelsen also points out the same as Mr. Halmøy that the entrepreneur/firm needs to have internal driving force to create something and/or to create value like workplaces, for the community, or to build something internationally, not to stagnate at the local or regional market. In addition, Ms. Michaelsen mentions that there can be large development costs, so it is important with growth to create increasing return on investment, an example is that "a hairdresser does not have the same need for scale-up as a firm that works mainly with digitalization". Digitalization can be expensive, but it does not have to cost anything more to sell the same product (i.e., replicate). Venture capitalists are the ones that like to invest in companies based on algorithms, but local businesses (especially on Sunnmøre) like to build physical products, according to Dr. Risnes.

Mr. Halmøy mentions that Siva had a survey about scale-up and the biggest challenges and important factors were to find the right competence, to hire people with the right competence, international experience, and a willing mindset. Mr. Halmøy points out that internationalization strategy development is being looked at as new and challenging for many firms and entrepreneurs believe that the easiest way is to build a good network and cooperate with skillful partners. Ms. Michaelsen also states that it starts with the internal, the motivation, but external factors can facilitate and make it easier for the entrepreneur (e.g., competence, visibility, etc.). All the participants agree that as an entrepreneurial characteristic, *willingness to learn* is an important factor. To work as a team, to learn, to seek new knowledge and to reflect. Innovation has a big impact on the scale-up process. Earlier, a firm had to expand physically with larger factories and more employees, in order to sell more products, i.e., a linear growth. Today, it is possible to expand without this due to digital solutions brought by innovations. Innovation creates competitiveness, making it easier to approach a market and results in higher return on investments. The possibility of creating more with less, which makes it possible to scale-up.

All the interviewees agree on the importance of a network if a firm wants to scale-up, not every firm has enough resources for cutting-edge expertise, here is where a good network comes into play. Siva states that in the future there will be a greater focus on the incubators to build a large network, and Ms. Michaelsen mentions that a firm also must be careful in choosing its network since it can operate on a professional level but also on a personal level, creating a “network inside the network”.

There is a bigger focus on internationalization now in Norway, Norway is good at creating products/services, but possibly not the best to market and sell it. Siva draws a comparison between Swedish and Norwegian unicorn firms, Sweden has a lot more unicorn firms. To succeed in the international market, a firm must still have a product/service that solves a problem for the consumer. Do the firm have the resources, capital, production capacity to supply the demand, and cultural understanding? The firm must be prepared for growth through careful mapping of demand, strategy, and a marketing plan. Mr. Halmøy points out the importance of having international partners, especially ones who do the same as you but in other countries, resulting in easier entry to new international markets, but Dr. Risnes also mentions the importance of cultural and other challenges abroad, which is often overlooked.

4.3 Main Findings

Scale-up is evidently a big part of the participants work life and they generally agree, although stating it in different words, that a scale-up is a firm that has a scalable business model with increasing returns on their investments. The key concepts to be explained are those that form the conceptual model, in addition to terms we believed were used interchangeably (e.g., firm growth and scale-up). The main findings are presented as quotations or statements. Using quotations from different participants adds transparency and trustworthiness to the research, findings, and interpretation of the data (Côté & Turgeon, 2005). Because these interviews were conducted in Norwegian, the statements are translated into English. Some have been summarized into one shorter sentence, but the meaning has been validated by the participants.

Key Concepts	Participants		
	Mr. Halmøy (Siva)	Ms. Michaelsen (Innovation Norway)	Dr. Risnes (ÅKP)
Scale-up	<i>“Scale-up is a phase where the firm is preparing for international expansion”</i>	<i>“Scale-up is a firm that has a scalable business model where they can repeat an activity with increasing return on the investment”</i>	<i>“Scale-up is about finding a market where it is possible to scale, choosing the right beachhead market, with a good product-market fit”</i>
Firm growth	<i>“Scaling and growth are used interchangeably, but successful scaling presupposes a business model that also contributes to an increase in the bottom-line, not only the top-line”</i>	<i>“Scaling is a more precise way of measuring firm growth”</i>	<i>“Growth is to do more of the same (run faster), but to scale-up you need to think innovative (running faster is not enough)”</i>
Customer switching costs	N/A	<i>“In industries with network effects, it is especially important to become the preferred supplier. If the solution is inferior, the switching will sooner or later occur”</i>	<i>“Increasing switching costs can be done through close relations with the customer or by offering a complete solution. It becomes a glue to keep the customers close.”</i>
Network	<i>“When scaling, cutting-edge expertise is required on every level. The company often</i>	<i>“Network is crucial, but the secret in networking is to develop closer</i>	<i>“Network is crucial, the secret juice in networking is to develop</i>

	<i>doesn't have all the necessary competence inhouse, thus it becomes important for the company to establish a network that grant them access to complementary competence."</i>	<i>relationships to build trust" (it takes time).</i>	<i>closer relationships and to build trust"</i>
The entrepreneur	<i>"The leader must have a clear will and ability to grow, and at the same time acknowledges his/her lack of competence and is willing to gain this competence some way or another"</i>	<i>"The entrepreneur must be willing to learn, seek knowledge and reflect over his/her own limitations and find the right team members"</i>	<i>"The entrepreneur needs to be able to sell his/her idea, to attract the right people/competence and to build a strong and complementary team – one sole entrepreneur is not enough"</i>
Scalable business models	<i>"Use of automation and digital solution to increase efficiency is important"</i> <i>"Digital business models are less capital intensive, thus easier to scale"</i>	<i>"In a scalable business model, they can repeat an activity with increasing return on the investment, almost always by the use of digital tools"</i> <i>"Firms with high developing costs have a more urgent need to scale to get their initial investment back"</i>	<i>"Recurring revenues scales your business. The international wave of fast scaling startup companies has been an eye-opener and inspiration to established companies – hence more and more of these are investing in finding new business models enabling them to glue their customers to them – through continuously engaging them. Digitalization is, at present, maybe the most popular way to create such a glue."</i>
Incubators	<i>"Yearly research by Siva indicate that the members are happy with the incubator, but it is very important that it is not free for the entrepreneur or else it make him/her too relaxed"</i>	<i>"Incubators are important in the ecosystem, but they should push the members more"</i>	<i>"It is about facilitating a community and ecosystem, enabling entrepreneurs and companies in different phases, to take advantage of their complementary skills and knowledge"</i>
Internationalization (Home market size)	<i>"A decent sized home market can be of importance as it often grants easier access to</i>	<i>"Depends on the industry, some are sufficient at home</i>	<i>"The local eco-system and home market will influence how firms internationalize. While</i>

	<i>customer insight that can confirm product-market fit. Customers in a home market can also be a door opener for international expansion.”</i>	<i>whereas some must go internationally quickly”</i>	<i>Norwegian firms grow through a comfortable piggyback ride with the established industrial elite companies, Sweden has become the unicorn master of Scandinavia, as they have succeeded in nurturing new service-based startups outperforming the traditional elite.”</i>
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Table 11: Main findings of the interviews

4.4 Discussion of Results

All three interviews were very different because of the different position the informants had in the ecosystem, but also because we as interviewers learned more about the process throughout the three interviews we conducted. It was difficult to judge how strict we should follow the interview guide, that is why we choose a semi-structured interview. The semi-structured interview gave us and the informants flexibility in questions and answers while conducting the interview itself. The informant could already have answered a question from our interview guide before we had the chance to ask the informant ourselves. This made us change the structure of the interviews as we proceeded, so the information did not have to repeat itself. We felt this worked well and is coherent with Saunders et al., (2019) about giving the respondent some degree of freedom. We realized afterwards that some of the questions may not have been answered in the direction, we intended it to go. For example, when talking of internationalization of firms, Ms. Michaelsen had the perspective of the government and political system, whereas we wanted to see it more from the firms’ perspective. These subtleties were lost on us when we were interviewing. This was improved by the third interview (with Dr. Risnes), as we gained more knowledge and confidence in our interview guide.

The greatest learning from each interview is how the different informants interpret the terms and words used in the interview guide as scale-up, fast growth, and high growth, etc. In addition, how those interpretations correlated in the way we interpret the terms used, so we had to be careful in how to express ourselves and the terminology during the interview. The informants could answer in different ways to the same question but still overlap each other’s answers and conclude with the same meaning. An example here is scale-up, where Mr. Halmøy

says “*Scale-up is a phase where the firm is preparing for international expansion*”, Ms. Michaelsen says “*Scale-up is a firm that has a scalable business model where they can repeat an activity with increasing return on the investment*”, and Dr. Risnes defines it as “*to successfully unlock a Beachhead market, subsequently scaling through invading and winning a range of follow-up markets. Choosing the right entrance and having a good product-market fit is crucial*”, they still agree that for example digitalization in the scalable business model is important to achieve scale-up. The way the informants speak differently about the definition of scale-up does not mean that the one or the other is right or wrong, nor does it mean that they disagree with each other.

There was especially one element which all the interviewees brought up as one of the main enablers of scale-up, but which we had not found much research on prior, namely product-market fit. The product needs to solve a significant need in a large or growing market. Mr. Halmøy and Ms. Michalesen point out that many firms fall into the trap of product-market fit, where the firms do not validate if their product fits well into the market. A good home market can help a firm to test the validation of the product to see if it has a good product-market fit. Dr. Risnes states that “*a company that has a good product-market fit, i.e., the demand is insatiable, is in a really good position to scale-up*”. If a consumer is a big fan of Apple MacBook, then the consumer wants to have Apple’s new products again. Companies like this are in a good position to scale-up. The term product-market fit can be seen as more upcoming due to the growth of start-ups with an ambition to grow/scale-up. You know that you have a good product-market fit if the demand is never-ending. A challenge that may occur if a firm has good product-market fit is that the firm needs to grow/scale-up in a high speed to satisfy the demand of a consumer. If this is not satisfied, the consumer is going to look to other places for the same product that can cover the demand, which in this case can be seen as looking towards competitors. Since the topic of product-market fit is so important for scale-up, it is peculiar that we have not found so much research about it. We became more aware of the term after conducting the interview with Ms. Michalesen and Mr. Halmøy, so for the last interview, we asked Dr. Risnes why this is a term that had not become familiar to use before. As Dr. Risnes mentioned it earlier in this section, product-market fit is a more up-and-coming term due to the emergence of start-ups with ambitions to grow or scale up, which can explain the missing research of product-market fit. All the interviewees did not put so much thought in customer switching costs, they saw customer switching costs as a part of a strategy to the company. Switching costs are of course important, but it does not help if the solutions or

product-market fit that a company deliver are not good enough to satisfy the customer.

Mr. Halmøy says that from an entrepreneur's point of view, the willingness to grow is crucial, if there is no willingness to grow, learn or seek new knowledge from the entrepreneur, all the other stages in the firm's business plan fall apart. Based on the preliminary theoretical research, entrepreneurial characteristics are considered important for the firm's ability to scale-up. In addition, intangible resources like for example the workforce's competence is thought to be positively related to scale-up and can complement the entrepreneur's skills. Competence can be seen as a group of people that comes together as a team, and not only the entrepreneur, Mr. Halmøy states. According to Dr. Risnes, the most important element for a firm is to have a team with different skillsets that helps with the complementarity, and that they manage to work well together. Like in sports, if you want to win a football match, you need to create a winning team that works well with each other. To us, this seems like a valid argument, especially considering a lot of research is describing knowledge-intensity as a crucial factor for a firm to be able to grow (Ferraz & Pereira, 2017; Grimsby et al., 2018; Siva, 2022b). Competence is considered a part of intangible resources, in the form of knowledge-intensity, however *the interaction* between the individuals (i.e., teamwork) has not been the focus area, but we agree that it may have an impact on the overall competence of the firm. Ms. Michaelsen and Dr. Risnes explain not exactly teamwork, but rather that the team has complementary skills, which is more in line with research literature.

4.5 Hypotheses

Based on the interviews, the propositions made during the preliminary theoretical research, are to be included. All of them seem to have a positive influence on global scaling through a scalable business model.

H1: Customer switching costs are positively related to scalable business models.

H2: A firm's network is positively related to scalable business models.

H3a: Entrepreneurial orientation (EO) is positively related to scalable business models.

H3b: An entrepreneur's prior experience is positively related to scalable business models.

H4: Incubators are positively related to scalable business models.

H5: Scalable business models are positively related to internationalization of a firm.

However, there is one additional hypothesis based on the results from the qualitative interviews. This is because it was one of the main elements that each interviewee mentioned, but that we had read little about, suggesting the need to explore it further. The conceptual model has been updated into our final measurement model. A measurement model can be used as a tool for creating a survey. Theory-testing survey research requires extreme rigor in all analysis, and in this case, measures must satisfy all the requirements of good measurement (Karlsson, 2016). The additional hypothesis regards product-market fit, as discussed below.

H6: A good product-market fit is positively related to a scalable business model.

The final measurement model including the theoretically based propositions and hypotheses from the interviews can be seen below:

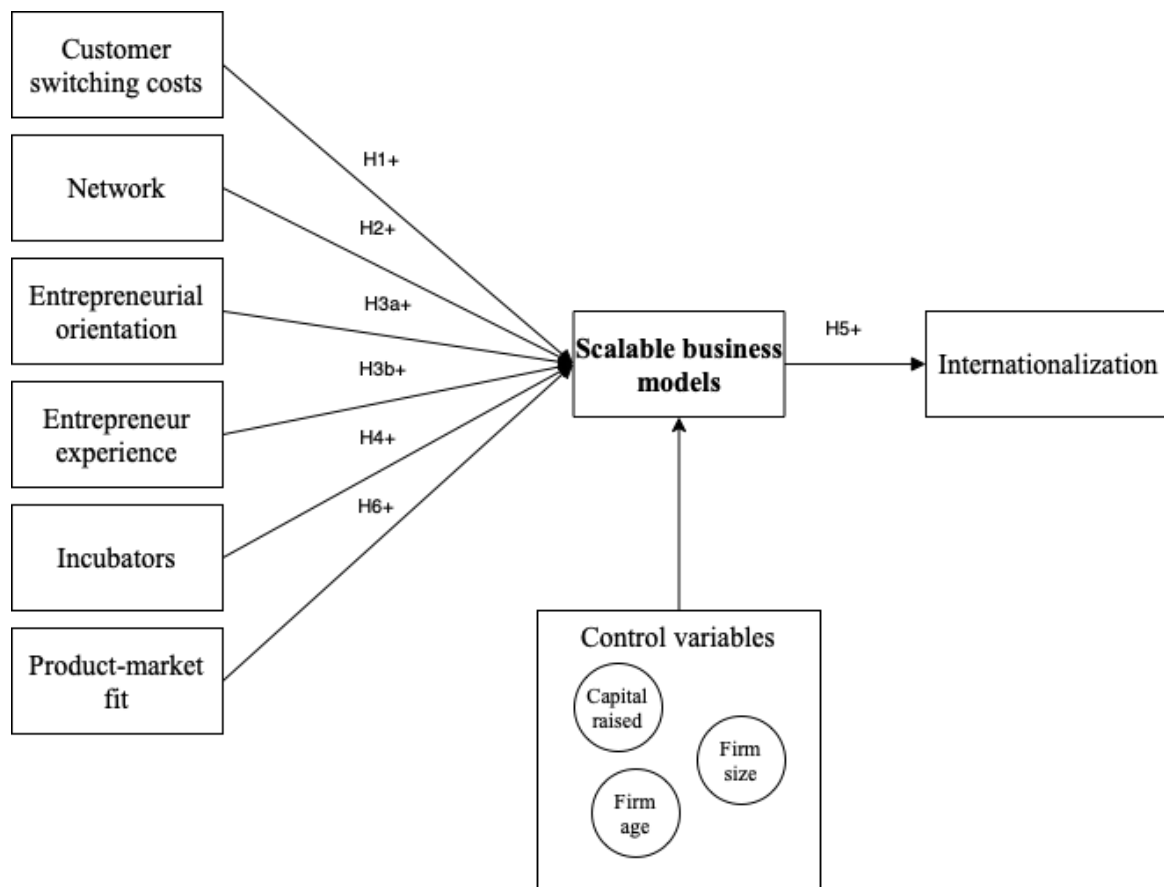


Figure 2: Measurement Model

4.5.1 Operationalization Product-Market Fit

According to Siva (2022b), a product may be successful at a small scale, and forget to consider that scaling may require a more efficient way of making the product. It is often an imperfect product-market fit or focus on a small market with limited growth potential, that leads to slower growth and stagnation (Iris Group, 2019). And as Innovation Norway put it: “One cannot start scaling before one has the ability to deliver”. ODA is one of the first unicorns of Norway, and they have physical products (food), but have managed to scale through automation and robotics, Ms. Michaelsen believes. According to Ms. Michaelsen, removal of human factors makes it easier to scale. After a second round of research, this time of product-market fit, it becomes apparent that for product-market fit to exist there are three overlapping criteria that the product must address to become a market success: viability of the business model, what is technically and organizationally feasible and customers’ desirability for the product (Dennehy et al., 2016). Friedman and Miles (2002) in (Taghian & Shaw, 2010) argue that a business exist to provide an acceptable size of returns for its stakeholders, and the market is viewed as the ground in which such value can be created. To measure if a product actually solves significant problems, we follow venture capitalist Andrew Chen’s advice, and the questionnaire items include 35) “Customer retention rates measure up against those of our competitors”, 36) “People group our product accurately with the right competitive offerings” and 37) “Customers demonstrate an understanding of our product’s unique value proposition” (ProductPlan, 2022). All are 7-item Likert scales. Nagaoka indicates that market share and R&D are complementary to each other in terms of a firm’s market valuation (Nagaoka, 2004). Blundell et al. (1999) found that firms with high market share innovate more; hence, their market valuation is higher (Pindado et al., 2010). Thus, we use the innovation questions as a proxy for a growing/large market.

Product-market fit	Dimensions	Questions
	Product-market fit	35) “Customer retention rates measure up against those of our competitors” 36) “People group our product accurately with the right competitive offerings” 37) “Customers demonstrate an understanding of our product’s unique value proposition”

Table 12: Operationalization of product-market fit

5. Results of Quantitative Study

5.1 Introduction

This chapter includes the SPSS and PLS analyses based on the data collected from the survey. Different analyses and techniques are used to answer the research question and the hypotheses. Although the response rate was acceptable, the sample size is still quite small, so caution must be taken when interpreting the results. The chapter will summarize the analyses and briefly comment on the results. In chapter 6, the discussion of the findings will take place.

5.2 Sampling Characteristics

The survey collected information regarding firm age, number of employees, capital raised, increase in employees and turnover, export share, entry modes and export regions. This section summarizes the descriptive and demographic information from the respondents, see appendix 4 for a table. The mean age of the firms was 12 ½ years, they had 12 employees and raised 25 million NOK. There is one firm that skews the results, but the median value of capital raised is .5 million. 76% of the remaining respondents had increasing ROI, and 70% of the entrepreneurs had a college degree. 58% had previous start-up experience, but only 30% had or are members of an incubator center. Around 48% of the respondents are domestic firms with no export activity, and from the exporting firms, 61% of them exported within 3 years. Western Europe is the most common region to both start export to, and also exporting to today. Africa and the Middle East is the least common region today.

5.3 Factor Analysis

Exploratory factor analysis, often referred to as EFA, is an interdependence technique “whose primary purpose is to define the underlying structure among the variables in the analysis” (Hair et al., 2019:124). If there are only a few variables, they may all be distinct and different, but as we add more variables, more will overlap (i.e., correlation). Factor analysis thus groups together, creating a new composite measure that represents a group of variables, a summated scale (Hair et al., 2019). When we have a conceptual basis, the dimensions may have a meaning for what they collectively represent. These dimensions may correspond to concepts that cannot sufficiently be described as a single measure (Hair et al., 2019), such as entrepreneurial orientation is being defined by several elements that must be measured separately. The

theoretical background in chapter 2 and the operationalization in chapter 3 provide a clear indication as to which factors should be grouped together. The factor analysis is used to confirm or reject this, and the results are used to create summated scales.

The factor analysis includes only the questions that all participants answered. All dummy variables were excluded from the factor analysis as the correlation of a binary variable is not well represented by the traditional Pearson correlation coefficient (Hair et al., 2019). This also includes turnover increase and employee increase and return on investment, when non-scale-up firms were deleted from the data set, only two categories remained (10-19% or 20+% and Constant or Increasing). In the factor analysis, the correlation matrix confirms that several variables have coefficients with values exceeding .3. The Kaiser-Meyer-Olkin (KMO) value was .748 which exceeds the recommended minimum value of .6. The Bartlett's Test of Sphericity value was significant with the value .000, which indicates support for the factorability (Pallant, 2020). Varimax rotation was used because it is considered superior to other orthogonal factor rotation methods in achieving a simplified factor structure (Hair et al., 2019), see appendix 5 for the SPSS output. The Principal Components analysis concludes the presence of 6 components with an Eigenvalue above 1, explaining a total of 66.8% of the variance. The anti-image correlation matrix shows the negative value of the partial correlation. Large values indicate variables not suited to the factor analysis (Hair et al., 2019), but all are satisfactory. The first factor, internationalization, includes 4 variables: 'How fast they went international', 'How much turnover is from export', 'Entrepreneur is willing to take the firm international' and 'Internationalization is key to reach growth target'. However, "How fast they went international" and "How much turnover is from export" are measures of degrees of internationalization, whereas the two others are the entrepreneur's own reflections – global mindset. Thus, based on the theoretical background, we decided to split it. By splitting it, global mindset including "Entrepreneur is willing to take the firm international" and 'Internationalization is key to reach growth target' have a CA of .797. In the second pair, 'How fast they went international' loads negatively with the other, but because both items were worded such that the more international, the higher the score, and so instead of reversing it, it was dropped. This means that the two are now separate, single items.

The second factor, network, includes 4 variables: 'Necessary to involve our firm in a network', 'Our firm includes the network in processes and projects early', 'Network is necessary for our growth' and 'Granted patents'. By deleting 'Granted patents', this factor increased its CA from

.746 to .830. The third factor, proactivity, includes 3 variables: ‘Leader motivates employees to think outside the box’, ‘Entrepreneur identifies opportunities’ and ‘Entrepreneur sees possibilities before others do’. By deleting the first, the CA increases from .776 to .794. The fourth factor, scalable business model, has 3 variables: ‘Firm introduces new innovations to the market’, ‘The firm has scalable products’ and ‘Business model makes it possible to make new combinations of products, services, and information’. The CA is .710. The fifth factor, product-market fit, includes 4 variables: ‘The business model makes it possible for participants (customers) to take informed decisions’, ‘customer retention rate is similar to competitors’, ‘people mentally group our product correctly compared to competitors’ products’ and ‘customers understand the value proposition of our product’. This got a CA of .678, which is below the acceptable level .7, but in exploratory research it can be lowered to .6 (Hair et al., 2019) so it is kept as is. The sixth and final factor, customer switching costs, includes 3 variables: ‘people must spend a lot of time to understand the product’ and ‘switching costs for the customer are substantial’ and ‘knowledge intensive firm’. This had a CA of .696, but by dropping the last variable, it increased to .718. All 6 factors extracted thus have satisfactory reliability.

	Items	Cronbach’s alpha	KMO	Sig.
Network	3	.830	.748	.000
Proactivity	2	.794		
Global mindset	2	.797		
Scalable business models	3	.710		
Product-Market Fit	4	.678		
Customer switching costs	2	.718		

Table 13: Factor and reliability analysis

There are a few discrepancies between the operationalization and the final factors, although they were still logical. Both ‘internationalization is key to reach growth target’ and ‘entrepreneur is willing to take the firm international’ were meant to capture the global mindset of the entrepreneur, but rather it was grouped together in one factor with other internationalization variables. ‘Leader motivates employees to think outside the box’ was a

measure for business model innovation, but it was grouped together with other entrepreneurial variables, so it became one factor, but this was also improved by deleting it. Factor five also has one variable initially grouped together with scalable business models ('It is possible for stakeholders to take informed decisions'), but rather it became part of the product-market fit. 'Knowledge intensive firm' was part of innovation in the scalable business model, but it loaded more with customer switching costs. This is not a very clear link, and the factor was also improved by deleting the variable. Next, the information extracted from the factor analysis is used for the PLS modeling.

5.4 Partial Least Squares Structural Equation Modeling

Partial least squares structural equation modeling, or PLS-SEM, is a combination of interdependence and dependence techniques which is used to explain the relationship among multiple variables simultaneously (Hair et al., 2019). PLS-SEM produces good results with non-normal data, and it works with both metric and non-metric data. It is also a great analytical approach for exploratory research and smaller sample sizes (Hair et al., 2019). Because the student version of SmartPLS only accepts 100 respondents in the sample, the SPSS dataset was randomly reduced by 10% to get 99 cases in a new dataset. The control variables were measured on a scale and because they were not normally distributed, to get them as 'normal' as possible we transformed them into logarithmic values, reducing the skewness of our original data (Pallant, 2020). The capital raised was transformed into a natural logarithm due to the way the question was asked (in million NOK) to get interpretably proportional differences.

Initially, the full model including all the variables in their respective factors based on the measurement model (figure 2) were added in a model, which can be seen in appendix 6. In this model, we left out certain markets because the market question needed to be transformed into 7 dummy variables, which in turn made too many variables compared to the number of observations. By deleting the markets with the fewest answers (Africa and the Middle East, Eastern Europe, Russian and/or the Baltic countries, South and/or Latin America including the Caribbean), it was possible to run the analysis. We then followed the factor analysis extracted from SPSS to explore the differences. This being explorative in nature, the insignificant effects were omitted to create a simpler and more specific model.

5.4.1 Measurement model

The first step of PLS-SEM is to evaluate the measurements validity in a measurement model (Hair et al., 2019). Table 14 presents the total sample standardized coefficients of the latent variables and two measures of convergent validity of the model in figure 3 below. Looking at the indicator loadings (the outer loadings or standardized coefficients), they should all be above .708, which indicates that the construct explains more than 50% ($.708^2 = 0.5$) of the indicator's variance (Hair et al., 2019). In this model, all variables show statistically significant loadings, ranging from .560 to .936. The Cronbach's alpha (CA) exceeds the minimum recommended level of .6 for explorative research for all the constructs. Most also exceeds the recommended level of .7 for any research. The CA in the PLS analysis differ slightly from that of the factor analysis, but the overall conclusion is the same. Moreover, the average variance extracted (AVE) for all the concepts is above the minimum recommended level of .5.

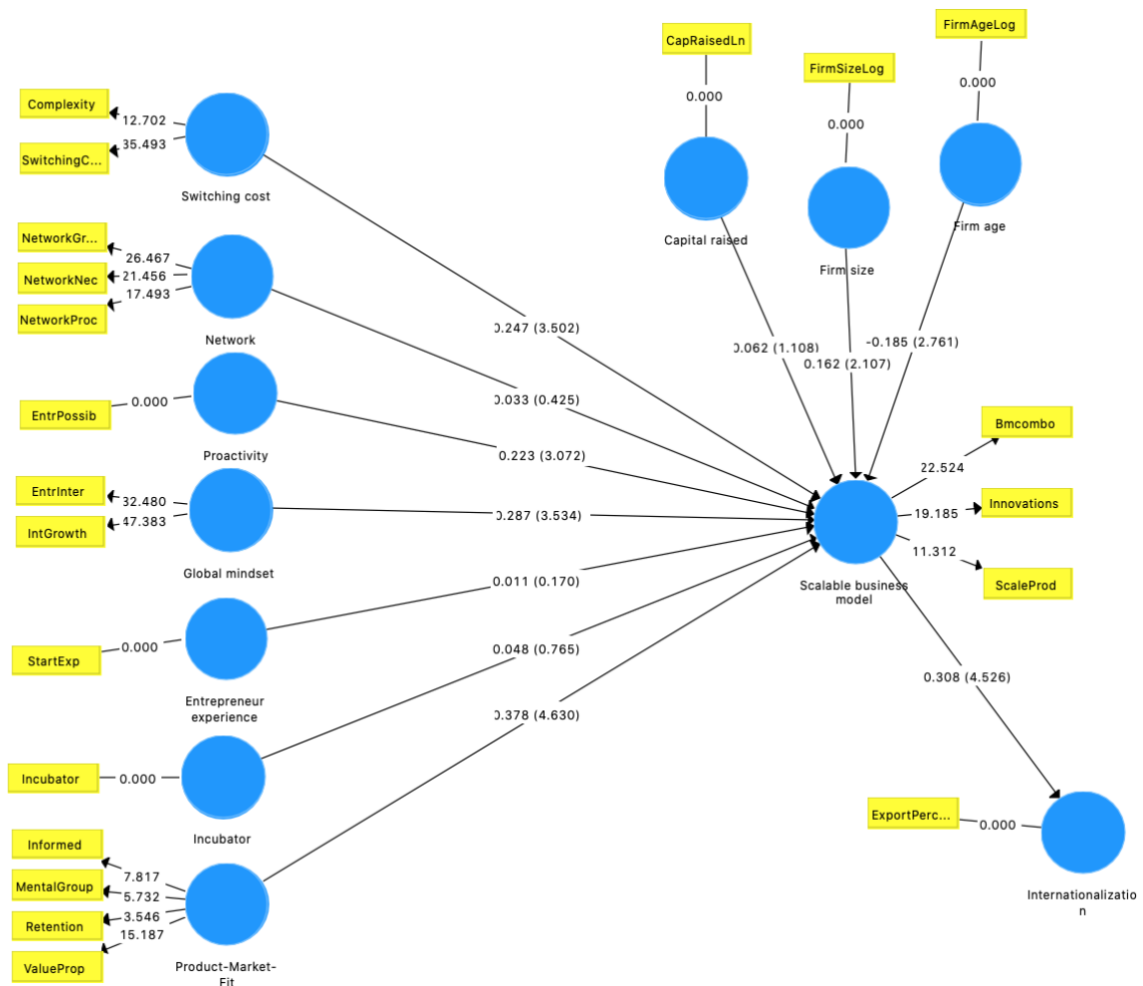


Figure 3: PLS model

Variables (items/factors)	Variable name	Standardized coefficients	CA*	AVE**
It is necessary to involve our firm in a network of other firms	NetworkNec	.874		
The firm includes the network in processes and projects early	NetworkProc	.831		
Network is necessary for our growth	NetworkGrowth	.897		
Network			.836	.753
Possible for stakeholder to take informed decisions	Informed	.717		
Customer retention rate is like that of competitors	Retention	.560		
People mentally group our product correctly compared to competing firms	MentalGroup	.695		
Customers understand the value propositions	ValueProp	.853		
Product-Market Fit			.696	.510
People must spend a lot of time to understand our product	Complexity	.825		
Switching costs for the customer is substantial	SwitchingCost	.936		
Customer Switching Costs			.792	.778
Entrepreneur is willing to take the firm international	EntrInter	.900		
Internationalization is key to reach our growth target	IntGrowth	.916		
Global Mindset			.788	.825
The business model makes it possible for new combinations of products, services, and information	BMcombo	.850		
The firm introduces new innovations to the market	Innovations	.813		
The firm predominately has a scalable product	ScaleProd	.746		
Scalable Business Model			.726	.647
<i>* Cronbach's alpha ** Average Variance Extracted</i>				

Table 14: PLS measurement model: standardized coefficients and reliability (n = 100)

Appendix 7, table A7.1 shows the statistical metrics, including the descriptive statistics. The mean value of most of the items is high, and there are both skewness and kurtosis, which indicate non-normality (Pallant, 2020). This is typical in surveys like ours, and is one of the reasons why using a non-parametric bootstrapping procedure is advised (Nesset et al., 2021). Appendix 7, table A7.2 shows the correlation matrix for all indicators. Convergent validity is supporting convergent construct validity when correlations between indicators within the same latent variable are from moderate to high (Gregory, 2004), and this is the case in this sample.

Discriminant validity is used to analyze relationships between latent variables. To examine discriminant validity (appendix 7, table A7.3), we use both the widely used Fornell-Larcker criterion (Fornell & Larcker, 1981) and the new HTMT criterion using a 5000 bootstrap subsample. The HTMT criterion is more sensitive and conservative and thus there is a higher chance of detecting a lack of discriminant validity (Henseler et al., 2015). Henseler et al. (2015) argue that the Fornell-Larcker criterion is only good in situations with heterogeneous loading patterns and large sample sizes. The correlations of all pairs of latent variables are less than their \sqrt{VE} , which suggest discriminant validity. All HTMT-values are below .85, indicating discriminant validity in our sample. The assessment of the measurement models appears to be satisfactory, and we can thus proceed with the structural model.

5.4.2 Structural model

Step 2 of the PLS modelling include evaluation of the structural model. Table 15 below shows variance explanations, standardized path coefficients and t-values of the model, in addition to R^2 . The first criterion of this model is the coefficient of determination (R^2), which is a measure of in-sample predictive power. Here, 0 indicates no relationship, and 1 indicates a perfect relationship (Hair et al., 2019). Scalable business models' R^2 of .62 means that the model explained the variance in scalable business models with 62.0%, for internationalization it was 10.0%. This means that the model has a moderate R^2 value for scalable business models, but a weak one for internationalization. The effect size is the second criterion. The effect size (f^2) represents the change in R^2 values when a specified exogeneous construct is omitted from the model. See appendix 8, table A8.1 for the f^2 values (Hair et al., 2019). Using guidelines by Cohen (1988), f^2 values are considered small, medium and weak with values of .02, .15 and .35, respectively. It is especially the control variables that have very weak effect sizes, in addition to several hypotheses that are not supported. The highest effect size is product-market

fit on scalable business models (.28) and medium effect on global mindset and scalable business models (.15). Proactivity and switching costs both have almost medium effects sizes (.11 and .12). And scalable business models also have a .11 effect on internationalization. Network and incubators have virtually no effect.

One of the control variables was not significant (capital raised), in addition to entrepreneur experience, incubators, and networks, albeit indicating very weak positive effects. This means that we cannot support H2, H3b, and H4. The remaining path coefficients are significant at least at the 5% level (t-value > 1.960), most at 1% level (t-value > 2.576). For our sample, it seems that product-market fit explains the largest variance in scalable business models (.378), supporting H6. Proactivity and global mindset both have large and positive direct effects on scalable business models (.223 and .287, respectively), supporting H3a on entrepreneurial orientation. Switching costs also have a positive direct effect on scalable business models (.247), supporting H1. Scalable business models have a direct effect on internationalization (.308), thus supporting H5. When it comes to the control variables, firm size has a positive direct effect (.162), whereas firm age has a negative effect on scalable business models (-.185).

Paths	Standardized coefficients (t-value)
Capital raised → Scalable business models	.062 (1.108)
Entrepreneur experience → Scalable business models	.011 (.170)
Firm age → Scalable business models	-.185** (2.761)
Firm size → Scalable business models	.162* (2.107)
Global mindset → Scalable business models	.287** (3.534)
Incubator → Scalable business models	.048 (.765)
Network → Scalable business models	.033 (.425)
Proactivity → Scalable business models	.223** (3.072)
Product-Market Fit → Scalable business models	.378** (4.630)
Scalable business models → Internationalization	.308** (4.526)
Switching cost → Scalable business models	.247** (3.502)
	R²
Internationalization	.10
Scalable business models	.62
<i>t-values (in parenthesis) are based on bootstrapping with 5000 sub-samples.</i>	
<i>* p < .05 (two-sided) ** p < .01 (two-sided)</i>	

Table 15: Structural model results

In addition, there are also some indirect effects, although most of them are small effects, see appendix 8, table A8.2. The largest indirect effect is product-market fit on internationalization (.12). Firm age also has a small negative effect on internationalization (-.06), otherwise the effects are positive.

5.5 Summary

132 respondents answered the questionnaire, where 109 were classified as scale-ups either by an increase in employees, or turnover and do not have a decreasing return on investments. The average firm had been in business for 12 years, with 25 employees and 25 million capital raised, however, some firms skew the average, as can be seen in appendix 7, table A7.1. The most common exporting region is Western Europe, with 61% of the exporting firms. A factor analysis extracted 6 factors similar to that of the theoretical background, although there were some discrepancies in terms of which variables they included. The six factors were: network, proactivity, global mindset, scalable business models, product-market fit, and customer switching costs. The reliability ranges from .678 to .830. The information from the factor analysis was used in PLS-SEM. Cronbach's alpha ranges from .7 (product-market fit) to 1 for single-item constructs. Discriminant validity is good with only low values using both Fornell-Larcker and HTMT. R^2 is .1 for internationalization and .62 for scalable business models, suggesting weak and moderate explanations, respectively. f^2 values are generally small and medium effect sizes, with product-market fit as the largest effect (.28). The model indicates a significant positive relationship between switching costs, proactivity, global mindset, and product-market fit with scalable business models, supporting H1, H3a, and H6. Scalable business models affect internationalization positively, supporting H5. Network, the entrepreneur's experience, and incubators have no significant effect on scalable business models, not supporting H2, H3b, and H4.

Hypotheses		Results
H1	Customer switching costs are positively related to scalable business models	Supported
H2	A firm's network is positively related to scalable business models	Not supported
H3a	Entrepreneurial orientation (EO) is positively related to scalable business models	Supported
H3b	An entrepreneur's prior experience is positively related to scalable business models	Not supported
H4	Incubators are positively related to scalable business models	Not supported
H5	Scalable business models are positively related to internationalization of a firm	Supported
H6	A good product-market fit is positively related to scalable business models	Supported

Table 16: Results from hypotheses testing

6. Discussion

6.1 Introduction

The purpose of this master's thesis is to find the answer to the research question: "*What can explain and facilitate the fast growth and scaling of Norwegian firms?*". The discussion part below is divided into each hypothesis to increase readability. The hypotheses are followed by answering the research question as a conclusion of the chapter.

6.2 Discussion

Hypothesis 1: Customer Switching Costs

Research shows that customer switching costs can influence fast growth and internationalization as switching costs occur when a buyer switches between suppliers and creates TC when changing bank or service provider for example (Lipczynski et al., 2017). Customer satisfaction and loyalty research have more recently been linked to switching costs (Agustin, 2005). From this, El-Manstrly (2016) has researched switching costs as a provider of a competitive advantage that determines the customer's switching behavior. The switching costs create a bond between the customer and the suppliers through the strengthening or weakening of the relationship between them. The first hypothesis in this master's thesis, H1, is supported. This suggests that customer switching costs can be an important factor for a firm's scalability. The measurement model in PLS shows that customer switching costs have a direct effect on scalable business models with .247, which is statistically significant. The two variables Complexity and SwitchingCost loaded highly, providing good reliability (.792). We can relate the significance of switching costs in scalable business models to Fredericks (2001), where manufacturing companies with explicit targets for retaining customers and increasing loyalty goals, were more profitable in terms of financial growth and shareholder value than competitors that did not use the same goals. As mentioned throughout this thesis, scale-up firms and high-growth firms, are both important for creating jobs and boosting productivity, as much as spreading new technologies throughout communities (Du & Temouri, 2015). So, when looking back at the research of El-Manstrly (2016) which sees switching costs as a competitive advantage that creates ties between the customer and supplier, this can result in the customer's involvement in creating new products, which benefit the community. As mentioned, Klarna had a loyalty program that worked so well that they decided to expand it to other countries,

suggesting that loyal customers facilitate scaling. Another example is Apple's iPhone has great compatibility with Mac through e.g., AirDrop and iTunes, an example used by Dr. Risnes. Personally, we also keep our Netflix subscriptions because of the accessibility on various platforms. It is the only streaming service available on the treadmills at our gym, for instance. One of the respondents, Ms. Michaelsen, sees switching costs as economic, but also emotional and social switching costs for the customers. She also mentions the importance of competitive advantage in customer switching costs:

“In industries with network effects, it is especially important to become the preferred supplier. If the solution is inferior, the switching will sooner or later occur”

The customer switching costs can be an important factor, but it still falls back on the suppliers and if their solutions are good enough. The firm should perhaps enable the customer to make informed decisions, if not, you can see customers switching to a competitor. We see customer switching costs as an important factor for a firm, it makes it harder for customers to switch to another supplier. Even though customer switching costs are an important factor and have a significant positive effect on scalable business models, it does not necessarily mean that the customer is loyal to that firm, but rather what happens in the bottom line of the scalable business model, is what really matters. As Ms. Michalelsen said, a good solution for the customer is inferior, if not, the customer will switch to a competitor sooner or later. The two variables to measure customer switching cost, Complexity .825 and SwitchingCost .936 correlates well with each other. This makes sense since the theory of switching costs correlated well with the findings from the interviews. This provides the analysis of a CA of .792 on customer switching costs which suggest good reliability. We are also satisfied with the average variance extracted of .778. This gave us a significant result in the analysis which can partly explain the research question.

Hypothesis 2: Firm's network

Since the research question focuses on the scaling up of Norwegian firms, the Iris Group (2019) found internal and external factors that are important particularly for Nordic scalers, one of those factors was, as mentioned earlier, international network and business partners. To find international partners which can lead to access to new markets, or finding other resources, are believed to enable scaling. Findings from the theory were that “successful scalers are typically skilled at building networks” (Iris Group, 2019), Johanson and Vahlne (2009) argued that

access to resources and capabilities, and the ability to control them, makes a firm's network more important to be able to scale-up. This has an important and influenced impact on the scalable business model, which is positively related to the ability to scale up. In our analysis, however, H2 is not supported. There is a positive effect of .033 on the scalable business model, but the effect that a network has on scalable business models was not statistically significant. The t-value of .425 shows little confidence to explain the standardized coefficient that the network has on the scalable business model. The three variables used to measure a firm's network, correlated highly with each other, and the CA from the network is the highest CA in the analysis of all the measurements (.836). This shows the variables measured, to find which effect networks have on scalable business models, and we can more safely conclude that networks have no significant effect on scalable business models in our sample. This comes perhaps as the biggest surprise in the analysis to us. When searching for network theory and the importance it has for a firm, but also when speaking to the interviewees, they all agreed on the importance of network if a firm wants to scale up. As Dr. Risnes stated, "A network is crucial, the secret juice in networking is to develop closer relationships and to build trust". Ms. Michaelsen agreed, but she also said that a firm/entrepreneur must be careful in choosing its network which would create a "network inside the network" that would not optimize the growth of a firm.

Monaghan (2019) assumes that relationships and network building from the research of Johanson and Vahlne (2009), are not relevant for born digital firms. Monaghan (2019) explains this by stating that since 2009, digitalization has come to provide born digitals with a unique ability to come directly in contact with a network of stakeholders that is broader than the buyer-seller relationship. From our analysis, we may assume that most of our respondents are firms that are knowledge-intensive and have scalable products (see Appendix 7, mean values) provide a product or service that in fact may be a digital solution/product/service. This can help us explain why the firm's network does not have a significant effect on the scalable business model. Even though H2 is not supported in our sample, it is important to remind the reader that there is a lot of good research concluding that networks are an important factor for a firm to grow, which seems logical, and it is believed that networks are still important. In this sample, firms' networks do not have a significant effect on scalable business models, and perhaps the biggest reason for this is that most firms in this analysis may be digital, although more direct questions should have been asked to affirm this.

Hypothesis 3a: Entrepreneurial orientation

Previous research indicates that the entrepreneur has a lot of influence on a firm's performance, whether it is scaling (Siva, 2022b) or overall firm performance (Wiklund & Shepherd, 2003). Many explain this as entrepreneurial orientation (EO) where proactivity is considered an important trait (McDougall & Oviatt, 2003). On a firm level, one can see the entrepreneur's abilities as one aspect of a firm's dynamic capabilities which may provide the firm with a sustained competitive advantage. H3a is supported in this master's thesis, suggesting that entrepreneurial orientation is an important aspect to be able to scale a business model. Proactivity has a direct effect of .223 on scalable business models and is statistically significant. Two items originally made up the proactivity scale, however, they loaded very differently and so one was taken out (it can be seen in the full model in appendix 6). Both were coded the same way, so this was a surprising result suggesting some limitations of the validity of the questions. Going back to the source, Acedo and Jones (2007), it is evident that these two items were left out of their final model, but still, they did not have opposing loadings. However, they chose these items because another renowned article had good validity (Acedo & Jones, 2007; Seibert et al., 1999). It can look like our respondents have had different perceptions of these two questions. To us, the two questions seem like two different stages of proactivity, and the kept variable "Entrepreneur sees possibilities before others do", is a later and more actionable/stronger step of proactivity. The closer it gets to seizing opportunities as Teece (1997) put it in his theory of dynamic capabilities, the more it seems to affect scalable business models. Kaplan and Warren (2009) also express that entrepreneurs should not be 'endlessly analyzing', and that exploiting the opportunities they have identified is crucial. Several of the interviewees highlight the entrepreneur's ability to see his or her inability in doing everything themselves. As Ms. Michaelson put it:

"The entrepreneur must be willing to learn, seek knowledge and reflect over his/her own limitations and find the right team members"

This can be interpreted as a person that is proactive in identifying opportunities for the firm, finding the best solution, and doing something about it. Which can be seen as a dynamic capability of the firm, thus creating a sustained competitive advantage. This can also be in relation to scalable business models, as they should always have increased return on investment, according to several interviewees and Nielsen and Lund (2018a). Even though

improved financial performance is not necessarily a sustained competitive advantage, it can be an indication of success.

One can argue that the entrepreneur's global mindset seems to affect the way the firm is structured. From our analysis, the two items measuring global mindset were highly correlated with each other, providing a good CA of .788. Furthermore, it was also one of the latent variables that had the strongest effect on scalable business models in our measurement model, with a significant .287 direct effect. This is in line with both the theoretical background and the interviews. Innovation is seen as an important aspect of entrepreneurship (Bessant & Tidd, 2011), and this can also be seen by the innovation variables within scalable business models. Making both global mindset and proactivity, together entrepreneurial orientation, a strong effect on scalable business models.

Hypothesis 3b: Entrepreneur experience

The entrepreneur's experience, whether it is education, start-up experience, or prior management experience, is proven to improve a firm's performance in some way or another, financial growth included (Barringer et al., 2005; Brüderl & Preisendörfer, 2000; Jiang et al., 2020). However, H3b is not supported in our analysis. H3b only had a slight positive effect (.011) on scalable business models, but this effect was not statistically significant. In the explorative phase, the variable for education was excluded as it had little effect and correlated relatively poorly with start-up experience. It is surprising that experience has so little effect, but it could also make sense. It is possible that people with long experiences and education have been set in their ways and are not able to follow today's fast-paced changes. With the Internet, it is viable to attain a lot of new information regarding the current situation in the industry and in the world in general. All sorts of information are available online; from how to start a business, how to apply for a patent to the market trends, and so on. When things are moving so quickly, it may be the *willingness to learn*, as the interviewees mentioned, that is the most important thing, not necessarily what they have already learned. This may also be in relation to why H2, networks, have not been supported. It appears that staying flexible and not being locked into old habits are the key, and that the social networks of the entrepreneur, might not be as important as it once was. Because we did not want to overwhelm the respondents with a lot of questions, we had to select the ones we deemed the most crucial, and so some nuances may be left out of the analysis. It would be interesting to see whether other sorts of

prior experiences, e.g., cultural or experience from abroad, had a bigger impact on scalable business models.

Hypothesis 4: Incubators

Policies like governments, research institutions, and universities invest large sums of money into incubators to promote entrepreneurial growth. It is important to understand the characteristics of scalars for effective policy design to acknowledge growth barriers (OECD, 2021). Incubators provide resources that can help to enchain the founding of growth of firms, however, it is often only for new and small business (Löfsten & Lindelöf, 2002). As mentioned, OECD (2021) states that policies today, only target a small share of potential scalars, i.e., new start-ups and/or high-tech firms. Thus, it was important for us to see how incubators facilitate scale-up of Norwegian firms, and if scale-up firms had taken advantage of the opportunities an incubator could provide. When we conducted the interviews, Mr. Halmøy stated that he sees incubators as a part of a firm's network, and that in the future there would be a greater focus on incubators to build a large network. This was supported by the two other interviewees, as Dr. Risnes puts it:

“It is about facilitating a community and ecosystem, enabling entrepreneurs and companies in different phases, to take advantage of their complementary skills and knowledge”

Only 30% of our respondents were, or are members, of an incubator center. Since the firm's network did not have a significant effect on scalable business models, in our sample, it could relate to the non-significance of incubators as well. We see that the standardized coefficient of 0.48 and t-value of 0.765, indicate that incubators also do not have a statistically significant effect on scalable business models, and thus H4 is not supported. We wanted to know what the 30% of the respondents answered on the two indicators; “Intangibles from an incubator center has been key to success” and “Relationships from an incubator center has been key to growth”. From these indicators, the results from the respondents, the mean was 2.91 and 2.30 on the Likert scale from 1-7, respectively. Those means are quite low and can help us explain why incubators do not have any effect on scalable business models in our sample. The sample may feel that incubators do not really help in scaling. Results from the research of Lukeš et al. (2019) show that incubators may have a negative short-term effect on innovation start-ups, the safe and supportive environment that an incubator provides may limit the entrepreneurial orientation because the firms could be protected against a more competitive environment

outside. This is surprising given considering the amount of money used on business incubators by public and private organizations (Lukeš et al., 2019). According to Peña (2004), it was not incubators, but the entrepreneur's characteristics that led to firm growth, which fits well with H3a. Both Mr. Halmøy and Ms. Michaelsen stated in their interviews that incubators are not at no costs for the entrepreneur or else it would make them too relaxed. Incubators must push their members more, which could be related to the research of (Lukeš et al., 2019). When Mr. Halmøy said that there would be a great focus on incubators to create a large network, we, the researchers, discussed if perhaps the term incubator is not that familiar for entrepreneurs and firms, and that may be one reason we only had 30% of the respondents answering yes on the question about incubators in the survey. Because incubators are mostly known to accommodate start-ups and tech-firms, incubators may miss out on many possible scalars. Based on the lack of use of incubators in our sample, we believe incubators should perhaps target firms which are not only start-ups or high-tech, but also more established firms, to help those firm also succeed now, and in the future. Considering H4 is not statistically significant, we do not know if incubators actually have a positive or negative effect, but the data analysis shows a little positive effect on scalable business models which makes us believe that it is possible to improve incubators. By connecting established firms and start-ups in a larger network, perhaps incubators would be more enticing, by participants being able to learn from each other's strengths and weaknesses. This way, we believe networks and incubators could have a larger effect on scaling and scalable business models.

Hypothesis 5: Scalable business models and internationalization

In our analysis, scalable business models have a significant, direct effect of .308 on Internationalization. Rennie (1993) argued that one could find growth firms in all industries, and because we only had one question that touched upon industry (Knowledge-intensive firms), we have limited ways to discuss this. However, the mean value of this question was quite high, with 5.71 of 7. This can indicate that many of the firms are knowledge-intensive with less focus on traditional manufacturing and construction. However, knowledge-intensity correlated poorly with other variables within scalable business model, which was a surprising finding. The question could have been misunderstood by the respondents, and accidentally gave it a higher score, because they find certain aspects of their business complex, even though it would not necessarily be categorized as knowledge-intensive. Even still, it can indicate that knowledge-intensity is important for high-growth firms, but that scalable business models can exist without them, supporting research by Hennart (2014), Monteiro (2019), and Nielsen and

Lund (2018a). Access to foreign markets is essential for rapid growth if they can provide a larger market than the firm's home market (Coutu, 2014; Erasmus Centre for Entrepreneurship, 2018; Scale Up Institute, 2021), and for that reason, it is logical to assume that a firm with a digital product, especially so if it is subject to network effects as well, as argued by van Alstyne et al. (2016), would quickly internationalize. We believe this effect would be even stronger when the product has some global characteristics, in that demand patterns are homogeneous with less need for changes to accommodate different cultures, which is what Reuber et al. (2021) argue is a scalable business model. Product-Market fit had the largest indirect effect on internationalization (.12, see appendix 8, table A8.2). That may be because a strong product-market fit indicates that people want their product, maybe even across borders with global products. Such insatiable demands require scaling to be taken advantage of, according to Dr. Risnes. Bell et al. (2003) state that the home market is not perceived as important to knowledge-intensive firms, which may also indicate why scalable business models have a significant direct effect on internationalization in our sample. van Alstyne et al. (2016) also argued that small, digital, firms can globally scale easier because they have limited need for high levels of capital expenditures. This may be why the control variable capital raised had no effect on scalable business models as well (please note that the effect had insignificant t-values).

In addition to the direct effect on scalable business models, both proactivity and a global mindset have some of the highest indirect effects on internationalization, with an effect of .07 and .09, respectively. Acedo and Jones (2007) found that certain traits like being proactive, are key to the firm's speed to internationalize. Even though it was not the speed we measured, but the degree of internationalization could indicate that being proactive with a global mindset, helps the firm to go beyond its borders to exploit opportunities. Zucchella (2021) argues for the need for a more subjective approach to distance, through the lens of the entrepreneur, which we believe can be done based on the global mindset of the entrepreneur. It is evident that in our sample, a global mindset helps both for a scalable business model and it positively influences internationalization. Looking at it from the Uppsala model's point of view, most of the firms also follow the Uppsala school when it comes to the countries they first began to export to, where 44% chose Western Europe. In addition, 32.1% also used the entry mode with less resource commitment (direct export). Today, the firms are exporting to several regions, suggesting following a learning curve proposed by Johanson and Vahlne (1977). This affirms what Dr. Risnes said about Norwegian firms and internationalization:

“The local eco-system and home market will influence how firms internationalize. [...] Norwegian firms grow through a comfortable piggyback ride with the established industrial elite companies, [...]”

However, it is difficult to discuss how this affects scalable business models as we had to eliminate the variables from the PLS model due to the number of variables to respondents. Even though they appear to follow the Uppsala model, 31.2% were international within 3 years, and 61% of the exporting firms, suggesting they may be Born Globals too. Almost 25% of the respondents have more than 25% export share, but we do not know how long it took them to reach this threshold. It appears that globalization and a small home market may indeed have a lot to say for firms today. However, “Small domestic market was a reason for internationalizing” only got a mean of 3.32 (see appendix 7), which contradicts this reasoning. We believe there is some validity to what Dr. Risnes said, that firms tend to follow their customers across borders. However, without asking the respondents, this is only speculation.

Hypothesis 6: Product-Market Fit

The last hypothesis appeared after the qualitative interviews were conducted. Both Mr. Halmøy and Ms. Michalesen mentioned this term without us probing them. In the last interview, with Dr. Risnes, we specifically asked because we noticed a new theme emerge. The theoretical background is lacking elements of product-market fit, but Dr. Risnes expects it to change soon because of the new focus on scaling and HGFs and entrepreneurs’ ambitions and willingness to grow. Product-market fit was also the hypothesis (H6) that had the strongest direct effect on scalable business models (.378) and was statistically significant on a 99% level. Product-market fit had a CA of .678 (.696 in PLS) which is below .7 but does not indicate a big problem in exploratory research. In table 14, one can see that the customer retention rate is the least correlated with the others. We agree that the question could have been worded better, as we noticed too late that the question could be interpreted in different ways. “Customer retention rate is like that of competitors”, just means that it is similar to them, but what we wanted to know was if it was the same, worse or better. So in reality answer 4 should have been “the same” and 7 should have been “better”. We still believe that the respondents would not have answered 7 if it was much worse, but we could have gotten more nuances from this question than we did, thus there are some minor validity issues with this question.

It does make sense that the product-market fit is important to scalable business models. As Dennehy et al. (2016) mentioned, one of the items crucial for product-market fit is the viability of the business model. When a business model can scale, we assume that also means that the business model is, in fact, viable. Dennehy et al. (2016) also state that the product must be desired by the customer, which is similar to what Dr. Risnes refer to as ‘insatiable demand’:

“a company that has a good product-market fit, in other words; the demand is insatiable, is in a really good position to scale up”

The issue with insatiable demand means that it also requires the firm to scale quickly, to cover the demand before competitors do, as Dr. Risnes stated. By connecting this to customer switching costs, it also is logical to assume that if the firm has a good product-market fit, the customer would not consider the switching costs and would continue to be loyal to the firm. The customer would want to stay, but only as long as the firm can keep up with the demand. Siva (2022b) and Iris Group (2019) found that it is not enough to have a good product that the customers desire, but the production process needs to be set up for scale. This is also where scalable business models come into play. By having e.g., a digital product, a firm would be more equipped to serve many customers at one time, they can expand to other regions more quickly (cf. the Klarna example) and it would seem to be easier to do updates on the product (rather than making a new prototype, manufacture and then market and sell it). If the product is not digital, then it appears that an innovative production process can result in higher scalability as well. Both scalable products and business model combinations are important in our findings. Our sample confirms that these two items are important for scalable business models, and it can indicate some merit to the hypothesis on a broader scope, although more comprehensive research would be required.

Nagaoka (2004) found that market share and R&D expenditures were positively related to the firm’s market valuation, and Pindado et al. (2010) argued that firms with high market share innovate more. This may be true, but for our sample, it was apparent that the firms do not need to have, for example, a lot of granted patents, in order to have a successful scalable business model. We believe that many firms may be innovative even though they do not have a lot of patents. In a globalized world, patents may be increasingly hard to pay for, as they are not universal for every country. It would thus make sense that small firms would not have the funds to defend the decision to apply for patents.

Closing comments

From the data we can gather that elements of IB, E and IE are in fact important for scalable business models and scaling. Transaction cost theory still holds its importance when it comes to customer switching costs, and the Uppsala model explains how Norwegian firms seem to internationalize. IE studies need to use a subjective approach to distance, through the lens of the entrepreneur (Zucchella, 2021). This holds for our sample as well, as it was apparent that the global mindset had the largest indirect effect on internationalization. The discussion above leads us to conclude by answering the research question of this master's thesis: *What can explain and facilitate the fast growth and scale-up of Norwegian firms?* Norwegian firms seem to scale through a scalable business model with a focus on a clear product-market fit, the entrepreneurs have a clear global mindset and a proactive personality to seize all opportunities coming their way. Customer switching costs can help to explain scale-up because it makes it easier for firms to retain their customers. The better the product-market fit, the easier it is to scale as the demand appears to be insatiable. By going international, the market potential increases and with the right product-market fit and a global mindset, increases the possibilities for scaling the firm. It then becomes crucial to have production processes that make it possible to scale at the needed pace. However, with digital offerings, this can become of less importance as they are easier to scale without increasing the resource commitment. Networks and incubators are not found to be significant in our sample, indicating that today it is possible to scale without strong allies. We believe incubators could benefit from including, not only start-ups, but also established firms. This to connect firms of different strengths and weaknesses together, hopefully creating a synergy effect. The entrepreneurs' prior start-up experience is not found to facilitate the fast growth and scale-up of Norwegian firms in our sample.

7. Conclusion

7.1 Main findings

The purpose of this master thesis is to further progress and expand the field of international entrepreneurship concerning scale-up firms and to discover what can explain the fast growth of certain firms. From the data we can gather that certain elements of IB, E and IE are in fact important for scalable business models and scaling. The focus of this thesis was Norwegian firms and with a sample of 100 firms, a PLS analysis was run. The research question can be answered by the main findings of the study, which are (1) A clear product-market fit is the most important explanation for the fast growth and scaling of Norwegian firms. (2) On an entrepreneurial level, it is crucial with a proactive and global mindset, to be able to seize opportunities and scale the business model, and to reach international markets. (3) Networks and incubators were not found to be significant in explaining why the firms in our sample managed to scale through scalable business models. (4) Norwegian firms appear to follow the Uppsala model, by expanding to close-by markets first, starting with the least resource demanding entry modes such as direct export. However, even though they follow the stages of the Uppsala model, they move much faster than predicted by the stages model. 31% of the sample exported within 3 years of inception, and currently, almost 25% of the respondents have an export share of more than 25%.

7.2 Practical implications

There are practical implications of our results for both the firm and society. The firms will be better equipped at allocating their resources efficiently, by focusing on scalable business models. Firms need to ask themselves questions regarding their product-market fit and aim to be as objective as possible. This is not easy, but when looking at this study they will be more confident of the importance of fine-tuning their product-market fit. With a good product-market fit also comes insatiable demand, as Dr. Risnes put it. Thus, when firms plan to scale, they will also need to consider *beforehand* how they will satisfy these demands. Production processes will need to be considered, and automation and digitization can make it easier to grow faster. By focusing on scalable products, especially digital products, the need for an effective production process can become less pressing. In addition, with a good product-market fit and higher customer switching costs, they will be better equipped to scale, as customers feel inclined to stay with the firm, increasing customer loyalty. The entrepreneur's global mindset

and proactivity might not be something they can learn, but by being aware of these important traits, it could become easier for the entrepreneur to gain knowledge about what is needed or by acquiring the right knowledge within the staff. These practical implications will be important both for start-up companies and entrepreneurial spirits and for established firms. Smaller firms would know where they should put their scarce resources to maximize their growth potential and established firms may see their bottlenecks more clearly, to renew themselves and keep up with competitors' developments (Bessant & Tidd, 2011).

From the social welfare point of view, this thesis can show the government and policymakers what they need to focus on when making policies and grants. Incubators were shown to have little positive effect on scalable business models as of today, however, we believe that by switching to include both established firms and startups, in the same incubators, they could create synergy effects. By increasing the efficiency of incubators and thus also networks, firms can take better advantage of each other's strengths. The main goal for the government should be to increase job growth and wealth creation, which is exactly what scaleups do (Coad et al., 2014; Haltiwanger et al., 2013; Henrekson & Johansson, 2010; Praag & Versloot, 2008). They create more with less, by having increasing returns on their investments (Nielsen & Lund, 2018b). Restructuring Norwegian business to be less about oil and gas, it becomes increasingly important to realize how the government can facilitate scaleups, both new and established. It appears that monetary grants are not enough to facilitate scaling, as capital raised had little effect on scalable business models. However, they seem to need help in finding their product-market fit and the right mindset within the management team.

7.2.1 Theoretical contributions

The main theoretical contribution of this study is the enlightenment that product-market fit seems to have a much bigger role in explaining scaling and firm growth than anticipated. When having product-market fit it also means that the firms need to be preparing their production processes for scaling. Thus, we believe we have found a connection between IB and IE and that both are important for scaling. Physical production processes are still one of the barriers to grow and scale, indicating that RBV may be important in explaining the possibilities for scaling even today. In addition, classic theories like TCE show that switching costs are important, but have not been clearly linked to the scale-up literature until now. This shows that it is all interconnected. With a clear product-market fit and customer switching costs together,

and in light of newer firms with a digital focus, we can update the IB literature to make it more dynamic, and scale-up literature can become more robust.

In earlier studies, the entrepreneur level has often been lacking. This study emphasizes that the entrepreneur has a lot of say in the success of a firm's scale-up. The study also confirms the need for a proactive entrepreneur and, as such, the theory on entrepreneurial orientation is still crucial in explaining scaling and firm growth. However, as prior experience was not a supported hypothesis, this study shows that dynamism is becoming increasingly important. Globalization and rapid change appear to make certain experiences more or less obsolete, and that entrepreneurial theory needs to focus more on an entrepreneur's personality traits as opposed to experience. Researchers have tended to focus on either the 'E' or the 'I', but not together. However, in this study, we have included the entrepreneur's proactivity along with a global mindset to find the connection between I and E, in IE, with both scalable business models and internationalization. A global mindset appears to be important both for scaling and for internationalizing.

Elements that were expected to have a bigger influence, like networks and prior experience, turned out to be of less importance in this study. By highlighting these issues, it can make researchers less biased and may look at certain theories in a new light. This thesis underlines that network theory needs to be updated to accommodate firms that have a focus on digitalization. It can appear that digitalization offers more possibilities for doing things oneself, however, it is possible that other forms of networks might still be important. It is clear that elements from IB, E, and IE studies are still very important today, but to update them to include more dynamic elements. The VUCA world is increasingly important, and to rely on only one level appears not to be sufficient. The firm level, industry level and entrepreneur level coexist and work together in making the 'recipe for success' when scaling Norwegian firms.

7.3 Limitations of the study and implications for future research

One of the key limitations of this thesis is our sample size. We reached out to a total of 542 firms, but due to time constraints, we could not reach out to more. From the firms we reached out to, we also wanted to get an answer from the entrepreneur/owner/CEO considering a part of facilitating the scale-up of Norwegian firms is about the entrepreneur's perception. It is fair to say that it was harder to get a response from this target group, as they can be seen as occupied

or hard to reach. We received feedback from 132 respondents giving us a response rate of 24.4%, which is acceptable (Upland, 2022). Of those 132 respondents, only 109 respondents were used in the factor analysis as the 23 other respondents did not help answer or explain the research question. The student subscription to SmartPLS limited the analysis to 100 respondents, forcing the sample size to be even smaller, as we lacked the funds to purchase the professional version. Because of the small sample size, the analysis regarding the incubators may not yield a generalizable result, and as such could affect the significance and effect on H4. We ran the analysis through a bootstrapping process, to increase the robustness of the tests. Even still, a larger sample could have captured more nuances than what was described in the results.

A second limitation is that we have no specific questions regarding the industry. We wanted to be able to provide a “formula” for any firm, and so we deliberately did not ask any questions about the industry. However, in hindsight, it may have been better to include it to be able to more confidently affirm that, for example, digital firms are better equipped at scaling, than for example a construction company. During the explorative phase, we also discovered that the region of North America, had the biggest effect on scalable business models, although the result is questionable as mentioned we had to delete many variables to include regions when they needed to be transformed to dummy variables. However, considering North America is known for knowledge-intensive and digital clusters like the Silicon Valley, it would be interesting to see whether that was the reason for it affecting scalable business models. Then it could also be more explanations as to why networks were not considered as important as we expected.

A third limitation is that the pandemic could have had an impact on the responses. By following definitions of scale-ups from OECD (2021), which had a time frame of ‘the last three years’, it may be difficult to know what is due to the pandemic and what is not. It would perhaps have been beneficial to add another question to find out more about the current issues they are facing. According to Mischke et al. (2021), in the context of internationalizing firms, business has shifted, and shifts made during the pandemic have seemed to yield greater productivity due to digitalization and automatization. The results from our analysis indicate that digitalization and automatization are important in scalable business models, but we do not have the knowledge to see if this has been due to the pandemic and if it will be different when it ends.

7.3.1 Implications for future research

Future research should include longitudinal studies to understand the impact of the pandemic, but also to see whether successful scalers are still successful several years after. As mentioned, Zhou and Park (2020) state that profit-oriented firms are more likely to survive over time than growth-oriented firms, and by having longitudinal studies this would be easier to confirm or refute. More comprehensive studies with larger samples and firms from different countries could obtain interesting findings on cultural differences and thus it could be more apparent what is required to be successful in certain countries when internationalizing. Academic research on scaling and global scaling is scarce, and more studies would contribute to a greater understanding of the topic. Because some of our findings were surprising, case studies and more qualitative studies with interviews could provide a deeper understanding of the ‘why?’ questions, to better understand the motivations behind certain choices. Additionally, more research would be needed to recognize the potential of incubators. A larger sample with one group that has been with incubators and one group that has not could give a bigger picture of the effect. As we believe incubators with members that come from both startups and established firms would make the incubator more effective, this could be another future research topic. Would such an incubator alter the model and analysis, and would it affect how the firms perceive the usefulness of their network? Regarding networks, it could be useful to know more about how digitalization affects the need for a strong network. And considering product-market fit was such a scanty topic when doing the preliminary research, and how important it turned out to be in our analysis, extra emphasis should be put on understanding it and future research on scalers ought to include a more thorough product-market fit operationalization.

References

- Acedo, F. J., & Jones, M. V. (2007). Speed of internationalization and entrepreneurial cognition: Insights and a comparison between international new ventures, exporters and domestic firms. *Journal of World Business*, 42(3), 236-252. doi:<https://doi.org/10.1016/j.jwb.2007.04.012>.
- Agustin, C. a. S., Jagdip. (2005). Curvilinear effects of consumer loyalty determinants in relational exchanges. *Journal of marketing research*, 96--108. Retrieved from <https://journals.sagepub.com/doi/full/10.1509/jmkr.42.1.96.56961> 24.03.2022
- Ahuja, G. (2000). The Duality of Collaboration: Inducements and Opportunities in the Formation of Interfirm Linkages. *Strategic Management Journal - STRATEG MANAGE J*, 21, 317-343. doi:10.1002/(SICI)1097-0266(200003)21:33.3.CO;2-2.
- Alstynne, M. W. v., Parker, G. G., & Choudary, S. P. (2016). Pipelines, platforms, and the new rules of strategy. *Harvard Business Review*, 94, 16.
- Aspelund, A., Fjell, L., & Rødland, S. E. (2017). DOING GOOD AND DOING WELL? INTERNATIONAL ENTREPRENEURSHIP AND SOCIAL RESPONSIBILITY. *International Journal of Entrepreneurship*, 21(2), 13-32.
- Autio, E., Nambisan, S., & Thomas, L. (2017). Digital Affordances, Spatial Affordances, and The Genesis of Entrepreneurial Ecosystems. *Strategic Entrepreneurship Journal*, 12. doi:10.1002/sej.1266.
- Autio, E., & Rannikko, H. (2016). Retaining winners: Can policy boost high-growth entrepreneurship? *Research Policy*, 45(1), 42-55.
- Autio, E., Sapienza, H. J., & Almeida, J. G. (2000). Effects of Age at Entry, Knowledge Intensity, and Imitability on International Growth. *The Academy of Management Journal*, 43(5), 909-924. doi:10.2307/1556419. 2022/01/26/
- Barclays. (2016). *Scale-up UK: Growing Businesses, Growing our Economy*. Retrieved from <https://home.barclays/content/dam/home-barclays/documents/who-we-are/our-strategy/Scale-up-UK-Growing-Businesses-Growing-our-Economy.pdf>. 10.03.22
- Barney, J. (1991). Firm Resources and Sustained Competitive Advantage. *Journal of Management*, 17(1), 99-120. doi:10.1177/014920639101700108.
- Barney, J. (2011). *Gaining and Sustaining Competitive Advantage*: Pearson.
- Barney, J., Ketchen, D., & Wright, M. (2021). Resource-Based Theory and the Value Creation Framework. *Journal of Management*, 47(7), 1936-1955. doi:10.1177/01492063211021655.
- Baron, R. A., & Ensley, M. D. (2006). Opportunity Recognition as the Detection of Meaningful Patterns: Evidence from Comparisons of Novice and Experienced

- Entrepreneurs. *Management Science*, 52(9), 1331-1344. Retrieved from <http://www.jstor.org/stable/20110608> 2022/05/15/
- Barringer, B. R., Jones, F. F., & Neubaum, D. O. (2005). A quantitative content analysis of the characteristics of rapid-growth firms and their founders. *Journal of Business Venturing*, 20(5), 663-687.
- Bartelsman, E., Haltiwanger, J., & Scarpetta, S. (2009). Measuring and Analyzing Cross-Country Differences in Firm Dynamics. In T. Dunne, J. B. Jensen, & M. J. Roberts (Eds.), *Producer Dynamics: New Evidence from Micro Data* (pp. 15-76): University of Chicago Press.
- Bateman, T. S., & Crant, M. (1993). The proactive component of organizational behavior: A measure and correlates. *Journal of Organizational Behavior*, 14(2), 103-118. doi:<https://doi.org/10.1002/job.4030140202>.
- Baum, M., Schwens, C., & Kabst, R. (2013). International as opposed to domestic new venturing: The moderating role of perceived barriers to internationalization. *International Small Business Journal*, 31(5), 536-562. doi:10.1177/0266242611428343.
- Bell, J., McNaughton, R., Young, S., & Crick, D. (2003). Towards an Integrative Model of Small Firm Internationalisation. *Journal of International Entrepreneurship*, 1(4), 339-362. doi:10.1023/A:1025629424041.
- Benito, G., Larimo, J., Narula, R., & Pedersen, T. (2002). Multinational Enterprises from Small Economies: The Internationalization Patterns of Large Companies from Denmark, Finland and Norway. *International Studies of Management and Organization*, 32, 57-78. doi:10.1080/00208825.2002.11043654.
- Benito, G. R. G., & Welch, L. S. (1994). Foreign Market Servicing: Beyond Choice of Entry Mode. *Journal of International Marketing*, 2(2), 7-27. doi:10.1177/1069031x9400200202.
- Bessant, J., & Tidd, J. (2011). *Innovation and Entrepreneurship* (2nd ed.). Chichester, United Kingdom: John Wiley and Sons Ltd.
- Birch, D., & Medoff, J. (1994). Gazelles. In L. C. Solmon & A. R. Levenson (Eds.), *Labor Markets, Employment Policy, and Job Creation* (pp. 159-168). Boulder: Westview Press.
- Blundell, R., Griffith, R., & Van Reenen, J. (1999). Market Share, Market Value and Innovation in a Panel of British Manufacturing Firms. *The Review of Economic Studies*, 66(3), 529-554. Retrieved from <http://www.jstor.org/stable/2567013> 2022/05/31/
- Brannen, J. (2005). Mixing Methods: The Entry of Qualitative and Quantitative Approaches into the Research Process. *International Journal of Social Research Methodology*, 8(3), 173-184. doi:10.1080/13645570500154642.

- Bravo-Biosca, A., Criscuolo, C., & Menon, C. (2016). What drives the dynamics of business growth? *Economic Policy*, 31(88), 703-742. doi:10.1093/epolic/eiw013. 3/4/2022
- Brennan, L. (2018). How Netflix Expanded to 190 Countries in 7 Years. *Harvard Business Review*. Retrieved from <https://hbr.org/> 2018/10/how-netflix-expanded-to-190-countries-in-7-years.
- Brinkmann, S., & Kvale, S. (2015). *InterViews* (3rd ed.): SAGE Publications.
- Brouthers, K. D., Geisser, K. D., & Rothlauf, F. (2016). Explaining the internationalization of ibusiness firms. *Journal of International Business Studies*, 47(5), 513-534. doi:10.1057/jibs.2015.20.
- Brüderl, J., & Preisendörfer, P. (2000). Fast-growing businesses: empirical evidence from a German study. *International journal of sociology*, 30(3), 45-70.
- Buckley, P. J. (2019). The Role of International Business Theory in an Uncertain World. In R. V. Tulder, A. Verbeke, & B. Jankowska (Eds.), *International Business in a VUCA World: The Changing Role of States and Firms* (Vol. 14, pp. 23-29): Emerald Publishing Limited.
- Buckley, P. J., & Casson, M. (2019). The Internalization Theory of the Multinational Enterprise: Past, Present and Future. *British Journal of Management*, 31(2), 239-252. doi:<https://doi.org/10.1111/1467-8551.12344>.
- Cadogan, J. W., Kuivalainen, O., & Sundqvist, S. (2009). Export Market-Oriented Behavior and Export Performance: Quadratic and Moderating Effects under Differing Degrees of Market Dynamism and Internationalization. *Journal of International Marketing*, 17(4), 71-89. doi:10.1509/jimk.17.4.71.
- Cairncross, F. (2001). *The Death of Distance: How the Communications Revolution is Changing Our Lives*: Harvard Business School Press.
- Cannone, G., & Ughetto, E. (2014). Born globals: A cross-country survey on high-tech start-ups. *International Business Review*, 23(1), 272-283. doi:<https://doi.org/10.1016/j.ibusrev.2013.05.003>.
- Cavusgil, S. T., & Knight, G. (2015). The born global firm: An entrepreneurial and capabilities perspective on early and rapid internationalization. *Journal of International Business Studies*, 46(1), 3-16. doi:10.1057/jibs.2014.62.
- Chetty, S., & Campbell-Hunt, C. (2004). A Strategic Approach to Internationalization: A Traditional versus a “Born-Global” Approach. *Journal of International Marketing*, 12(1), 57-81. doi:10.1509/jimk.12.1.57.25651.
- Chetty, S., Johanson, M., & Martín Martín, O. (2014). Speed of internationalization: Conceptualization, measurement and validation. *Journal of World Business*, 49(4), 633-650. doi:<https://doi.org/10.1016/j.jwb.2013.12.014>.

- Coad, A., Daunfeldt, S.-O., Hözl, W., Johansson, D., & Nightingale, P. (2014). High-growth firms: introduction to the special section. *Industrial and Corporate Change*, 23(1), 91-112. doi:10.1093/icc/dtt052. 1/27/2022
- Cohen, J. (1988). *Statistical Power Analysis for the Behavioral Sciences* (2nd ed.). New York: Routledge.
- Colombo, M. G., & Delmastro, M. (2002). How effective are technology incubators?: Evidence from Italy. *Research Policy*, 31(7), 1103-1122. Retrieved from <https://EconPapers.repec.org/RePEc:eee:respol:v:31:y:2002:i:7:p:1103-1122>
- Côté, L., & Turgeon, J. (2005). Appraising qualitative research articles in medicine and medical education. *Medical Teacher*, 27(1), 71-75. doi:10.1080/01421590400016308.
- Coutu, S. (2014). *The Scale-Up Report on UK Economic Growth*. Retrieved from https://www.scaleupinstitute.org.uk/wp-content/uploads/2019/12/scaleup-report_2014.pdf.
- Coviello, N. (2019). *Is a high-growth firm the same as a 'scale-up'?* Retrieved from Waterloo, Canada: <https://lazaridisinstitute.wlu.ca/documents/Lazaridis-Research-Report-2019.pdf>.
- Coviello, N. E. (2006). The network dynamics of international new ventures. *Journal of International Business Studies*, 37(5), 713-731. doi:10.1057/palgrave.jibs.8400219.
- Covin, J. G., & Miller, D. (2014). International Entrepreneurial Orientation: Conceptual Considerations, Research Themes, Measurement Issues, and Future Research Directions. *Entrepreneurship Theory and Practice*, 38(1), 11-44. doi:10.1111/etap.12027.
- Dagens Næringsliv. (2022). Gaseller - Norges raskteste voksende bedrifter. Retrieved from <https://www.dn.no/gaselle> 13.04.2022.
- Daunfeldt, S.-O., & Halvarsson, D. (2015). Are high-growth firms one-hit wonders? Evidence from Sweden. *Small Business Economics*, 44(2), 361-383. doi:10.1007/s11187-014-9599-8.
- Delmar, F. (1997). Measuring Growth: Methodological Considerations and Empirical Results. *Entrepreneurship and SME Research: On Its Way to the Next Millennium*.
- Deloitte. (2019). *Områdegjennomgang av det næringsrettede virkemiddelapparatet*. Retrieved from regjeringen.no: <https://www.regjeringen.no/contentassets/0f8355831ed346c38fba23362eaa59be/helhetlig-anbefaling-om-innretning-og-organisering-av-det-naringsrettede-virkemiddelapparatet.pdf>. 22.03.22
- Demir, R., Wennberg, K., & McKelvie, A. (2017). The Strategic Management of High-Growth Firms: A Review and Theoretical Conceptualization. *Long Range Planning*, 50(4), 431-456. doi:<https://doi.org/10.1016/j.lrp.2016.09.004>.

- Dennehy, D., Kasraian, L., O'Raghallaigh, P., & Conboy, K. (2016). Product market fit frameworks for lean product development.
- Du, J., & Temouri, Y. (2015). High-growth firms and productivity: evidence from the United Kingdom. *Small Business Economics*, 44(1), 123-143. Retrieved from <https://EconPapers.repec.org/RePEc:kap:sbusec:v:44:y:2015:i:1:p:123-143>
- Dvouletý, O., & Lukeš, M. (2016). Review of empirical studies on self-employment out of unemployment: do self-employment policies make a positive impact? *International Review of Entrepreneurship*, 14(3).
- El-Manstrly, D. (2016). Enhancing customer loyalty: critical switching cost factors. *Journal of Service Management*, 27(2), 144-169. doi:10.1108/JOSM-09-2015-0291. 2022/05/22
- Elfring, T., & Hulsink, W. (2003). Networks in Entrepreneurship: The Case of High-Technology Firms. *Small Business Economics*, 21, 409-422. doi:10.1023/A:1026180418357.
- Englis, P., & Wakkee, I. (2015). Managerial Mindset and the Born Global Firm. In (Vol. 11, pp. 9-27).
- Erasmus Centre for Entrepreneurship. (2018). Fast Growth Among Established Companies; Growth in Young Scale-Up Halts. Retrieved from <https://ece.nl/fast-growth-among-established-companies-growth-in-young-scale-up-halts/> 02.06.2022
- Eurostat. (2022). High growth enterprises (growth by 10% or more) and related employment by NACE Rev. 2. Retrieved from <https://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do> 10.03.2022
- Felício, J. A., Duarte, M., & Rodrigues, R. (2016). Global mindset and SME internationalization: A fuzzy-set QCA approach. *Journal of Business Research*, 69(4), 1372-1378. doi:<https://doi.org/10.1016/j.jbusres.2015.10.110>.
- Ferraz, D., & Pereira, E. (2017). The importance of small knowledge intensive firms in European countries. *Przedsiębiorczość Międzynarodowa*, 3, 85-108. doi:10.15678/PM.2017.0301.05.
- Fisher, W. W. (2019). patent. Retrieved from <https://www.britannica.com/topic/patent> 19.01.2022
- Fornell, C., & Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of marketing research*, 18(1), 39-50. doi:10.2307/3151312. 2022/06/02/
- Frankfort-Nachmias, C., & Nachmias, D. (1992). *Research Methods in the Social Sciences*: St. Martin's Press.
- Fredericks, J. O. a. H., Ronald R and Salter II, James M. (2001). Connecting customer loyalty to financial results. *Marketing Management*, 10, 26. Retrieved from

<https://www.proquest.com/openview/8b20d369cb7d92558f389c8b3fefa80f/1?pq-origsite=gscholar&cbl=30990> 30.03.2022

- Freeman, S., & Cavusgil, S. (2007). Toward a Typology of Commitment States Among Managers of Born-Global Firms: A Study of Accelerated Internationalization. *Journal of International Marketing - J INT MARKETING*, 15, 1-40. doi:10.1509/jimk.15.4.1.
- Freeman, S., Edwards, R., & Schroder, B. (2006). How Smaller Born-Global Firms Use Networks and Alliances to Overcome Constraints to Rapid Internationalization. *Journal of International Marketing*, 14(3), 33-63. doi:10.1509/jimk.14.3.33.
- Freeman, S., Hutchings, K., Lazaris, M., & Zyngier, S. (2010). A model of rapid knowledge development: The smaller born-global firm. *International Business Review*, 19(1), 70-84. doi:10.1016/j.ibusrev.2009.09.004.
- Friedman, A. L., & Miles, S. (2002). Developing Stakeholder Theory. *Journal of Management Studies*, 39(1), 1-29. doi:<https://doi.org/10.1111/1467-6486.00280>.
- Garnsey, E. (1998). A Theory of the Early Growth of the Firm. *Industrial and Corporate Change*, 7, 523-556. doi:10.1093/icc/7.3.523.
- Gassmann, O., Frankenberger, K., & Csik, M. (2014). *The business model navigator: 55 models that will revolutionise your business*: Pearson UK.
- Gençtürk, E. F., & Aulakh, P. S. (2007). Norms- and Control-Based Governance of International Manufacturer-Distributor Relational Exchanges. *Journal of International Marketing*, 15(1), 92-126. Retrieved from <http://www.jstor.org/stable/25049076> 2022/01/19/
- Ghauri, P., & Grønhaug, K. (2005). Research methods in business studies. *A practical guide*.
- Ghauri, P., Grønhaug, K., & Strange, R. (2020). *Research methods in business studies*: Cambridge University Press.
- Gonzalez-Perez, M. A. (2013). An Eclectic Review of Critical Perspectives on Globalisation and International Business: Setting the Context for Corporate Social Responsibility and Sustainability. *Advances in Sustainability and Environmental Justice*, 12, 21-50. doi:10.1108/S2051-5030(2013)0000012007.
- Grant, R. (1996). Toward A Knowledge-Based Theory of the Firm. *Strategic Management Journal*, 17, 109-122. doi:10.1002/smj.4250171110.
- Grant, R. M. (1991). The Resource-Based Theory of Competitive Advantage: Implications for Strategy Formulation. *California Management Review*, 33(3), 114-135. doi:10.2307/41166664.
- Gray, B., & Farminer, A. (2014). And no birds sing—reviving the romance with international entrepreneurship. *Journal of International Entrepreneurship*, 12(2), 115-128. Retrieved from <https://EconPapers.repec.org/RePEc:kap:jinten:v:12:y:2014:i:2:p:115-128>

- Gray, D. E. (2013). *Doing research in the real world*: SAGE Publications.
- Gray, J. (2020). Why this crisis is a turning point in history. Retrieved from <https://www.newstatesman.com/uncategorized/2020/04/why-crisis-turning-point-history> 25.01.2022
- Gregory, R. J. (2004). *Psychological Testing: History, Principles, and Applications*: Pearson Education.
- Grimsby, G., Johnsen, P. F. F., & Syrstad, R. S. (2018). *Vekstvilkår for norske scale-ups*. Retrieved from 13.03.22
- Guillén, M. (2001). International Business. In N. J. Smelser & P. B. Baltes (Eds.), *International Encyclopedia of the Social & Behavioral Sciences* (pp. 7768-7771). Oxford: Pergamon.
- Guillén, M. (2003). Is Globalization Civilizing, Destructive or Feeble? A Critique of Five Key Debates in the Social Science Literature. *Annual Review of Sociology*, 27, 235-260. doi:10.1146/annurev.soc.27.1.235.
- Hagedoorn, J. (1995). A Note on International Market Leaders and Networks of Strategic Technology Partnering. *Strategic Management Journal*, 16, 241-250. doi:10.1002/smj.4250160307.
- Hagedoorn, J., & Cloudt, M. (2003). Measuring innovative performance: is there an advantage in using multiple indicators? *Research Policy*, 32(8), 1365-1379. doi:[https://doi.org/10.1016/S0048-7333\(02\)00137-3](https://doi.org/10.1016/S0048-7333(02)00137-3).
- Hagen, B., & Zucchella, A. (2014). Born Global or Born to Run? The Long-Term Growth of Born Global Firms. *Management International Review*, 54, 497-525. doi:10.1007/s11575-014-0214-7.
- Hair, J. F., Black, W. C., Babin, B. J., & Anderson, R. E. (2019). *Multivariate Data Analysis* (8th ed.). United Kingdom: Cengage Learning.
- Haltiwanger, J., Jarmin, R. S., & Miranda, J. (2013). Who creates jobs? small versus large versus young. *Review of Economics and Statistics*, 95(2), 347-361. doi:10.1162/REST_a_00288.
- Hathaway, I. (2018). *High-growth firms and cities in the US: An analysis of the Inc. 5000*. Retrieved from <https://www.brookings.edu/research/high-growth-firms-and-cities-in-the-us-an-analysis-of-the-inc-5000/>. 11.03.22
- Haugen, J. Å. (2008). Høy flytteaktivitet i norske bedrifter. Retrieved from <https://www.ssb.no/virksomheter-foretak-og-regnskap/artikler-og-publikasjoner/hoy-flytteaktivitet-i-norske-bedrifter> 22.02.2022

- Hennart, J. F. (2014). The Accidental Internationalists: A Theory of Born Globals. *Entrepreneurship Theory and Practice*, 38(1), 117-135. doi:10.1111/etap.12076. 2021/11/24
- Henrekson, M., & Johansson, D. (2010). Gazelles as job creators: a survey and interpretation of the evidence. *Small Business Economics*, 35(2), 227-244. doi:10.1007/s11187-009-9172-z.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, 43(1), 115-135. doi:10.1007/s11747-014-0403-8.
- Heum, P. (2013). *Vekst og internasjonalisering i norske storforetak*. Retrieved from https://openaccess.nhh.no/nhh-xmlui/bitstream/handle/11250/166734/A39_13.pdf?sequence=1&isAllowed=y.
- Hoopes, D. G., Madsen, T. L., & Walker, G. (2003). Guest Editors' Introduction to the Special Issue: Why Is There a Resource-Based View? Toward a Theory of Competitive Heterogeneity. *Strategic Management Journal*, 24(10), 889-902. Retrieved from <http://www.jstor.org/stable/20060587> 2022/02/22/
- Hughes, M., Morgan, R. E., Ireland, R. D., & Hughes, P. (2011). Network behaviours, social capital, and organisational learning in high-growth entrepreneurial firms. *ijesb*, 12(3), 257-272. doi:10.1504/IJESB.2011.039006.
- Hünermund, P., & Louw, B. (2020). On the nuisance of control variables in regression analysis. *arXiv preprint arXiv:2005.10314*. Retrieved from <https://arxiv.org/abs/2005.10314>
- Hözl, W. (2009). Is the R&D behaviour of fast-growing SMEs different? Evidence from CIS III data for 16 countries. *Small Business Economics*, 33(1), 59-75.
- Håkansson, H., & Snehota, I. (1989). No Business Is an Island: The Network Concept of Business Strategy. *Scandinavian Journal of Management*, 22, 187-200. doi:10.1016/0956-5221(89)90026-2.
- Innovation Norway. (2022). We contribute to sustainable growth and exports for Norwegian businesses through capital and expertise. Retrieved from <https://www.innovasjon Norge.no/en/start-page/> 23.02.2022
- Iris Group. (2019). *Nordic Scalars*. Retrieved from <http://norden.diva-portal.org/smash/get/diva2:1369201/FULLTEXT01.pdf>. 17.03.2022
- Janssen, F. (2004). *La conceptualisation de la croissance : l'emploi et le chiffre d'affaires sont-ils des critères interchangeables ? **. Retrieved from <http://www.airepme.org/images/File/2004/041.pdf>.
- Janssen, F. (2009). The Conceptualisation of Growth: Are Employment and Turnover Interchangeable Criteria? *The Journal of Entrepreneurship*, 18(1), 21-45. doi:10.1177/097135570801800102. 2021/11/12

- Jiang, G., Kotabe, M., Zhang, F., Hao, A. W., Paul, J., & Wang, C. L. (2020). The determinants and performance of early internationalizing firms: A literature review and research agenda. *International Business Review*, 29(4), 101662. doi:<https://doi.org/10.1016/j.ibusrev.2019.101662>.
- Johanson, J., & Mattsson, L.-G. (1988). Internationalisation in industrial systems - A network approach. In (pp. 111-132).
- Johanson, J., & Vahlne, J. (2002). The internationalization process of the firm: A model of knowledge development and increasing foreign market commitments. *Journal of International Business Studies*, 8.
- Johanson, J., & Vahlne, J.-E. (1977). The Internationalization Process of the Firm—A Model of Knowledge Development and Increasing Foreign Market Commitments. *Journal of International Business Studies*, 8(1), 23-32. doi:10.1057/palgrave.jibs.8490676.
- Johanson, J., & Vahlne, J.-E. (2009). The Uppsala internationalization process model revisited: From liability of foreignness to liability of outsidership. *Journal of International Business Studies*, 40(9), 1411-1431. doi:10.1057/jibs.2009.24.
- Johanson, J., & Vahlne, J.-E. (2017). From internationalization to evolution: The Uppsala model at 40 years. *Journal of International Business Studies*, 48(1), 1087–1102. doi:10.1057/s41267-017-0107-7.
- Johanson, J., & Wiedersheim-Paul, F. (1975). The internationalization of the firm: Four Swedish cases. *Journal of Management Studies*, 12(3), 305-322.
- Johnson, M. W., & Lafley, A. G. (2010). *Seizing the white space: Business model innovation for growth and renewal*: Harvard Business Press.
- Jolly, V. K., Alahuhta, M., & Jeannet, J.-P. (1992). Challenging the incumbents: How high technology start-ups compete globally. *Strat. Change*, 1(2), 71-82. doi:10.1002/jsc.4240010203.
- Kaplan, J. M., & Warren, A. C. (2009). *Patterns of Entrepreneurship Management*: Wiley.
- Karlsson, C. (2016). *Research Methods for Operations Management* (2nd ed.). New York: Routledge.
- Ketokivi, M., & Mahoney, J. (2020). Transaction Cost Economics As a Theory of Supply Chain Efficiency. *Production and Operations Management*, 29(4), 1011-1031. doi:<https://doi.org/10.1111/poms.13148>.
- Klarna. (2022). Klarna vokser raskt i Frankrike og Italia – lanserer direktebetaling og lojalitetsprogram i vekstmarkeder. Retrieved from <https://www.klarna.com/international/press/klarna-vokser-raskt-i-frankrike-og-italia-lanserer-direktebetaling-og-lojalitetsprogram-i-vekstmarkeder/> 15.03.2022

- Knight, G., Koed Madsen, T., & Servais, P. (2004). An inquiry into born-global firms in Europe and the USA. *International Marketing Review*, 21(6), 645-665. doi:10.1108/02651330410568060. 2022/03/08
- Knight, G. A. (1997). *Emerging Paradigm for International Marketing: The Born Global Firm*: Michigan State University. Department of Marketing and Supply Chain Management.
- Knight, G. A., & Cavusgil, S. T. (2004). Innovation, organizational capabilities, and the born-global firm. *Journal of International Business Studies*, 35(2), 124-141. doi:10.1057/palgrave.jibs.8400071.
- Kogut, B., & Zander, U. (1993). Knowledge of the Firm and the Evolutionary Theory of the Multinational Corporation. *Journal of International Business Studies*, 24(4), 625-645. doi:10.1057/palgrave.jibs.8490248.
- Kuivalainen, O., Sundqvist, S., & Servais, P. (2007). Firms' degree of born-globalness, international entrepreneurial orientation and export performance. *Journal of World Business*, 42(3), 253-267. doi:<https://doi.org/10.1016/j.jwb.2007.04.010>.
- Larson, A. (1992). Network Dyads in Entrepreneurial Settings: A Study of the Governance of Exchange Relationships. *Administrative Science Quarterly*, 37(1), 76-104. doi:10.2307/2393534. 2022/01/26/
- Latifi, M.-A., Nikou, S., & Bouwman, H. (2021). Business model innovation and firm performance: Exploring causal mechanisms in SMEs. *Technovation*, 107, 102274. doi:<https://doi.org/10.1016/j.technovation.2021.102274>.
- Lavie, D. (2006). The Competitive Advantage of Interconnected Firms: An Extension of the Resource-Based View. *Academy of Management Review*, 31(3), 638-658. doi:10.5465/amr.2006.21318922. 2022/03/21
- Levitt, T. (1983). The Globalization of Markets. *Harvard Business Review*(May). Retrieved from <https://hbr.org/1983/05/the-globalization-of-markets>
- Lincoln, Y. S., & Guba, E. G. (1985). *Naturalistic inquiry*. Beverly Hills, California: Sage Publications.
- Lipczynski, J., Wilson, J., & Goddard, J. (2017). *Industrial Organization Competition, Strategy and Policy* (5th ed.). United Kingdom: Pearson Education Limited.
- Litvin, D. (2003). *Empires of Profit: Commerce, Conquest and Corporate Responsibility*. New York: Texere Publishing.
- Lotti, F., Santarelli, E., & Vivarelli, M. (2003). Does Gibrat's Law hold among young, small firms? *Journal of Evolutionary Economics*, 13(3), 213-235. doi:10.1007/s00191-003-0153-0.
- Lovelock, C. H., & Yip, G. S. (1996). Developing global strategies for service businesses. *California Management Review*, 38(2), 64-86.

- Lukeš, M., Longo, M. C., & Zouhar, J. (2019). Do business incubators really enhance entrepreneurial growth? Evidence from a large sample of innovative Italian start-ups. *Technovation*, 82-83, 25-34. doi:<https://doi.org/10.1016/j.technovation.2018.07.008>.
- Löfsten, H. (2016). New technology-based firms and their survival: The importance of business networks, and entrepreneurial business behaviour and competition. *Local Economy*, 31(3), 393-409. doi:10.1177/0269094216637334.
- Löfsten, H., & Lindelöf, P. (2002). Science Parks and the growth of new technology-based firms—academic-industry links, innovation and markets. *Research Policy*, 31(6), 859-876. doi:[https://doi.org/10.1016/S0048-7333\(01\)00153-6](https://doi.org/10.1016/S0048-7333(01)00153-6).
- McDonald's. (2022). The McDonald's Story. Retrieved from <https://corporate.mcdonalds.com/corpmcd/our-company/who-we-are/our-history.html> 26.01.2022
- McDougall, P. P., & Oviatt, B. M. (2003). Some fundamental issues in international entrepreneurship. *Entrepreneurship Theory & Practice*, 18(27), 1-27.
- Meland, S. I. (2019). Kan det lønne seg for bedrifter å flytte produksjonen hjem til Norge? Retrieved from <https://forskning.no/arbeid-bedriftsokonomi-ntnu/kan-det-lonne-seg-for-bedrifter-a-flytte-produksjonen-hjem-til-norge/1335438> 22.02.2022
- Milanović, B. (2018). *Global inequality: A new approach for the age of globalization*. Cambridge, MA: the Belknap Press of Harvard University Press.
- Miles, & Huberman. (1994). *Qualitative Data Analysis* (2nd ed.). Thousand Oaks, USA: Sage Publications.
- Miles, R. H. (1980). *Macro Organizational Behavior*: Scott, Foresman.
- Mind the Bridge. (2019). *Tech Scaleup Europe*. Retrieved from https://dl.airtable.com/.attachments/cc4c4a2a465dab0b2798ea550cf21235/4002be50/2019_TechScaleupEurope_Download.pdf.
- Mischke, J., Woetzel, J., Smit, S., Manyika, J., Birshan, M., Windhagen, E., . . . Nogue, M. C. (2021). *Will productivity and growth return after the COVID-19 crisis?* Retrieved from McKinsey & Company: <https://www.mckinsey.com/industries/public-and-social-sector/our-insights/will-productivity-and-growth-return-after-the-covid-19-crisis>. 19.01.22
- Moen, Ø., & Rialp, A. C. (2019). European SMEs and the Born Global concept. In (pp. 79-90).
- Monaghan, S., Tippmann, E., & Coviello, N. (2019). Born digitals: Thoughts on their internationalization and a research agenda. *Journal of International Business Studies*, 51. doi:10.1057/s41267-019-00290-0.

- Monteiro, G. F. A. (2019). High-growth firms and scale-ups: a review and research agenda. *RAUSP Management Journal*, 54(1), 96-111. doi:10.1108/RAUSP-03-2018-0004. 2022/05/24
- Mudalige, D., Ismail, N. A., & Malek, M. A. (2019). Exploring the Role of Individual Level and Firm Level Dynamic Capabilities in SMEs' Internationalization. *Journal of International Entrepreneurship*, 17(1), 41-74. doi:10.1007/s10843-018-0239-2.
- Mwesiumo, D., Buvik, A., & Andersen, O. (2018). Contractual safeguarding of specific assets in cross-border and domestic buyer–supplier relationships. *Journal of Strategic Contracting and Negotiation*, 4(3), 167-185. doi:10.1177/2055563620918866.
- Nagaoka, S. (2004). *R&D and Market Value: Appropriability vs. Preemption*. Retrieved from Institute of Innovation Research, Hitotsubashi University: <https://ideas.repec.org/p/hit/iirwps/04-03.html>.
- Nayyar, P. R. (1990). Information asymmetries: A source of competitive advantage for diversified service firms. *Strategic Management Journal*, 11(7), 513-519. doi:<https://doi.org/10.1002/smj.4250110703>.
- Nesset, E., Bergem, O., Nervik, B., Schiøll Sørli, E., & Helgesen, Ø. (2021). Building chain loyalty in grocery retailing by means of loyalty programs – A study of ‘the Norwegian case’. *Journal of Retailing and Consumer Services*, 60, 102450. doi:<https://doi.org/10.1016/j.jretconser.2021.102450>.
- Nettskjema. (2022). Nettskjema. Retrieved from <https://nettskjema.no> 20.05.2022
- Nielsen, C., & Lund, M. (2018a). Building Scalable Business Models. *MIT Sloan Management Review*, 59(2), 65-69.
- Nielsen, C., & Lund, M. (2018b). The Concept of Business Model Scalability. *Journal of Business Models*, 6(1), 1-18. doi:<https://doi.org/10.5278/ojs.jbm.v6i1.2235>.
- Nujen, B., Mwesiumo, D., Solli-Sæther, H., Slyngstad, A., & Halse, L. L. (2018). Backshoring readiness. *12*, 172-195. doi:10.1108/JGOSS-05-2018-0020.
- Nummela, N., Saarenketo, S., & Puumalainen, K. (2009). A Global Mindset — A Prerequisite for Successful Internationalization? *Canadian Journal of Administrative Sciences-revue Canadienne Des Sciences De L Administration*, 21, 51-64.
- OECD. (2021). *Understanding Firm Growth: Helping SMEs Scale-Up*. Retrieved from <https://www.oecd-ilibrary.org/docserver/fc60b04c-en.pdf>. 24.02.22
- Ohmae, K. (1989). Managing in a Borderless World. *Harvard Business Review*(May). Retrieved from <https://hbr.org/1989/05/managing-in-a-borderless-world>
- Okasha, S. (2002). *Philosophy of science: A very short introduction* (Vol. 67): Oxford Paperbacks.

- Oviatt, B. M., & McDougall, P. P. (1994). Toward a Theory of International New ventures. *Journal of International Business Studies*, 25(1), 45-64. doi:10.1057/palgrave.jibs.8490193.
- Oviatt, B. M., McDougall, P. P., & Marvin, L. (1995). Global Start-Ups: Entrepreneurs on a Worldwide Stage [and Executive Commentary]. *The Academy of Management Executive (1993-2005)*, 9(2), 30-44. Retrieved from <http://www.jstor.org/stable/4165256> 2022/01/26/
- Pallant, J. (2020). *SPSS Survival Manual* (7th ed.). United Kingdom: McGraw-Hill Open University Press.
- Peña, I. (2002). Intellectual Capital and Business Start-Up Success. *Journal of Intellectual Capital*, 3, 180-198. doi:10.1108/14691930210424761.
- Peña, I. (2004). Business incubation centers and new firm growth in the Basque country. *Small Business Economics*, 22(3-4), 223-236. doi:10.1023/b:sbej.0000022221.03667.82.
- Peng, M., & Meyer, K. (2019). *International Business* (3rd ed.). United Kingdom: Cengage Learning EMEA.
- Phan, P., & Fan, T. (2007). International New Ventures: Revisiting the Influences behind the 'Born-Global' Firm. *Journal of International Business Studies*, 38, 1113-1131. doi:10.1057/palgrave.jibs.8400308.
- Piaskowska, D., Tippmann, E., & Monaghan, S. (2021). Scale-up modes: Profiling activity configurations in scaling strategies. *Long Range Planning*, 54(6), 102101. doi:<https://doi.org/10.1016/j.lrp.2021.102101>.
- Pindado, J., de Queiroz, V., & de la Torre, C. (2010). How Do Firm Characteristics Influence the Relationship between R&D and Firm Value? *Financial Management*, 39(2), 757-782. Retrieved from <http://www.jstor.org/stable/40732456> 2022/05/31/
- ProductPlan. (2022). Product-Market-Fit. Retrieved from <https://www.productplan.com/glossary/product-market-fit/> 30.03.2022
- Praag, M., & Versloot, P. (2008). The Economic Benefits and Costs of Entrepreneurship: A Review of the Research. *Foundations and Trends® in Entrepreneurship*, 4. doi:10.1561/03000000012.
- Rahi, S. a. G., M. (2016). Internet banking, customer perceived value and loyalty: the role of switching costs. *J Account Mark*, 188. Retrieved from https://www.researchgate.net/profile/Samar-Rahi/publication/309155529_Internet_Banking_Customer_Perceived_Value_and_Loyalty_The_Role_of_Switching_Costs/links/58014c2a08ae310e0d98af09/Internet-Banking-Customer-Perceived-Value-and-Loyalty-The-Role-of-Switching-Costs.pdf 24.03.2022

- Reiche, B. S., Lee, Y.-t., & Allen, D. G. (2019). Actors, Structure, and Processes: A Review and Conceptualization of Global Work Integrating IB and HRM Research. *Journal of Management*, 45(2), 359-383. doi:10.1177/0149206318808885.
- Rennie, M. W. (1993). Global Competitiveness: Born Global. *McKinsey Quarterly*, 4(1993), 45-52.
- Reuber, A. R., & Fischer, E. (1999). Understanding the consequences of founders' experience. *Journal of Small Business Management*, 37(2), 30.
- Reuber, A. R., Tippmann, E., & Monaghan, S. (2021). Global scaling as a logic of multinationalization. *Journal of International Business Studies*, 52(6), 1031-1046. doi:10.1057/s41267-021-00417-2.
- Rhinesmith, S. (1993). A manager's guide to globalization: Six keys to success in a changing world. Homewood, IL: Richard D. Irwin. In: Inc.
- Robinson, W. I. (1998). Beyond Nation-State Paradigms: Globalization, Sociology, and the Challenge of Transnational Studies. *Sociological Forum*, 13(4), 561-594. Retrieved from <https://robinson.faculty.soc.ucsb.edu/Assets/pdf/beyond%20nation%20state.pdf>
- Roth, C. (2019). 2019: When We Exceeded 1 Billion Knowledge Workers. Retrieved from <https://blogs.gartner.com/craig-roth/2019/12/11/2019-exceeded-1-billion-knowledge-workers/> 22.03.2022
- Santangelo, G. D., & Meyer, K. E. (2017). Internationalization as an evolutionary process. *Journal of International Business Studies*, 48(9), 1114-1130. doi:10.1057/s41267-017-0119-3.
- Saunders, M. N. K., Lewis, P., & Thornhill, A. (2019). *Research Methods for Business Students*. Harlow, United Kingdom: Pearson Education Limited.
- Scale Up Institute. (2021). Explore the ScaleUp Annual Review 2021. Retrieved from <https://www.scaleupinstitute.org.uk/scaleup-review-2021/> 02.06.2022
- Schoar, A. (2010). The Divide between Subsistence and Transformational Entrepreneurship. *Innovation Policy and the Economy*, 10, 57-81. doi:10.1086/605853.
- Segal-Horn, S., & Faulkner, D. (1999). *The Dynamics of International Strategy*: International Thomson Business.
- Seibert, S. E., Crant, J. M., & Kraimer, M. L. (1999). Proactive personality and career success. *Journal of Applied Psychology*, 84(3), 416.
- Senderovitz, M., Klyver, K., & Steffens, P. (2016). Four years on: Are the gazelles still running? A longitudinal study of firm performance after a period of rapid growth. *International Small Business Journal*, 34(4), 391-411.
- Shane, S. (2009). Why encouraging more people to become entrepreneurs is bad public policy. *Small Business Economics*, 33(2), 141-149.

- Shepherd, D. A., & Patzelt, H. (2022). A Call for Research on the Scaling of Organizations and the Scaling of Social Impact. *Entrepreneurship Theory and Practice*, 46(2), 255-268. doi:10.1177/1042258720950599.
- Silver, C. (2021). The Top 25 Economies in the World. Retrieved from <https://www.investopedia.com/insights/worlds-top-economies/> 26.01.2021
- Siva. (2022a). Facilitates growth and development in industry and business in Norway. Retrieved from <https://siva.no/english/> 23.02.2022
- Siva. (2022b). *KUNNSKAPSGRUNNLAG - SKALERING SOM EN DEL AV REVIDERT INKUBASJONSPROGRAM*. Internal SIVA report: unpublished.
- Solberg, C. A., & Askeland, V. (2006). *The Relevance of Internationalization Theories: a Contingency Framework*.
- SSB. (2022). Utenrikshandel med varer. Retrieved from <https://www.ssb.no/utenriksokonomi/utenrikshandel/statistikk/utenrikshandel-med-varer> 22.03.2022
- Stam, E., & Wennberg, K. (2009). The roles of R&D in new firm growth. *Small Business Economics*, 33(1), 77-89. doi:10.1007/s11187-009-9183-9.
- Steger, M., & James, P. (2020). Disjunctive Globalization in the Era of the Great Unsettling. *Theory, Culture & Society*, 37(7-8), 187-203. doi:10.1177/0263276420957744.
- Stenbacka, C. (2001). Qualitative research requires quality concepts of its own. *Management Decision*, 39(7), 551-556. doi:10.1108/EUM0000000005801. 2022/06/02
- Stiglitz, J. E., & Stiglitz, J. (2006). *Making Globalization Work*: W.W. Norton & Company.
- Stokan, E., Thompson, L., & Mahu, R. J. (2015). Testing the Differential Effect of Business Incubators on Firm Growth. *Economic development quarterly*, 29(4), 317-327. doi:10.1177/0891242415597065.
- Szulanski, G., & Jensen, R. J. (2008). Growing through copying: The negative consequences of innovation on franchise network growth. *Research Policy*, 37(10), 1732-1741.
- Taghian, M., & Shaw, R. N. (2010). Market fit and business performance: an empirical investigation. *Journal of Strategic Marketing*, 18(5), 395-415. doi:10.1080/0965254X.2010.497844.
- Tallman, S., Jenkins, M., Henry, N., & Pinch, S. (2004). Knowledge, Clusters, and Competitive Advantage. *The Academy of Management Review*, 29(2), 258-271. doi:10.2307/20159032. 2022/06/03/
- Tallman, S., Luo, Y., & Buckley, P. J. (2018). Business models in global competition. *Global Strategy Journal*, 8(4), 517-535.

- Tan, D., & Mahoney, J. (2006). Why a Multinational Firm Chooses Expatriates: Integrating Resource-Based, Agency and Transaction Costs Perspectives. *Journal of Management Studies*, 43, 457-484. doi:10.1111/j.1467-6486.2006.00598.x.
- Teece, D., & Pisano, G. (1994). The Dynamic Capabilities of Firms: An Introduction. *Industrial and Corporate Change*, 3, 537-556. doi:10.1093/icc/3.3.537-a.
- Teece, D. J. (2018). Business models and dynamic capabilities. *Long Range Planning*, 51(1), 40-49. doi:<https://doi.org/10.1016/j.lrp.2017.06.007>.
- Teece, D. J., Pisano, G., & Shuen, A. (1997). Dynamic capabilities and strategic management. *Strategic Management Journal*, 18(7), 509-533. doi:[https://doi.org/10.1002/\(SICI\)1097-0266\(199708\)18:7<509::AID-SMJ882>3.0.CO;2-Z](https://doi.org/10.1002/(SICI)1097-0266(199708)18:7<509::AID-SMJ882>3.0.CO;2-Z).
- Tellefsen, T. K. (2021). Made in Norway. Retrieved from <https://kapital.no/reportasjer/naeringsliv/2021/05/28/7676017/norske-merkevarer-med-suksess-i-utlandet> 06.05.2022
- The World Bank. (2021). DataBank - World Development Indicators. Retrieved from <https://databank.worldbank.org/reports.aspx?source=2&series=NY.GDP.MKTP.CD&country=#> 26.01.2022
- Torkkeli, L., Nummela, N., & Saarenketo, S. (2018). A global mindset – still a prerequisite for successful SME internationalization? In (pp. 7-24).
- Tulder, R. v., Jankowska, B., & Verbeke, A. (2019). Introduction: Progress in International Business Research in an Increasingly VUCA World. In R. V. Tulder, A. Verbeke, & B. Jankowska (Eds.), *International Business in a VUCA World: The Changing Role of States and Firms* (Vol. 14, pp. 1-20): Emerald Publishing Limited.
- Upland. (2022). Survey Response Rates Under 2.7%: What We Learned from “Failure”. Retrieved from <https://uplandsoftware.com/kapost/resources/blog/survey-response-rates/> 01.06.2022
- Verbeke, A., & Ciravegna, L. (2018). International entrepreneurship research versus international business research: A false dichotomy? *Journal of International Business Studies*, 49(4), 387-394. doi:10.1057/s41267-018-0154-8.
- Wei, Z., Song, X., & Wang, D. (2017). Manufacturing flexibility, business model design, and firm performance. *International Journal of Production Economics*, 193, 87-97. doi:<https://doi.org/10.1016/j.ijpe.2017.07.004>.
- Wiklund, J., & Shepherd, D. (2003). Knowledge-based resources, entrepreneurial orientation, and the performance of small and medium-sized businesses. *Strategic Management Journal*, 24(13), 1307-1314. doi:<https://doi.org/10.1002/smj.360>.
- Williamson, O. E. (1985). *The Economic Institutions of Capitalism*: Free Press.

- Wincent, J., Anokhin, S., Örtqvist, D., & Autio, E. (2010). Quality Meets Structure: Generalized Reciprocity and Firm-Level Advantage in Strategic Networks. *Journal of Management Studies*, 47(4), 597-624. doi:<https://doi.org/10.1111/j.1467-6486.2009.00882.x>.
- Winter, S. G., Szulanski, G., Ringov, D., & Jensen, R. J. (2012). Reproducing knowledge: Inaccurate replication and failure in franchise organizations. *Organization science*, 23(3), 672-685.
- Wold, H. O. A. (2006). *Partial least squares: In encyclopedia of statistical sciences* (Vol. 9): John Wiley & Sons Inc.
- Wong, H. Y., & Merrilees, B. (2012). Born Globals: How are they Different? *Advances in International Marketing*, 23, 305-329. doi:10.1108/S1474-7979(2012)0000023019.
- World Trade Centre Toronto. (2019). *Defying Gravity: Building a Scale-up Ecosystem*. Retrieved from https://www.bot.com/Portals/0/NewsDocuments/WTC_scaleup_rpt_FINAL_LR.pdf. 10.03.22
- Wu, L.-Y., Chen, K.-Y., Chen, P.-Y., & Cheng, S.-L. (2014). Perceived value, transaction cost, and repurchase-intention in online shopping: A relational exchange perspective. *Journal of Business Research*, 67(1), 2768-2776. doi:<https://doi.org/10.1016/j.jbusres.2012.09.007>.
- Yin, R. K. (2018). *Case Study Research and Applications: Design and Methods* (6th ed.). Thousand Oaks, California: SAGE.
- Zaheer, S. (1995). Overcoming the liability of foreignness. *Academy of Management Journal*, 38(2), 341-363. doi:10.2307/256683.
- Zahra, S., Sapienza, H., & Davidsson, P. (2006). Entrepreneurship and Dynamic Capabilities: A Review, Model and Research Agenda*. *Journal of Management Studies - J MANAGE STUD-OXFORD*, 43, 917-955. doi:10.1111/j.1467-6486.2006.00616.x.
- Zhou, N., & Park, S. (2020). Growth or profit? Strategic orientations and long-term performance in China. *Strategic Management Journal*, 41, 2050-2071. doi:10.1002/smj.3193.
- Zott, C., & Amit, R. (2007). Business Model Design and the Performance of Entrepreneurial Firms. *Organization science*, 18(2), 181-199. Retrieved from <http://www.jstor.org/stable/25146093> 2022/03/03/
- Zucchella, A. (2021). International entrepreneurship and the internationalization phenomenon: taking stock, looking ahead. *International Business Review*, 30(2), 101800. doi:<https://doi.org/10.1016/j.ibusrev.2021.101800>.
- ÅKP. (2022). An innovation company for the whole Sunnmøre region. Retrieved from <https://www.aakp.no/aakp-en/about/> 23.02.2022

Appendix

Appendix 1: Interview guide

The key informant

Name, position in what company, expert area

Scale-up and fast growth

1. Can you explain what “scale-up” means to you? (Ex. Business turnover, branches, employees)
2. How is “scale-up” usually measured?
3. How would you compare “fast growth” and “scale-up”?
4. What do you think is the meaning of a firm’s “fast growth internationally”? How fast and how much growth?
5. How do “high growth” and “fast growth” differ?
6. What are the ‘causes’ of scale-up/growth?
Internal: ... (ex. Entrepreneur motivation, business model, firm factors)
External: ... (ex. Raising capital, demand conditions, incubators, policies, home market, network)
7. Is “scale-up” a term that is commonly used by firms you are in contact with? What other words are used? (ex. Fast growth)
8. How would you describe the business model of a scale-up firm? Any characteristics? (E.g., digital offering, automation, scalability)

Entrepreneur, innovation, and network

1. How important are the founder’s characteristics for a firm’s growth? (Ex. international experience, network, drive, etc.)
2. How have firms’ innovations/intangibles changed scale-up and internationalization? Why do you think that is?
3. How can knowledge acquisition (the entrepreneur and/or the employees) change a firm’s internationalization strategy?
4. How important is the network of the entrepreneur and the firm to scale up?

Internationalization

How do you think internationalization has changed over the years? (Ex. Globalization, scale-ups, BGs)

Closing comments

1. Based on the questions asked, what do you believe can explain and facilitate the scale-up of Norwegian firms internationally? (Ex. monetary resources, other resources, ownership advantages, entrepreneurial skills, control, networks, experience, etc.)
2. What do you believe are the critical success factors to succeed internationally?
3. Anything you would like to add? (Ex. Important themes which should be added to the questionnaire, anything that is unclear)

Appendix 2: Interview questions (Norwegian)

Tusen takk for at du tar deg tid til å besvare denne spørreundersøkelsen for en masteroppgave ved NTNU Ålesund. Temaet for oppgaven er skalering og vekst av norske firmaer, og vi er interessert i å forstå mer om bedrifter som har blitt karakterisert som en høyvekstbedrift på en måte eller annen. Vekst i denne undersøkelsen er forstått som en økning i omsetning og/eller økning av ansatte. Spørsmål som er rettet mot entreprenøren, er ment til personen(e) som etablerte bedriften. Er du ikke en av dem, så gjelder det *din* oppfatning av hvordan denne/disse personen(e) er. I noen tilfeller er ikke entreprenøren fortsatt i firmaet, og derfor er spørsmålet rettet til «entreprenør/ledelsen» i stedet. Alle svar er anonyme.

Firmabeskrivelser

1. Alder på firma, i år _____
2. Antall ansatte _____
3. Innhentet kapital, i NOK millioner, de siste 3 årene _____
4. Har investeringene generelt hatt _____ avkastning? (Avtakende, Konstant, Økende)
5. Entreprenøren(e) av firmaet har hatt høyere utdanning (bachelorgrad eller mer)? (Ja, Nei)
6. Entreprenøren(e) av firmaet hadde erfaring med oppstart av bedrifter før? (Ja, Nei)
7. Antall godkjente patenter (0, 1-5, 6-10, 10+)
8. Er eller har firmaet vært medlem hos et inkubasjonssenter (f.eks. i regi av Siva, Innovasjon Norge eller lignende) (Ja, Nei)
9. De siste tre årene har firmaet hatt en økning av ansatte på ___% hvert år. (0-9%, 10-19%, 20+%)
10. De siste tre årene har firmaet hatt en økning i omsetning ___% hvert år. (0-9%, 10-19%, 20+%)
11. Hvor raskt etter oppstart gikk bedriften internasjonalt? (0-3 år, 4-6 år, 7-9 år, 10 eller flere år, Har ikke gått internasjonalt)
12. Prosentandel av total salgsomsetning som kommer fra eksportvirksomhet (i 2021). (0%, 1-24%, 25-49%, 50-74%, 75-100%)
13. På hvilken måte gikk firmaet inn i det første internasjonale markedet? Med andre ord, hvilken entry mode ble først benyttet

- (Direkte eksport, Eksport via agent eller distributør, Lisensiering/franchising, Joint Venture/strategiske allianser, Egne datterselskaper/kontorer, Ingen eksport)
14. På hvilken måte går firmaet stort sett inn i nytt marked? (Direkte eksport, Eksport via agent eller distributør, Lisensiering/franchising, Joint Venture/strategiske allianser, Egne datterselskaper/kontorer, Ingen eksport)
15. I hvilken region startet firmaet sin eksportvirksomhet? (Vestlige Europa (inkludert Skandinavia), Russland og de Baltiske landene, Asia, Øst-Europa, Nord-Amerika, Afrika og Midtøsten, Sør- og Mellom-Amerika, Ingen eksport)
16. Hvilke regioner opererer firmaet i, per i dag? (Vestlige Europa (inkludert Skandinavia), Russland og de Baltiske landene, Asia, Øst-Europa, Nord-Amerika, Afrika og Midtøsten, Sør- og Mellom-Amerika, Ingen eksport)

Meninger

Den neste delen omhandler dine egne meninger, hvor 1 = sterkt uenig og 7 = sterkt enig i den uttalelsen som blir presentert.

17. Ledelsen motiverer de ansatte til å tenke utenfor boksen
18. Firmaet introduserer innovasjoner som er helt nye til markedet
19. Der er store komponenter av kunnskap i våre produkt og tjenester (m.a.o. kunnskapsbasert)
20. Vi ser det nødvendig å involvere oss i et nettverk med andre bedrifter
21. Vi prøver å ta inn mange eksterne deltakere i våre prosesser og prosjekter tidlig
22. Relasjoner til deltakere i bedriftsnettverket er viktig for veksten av vårt firma
23. Entreprenøren(e) er veldig god til å identifisere muligheter
24. Entreprenøren(e) kan se muligheter før andre gjør det
25. Entreprenør/ledelsen er villig til å ta firmaet til internasjonale markeder
26. Internasjonalisering er den eneste måten for oss å nå vekstmålet
27. Bedriften har hovedsakelig en forretningsmodell med et skalerbart produkt (Med andre ord, et produkt som kan fungere bra når det øker i volum eller størrelse, som f. eks en digital løsning)
28. Firmaet vårt gjør det mulig at alle vi gjør forretninger med (inkludert kunder) kan ta informerte beslutninger (For eksempel anbefalinger, nyheter eller erfaringer om firmaet er lette å finne)

29. Folk må bruke mye tid på å forstå hvordan de skal bruke våre produkter eller tjenester. (For eksempel, en stor investering eller et komplekst produkt)
30. Å bytte fra vårt firma til et konkurrerende firma krever en vesentlig kostnad for kunden (For eksempel monetære kostnader som gamle investeringer som ikke kan brukes opp igjen siden konkurrenten benytter andre systemer eller standarder, eller tidskostnader som at konkurrenten ikke vet hva kunden trenger og må bruke tid på å forstå behovet.)
31. Forretningsmodellen muliggjør nye kombinasjoner av produkter, tjenester og informasjon (f.eks. gjennom innovative produksjonsprosesser, automasjon, roboter)
32. Immaterielle tjenester (f.eks. kurs, nettverk, konsultasjon og overvåkning) fra inkubasjonssenteret har hatt stor innvirkning på firmaets suksess. (Om firmaet ikke har vært i samarbeid med inkubatorer, blir ikke spørsmålet vist)
33. Relasjoner til andre bedrifter i inkubatorsystemet har vært viktig for vår bedrifts vekst. (Om firmaet ikke har vært i samarbeid med inkubatorer, blir ikke spørsmålet vist)
34. Lite hjemmemarked var en grunn til at vi startet internasjonalisering
35. Kundebevaringsgraden tilsvarer de hos konkurrerende firmaer (Med andre ord, prosentandel kunder som blir værende som kunder ligner de hos konkurrentene)
36. Folk grupperer mentalt produktene våre riktig i forhold til konkurrerende produkter
37. Kunder viser en forståelse for våre produkts unike verdi (value proposition)

Appendix 3: NSD (Norwegian)

[Meldeskjema](#) / [Internasjonalisering av SMB](#) / Vurdering

Vurdering

Referansenummer

546143

Prosjekttittel

Internasjonalisering av SMB

Behandlingsansvarlig institusjon

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

Prosjektansvarlig

Siv Marina Flø Grimstad

Student

Stine Mari Fiskerstrand

Prosjektperiode

01.01.2022 - 30.06.2022

[Meldeskjema](#) 

Dato

06.03.2022

Type

Standard

Kommentar

OM VURDERINGEN

Personverntjenester har en avtale med institusjonen du forsker eller studerer ved. Denne avtalen innebærer at vi skal gi deg råd slik at behandlingen av personopplysninger i prosjektet ditt er lovlig etter personvernregelverket.

Personverntjenester har nå vurdert den planlagte behandlingen av personopplysninger. Vår vurdering er at behandlingen er lovlig, hvis den gjennomføres slik den er beskrevet i meldeskjemaet med dialog og vedlegg.

Appendix 4: Descriptive statistics

Table A4.1: Descriptive statistics

Measure	Item	Frequency	Percentage
Firm age	Age in numbers: 1-75, 12.43 mean. Median: 8		
Number of employees	Number of employees: 0-250, 24.83 mean. Median: 12		
Capital raised	Capital raised in MNOK: 0-1600, 25.25 mean. Median: 0.5		
Return on investment	Decreasing	Deleted	
	Constant	26	23.9%
	Increasing	83	76.1%
Entrepreneur college degree	Yes	76	69.7%
	No	33	30.3%
Previous start up experience	Yes	63	57.8%
	No	46	42.2%
Employees education	Yes	64	58.7%
	No	45	41.3%
Patents granted	0	80	73.4%
	1-5	23	21.1%
	6-10	3	2.6%
	10+	3	2.6%
Incubator member	Yes	33	30.3%
	No	76	69.7%
Employees increase the last 3 years	0-9%	23	21.1%
	10-19%	37	33.9%
	20+%	49	45.0%
Turnover increase the last 3 years	0-9%	5	4.6%
	10-19%	25	22.9%
	20+%	79	72.5%
How fast they went international	0-3 years	34	31.2%
	4-6 years	8	7.3%
	7-9 years	5	4.6%
	10+ years	9	8.3%
	No export	53	48.6%
Export share	0%	57	52.3%
	1-24%	25	22.9%
	25-49%	8	7.3%
	50-74%	8	7.3%

	75-100%	11	10.1%
Entry mode they began with	Export	35	32.1%
	Agent/ distributor	11	10.1%
	License/ Franchise	1	0.9%
	JVs/ Strategic Alliance	3	2.6%
	Wholly owned subsidiaries	6	5.5%
	No export	53	48.6%
Usual entry mode today	Export	32	29.4%
	Agent/ distributor	14	12.8%
	License/ Franchise	0	0%
	JVs/ Strategic Alliance	6	5.5%
	Wholly owned subsidiaries	8	7.3%
	No export	49	44.6%
First region to export to	Western Europe	48	44%
	Russia + Baltics	1	0.9%
	Asia	3	2.6%
	Eastern Europe	1	0.9%
	North America	4	3.7%
	Africa + Middle East	2	1.8%
	South + Central America	1	0.9%
	No export	49	44.6%
Export countries today	Western Europe	60	55%
	Russia + Baltics	10	9.2%
	Asia	24	22%
	Eastern Europe	13	11.9%
	North America	32	29.4%
	Africa + Middle East	8	7.3%
	South + Central America	16	14.7%
	No export	47	43.1%

Appendix 5: Factor analysis

Table A5.1: Total Variance Explained

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.570	26.525	26.525	5.570	26.525	26.525	2.871	13.670	13.670
2	2.377	11.319	37.845	2.377	11.319	37.845	2.490	11.855	25.525
3	2.065	9.832	47.676	2.065	9.832	47.676	2.377	11.318	36.843
4	1.577	7.508	55.185	1.577	7.508	55.185	2.258	10.750	47.593
5	1.358	6.468	61.652	1.358	6.468	61.652	2.070	9.859	57.452
6	1.072	5.104	66.756	1.072	5.104	66.756	1.954	9.304	66.756
7	.920	4.379	71.136						
8	.854	4.069	75.205						
9	.777	3.698	78.902						
10	.717	3.413	82.315						
11	.616	2.932	85.247						
12	.506	2.411	87.658						
13	.438	2.083	89.741						
14	.410	1.950	91.691						
15	.356	1.695	93.387						
16	.344	1.639	95.026						
17	.292	1.391	96.417						
18	.251	1.194	97.611						
19	.204	.969	98.580						
20	.156	.741	99.322						
21	.142	.678	100.000						

Extraction Method: Principal Component Analysis.

Table A5.2: Rotated Component Matrix

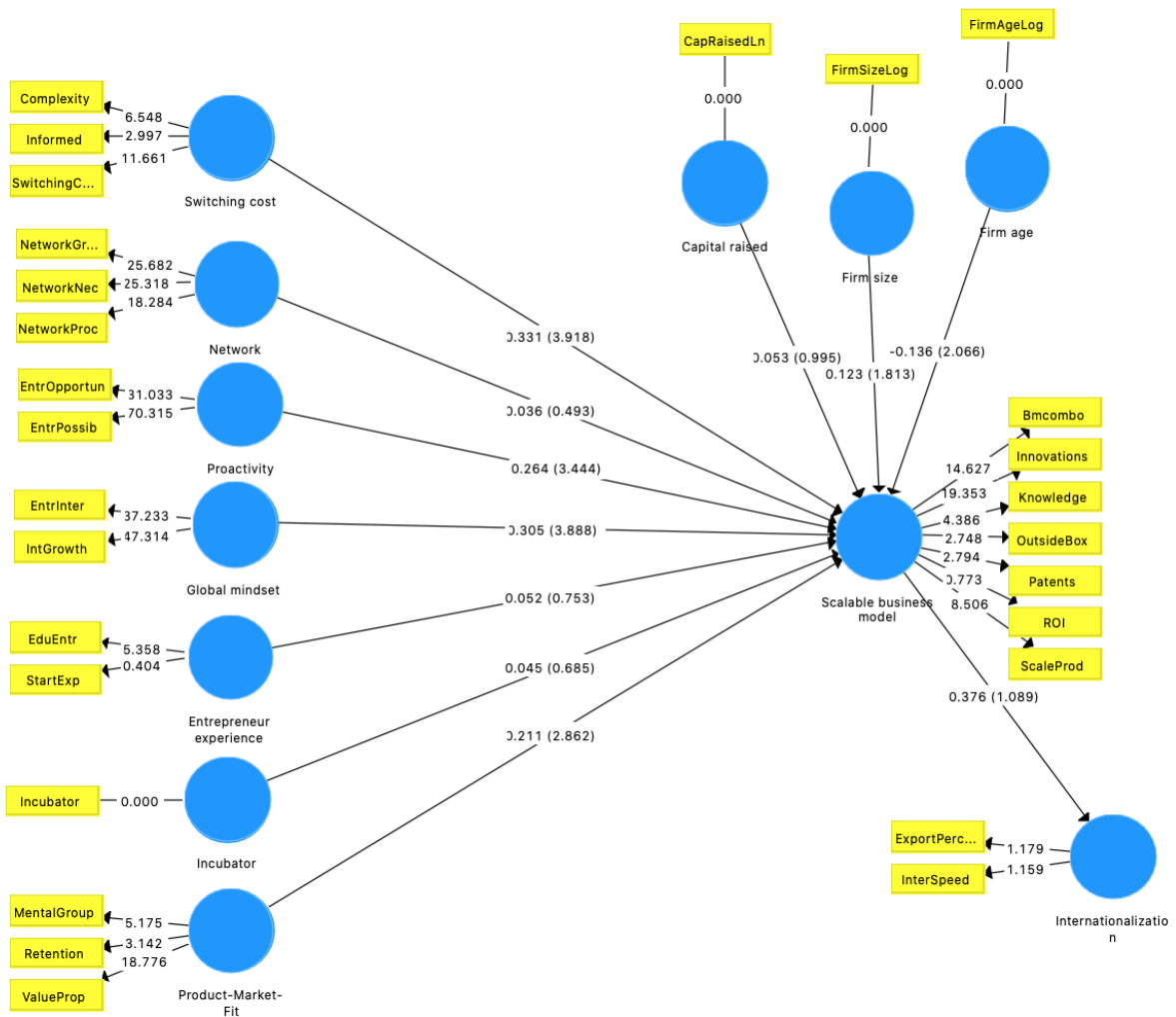
Rotated Component Matrix^a

	Component					
	1	2	3	4	5	6
Granted patents	.336	.373				
How fast they went international	-.846					
How much of turnover is from export	.882					
Leader motivates employees to think outside the box			.679			
Firm introduces new innovations to the market			.322	.756		
Knowledge intensive firm			.325			.627
Necessary to involve in a network of other firms		.844				
Include network in processes and projects early		.720				
Network is necessary for our growth		.872				
Entrepreneur identifies opportunities			.852			
Entrepreneur sees possibilities before others			.803	.362		
Entrepreneur is willing to take the firm international	.687			.335		
Internationalization is key to reach growth target	.741			.365		
Scalable product				.628		.312
Possible for stakeholders to take informed decisions				.307	.511	
People must spend a lot of time to understand the product						.728
Switching cost for customer is substantial						.828
Business model makes it possible for new combinations of products, services, and information				.685		
Customer retention rate is like that of competitors					.712	
People mentally group our product correctly compared to competing firms					.826	
Customers understand the value proposition				.374	.646	

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.

Appendix 6: PLS full model based on the theory



Appendix 7: PLS measurement model

Table A7.1: Statistical metrics of the items (n = 109)

Variables (items/factors)	Variable name	Mean	SD	Skewness	Kurtosis
Firm age	Age	12.43	12.066	2.992	10.531
Number of employees	Employees	124.83	37.786	3.159	12.672
Capital raised	CapRaised	25.25	157.25	9.567	95.557
Return on investment	ROI	2.76	.428	-1.244	-.461
Entrepreneur has a college degree	EntrEdu	.7	.462	-.871	-1.266
Entrepreneur has start-up experience	StartExp	.58	.496	-.320	-1.933
Granted patents	Patents	1.35	.672	2.251	5.364
Been with incubator center	Incubator	.3	.462	.871	-1.266
Employee increase	EmpInc	2.24	.781	-.448	-1.220
Turnover increase	TurnInc	2.68	.559	-1.558	1.510
How fast they went international	InterSpeed	3.36	1.803	-.368	-1.728
How much of turnover is from export	ExportPercent	2.0	1.347	1.204	.136
Leaders motivates employees to think outside the box	OutsideBox	5.49	1.324	-1.495	3.978
Firm introduces new innovations to the market	Innovations	4.64	2.106	-.721	.458
Knowledge intensive firm	Knowledge	5.71	1.461	-1.397	1.469
Necessary to involve our firm in a network of other firms	NetworkNec	4.17	2.171	-.344	-.921
Our firm includes the network in processes and projects early	NetworkProc	3.43	2.092	.089	-1.035
Network is necessary for our growth	NetworkGrowth	3.66	2.144	-.150	-1.034
Entrepreneur identifies opportunities	EntrOpportun	5.52	1.183	-.876	1.322
Entrepreneur sees possibilities before others do	EntrePossib	5.29	1.486	-1.175	1.543
Entrepreneur is willing to take the firm international	EntrInter	4.82	2.385	-.830	-.681
Internationalization is key to reach our growth target	IntGrowth	3.10	2.621	.284	-1.433
Our firm predominately has a scalable product	ScaleProd	4.72	2.224	-.693	-.719
It is possible for stakeholders to take informed decisions	Informed	4.91	1.475	-.526	.093
People must spend a lot of time to understand the product	Complexity	2.73	1.913	.405	-.769
Switching cost for the customer is substantial	SwitchingCost	3.25	2.178	-.023	-1.151
Business model makes it possible for new combinations of products	BMcombo	4.55	2.179	-.810	-.419
Intangibles from incubator center has been key to success	IncIntangible	2.91	1.702	.353	-.289
Relationships from incubator center has been key to growth	IncRelations	2.30	1.862	.515	-.509
Small domestic market was a reason for internationalizing	Domestic	3.32	2.435	.245	-1.292
Customer retention rate is like that of competitors	Retention	4.30	1.823	-.237	-.517
People mentally group our product correctly compared to competing firms	MentalGroup	4.52	1.418	-.434	-.381
Customers understand the value proposition	ValueProp	5.16	1.448	-.931	.682

Table A7.3: Discriminant validity: Fornell-Larcker and HTMT (n = 100)

	Capital raised	Entrepreneur experience	Firm age	Firm size	Global mindset	Incubator	Internationalization	Network	Proactivity	Product-Market Fit	Scalable business models	Switching cost
Capital raised	1											
Entrepreneur experience	0.04 (0.04)	1										
Firm age	0.04 (0.04)	-0.12 (0.12)	1									
Firm size	0.29 (0.29)	-0.06 (0.06)	0.36 (0.36)	1								
Global mindset	0.32 (0.36)	-0.02 (0.03)	0.1 (0.12)	0.16 (0.17)	0.91							
Incubator	0.12 (0.12)	-0.08 (0.08)	0.01 (0.01)	0.12 (0.12)	0.27 (0.3)	1						
Internationalization	0.21 (0.21)	-0.01 (0.01)	0.35 (0.35)	0.17 (0.17)	0.61 (0.68)	-0.01 (0.01)	1					
Network	0.11 (0.12)	-0.06 (0.08)	0.02 (0.06)	0.24 (0.26)	0.34 (0.41)	0.33 (0.36)	0.03 (0.05)	0.87				
Proactivity	0.07 (0.07)	0.09 (0.09)	0.01 (0.01)	0.13 (0.13)	0.17 (0.18)	0.06 (0.06)	0.18 (0.18)	0.25 (0.28)	1			
Product-Market Fit	0.07 (0.08)	-0.18 (0.25)	0.04 (0.07)	0.19 (0.26)	0.24 (0.29)	0.15 (0.16)	0.17 (0.19)	0.16 (0.21)	0.24 (0.24)	0.71		
Scalable business models	0.28 (0.34)	-0.03 (0.11)	-0.02 (0.06)	0.20 (0.23)	0.56 (0.74)	0.29 (0.34)	0.31 (0.36)	0.39 (0.49)	0.41 (0.47)	0.48 (0.59)	0.80	
Switching cost	0.16 (0.19)	0.03 (0.05)	0.24 (0.29)	0.28 (0.34)	0.39 (0.54)	0.24 (0.28)	0.24 (0.31)	0.32 (0.4)	0.05 (0.05)	0.02 (0.14)	0.41 (0.55)	0.88

HTMT-values in brackets

Appendix 8: PLS structural modeling

Table A8.1: f square

	Internationalization	Scalable business models
Capital raised		0.01
Customer switching cost		0.12
Proactivity		0.11
Global mindset		0.15
Firm age		0.07
Firm size		0.04
Incubator		0.01
Network		0.00
Product-Market Fit		0.28
Scalable business models	0.11	
Entrepreneur experience		0.00

Table A8.2: Specific Indirect effects

Paths	Specific indirect effects
Firm age → Scalable business models → Internationalization	-.06 (2.31)
Entrepreneur experience → Scalable business models → Internationalization	.00 (0.16)
Firm size → Scalable business models → Internationalization	.05 (1.98)
Global mindset → Scalable business models → Internationalization	.09 (2.31)
Incubator → Scalable business models → Internationalization	.01 (0.73)
Network → Scalable business models → Internationalization	.01 (0.43)
Proactivity → Scalable business models → Internationalization	.07 (2.58)
Product-Market Fit → Scalable business models → Internationalization	.12 (3.34)
Switching costs → Scalable business models → Internationalization	.08 (2.81)
Capital raised → Scalable business models → Internationalization	.02 (1.07)

t-values in brackets.

