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How the entrepreneurial ecosystem contributes towards the scaling of Norwegian technology companies

A qualitative study

Master's thesis in International Business

Supervisor: Kjersti Kjos Longva

Co-supervisor: Øivind Strand

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Norwegian University of Science and Technology
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Trondheim, June 2022

Flora Joelle Mbuebue Larsen

Abstract

This thesis aims to explore how the entrepreneurial ecosystem contribute to the scaling of Norwegian tech companies. The Norwegian government has over the years taken measures to increase the level of entrepreneurial activities in Norway. This makes them an important stakeholder for Norwegian entrepreneurs. Identifying important stakeholders and studying how they contribute to the entrepreneurial ecosystem is a valuable addition to the concept of entrepreneurial ecosystems, as there is limited empirical research that showcases cause and effect. An interesting aspect of the research is that it follows a threefold perspective which gives an insight into how the stakeholders “Support Organizations” and “Financial Resources” view their own contribution, as well as how the entrepreneurs view those stakeholders’ contribution.

The main theoretical frameworks that are applied are Shane & Venkataraman’s (2000) concept of discovery, explore and exploit, to study the entrepreneurial process. Isenberg (2011)’s domains of entrepreneurship ecosystem (2011) as well as The MIT stakeholder model (Budden & Murray, 2019) is used to help define important stakeholders in Norway. Other theories that study the roles of the different stakeholders that are identified for the Norwegian entrepreneurship ecosystem, are also applied.

The thesis follows a qualitative approach, where semi structured interviews are conducted on 16 informants: 4 entrepreneurs, 7 informants from banks and venture capitals, and 5 informants from support organizations.

The main finding in this thesis is the broad role that the government plays as a stakeholder and the big contribution that they provide to the entrepreneurial ecosystem. Knowledge sharing, financing, and engaging in an extended business network seem to be important contributing factors towards scaling for tech businesses. And the government as a stakeholder can provide all of this to entrepreneurs. Financial resources are necessary for the entrepreneurs in the sample to be able to scale, they do however seem to prefer invested capital over borrowed capital. In the case that they receive borrowed capital, they normally receive this from a governmental support organization. For knowledge sharing and access to an extended network, they tend to seek incubators and governmental support organizations. Venture capitals are appreciated for the capital that they add to the businesses, as well as their

contribution through their seat on the board as well as their active role in the business. This adds to the limited research on entrepreneurial ecosystem and is an empirical contribution to help understand the Norwegian Entrepreneurial ecosystem.

Sammendrag

Denne oppgaven tar sikte på å utforske hvordan det entreprenørielle økosystemet bidrar til skalering av norske teknologiselskaper. Den norske regjeringen har gjennom årene iverksatt tiltak for å øke nivået på gründervirksomhet i Norge. Dette gjør dem til en viktig interessent for norske gründere. Å identifisere viktige interessenter og studere hvordan de bidrar til det entreprenørielle økosystemet er et verdifullt tillegg til konseptet rundt entreprenørielle økosystemer, ettersom det er begrenset empirisk forskning som viser årsak og virkning. Et interessant aspekt ved forskningen er at den følger et tredelt perspektiv som gir et innblikk i hvordan interessentene «Støtteorganisasjoner» og «Finansielle ressurser» ser på sitt eget bidrag, samt hvordan gründerne ser på disse interessentenes bidrag.

De viktigste teoretiske rammeverkene som brukes er Shane & Venkataraman (2000)'s konsept for «Discover, explore and exploit», for å studere gründerprosessen. Isenbergs «Domains of entrepreneurship ecosystem» (2011), samt «MIT stakeholder model» (Budden & Murray, 2019) brukes til å definere viktige interessenter i Norge. Andre teorier som studerer rollene til de ulike interessentene som er identifisert for det norske entreprenørskapsøkosystemet, brukes også.

Opgaven følger en kvalitativ tilnærming, der semistrukturerte intervjuer gjennomføres med 16 informanter: 4 entreprenører, 7 informanter fra banker og venture capital og 5 informanter danner støtteorganisasjoner.

Hovedfunnet i denne oppgaven er den brede rollen som myndighetene spiller som en interessent og det store bidraget de gir til det entreprenørielle økosystemet. Kunnskapsdeling, finansiering og engasjement i et utvidet forretningsnettverk ser ut til å være viktige medvirkende faktorer for skalering for teknologibedrifter. Og myndighetene som interessent kan gi alt dette til gründere. Økonomiske ressurser er nødvendige for at gründerne i utvalget skal kunne skalere, men de ser imidlertid ut til å foretrekke investert kapital fremfor lånt kapital. I de tilfellene de mottar lånt kapital, mottar de normalt dette fra en statlig støtteorganisasjon. For kunnskapsdeling og tilgang til et utvidet nettverk, har de en tendens til å søke inkubatorer og statlige støtteorganisasjoner. Venturekapitaler blir verdsatt for kapitalen de tilfører virksomhetene, så vel som deres bidrag gjennom sin plass i styret samt deres aktive rolle i virksomheten. Denne forskningen bidrar til den begrensede forskningen

på entreprenørielle økosystemer og er et empirisk bidrag for å hjelpe til med å forstå det norske entreprenørielle økosystemet.

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1 Introduction

1.1 Background

The popularity of entrepreneurial ecosystem has increased the last years (Stam, 2015; Stam & Spigel, 2012). With success stories like Silicon Valley, the worlds eyes seem to be open to the concept of regional hubs that produces high levels of entrepreneurship, with the anticipation of what “the next big thing” might be. More governments are catching up to this (Government of India’s planning commission, 2012; OC&C, 2018), as we hear about countries like Israel (Budden & Murray, 2019) that have been capable of achieving high levels of entrepreneurial activities, more countries are looking to strengthen their positions on entrepreneurship.

In the Nordic countries we have successful businesses such as Spotify and Klarna, from Sweden. The Nordics (Denmark, Norway, Sweden, and Finland) were in 2020, estimated to have 26 unicorns (Nordea, 2020) and were right behind the USA based on the number of unicorns per capita. At the time, Norway stood for none of the unicorns, however, two years later and Norway has had the pleasure of announcing 6 unicorns (Oslo Business Region, 2022) that have emerged, where the most known are Kahoot, Oda and Cognite. There have been some speculations as to why Norway has not been able to produce unicorns earlier, with some blaming the slow growth of investment culture and the high taxes that Norwegian companies must pay (Tenk digitalt, 2020).

The Norwegian government, seem to be doing what they can to increase the number of successful businesses, by trying to encourage higher levels of entrepreneurial activities and increase the number of businesses that scale globally. They have implemented different measures to reach this through their different grant schemes (Innovasjon Norge, 2022; Forskningsrådet, 2022) and tax deductions (SkatteFUNN, 2021) for qualifying businesses. They have lately promised to do even more for Norwegian businesses, to enable more growth.

The Norwegian government (Regjeringen, 2021) wish to increase the countries exportation with 50 percent by the year 2030, because they realize the importance of international trade and the positive effects that this has on the Norwegian economy. They want to reach this goal by investing more in different export development schemes, as well as identifying new

measures that can be taken to reach this goal. Based on this, the Norwegian government seem to be an important stakeholder in the Norwegian entrepreneurial ecosystem.

Cohen (2006) describes an entrepreneurial ecosystem as “an interconnected group of actors in a local geographic community committed to sustainable development through the support and facilitation of new sustainable ventures”. Both researchers at MIT and Babson University have conducted studies to define who the “members” of the entrepreneurial ecosystem are. Based on MIT stakeholder model (Budden & Murray, 2019) and Babson universities’ entrepreneurship ecosystem strategy for economic growth policy framework (Isenberg, 2011), several stakeholders are identified to contribute to the entrepreneur’s growth and business scaling. This sparked an interest in to studying who these stakeholders are in Norway and how they contribute to the scaling process of Norwegian tech-companies.

1.2 Purpose

As previously mentioned, the concept of entrepreneurial ecosystems is more popular than ever, where governments implement different measures to promote entrepreneurial activities in their countries. However, this approach has received some criticism as researchers state that there are not enough studies on the cause and effect of following this approach. In addition to this, some (Ács et al., 2014) claim that the countries don’t have the correct measuring tools to measure entrepreneurship. In Norway, the Impello analysis show that there were 802 tech firms in the Trondheim region in 2021 and that five years before that, there were 661 tech firms (Impello, 2022). Which shows that there has been an increase. On a broader level, statistics from Statistics Norway show that the percentage of businesses that had survived 5 years, was 27,5 (SSB, 2022). All though these numbers are important and relevant to look at, it is not possible to see what causes them.

Following the concept of stakeholder as contributing actors to the entrepreneurial ecosystem, this is applied to first identify important stakeholders in the Norwegian entrepreneurial ecosystem. A threefold perspective is applied where I study how entrepreneurs, financial resources and support organizations play their role in the ecosystem. By doing so finding out *“How does the entrepreneurial ecosystem contribute towards the scaling of Norwegian technology companies?”*

1.3 Prerequisites

As previously stated, the Norwegian government's goal of increasing exportation, entails that they plan to encourage more Norwegian companies to scale and grow internationally. The general definition of a scale-up is a firm that achieve annual growth in employees or sales turnover greater than 20 percent per year, over a three-year period and with more than 10 employees at the beginning of the period (OECD, 2007). In this paper, there are mostly two types of growth strategies represented. The first one is a business that is in the process of either developing a value proposition that upon launching will be sold to an international market, and the second is businesses that have experienced organic growth in Norway and are now in the process of scaling outside of Norway.

The different stages that the businesses are in, will naturally play a role on their thoughts on scaling. Nordic Innovation (Nordic Innovation, 2019) identifies four clear stages of a business venture, although there are clear divisions on these different stages, in this thesis, there is no emphasis placed on categorizing the companies based on these stages. The main focus is on their process towards growth.

The inspiration to study tech companies, came from several areas. First, the Norwegian government (Regjeringen, 2021) put an emphasize on especially encouraging tech companies towards growth. Second, several of the grants toward business are aimed at technology companies, and third, in a digital area, where technology can be easily spread globally, it is clear that this is a relevant category to study.

Technology companies can be defined as a *“business that provides a digital technical service/product/platform/hardware, or heavily relies on it, as its primary revenue source”* (Tech Nation, 2017). Which is the definition that will be followed throughout the thesis, this is communicated to all informants, so that there is no confusion as to what is meant with tech companies.

1.4 Structure

1.4.1 Chapter two

In the following chapter, the reader may find a review of theory and key concepts that forms the basis of the thesis. It starts by defining entrepreneurship, where both questions of “what is entrepreneurship” and “who is the entrepreneur”, will be answered. Followed by theories about the entrepreneurial process up until the growth phase. The chapter ends with presenting

entrepreneurial ecosystem frameworks, as well as diving into the stakeholders that are in focus in this thesis.

1.4.2 Chapter three

The methodology is presented in chapter three. This consists of a presentation of the qualitative approach that is applied, as well as justifying the use of a semi structured interview guide. Furthermore, the sample and the criteria's that are applied for finding the sample are presented together with an overview of the informants. This is followed by a presentation of the data gathering process and the tools applied to conduct the analysis. Lastly, some reflections regarding the quality of research and methodological limitations are shared.

1.4.3 Chapter four

This contains a display of the findings and discussions. The chapter is divided in three parts, by presenting finding from the entrepreneurs first, here the entrepreneurial process is in focus. Then, follows findings and discussions from the stakeholder financial resources, which consists of informants from banks and venture capitals. Lastly, findings from the groups support organizations are presented and discussed. For each of these groups, three main themes are identified and presented, and after each theme is discussed, there is a short summary of relevant points.

1.4.4 Chapter five

The thesis is concluded with this chapter. A short summary is presented from the main findings, followed by stating implications for research, implications for practice, the limitations of the thesis and suggestions for further research.

2 Review of theory and key concepts

This chapter showcases the theoretical framework, to form the foundation of the thesis. Based on the threefold perspective that the thesis is following, three main themes are identified.

- 1) *Defining Entrepreneurship*
- 2) *The Entrepreneurial processes*
- 3) *The Ecosystem*

It begins with a short definition of entrepreneurship, to eliminate any confusion on how we choose to use the term. Then follows a description of the process that the entrepreneur follows from start-up to scale-up. I showcase the different elements and actors that contribute to this journey. Finally, I present the ecosystem, which is the core of our thesis. I begin with presenting different ecosystem frameworks, then I present the stakeholders that I identify as essential.

2.1 Defining entrepreneurship

2.1.1 Who is an entrepreneur?

Joseph Schumpeter (1934) considered an entrepreneur to be a person who would innovate and initiated transform in the established ways. The invention, whether a product or a service, would have to be something brand new or a combination of something already existing but used in a new manner, with a new purpose. More recent research (Shane & Venkataraman, 2000; Crijns, 2001) places a greater emphasis on the entrepreneur being someone who follows a process. This process goes from idea to commercialization, also known as the process of discovery, evaluation, and exploitation (Shane & Venkataraman, 2000)

2.1.2 What is entrepreneurship?

The common view of entrepreneurship is that someone somewhere, is creating, enhancing, or further developing a product or service. Venkataraman (1997) goes further into this by describing entrepreneurship as an activity encompassing the discovery, evaluation, and exploitation of opportunities to develop new products and services, organizational methods, markets, processes, and raw material by organizing efforts that did not exist before. This view broadens the term, by taking the focus away from viewing entrepreneurship as an act that produces a new product or service, to adding elements that were not perceived or considered within entrepreneurship. By this definition, entrepreneurship becomes a process of producing both tangible innovation and intangible innovations.

Another element to the topic of entrepreneurial activity, is that it should result in monetary activities and rewards as well as personal satisfaction and independence (Hisrich & Peters, 2005). No matter how one defines entrepreneurship, it is important to keep in mind that the

goal of entrepreneurship is to increase competitiveness and enhance the living experience of those involved (Ratten, 2020).

2.2 The Entrepreneurial process

Crijns (2001) focuses on five main areas of the entrepreneurial process: the entrepreneur, the trigger, planning, implementation, and growth. The entrepreneurial process often starts with an idea that the founder has, and this idea is often a result of the entrepreneur trying to solve a problem that they are personally phasing (Crijns, 2001). After the idea, follows a trigger, that pushes the entrepreneur towards working with this idea and finding a way to implement this. This is a creative phase, and is part of the beginning of entrepreneurship, as previously stated. Then comes that implementation phase, where the founder funds the business. If the entrepreneur is successful at the phases that were just mentioned, they can with some altercations, grow their business. While the entrepreneur goes through the entrepreneurial process, they are constantly affected by their surroundings. Especially environmental factors are worth mentioning, as they may be tied to opportunity, which is crucial for a successful entrepreneurial process (Crijns, 2001; Timmons & Spinelli, 2003). Shane and Venkataraman (2000) also tie the opportunity aspect to the entrepreneurial process. They describe the entrepreneurial process to be seen as sources of opportunities where the entrepreneur goes through the process of discovery, evaluation, and exploitation. It is up to the entrepreneur to see and take the opportunity throughout the process.

2.2.1 Discovery

In the discovery phase, the entrepreneur is very much in center, as it must discover the entrepreneurial opportunity (Shane & Venkataraman, 2000). Crijns (2001) describe this as the idea phase, where the entrepreneur gets an idea and discovers that there is an opportunity. This is often a result of wanting to solve an issue as well as it is often based by the entrepreneur's previous experience or hobbies (Knockaert et al. 2019; Timmons & Spinelli, 2003). Timmons and Spinelli (2003) identify five characteristics that are tied to successful entrepreneurs, these are knowledge, network, energy, involvement, and passion. They explained that when it comes to knowledge, this is mostly represented by the fact that most entrepreneurs start a business in the field that they have previously worked in. This is in line with Zhang et al. (2009) discoveries, as they believe that experience and environmental influences are important factors for entrepreneurship. Shane (2008) finds that age, race, and gender often will play a role on who become an entrepreneur, as it has been observed that most entrepreneurs are male.

Meredith et al. (1982) identifies following characteristics amongst entrepreneurs: 1) self-confidence, 2) dealing with risk (high risk tolerance), 3) flexibility, 4) strive for success and 5) strive for independence. Some researchers (Stuart & Abetti, 1990; Weterings & Koster, 2007) have shifted the focus from the characteristics and knowledge of the entrepreneur to including the experience and knowledge of the team and network of the entrepreneur. This is especially crucial in cases where the entrepreneur does not have sufficient industry knowledge.

2.2.2 Exploration

In the evaluation phase the entrepreneur reflects upon the idea. Here the entrepreneur may consider the risk and opportunities tied to the idea. During this phase the entrepreneur is triggered to pursue their idea. Crijns (2001) distinguishes between positive triggers, which are ambition, grabbing the opportunity or a “now-or-never” feeling. The negative trigger is often a result of not being satisfied in your current position or losing your job. For most entrepreneurs, personal ambition seems to be the most common trigger for starting a business (Crijns 2001).

Planning and implementation are also play a part in the evaluation during the entrepreneurial process. After being triggered to move on with the business, the entrepreneur must start planning and implementing their idea. Although there is some different research on the effects that business planning can have (Hamel & Prahalad, 1994; Matthews et al. 2009; Gelderen et al., 2005), it is likely that most entrepreneurs will try to evaluate the chances of success before starting a business. Knockaert et al. (2019) describe the core elements of business planning to be product and technology, market, business model, team, financial plan, and evaluation. Business model planning can be divided in two theoretical concepts, which is causation and effectuation (Sarasvathy, 2001). The first one involves having a specified goal where one considers what is necessary to reach the goal and act accordingly. Effectuation is about figuring out what you have (the means of resources) and using the resources that you have. In this perspective the end goal or vision is not clear from the beginning and the entrepreneur is open to new opportunities that may arise. (Sarasvathy, 2001)

As previously stated, business models are an important part of businesses planning, however, they become even more essential when a business is ready to grow or scale. For instance, to be

able to receive grants and funding from Innovation Norway as a start-up, they expect the entrepreneur to send a detailed business model, that showcases different elements that are essential to a business (Innovation Norway, 2022). For businesses that are in the growth phase, the requirements are even stricter. This tells us that, even though extensive business planning might be a choice in the beginning of a business venture, this choice goes away when the business comes into the growth phase. This is because of having to involve other stakeholder that require certain information (Nielsen et al., 2012).

2.2.3 Exploitation

If the entrepreneur is successful in launching the business and wants to grow the business, he/she needs to prepare the company for scaling. Growth is by Knockaert et al. (2019) characterized by a process of development, management and growth to an organization that is generating sustainable value. When in the exploitation phase, the entrepreneur, and key persons in the organization considers developing business models that are scalable and can achieve positive and accelerating returns on the investments already made and the investments that will be made, to promote growth.

Nielsen and Lund (2018) research several Scandinavian businesses that had scaled and found that business model innovation is necessary when scaling. It requires figuring out what your potential new customers want, how value can be best delivered to them and how to enlist strategic partners to achieve maximum benefit. When talking about scalability, they are referring to achieving profitable businesses when expanding the business venture (Nielsen & Lund, 2018). They identify five patterns that may help companies achieve scalability: 1) adding new distribution channels, to allow a company to spread the costs of overhead and reap benefits for increased sales. 2) freeing the business from traditional capacity constraints, 3) outsourcing capital investment to partner who, in effect, became participant in the business model, 4) having customers and other partners assume multiple roles in the business model and 5) Establish platform models in which even competitors may become customers. Furthermore, they present two dimensions that the business owner must consider and develop to allow for scalability. The first dimension is the degree in which increased input can create higher output and the second dimensions considers the ability of the business model to accelerate the returns of the additional investment. This results in three steps that they encourage the companies to pursue:

- 1) Identify potential strategic partners -> connect strategic partners to the value proposition.
- 2) Ask questions that reveal a road map to scalability
- 3) Analyze the scalability attributes of business model options.

Another research within scalable business strategies, that is worth mentioning is by Piaskowska, Tippmann & Monaghan (2021). They used a sample of 185 unicorn firms to identify the different modes that scaled businesses have. They based this on the fact that prior research suggests that essential resources in a scaling business are capital, technologies, reputation, digital infrastructure, knowledge, and networks (Demir, et al., 2017). Piaskowska et al. (2021) consider three essential resources when conducting their study, financing, innovation, and digitization, stating that they are critical growth enabling activities for scaling. By the end the study, the researchers identify 4 different modes of scalars:

- 1) Network growers: they rely on network effects for their growth, they prioritize digitization activities while also showing high levels of activity in acquisitions, financing, and innovation.
- 2) Organic innovators: prioritize innovation in their offering.
- 3) Focused scalars: offer products or services for a narrow market or industry.
- 4) Constricted scalars: invest relatively slowly in their growth-enabling activities compared to firms in other scale-up mode clusters.

After going through the entrepreneurial process, in most cases, companies need some sort of support in order to scale. The next part presents the support that the organizations receive, as we go further into the ecosystem that surrounds the entrepreneur.

2.3 The Ecosystem

There are several definitions of what an ecosystem is and who is part of the ecosystem. Rightfully so, the term has different meanings in different context. A general definition of an ecosystem is that it is a complexed network or interconnected system (Cambridge dictionary, 2022). Specific for entrepreneurial ecosystem, this definition from Cohen (2006) is a good description of entrepreneurial ecosystems: “The entrepreneurial ecosystem is an interconnected group of actors in a local geographic community committed to sustainable development through the support and facilitation of new sustainable ventures”. When referring to the word

“sustainable”, this is meant in an economical way, where the word sustainable could be exchanged with “profitable”. When researching entrepreneurial ecosystem literature, Ratten (2020) highlights that especially two attributes are important for a successful ecosystem, these are human and venture capital. Venture capital is necessary to invest in projects, which can bring growth to the entire ecosystem. Through human capital, there is knowledge transfer, that enables the stakeholders to learn from each other, which in its turn produces higher levels of entrepreneurship (Ratten, 2020). More on knowledge and knowledge transfer will be presented below, when explaining the role of the entrepreneurs in the ecosystem.

2.3.1 Ecosystem models and frameworks

With the increase of research on entrepreneurial ecosystems in recent years, some have developed models and frameworks to better showcase the different stakeholders in the ecosystem as well as which role they play. The two well-known are Isenberg’s “The entrepreneurship ecosystem strategy for economic growth policy” and MIT “Innovation ecosystem stakeholder model”. The two are presented below, before presenting a figure with the identified stakeholders that are in focus in this thesis.

2.3.1.1 The entrepreneurship ecosystem strategy for economic growth policy

Daniel Isenberg (2011) researched entrepreneurship at Babson university, to find out how entrepreneurship develops, so that there can be created good conditions to help foster higher activities of entrepreneurship. His goal was to find conditions that could help speed up the process, while also making the businesses more self-sustaining and self-generating. He identifies five areas in which there is need for improvements in the entrepreneurship ecosystem strategies, some of them concerning the low level of public priority to entrepreneurship, the way financial funds are distributed towards entrepreneurship and the unclarity of entrepreneurship policies.

He then goes on by identifying 6 domains within the entrepreneurial ecosystem that can help develop conditions for self-sustaining entrepreneurship. These are policy, finance, culture, supports, human capital and markets. Isenberg (2011) stresses the importance of keeping in mind that no ecosystem is identical or copyable. He uses Silicon Valley as an example to say that even they couldn’t copy themselves if they tried to. Lastly, he finds that when all 6 domains of entrepreneurship are strong enough, the ecosystem will become successful and self-sustained as a result.

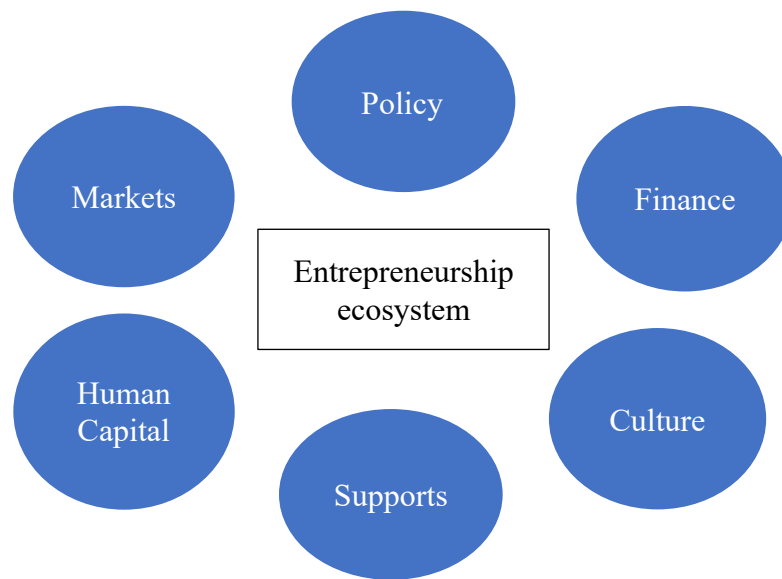


Figure 1: Isenberg's domains of an entrepreneurship ecosystem (Isenberg, 2011)

2.3.1.2 MIT Innovation ecosystem stakeholder model

Within ecosystem entrepreneurship models and frameworks, one of the most important aspect is to describe the different actors that work together to form a network, in a complexed network. The notion here is that the stakeholders are better off when working together and intentionally interacting. The MIT Innovation ecosystem stakeholder model refers to densely concentrated hubs of innovation driven enterprises as “innovation ecosystem”.

Researchers from MIT (Budden & Murray, 2019) were interested in figuring out why technology hubs continuously produce successful businesses, where innovation driven (IDE) entrepreneurship is in focus. By studying thriving ecosystems such as Silicon Valley, Boston, Singapore, and Israel, amongst other, they were able to identify some key stakeholders in the ecosystem that help support innovation driven entrepreneurship. As a result of this study, they developed a framework, so that those that wish to optimize innovation driven entrepreneurship in their region and build successful ecosystems, can use this framework as a guide.

Budden and Murray (2019) start by highlighting the different ways that innovation can be measured, as this is an indication of how an entrepreneurial ecosystem may perform. They described the ecosystem as a network of connected and interdependent stakeholders with varying levels of partnership, where some are formal, and others are informal. The main point

of this study is to study ecosystems within a geographic area. They point out that knowledge sharing within the ecosystem is an advantage for knowledge-based organizations and that those that manage to do this successfully, engage in some form of social activities driven by mutual involvement.

They also highlight how several of these successful ecosystems (Silicon Valley and Israel) occurred without an attempt of creating the ecosystem.

As a result of this study, they identify 5 stakeholders: 1) Entrepreneurs, 2) Universities, 3) Risk Capital, 4) Government and 5) Corporate, that are important in an innovation ecosystem.

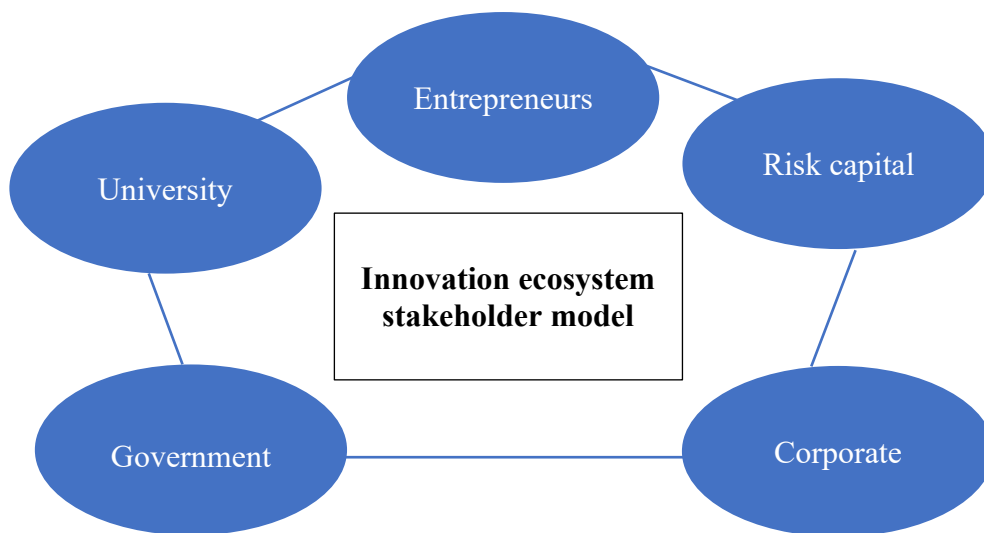


Figure 2: MIT stakeholder model (Budden & Murray, 2019)

2.3.2 Critique of the reasoning behind the entrepreneurial ecosystem perspective

Although entrepreneurial ecosystem has become a popular field of study, some argue that the concept is still somewhat ambiguous, unclear and that there is limited research of the cause and effect (Stam, 2015; Alvedalen and Boschman, 2017; Brown & Mawson 2019). Alvedalen and Boschman (2017) present as a result of their analysis of different frameworks and research, that there is no clear studies that showcase the cause-and-effect element of following an ecosystem perspective. They also highlight that there should be clearness as to how the different institutions that play a role affect both the performance and the structure of the ecosystem.

Because of the popularity of entrepreneurial ecosystems, some governments have implemented policies to help strengthen entrepreneurial ecosystems in their countries (Government of India's planning commission, 2012; OC&C, 2018), for instance by giving different grants to start-ups. However, they do not have any way of measuring how effective this is to strengthen the ecosystem (Brown & Mawson, 2019). In the cases that there are quantifiable results as to how many new start-ups a region has, an increase in businesses, cannot directly be assumed as a strengthening of the ecosystem. There should be a greater emphasis on having few ambitious entrepreneurs that can reach high levels of growth (Wong et al. 2005; Stam et al. 2009, 2011). When the entrepreneurs are successful, they can share their knowledge and intel with new entrepreneurs, as well as feed resources back into the ecosystem (Clayton et al. 2018; Feldman 2014).

Another thing to consider is that although the entrepreneur ecosystem is considered as a perspective that should enable all stakeholders to do well, the focus should be on the entrepreneur (Stam, 2015). University is a stakeholder that has been criticized regarding their contribution to the ecosystem. While universities' role has been a topic of research several times (Hayter, 2016; Wright et al. 2017), banks and incubators tend to get less attention. Which is precisely why there is a call for studying several of the stakeholders in the ecosystem respectively, but to also research the interaction of these stakeholders.

2.3.3 The Norwegian entrepreneurship ecosystem for scaling

Based on the critique and challenges presented above and the perception of how the entrepreneurial ecosystem is in Norway, this section presents the stakeholders that are in focus in this thesis. Initially, five stakeholders were identified, the entrepreneur (in focus), banks, venture capital, government, and incubator/clusters, however, since several of these stakeholders play similar roles in the ecosystem, some of them are merged. This has resulted in three main stakeholders: Entrepreneur, Financial resources and Support organizations. As previously mentioned, The MIT innovation ecosystem stakeholder model, is the basis of inspiration for this thesis, however inspiration is also drawn from Isenberg's Domain of entrepreneurial ecosystem. By focusing on who the stakeholders are and what their roles are in the ecosystem, these stakeholders are seen as important in contributing to the Norwegian entrepreneurial ecosystem. Absent from this perspective is University and there are a couple of reasons why

this is so. The first being that universities are one of the stake holders that have previously gain attention and that one can already find research on (Hayter, 2016; Wright et al. 2017). Second, being that while in the scale-up phase, universities seem to have limited access to business owners and there is reason to believe that they impact more entrepreneurs while in the start-up phase, more so than in the scale-up phase (Budden & Murray, 2019).

The figure below showcases these stakeholders with a focus on the entrepreneur in the centre.

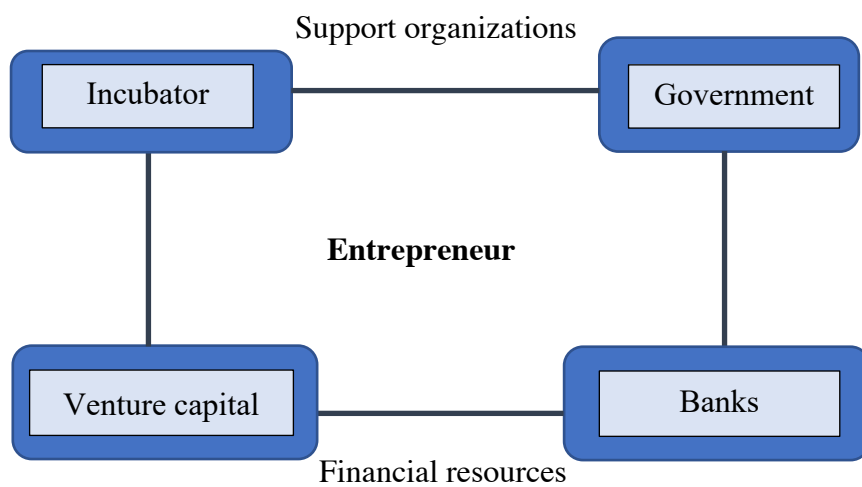


Figure 3: The Norwegian entrepreneurship ecosystem for scaling

2.3.3.1 Entrepreneur

As previously stated, a short definition of an entrepreneur is that this is someone who is creating, enhancing, or further developing a product or service and by doing this, gains monetary rewards and satisfaction (Venkataran, 1997; Hisrich & Peters, 2005).

The entrepreneur undergoes a process from discovery to exploitation, whereas in the exploitation phase, there is opportunities for growth. An entrepreneur’s role as a stakeholder, is in this thesis divided into two categories. The first one is the role of knowledge sharing, whereas one part consist of sharing knowledge and the other entails receiving knowledge. Knowledge sharing is said to have a great impact on the success of organizations and might also positively affect the entrepreneurial ecosystem, if done correctly (Budden & Murray, 2019; Ratten, 2021).

Collombelli et al. (2019) explains that because knowledge can be used to share information within the ecosystem it is smart to have several different stakeholders in the ecosystem. By different stakeholder sharing knowledge amongst them, it allows for even more business ventures to take shape as ideas and information is spread. Qian (2018) describes three types of knowledge bases: analytical knowledge, which can also be described as science based, and is characterized by being easily spread and is about the ways things are done. Synthetic knowledge is engineering based and refers to applying knowledge for a specific purpose and is done through direct interaction. Lastly, symbolic knowledge is known as art-based knowledge and it involves both “know-how” and “how-to”, meaning that only specific individuals know how to do something. Based on this, it is important for entrepreneurs to figure out and identify which stakeholder has which knowledge, so they know who to contact when they need help with a specific task. As well as knowing the type of knowledge that they have to share with others, which brings us to the next role the entrepreneur has as a stakeholder.

The second role an entrepreneur has as a stakeholder is to be able to “give back” to the ecosystem by sharing their success and knowledge with other entrepreneurs (Clayton et al., 2018; Feldman, 2014).

Budden and Murray (2019) state that by doing this the ecosystem is more successful as more companies might be able to scale and be successful. This can be both based on the fact that successful businesses often are more knowledgeable and have more knowledge to share, but it can also provide a source of inspiration to aspiring entrepreneurs to be ambitious. Isenberg (2011) calls this the law of numbers, by stating that local visible success can ignite a spark within aspiring entrepreneurs. In other words, having a couple of businesses who have been highly successful in an ecosystem, creates an environment for others to try to reach that level of success (Wong et al., 2005, Stam et al., 2009, 2011).

This sums the entrepreneur’s role as a stakeholder in the ecosystem to inspiring other entrepreneurs and sharing and receiving knowledge from the other stakeholders.

2.3.3.2 Financial resources

Financial resources as stakeholder, is in this thesis divided and represented by two “sub-stakeholders”. As previously stated, they are merged to one stakeholder as they have similar roles, but with different execution. They both help finance business ventures by adding capital

to the companies. As previously stated, except from human capital, venture capital is considered to be one of the main contributing factors to a successful entrepreneurial ecosystem (Ratten, 2020). Although most think of only venture capital when considering financial funding (Budden & Murray, 2019), banks should take a more prominent role when it comes to their contributions to business scaling.

Banks and venture capitals play different roles in the entrepreneurial ecosystem, while venture capitals will invest in a company at an early phase and take a high risk, the bank will only lend money to companies that are well established and have substantial equity (Gompers and Lerner, 2001). Easier said, external financial fund is either through equity, with ownership tied to it or through debt (Vinturella and Erickson, 2003).

Which means that most times venture capitals will join the board of executives and buy shares in the companies that they invest in. Being that the investment is high risk, it is necessary for them to have a certain access to the company, where they are able to join in the decision making. While a bank will in most cases not invest in a business, they will however lend the companies money (Bogdan-Flora, 2012).

Banks

As previously stated, banks provide borrowed capital to the entrepreneurs that can be used for funding different activities. Bogdan-Florin (2012) found in his research of the effects of borrowed capital that it can be profitable both for the creditor and the entrepreneur. It is positive for the creditor, for obvious reasons, receiving interest payments on top of the money back. For the entrepreneur it can be positive in several ways:

- 1) By adding funds to the company that can be used on activities that generates profit
- 2) By receiving tax reduction as a result of paying interest, which would not be received in the case of invested capital
- 3) Yields a greater return on profits compared to invested capital

With invested capital, the investors buy shares in the company, which means that when they sell their shares, they leave the company with a much higher capital. While in the case of borrowed capital, the creditor gets their money back in addition to a small percentage of interest. It is important to note that receiving borrowed capital is a higher risk to the entrepreneur (Bogdan-Florin, 2012), because if the money is spent too quickly, without

yielding a return, the entrepreneur might not be able to pay the money back. If this happens and the entrepreneur is not able to pay the money back, the business goes bankrupt.

In more recent years Norwegian banks have shifted from only providing financing, to also wanting an advisory role towards start-ups and scale-ups in the entrepreneurial ecosystem. Although they previously have been known to enter the entrepreneur's network at a later point of time, the biggest banks in Norway (DNB, 2022; Nordea, 2022; Danske bank, 2022) all provide counseling services for start-ups and scale-ups. Which enables them to come in to contact with businesses at an earlier time then before. Which emphasizes on the important role that banks can have in the ecosystem. Although they have typically not been known to be relevant, Isenberg (2014) encourages to acknowledge the indirect impact that they have for the entire value chain of investing. Except for the fact that they help financial markets mature, by loaning out to well established businesses, they encourage start-ups by acknowledging that when they themselves become more establish, will also be able to receive funds (Isenberg, 2014).

Venture capital

Gompers and Lerner (2001)'s study on the revolution of venture capital describe how since venture capital often are responsible for financing high risk project, they also expect a high return. By investing, they are also buying a seat at the table to be a part of the decisions that are taken and to make sure that their financial resources are used in the best possible way. Furthermore, Gompers and Lerner (2001) find that venture capitals are more likely to invest in businesses with an innovator strategy and that this funding can be received from an earlier phase. When studying the effects that venture capital has on businesses, Hellman and Puri (2000) find that the timeframe from product to market is shorter with the involvement from venture capital.

Regarding how the businesses innovation is affected by venture capital, Kortum and Lerner (2000) find that this has a positive effect. They researched how financial resources from venture capital effect innovation, compared to financial resources that the company itself attribute to innovation through their R&D. They found that 1 dollar from venture capitals, seemed to be 3-4 times more potent in stimulating patents, compared to 1 dollar's contribution in a traditional R&D. Showing that the financial funds that comes from venture capitals paired with the

knowledge that they share with businesses, can play a significant part on the business development.

2.3.3.3 Support organizations

Incubators

Incubators is a stakeholder that has shown to be important for the Norwegian ecosystem (Siva, 2022). They help facilitate innovation and entrepreneurial activity by providing a close-knit network and connections for those involved. The Cambridge dictionary defines an incubator as an organization that helps people start new businesses, especially ones involved with advanced technology (Cambridge, 2022). They are most known for the networks that they provide in the ecosystem, as well as their ability to gather different actors.

Ratten (2020), describes how value can be created through being part of a network, by transferring knowledge and information amongst network members. It is important to note that knowledge sharing also can be done through informal interaction and that this also is necessary (Stam, 2015). As a result of this, the entire network can increase their overall performance.

Furthermore, the incubators provide a network and take the important role of enabling their members to have a relational nature and continuously interact (SIVA, 2022). Which according to Ratten, (2020) the relational interaction, enables knowledge sharing, which again promotes successful businesses. However, it is important to note that relationships can be complicated, especially when it involves several actors.

Ford et al. (2011) explains that because of the complexity of relationships, and the time they take to form and develop, it is important to carefully consider who should be part of your business network. It is also important to consider that seeing results from a network might take time, as a result of this complexity that comes with relationships.

Therefore, one can say that joining a network can be described as making a strategic alliance. A strategic alliance can be described as an agreement between two or more partners to share knowledge or resources, which could be beneficial to all parties involved (Trott, 2017). When companies lack resources and knowledge, they need to find a solution on how to gain this. A solution to this is through strategic alliances. Incubators as a stakeholder provides possibility to form relationship within that network, by connecting actors that otherwise, would not have the possibility to do so. Ter Wal et al. (2016) acknowledge that for new business ventures to

be able to succeed they should be influenced by a combination of “open specialized” and “closed diverse” networks. Which put an emphasize on the importance of providing different types of networks within the ecosystem, both specialized and diverse.

The process of forming a strategic alliance is described as a three-step process (Trott, 2017), first the business needs to find suitable partners or in this case a suitable incubator. Here it is important to consider the goal of the venture as well as assessing the areas in which other potential partners might be excelling at that might be valuable for the company. It is also important to consider what contribution the company itself will be providing in a potential partnership. After finding a suitable incubator, the next step will be to negotiate the terms of the strategic alliances, making sure that all parties involved win, and that the company’s assets are protected in the process. The last step will be managing towards collaboration (Trott 2017) and this step entails shared activities, setting goals and solving conflicts, while doing the shared activities, the companies continuously ensure to negotiate each-others need.

Government

Governmental involvement in the ecosystem is said to be very important. Budden and Murray (2019) state that the government as a stakeholder has previously not been considered to be important. However, in recent years it has become evident that their position when it comes to regulations and laws, is an advantage to the ecosystem (Stam, 2015). By getting insight into what works and the needs of the other stakeholders, governments can make laws and regulations that will help encourage entrepreneurship. In other words, they play a big role on whether a countries entrepreneurial activities are high or low.

Although the different stakeholders take the lead in different areas, there is often one clear overall leader in an ecosystem and this leader is often the government (Budden & Murray, 2019). The fact that government often take the lead in the ecosystem, does not come as a surprise, as most countries use resources as the GEM (Global Entrepreneurship Monitor, 2022), to establish their place as innovators on the global stage. Once established, they develop plans, to help strengthen entrepreneurship in their countries which often result in departments and/or governmental support organization.

This approach has received some criticism (Stam, 2015; Brown & Mawson, 2019), as the focus tends to be on quantifying entrepreneurship, where encouragement towards growth does not

come in to focus. By having this focus, governments are said to struggle with actually showcasing if and how the emergence of more start-ups actually strengthen the entrepreneurial ecosystem in their country. Which puts into perspective the importance of governments focusing on encouraging and helping the entrepreneurs with having high ambitions from start-up to scale-up. As the goal of entrepreneurial ecosystems should be to provide an environment that enables businesses to scale fast (Isenberg, 2011; Budden & Murray, 2019).

In some countries it is evident that the government is the leader of the ecosystem, this is the case in for example Israel (Budden & Murray, 2019). In Norway, there are several governmental organizations that helps promote entrepreneurial activity and innovations. The most known are Innovation Norway, SIVA and The Research Council of Norway. For instance, for new businesses, Innovation Norway offer subsidies/grants for start-ups, start-up loans, free courses and access to their startup counsellors. They also have program offerings for businesses that want to go international and businesses that need help with innovation and development. The Research Council of Norway work with promoting/help finance research and innovation of high quality and might be a relevant actor for businesses with innovative offerings that is in need of research before launching.

Overall, the governments greatest role as a stakeholder in the ecosystem is promoting entrepreneurial growth in their regions. However, it is not always clear how to do this.

Trott 2017; Afuah 2013; Porter, 1990 highlight five areas that organizations may need support from their states for growth 1) *The public nature of knowledge that underpins innovation*, 2) *the uncertainty that often hinders the process of innovation*, 3) *the need for certain kinds of complementary assets*, 4) *The need for cooperation and governance, resulting from nature of certain technologies* and lastly the countries 5) *politics*. By covering all these five areas they believe that the government can support entrepreneurs and provide good conditions for growth.

There are both positive and negative aspects tied to having the government as the leader of the ecosystem. The positive ones have already been mentioned above, being that the government take different decisions that help promote entrepreneurship in their countries (Budden & Murray, 2019). An addition to this, is that government might help fund other organizations that help promote scale-ups, which also will help with their agenda. The negative aspect of this approach is that the government will in reality be a bigger stakeholder than what is evident and

make up a bigger part of the ecosystem. Another consideration is the fact that governments typically earlier have been known to focus on the quantity of start-ups, instead of the quality of new businesses that will be able to scale (Stam, 2015; Brown and Mawson, 2019).

This chapter followed the entrepreneur through the entrepreneurial process and presented the Norwegian entrepreneurship ecosystem for scaling. First, a definition of who an entrepreneur is and what entrepreneurship is, was presented. Then, followed the concept of discovery, exploration, and exploitation, before the ecosystem was presented. While studying previous research in entrepreneurial ecosystem frameworks, in addition to the entrepreneur, two stakeholders were identified as being important for the Norwegian entrepreneurial ecosystem. These are the three stakeholders that will be represented throughout the rest of the thesis: “Entrepreneur”, “Financial resources” and “Support organizations”. The next chapter presents the data assembly process, where a sample is chosen to represent these stakeholders.

3 Methodology

In this chapter, I disclose the methodological framework that has been applied to the thesis. First, I present the research design and go in depth on why a qualitative approach is followed. Furthermore, I explain how I choose the sample, conduct the interviews, the transcription process, and the process of analyzing the data. At the end of the chapter, I reflect upon the quality of research and lastly present limitations.

3.1 Research design

After deciding on the research question “***How does the entrepreneurial ecosystem contribute towards the scaling of Norwegian technology companies?***”, it was clear that the help that Norwegian tech companies receive from their surroundings, could be divided in two parts: support from incubators/development organizations and financial resources from investors and banks. Based on this, it seemed fitting to view this from three perspectives, support organizations (incubators and government), financial resources (venture capital and banks) and the entrepreneurs themselves. By doing so, being able to gather information from the three groups and gain an input from their perspectives.

As the aim of the thesis is to study how the Norwegian ecosystem contributes towards scaling, it was clear from the beginning that it was necessary to have in depth conversations with different stakeholder in the ecosystem. By doing so, gaining information and nuances that otherwise, for instance in the case of quantitative research, might disappear between the lines. By allowing a semi structured interview, the interview guide was loose and allowed for the informant to partially lead the conversation (Bell et al., 2019).

There are several other ways of applying the qualitative approach, some known as participant observation, focus groups and ethnographic studies. Another way of conducting the research, could be through triangulation (Bell et al., 2019), would include both the quantitative and qualitative approach. However, considering the short time that is allocated for the thesis, this was not possible.

3.2 The sample

When selecting the informants for the thesis, there were certain criteria's that were set, and this criteria's were kept in mind when contacting potential informants.

All in all, about 40-50 informants were contacted, where some redirected us to the correct people to contact in their organizations, while others recommended other organizations that could be a better fit for us. Finally, sixteen interviews were conducted, where the first five, were with key role persons from incubators/development organizations. The next seven interviews were with key role persons from banks and investments companies and the last four interviews were with entrepreneurs and founders of businesses.

3.2.1 Entrepreneurs

For these informants, it was important to ensure that there were some informants that had started several businesses, whereas at least one was technology-based, in addition to the founders still being involved in at least one company. Below is the description of the informants that were interviewed within category "A".

	A1	A2	A3	A4
Current position	COO and founder	Founder and CEO	Founder and CEO	Founder and production specialist
Years in organization	1 year	6 years	6 years	5 years
Entrepreneurial background	Yes (10 years)	Yes (25 years)	Yes (8 years)	No
First Start-up	Computer-driven marketing	Business that sells appliances	Digitized accounting	Courses through VR-membership
Professional background	Newspapers	Shop-assistant, Entrepreneur	Entrepreneur	Leader in the military
Education	Bachelors in PR and communication	High school	Master's in economics	Courses in the Military

Table 1: Sample of the stakeholder "Entrepreneurs"

3.2.2 Financial resources

When electing these participants, it was important to find informants that work with businesses in their start-up phase, as well as informants that work with businesses that are in their growth phase. In addition to this, it was essential for to have both representatives in form of venture capitalists and representatives from banks. Informants that are in contact with and that work with technology companies were preferred. There is no distinguish between software and hardware, as this distinguishment is unnecessary for the purpose of the thesis. Below are the informants in group “B”.

	B1	B2	B3	B4	B5	B6	B7
Current position	Assistant bank manager	Assistant bank manager	Head of Start-up and growth	Senior business developer	Start-up and growth specialist	Investment director	Senior associate
Years in organization	10 years	15 years	30 years	10 years	5 years	22 years	2 years
Entrepreneurial background			Yes		Yes		
Professional background	Bank	Bank, consultant, manager	Entrepreneur, advisor	Event planner in the music industry	Entrepreneur	International marketing	Consultant
Education	Bachelor's in economics	Bachelors in economics	Master's in economics	Masters in entrepreneurship	Bachelor's in economics	Master's in economics	Master's in industrial economics
Organization	Bank	Bank	Bank	Bank	Bank	Venture capital	Venture capital

Table 2: Sample of the stakeholder "Financial resources"

3.2.3 Support organizations

When electing the participants to contact within the category of incubators and governmental support organizations, it was necessary to ensure that both representatives from the public sector and from the private sector were contacted. Secondly, it was important to have a couple of representatives that work directly with the entrepreneurs and some that have a certain executive responsibility regarding administering the programs that the entrepreneurs join. Another aspect that was important for all representatives in this category, was ensuring that they all work with the companies based on the understanding that they encourage businesses

to scale and grow their businesses. With this in mind, this is the selection of informants that participated in the in-depth interviews, representing support organizations. This is group “C”.

	C1	C2	C3	C4	C5
Current position	Program-manager clusters	Advisor	Manager incubator	Manager incubator	Manager cluster
Years in organization	30 years	2 years	5 years	15 yeas	4 years
Entrepreneurial background		Yes		Yes	
Professional background	Governmental	Governmental, CTO in USA	Counsellor Norway and Germany	Consultant	University
Education	Masters in HR	Masters in entrepreneurship	PHD in mechanical engineering	Master's in economics	Master's in industrial economics
Organization	Government	Government	Incubator	Incubator	Cluster

Table 3: Sample of the stakeholder "Support organizations"

3.3 The interview

The first thing that was done after receiving the theme for the thesis, was to send an application to NSD – Norwegian centre for research data. The application contained both an interview guide and a consent form that I filled out with some information about our thesis. By the end of end of January, I had received authorization from NSD, and was ready to start contacting the informants. The consent form can be found in attachment 1.

As previously stated, 40-50 email were sent out to potential informants. From this, around 20 informants responded and were contacted again either by phone call or email to assess how fitting they would be as informants. In this conversation I mainly asked about their job description and department, as well as some information about the organization. From this, I ended up with 16 informants. Following, I sent out the consent form to them with a short description of the aim of our thesis. Because of the Covid-19 situation in Norway at this time, I found that the safe option was to conduct online video-interviews through Microsoft Teams. There were several reasons why online interviews were fitting, the first and main was Covid-19, and the second was because of geographic location. The informants were located in Oslo, Trondheim, Ålesund, Bodø and Stavanger and I wanted to make sure that I follow similar approach for all interviews. Lastly, some of the interviews were moved because of illness, making it easier with the online format.

Furthermore, I made sure to receive the informants consent ahead of each interview. The interviews were conducted on Teams, where they were both recorded and transcribed with a suitable tool. The interview guide, went through several changes and had as previously stated, a semi structured format. Three different interview guides were made to fit the three groups of informants. Each interview was also divided in three parts, (see interview guides in attachments 2). Every interview was started with asking about the informant's backgrounds and followed with questions about the organizations and what they contribute to the entrepreneurial ecosystem and lastly two of the groups were asked about how/if they measure their impact. Every interview ended with asking the informants if they had something to add.

3.4 Transcription

One of the advantages of using Microsoft Teams to conduct the interviews, was being able to record and use the transcription tool. After the first interview, I considered how the interview went and if there were any need to alter some of the questions or the way the interview was conducted. I found that I should allow the informant to completely finish their sentences and wait with asking follow-up questions. I also tried asking a few questions to the topics that the informant showed a clear interest in, both out of interest, but also to let the informant feel more comfortable. Since I followed a semi structured interview guide (although with predefined question), I didn't mind asking questions that were not in the interview guide, as long as this gave me the information I was after. After each interview, I was able to both watch the interview back and see the proposed transcript from Microsoft Teams. Although this tool was somewhat helpful in the process, there were still several mistakes that had to be edited and I had to replay the interviews a couple of times to correct. Overall, I ended up with an average of 10-11 pages of transcript from each interview.

3.5 Analysis

When analyzing the transcript, I had to consider the problem statement as well as previous research, to make sure that the most relevant data was highlighted. Keeping this in mind, I also had to consider which coding and analyzing method should be followed to categorize the data in the most appropriate way (Saldana, 2013). I chose to use NVivo as my qualitative coding data software, as I thought this was most suitable and had some knowledge of the software. Before starting the coding in NVivo, I used the knowledge that I had from transcribing the interviews to write down the main themes that I noticed. By doing this, I allowed myself to

more easily categorize the data in NVivo, as the codes were identified beforehand. I did however make new codes and subcodes, when I noticed that there were some themes that were not recognized earlier. In addition to using the coding tool in NVivo, I also used cases as a way to categorize the groups of informants. Even though I mostly used basic tools in the NVivo software, I realized that this was sufficient for us to thematize, code and analyze the data and main themes (Saldana, 2013).

After coding and categorizing the data in NVivo, the categorized data was extracted to a word document, where they were put into tables based on the themes in NVivo. Because of the number of informants and the large amount of data, I found that it would make it simpler to present and interpret the data, by having them in tables.

3.6 Ontology and epistemology

Considering ontology and epistemology, is necessary to better understand the foundation that the research design is based on. When conducting research, the approach that is chosen has to be based on the subject of research and the researcher's views of the relationship between theory and research (Bell, Bryman & Harley 2019). Granted that the subject of this research is to consider a social phenomenon, the ontological view is favorable as it explores the nature of the social phenomena. Jacobsen (2016) describes ontology as the teaching of what reality genuinely looks like or how things are in reality. This is very fitting for the thesis, as we try to study contribution of the different stakeholders in the ecosystem.

When considering how the research should be conducted, the epistemological arguments highlight the importance of possibly straying away from the typical scientific approach, where hypotheses are formulated and tested. Epistemologists argue that the way in which humans, relationships and organizations are studied should differ from how the natural sciences are studied (Okasha, 2016). By keeping this in mind, I thought it was fitting to follow a semi structured interview guide as well as keeping an open mind while analyzing and interpreting the findings.

Taking it a step further, is considering if the research should be conducted from an inductive, deductive, or abductive point of view. This research is based on the fact that there is an observation or assumption that Norwegian tech companies get help with scaling, the aim is to

study and find out who helps them and what type of help they've received. Which by doing so, abductive reasoning is applied (Jacobsen, 2016).

3.7 Quality of research

3.7.1 Reliability

When conducting my research, I had to ensure that the both the process of data analysis and data generation would produce the same results, if another researcher apply the same methods (Ringdal, 2018). The concept of reliability is ensuring that the research results that are produced are reliable, making it important to be aware of certain aspects that can threaten reliability. One of the ways that this was avoided in this thesis was to ask questions that were not leading or that would encourage the informant to provide an untrue answer. By taking several rounds of rewriting the interview guide and asking myself the different question, I made sure the questions were asked in a neutral way. Another aspect I had to be aware of, because of the three different groups of informants, was that the interview guide followed the similar structure for all informants. During the analysis process, I follow the same methods for coding and thematizing the data, which helps ensure the reliability of the thesis (Yin, 2014).

3.7.2 Validity

When considering the validity of the thesis, I reflected on having a research design that helps to answer the research question, as well interpreting the data in a correct way (Yin 2014). The way that this is considered in the thesis is by, following the suggested research design for the data that we were interested in (Bell et al., 2019). This was done both by following academic recommendations, both through the syllabus and through conversations with professors, supervisors, and other students.

3.7.3 Generalization

Considering if the conclusions and results of a research project can be generalized, refers to assuming that the results are applicable or transferable to an extended group or other situations (Delyser, 2008; Shenton, 2004). As previously mentioned, when choosing a qualitative approach, one must be aware of the restrictive nature that this brings to the generalization of the results. This is based on general research theories (Bell et al., 2019 and Jacobsen, 2016) conveying that to generalize results, a large sample is needed. Since the goal of qualitative research often is to gain in-depth thoughts and opinions, having a large sample is time

consuming. Which means that the sample of 16 informants does not qualify for generalization in a wide context, it can however be generalized to similar situations or similar context. Since the thesis is aimed towards the Norwegian entrepreneurial ecosystem, with an emphasis on technology firms, this is already a limitation in itself. Meaning that although one can draw inspirations or general themes that are applicable to other context or groups, the aim remains to ensure generalization within its context.

3.7.4 Ethical considerations

When conducting research, it is essential to consider the ethical aspect of the research. Some of the ethical principles I considered, was informed consent and anonymity (Bell et al., 2019; Diener and Crandall, 1978). As previously stated, every research project conducted in Norway, that gathers personal information is required to report this to the Norwegian center for research data (NSD, 2022). A part of displaying details about the project to the NSD was writing and submitting a consent form, that the informants received before the interviews and give their consent. This form had to be approved by the NSD before it could be used. Regarding anonymity, all informants are anonymized, which according to Bell et al. (2019) in most cases should be practiced. This is especially encouraged when the researcher has a small sample, which is in line with the *MRS Code of Conduct*.

3.8 Limitations

The first limitation that is observed is one that follows the qualitative approach, by having in depth interviews. Meaning that because of the number of informants, it will not be possible to generalize the result. I do however believe that having such a diverse group of informants, makes it possible to generalize the result within its context (Jacobsen, 2016)

Another limitation worth mentioning when using the qualitative approach, is time. Compared to the quantitative approach, following the qualitative approach means that every step up until presenting the data is quite time consuming (Kelle, 2006). With my large sample of 16 informants, even more time was allocated to transcribing, coding, and analyzing.

The last limitation is that by conducting a synchronous video-interview, I realize that some facial characteristics could be lost in translation (Bell et al., 2019), as well as a reduced level of intimacy. I do however believe that since I did not ask sensitive questions, and based the semi structured interview guide, the need for a physical face-to-face interview was reduced and that this did not impact the results negatively.

4 Analysis

This chapter contains the most important findings and is the main part of the thesis. I use the theory that is presented in chapter two, together with data collected from the interviews as a basis for discussion. The chapter is divided into three parts, where the first part is about the entrepreneur's entrepreneurial process and how the ecosystem contributes towards their growth. The second part is about figuring out how the financial support and involvement from venture capital and banks play a role. Lastly, I present the support organizations role and contribution to the ecosystem. The data presented is from the interviews with the sixteen informants. At the beginning of each part, I present some information about the different informants, that should be kept in mind while reading the chapter.

4.1 Entrepreneurs

The first group of informants are the entrepreneurs. They consist of four informants, where they have all founded at least one business each. In chapter three, there is a table with some information about this group, that can be used as a guideline, while reading this chapter. However, below is also a short description of the informants in group "A" that can be used while reading this part of the analysis.

A1: is the first informant and is a male in his thirties, with an education in PR and communications. He has founded a handful of businesses where a couple of them have been listed on the stock market. He is currently working on a business venture that uses technology as a way of communication.

A2: is in his fifties and does not have any formal higher education but has taken some courses in business and entrepreneurship in the recent years. He started out with a business the sold appliances and is now working on a business with a technology that ties local communities with local businesses. He has founded more than twelve companies, where he has been able to sell five of them.

A3: is another male in his thirties and he has a master's in economics. His first business was digitizing accounting and he is currently working on two businesses in two different sectors. All three of his businesses are technology based and while the first one has stayed within Norway, the current two are planned to be scaled outside of Norway.

A4: is the last informant in this group and is a male in his forties, with education from the military. He has used his background and knowledge from the military to co-found his first business, that he is currently working on. The business uses technology to give courses through VR-glasses.

The findings from this group are divided into three categories and is based on the information that was gathered throughout the interviews, as well the theory chapter. These three themes are considered to be important for the entrepreneurial process and the themes that are highlighted are considered to be contributing factors for successful scalable businesses.

For this group, the entrepreneurial process will be in focus. It begins with the discovery phase, where the entrepreneur’s motivation as well as the characteristics of the entrepreneur, as a means to predetermine their success, is presented. Then follows the exploration phase, where business planning is discussed, to determine how these contributes to scaling, and lastly is the exploitation phase where scaling is discussed. In the exploitation phase, scalable business models and the entrepreneurs’ networks are presented.

Entrepreneur	Discovery
	Exploration
	Exploitation

Table 4: Main themes for Entrepreneurs

4.1.1 Discovery

4.1.1.1 Motivation

As previously written, there might be several reasons why an entrepreneur chooses to start a business. Most times this is tied to wanting to solve a problem that the entrepreneur is personally phasing (Crijns, 2001) and is part of the beginning phases of starting a business. The question “why an entrepreneur starts a business” can be tied to the motivation behind the businesses. The problem that the entrepreneur is trying to solve is often tied to an area of knowledge of his, through either their educational background and/or their professional background. One can say that the entrepreneur’s previous knowledge is a central part of the

motivation behind a business venture. Some of the entrepreneurs explain that seeing that what existed on the market was not good enough, was a motivating factor for starting their business:

“There are probably several reasons why, the main thing I think is seeing that what was out there, was not good enough. There was no one involved in computer-driven marketing, and I was annoyed that these big companies would not take that ball. Then I thought someone had to take it and that I had to do it myself.” A1

“I saw an opportunity where accounting previously was done on paper, and it was so time consuming and there was a lot of data and information as well. It made me consider how so many other processes in the society have been digitized, but not accounting.” A3

What is common with these two statements, is that they both mention seeing an opportunity in the initial phase. A1 sees an opportunity within computer driven marketing and A3 sees an opportunity within digitizing accounting. Which is exactly what Shane and Venkataraman (2000) say is necessary through the entrepreneurial process. While the entrepreneur is going through discovery, exploration and exploitation, they must at all times see the opportunities in each phase and take the opportunity. Informants A2 and A4, were both encouraged by those around them towards starting their first businesses. A2 did so by joining his friend on his business idea, while A4 was often asked by those around him to share his knowledge from his field of expertise. This means that although these two informants did not initially see the opportunity themselves, they did however take the opportunity when it presented itself.

4.1.1.2 Characteristics

While the motivation behind starting a business, is an important factor for the beginning phases of a business venture, the characteristics of the entrepreneur can be a determining factor of their success. Ambition is something that has been directly tied to how far the business makes it and if it succeeds (Meredith et al., 1982). It is believed that for entrepreneurial ecosystems to be strengthened, it is better to have a few ambitious entrepreneurs, than several entrepreneurs that are not so ambitious (Wong et al., 2005; Stam et al., 2009, 2011). Ambition is also said to be a contributing factor for scaling. In this group, all the informants have ambitions to scale their businesses, while some of them have sold and/or listed businesses before, for some this is new. Two of the entrepreneurs explain that their ambitions have been high the whole way:

“Yes, the ambitions have been great all the way. It still is, so it has not changed. What has changed is how long it has taken.” A2

“The level of ambition does not change, but perhaps how far you get, changes depending on where you are in life.” A1

As a result of their research, Meredith et al., (1982) find that some determining characteristics among the entrepreneurs are considered to be self-confidence and strive for success. While self-confidence is about the entrepreneur’s belief in themselves when it comes to doing a task, the strive for success can be interpreted as the level of success that the entrepreneur can reach. Which again can be tied to the ambition that the entrepreneur has, arguing that since these informants are ambitious, they are more likely to be successful. Which might be correct in the case of three of the informants as they have experienced success with their previous businesses.

Furthermore, the entrepreneur’s belief in being able to do something, can be tied to knowledge, experience and education. Having knowledge within the field that the entrepreneur is entering, is said to be one of the characters of a successful business (Timmons et al., 2003). Which in the case of the informants, they all initially started businesses that they were knowledgeable in.

Except for characteristics such as ambition level and knowledge, some personality traits have been considered to also be observable in successful entrepreneurs. While some informants struggled with describing their personality, it was noticeable that some of the traits matched with the observations by Meredith et al. (1982). They saw personality traits such as self-confidence, dealing with risk (high risk tolerance), flexibility, strive for success and strive for independence as observable traits in entrepreneurs. Here is how A1 and A3 describe themselves:

“I am somewhat ambitious, impatient, willing to learn, curious, love to learn, read and listen to podcasts and am enterprising.” A1

“I’m probably ... It’s hard to speculate about oneself, but I think that I’m very inner motivated and it’s an inner will. It is such a general desire to achieve something, create

something, establish something. And then there is the belief that it actually works. I am very curious and optimistic and believe that everything is achievable.” A3

In addition to the traits that A1 and A3 mentioned, A2 shared that after having started several businesses, he learned how to deal with high risk, which means that initially he did not consider himself as someone who could take high risks. Perhaps this is evident in the fact that his first business was quite safe as he started a business that sold appliances. Compared to the business that he has now, that is more innovative and technical. Keeping in mind that he doesn't have a technical degree, pursuing something in that field seems to be riskier. Risk aversion was not something that the other informants mentioned or seemed to consider, which might make sense because most of them started businesses that were in line with their backgrounds. Which makes a point that they might not have wanted to too much of a risk and going outside of what they know. A1 and A3 seems to also have gone outside of their educations and backgrounds when pursuing their recent business ventures. Which might be similar to A2, who learned how to deal with risk over time.

Some personality traits that seem to be in line with previous research is self-confidence and strive for success. Traits such as willingness to learn and curiosity can be tied to flexibility, meaning that one is able to adjust according to the knowledge that is acquired. While A1 uses the word “ambitious” to describe himself, A3 explains that he has an inner motivation to create something and a general belief that he can achieve anything as long as he tries.

With this said, although the motivation and ambition of the entrepreneur, can be perceived as observable factor in starting and scaling a businesses, it is important to keep in mind that environmental influences and the business network that the entrepreneur is in, also contributes considerably (Zhang et al., 2009). Which we will come back to in the “Exploitation phase of the entrepreneurial process”.

Although the focus of the thesis is not on factors such as age, race and gender (Shane, 2008), it is however important to highlight that all informants in this group are male and three of them are around the same age. While three of these informants were in their twenties when starting their first business, the last one only recently founded a business. It's also important to note that these observations should be considered while keeping in mind that, while they are observable factors in successful entrepreneurs, they are not requirement for entrepreneurs to be

successful. It was however necessary to map the personality traits of the informants to consider how they perform compared to previous research.

This section describes the entrepreneurs in the start-up phase, by looking at the motivation of starting the businesses, if they have had any triggers that pushed them towards starting the business, and/or other determining factors that has pushed them to become entrepreneurs. It also goes into the characteristics of the informants, where personality traits and other factors are considered as contributing factors to the entrepreneur's success.

Regarding motivation and background, all the informants first business ventures is highly influenced by their background, which is in line with what previous research suggest. When it comes to characteristics, having high ambitions seems to be something that three of the informants have, while the last one initially did not have it. It is also evident that curiosity and willingness to learn as suggested by theory, might be an important factor for successful entrepreneurs. This is only observed in two of the informants. According to theory, having high risk tolerance is also considered to be a trait observed in entrepreneurs, however, only one of the informants describe themselves with this trait. This is also reflected in the fact that all the informants have started businesses in fields that they are knowledgeable in, which can be considered as less risky than going outside of what one is familiar with.

4.1.2 Exploration

4.1.2.1 Planning

When the entrepreneur comes to the “Exploration” phase of the entrepreneurial process, they can start with business planning. Although different research has yielded different results in the necessity of business planning (Hamel & Prahalad, 1994; Matthews et al. 2009), it is unlikely that an entrepreneur will do absolutely no planning while contemplating starting a business. The constraints that might come with planning is the reason why, some entrepreneurs choose to plan less than others Sarasvathy (2001). All the informants in the sample shared that business planning was something that they have done and that they continuously do. When A4 initially started his business, him, and his partner, chose to mostly use their own money, knowledge, and network. Which is like what A2 did, as he asked his friend that is an investor to invest in his business. Their business plan was based on using what they had at the moment to explore the opportunities.

“We used our own savings and we also worked for free” A4

“He has a private company, so he (his friend) invests from his company. We have used the network we have.” A2

Which according to Sarasvathy (2001) is a business planning approach that falls within the “Effectuation” category. Which is an approach that can be used perhaps, if you are new to being an entrepreneur and wanting to lower the risk of starting a business. This seems to be the case for A4 who puts an emphasize on keeping the control of the company and staying in the exploration phase for a while, before consider scaling. Which also can be a result of his current business being his first. He explained that the product has had some adjustments along the way, and it was first after he saw how the Norwegian market received the product that he decided to consider new opportunities.

“We now notice that we are starting to get organic growth in Norway, and that other markets are leading the product for us, but we are investing more into sales and marketing campaigns in Norway now, because we want a larger market. The same goes for Germany, where there is an inorganic market that we are working on now. So, Germany and the rest of Europe, where we focus on marketing and sales campaigns. we work at both ends of the scale.” A4

A2 on the other hand, followed a mixed approach, where he mostly used his own network to begin with, but started including others at an earlier point than A4. And by doing so, having to have a much more detailed plan to showcase to the people that he eventually included in his business venture (Nielsen et al., 2012). For A1 and A3 that sought out financial funding and included other partners from the beginning, explain that they have had to showcase their detailed plans to those involved:

“It is required that there is a level of innovation and development where you build a project plan that is good and that you can show to get support. This also works as a good exercise as a good project plan can in general be used in the company” . A3

A3 describes that to be able to receive help, both advisory and grants from Innovation Norway, he had to showcase detailed plans. What is important to keep in mind here, is that the approach that entrepreneurs take regarding business planning, should be tied to the type of business that is launched and the overall goal of the business.

Businesses that require a lot of funding and where several stakeholders are included from the beginning, often needs to have detailed plans, while of course keeping some room for creativity and innovation (Nielsen et al. 2012). While businesses that don't require a lot of funding in the beginning stages, seems to be allowed some room to try and fail. Overall, it is important to keep in mind that there should be left some room for the company to innovate and adjust, and that following plans that are too constrictive, might limit innovation and creativity (Sarasvathy, 2001). Amongst this group of informants, there seems to be a mix of both approaches.

For this phase of the entrepreneurial process, business planning was the main theme. With this group of informants, it seems that there is both detailed planning (Causation) and loose planning (Effectuation). Two of the informants made detailed business plans, one of the informants followed a mix approach and the last one decided to explore with his own resources before getting into the planning. The importance here, is that they seem to have chosen the correct approach according to the type of business and value proposition that they offer. For the informants that want to launch something that takes a lot of time to research beforehand and therefore having to include other informants, business planning seems to be a necessity. However, for the informant that did not want to include different stakeholder and keep most of the control himself, detailed business planning did not seem to be a necessity, and he was able to follow the development of the business before bringing in others. Based on these informants, it seems that both these approaches can be applied for scaling businesses.

4.1.3 Exploitation

4.1.3.1 Business model

When the business reaches the exploitation phase, depending on the business model, it might become possible to now scale the business. Some business models are created with the intention to scale immediately after launching, while others are made to follow organic growth Piakowska et al. (2021). As previously stated, this is often determined in the exploration phase, through either causation or effectuation. As the goal of the thesis is to study the scaling process

of businesses, seeing how a business model become scalable is important. Knockaert et al. (2019) suggest that to achieve positive and accelerated returns on the investments that are made and will be made to promote growth, business models must be scalable.

Two of the informants who first launched their businesses in Norway and are looking to scale to Europe and possibly globally, seem to already be aware of the adjustments that will be necessary when scaling. A2 mention that when studying the German market, they became aware of the fact that German customers have another relationship to social media channels, such as “Facebook”. Which makes them consider which way they will reach these group of customers and forces them to alter their business model, when scaling to Germany. Another thing that he mentions is that they’ve used their business networks to find investors in Germany, which he believes will help because they will have someone on the inside, that know their potential customer. This is confirmed by A4, who explains that they are also adjusting their business models to better fit the new market and that they have partners in the countries that they are scaling to:

“There (In Germany) we do promotion through our subsidiary company. We started the whole campaign with trade fair participation, with a relatively expensive stand, where we include our German partners. They will run the sales there and they are the ones who have the network. We are now building marketing campaigns through social media, building a website that is adapted to a different market and a different culture”.

A4

Nielsen and Lund (2018)’s research on Scandinavian scale-up companies confirms that when scaling the business, the entrepreneur must keep in mind the requirements of their new customers. A way of doing this is through finding strategic partners in the markets that they are trying to enter. In this case, A2 found investors that can act both as financial resource as well as business partners, giving them multiple roles in the company (Nielsen & Lund, 2018).

In the case of informant A2 and A4, where their products are software, the costs tied to developing the products does not necessarily increase with scaling. Which seemingly might cause a decrease on the overhead cost, as they get spread out through new distributing channels. This is according to Nielsen and Lund (2018) important areas that can help companies achieve maximum benefit. Adding to this, informant A2 took an extra step to study the German market,

by having some of his employees travel there and do some research. Identifying potential strategic partners, asking questions that reveal a road map to scalability and analysing the scalability attributes of business model options, are all steps that are recommended by Nielsen and Lund (2018).

In the case of A1 and A3, that are still in the development phase of their current business ventures, they shared that they plan on launching international once their product is ready:

“Yes, with the two latest companies, the whole point is to go international. It really depends on the type of company you choose to establish, once you have the type of company where there are investments some million kroner for a few years, and then making a big profit at the other end. Then we need a fairly large market at the other end, to defend the 5 years of investment, and then the Norwegian market quickly becomes too small. And so, it is natural, especially, when you work with technological products, to launch in the western market. So, it would be unnatural to create a national border around our product.” A3

His description of the company fits Piakowska et al. (2021) modes of scaling, where four modes were identified for scalers: Network growers, Organic innovators, Focused scalers and Constricted scalers. Which in this case, they fall under the mode “organic innovator” as they prioritize innovation in their offering, by spending 5 years on developing their product. These modes were observed in unicorns, which might be an indication that these informants’ business potentially can become successful. In the span of five years, they emphasize on having gotten enough financing, innovating their product and as their product offers a technological component, the digitization is also in focus. Which according to Piakowska et al. (2021) are essential resources to consider as they are critical growth enabling activities for scaling. This is the same approach that A1 is following with launching their current business. While A2 and A4 can be categorized as constricted scalers, as they slowly invest in their growth-enabling activities, A4 explains that they have this strategy as way to stay in control and keep the integrity of their business:

“We are happy to bring in investors, but we are very aware of our values in relation to which investors we let in. We do not only have a desire for financial return, but in fact a desire for improvement in education and learning for employees who need it.

Financing does not grow on trees, but we are probably a bit idealist in relation to our company and how we hire people and how to act and be in our company.” A4

For this informant, although they are in a position where they are wanting to scale now, they want to maintain the integrity of the company. Keeping in mind that Piakowska et al's. (2021) research was conducted on a sample of unicorns; it might not be applicable to businesses that don't necessarily want to launch and experience massive growth right away. Some businesses might wish to follow a slow constricted growth because of the consequences that this might have for their value proposition. This might explain why A4 have chosen to start by investing his own money into the company and slowly opening up to the idea of letting other investors in.

4.1.3.2 Network

When companies are looking to scale, in most cases they have to look for outside help, this can be from investors, banks, incubators and other similar organizations. As the thesis follows an ecosystem perspective, finding out the different stakeholder that help the entrepreneur with scaling is important. In this case, there is an emphasize on contribution from support organizations and financial resources. The informants are in different stages of their business ventures. They also have different approaches towards scaling, with some wanting to launch to a broad market immediately and other starting with the Norwegian market first. In this phase of the business venture, while the entrepreneurs are part of a business network, there are two things that are expected of them. The first one is receiving knowledge through knowledge sharing, and this happens when the entrepreneurs receive knowledge from their business network.

The entrepreneurs in the sample have different stakeholders in their networks. A3 explains that they have governmental organizations such as Innovation Norway and Forskningsrådet, their investors and an incubator. Both A2 and A4 are in frequent contact with their incubators and governmental support organizations. When it comes to preparing the business for scaling, they both state that those networks did not contribute to their new businesses partners that are helping them with scaling outside of Norway. A1, on the other hand, has chosen to keep his business network small by only including their investors, he explains that in the beginning of

his entrepreneurial career, he tried engaging an incubator, but did not gain anything by doing so. Here, he shares his strong feeling towards incubators:

“I do not believe in any governmental things and incubators. I have no faith in that. They have no idea what they are dealing with, they read a book, then they say «I thought this model was cool and I have gone to Boston and have visited MIT or been taken on this kind of state trips to Berkeley or Stanford. I have heard that professor and I have read Karsten Kristiansen», as everyone else can do. I wish that maybe existing businesses could be the ones taking a chance on mentoring new entrepreneurs.” A1

He feels strongly about wanting the stakeholder who he is supposed to learn from, to have both experience and knowledge, as he struggles with trusting those who don't have experience from being an entrepreneur. The knowledge that he believes are mostly accessible to entrepreneurs now, can be described as what Qian (2018) calls analytical knowledge, which is science based and easily spread. A1 feels that the type of knowledge that is easily found in books, is not what he is looking for. He would rather have someone with symbolic knowledge, which is both “know-how” and “how-to” (Qian, 2018). Because of these encounters where A1 feels that there is a lack of knowledge from the ecosystem, he keeps his business network small, which is the opposite of what is suggested in this phase. Several researchers (Collombelli et al., 2019; Qian et al., 2018) suggest keeping a large business network, for the purpose of knowledge sharing. It is however up to the entrepreneur to figure out which stakeholder has which knowledge and use this to his advantage. However, Trott (2017) says that while entering a strategic alliance, which can also be a business network, it is important to consider what the business gains from it. Business relationships can be complex (Ford, 2011), and so making sure that this is the right fit for the end goal of the business is very important. In the case of A1, he doubted that that he would benefit from the relationship, which is why he ended it. On one hand he might have felt that he had to take this step, to save his business's interest. On the other hand, his previous experience seems to have influenced him to limit his business network, which is not recommend by research. By doing so, he might miss out on finding support organizations that fits him, as it is reasonable to assume that over time the entrepreneurial ecosystem evolves and grow and so with this come potential stakeholder.

A3 on the other hand, has had very successful interactions with his network. This seems to be a result of his understanding of which stakeholder to go to for different types of knowledge sharing. By contacting Innovation Norway, he got in contact with both The Norwegian Research Council and Sintef, which broadened his business network in a positive way. He knows that when he needs help with technical aspects with his product, he can contact Sintef that have that type of knowledge to share with him.

“We tried for 2 years and groped blindly before we got in touch with Sintef and got help with tools on data and put it into a frame. A plan where we saw that, we had to take some development steps, we had to make a prototype and we had to test. We had to systemize and prioritize, and it was only when we met the with The Research council, Sintef and Innovation Norway that we got into the process that made the company move forward.” A3

In this case, A3 receives different types of knowledge based on the need of his business. Which is a result of him doing the work to figure out which stakeholder might be relevant for him to build a relationship with (Ratten, 2021), that can help him with his challenges.

Another area that the entrepreneurs receive knowledge, is through their investors. Two of the informants talk about how they have been strategic in the way that they use their investors, by using the investors expertise in the company. Which according to Budden and Murray (2019) and Ratten (2021), can have a great impact on the success of organizations. A1, on the other hand, explains that they choose to keep their investors at an arm’s length, for now. His reasoning behind this is that they are still in the development phase and that he does not want to spend time on board meetings, on talking and explaining what the business is up to. He sees it as an advantage that they can choose to keep their investors away for the phase that the business is in know. However, this approach is arguably one that makes the business miss out on receiving valuable knowledge. Several researchers (Budden & Murray, 2019; Ratten, 2019; Collombelli et al., 2019; Qian, 2018) have concluded that knowledge sharing, if done correctly will be beneficial not only for the entrepreneurs, but that this knowledge eventually benefits the entire ecosystem. Some way that this might happen, can be through investors that invest in several companies, that can apply the knowledge that they gather in one company, in another company.

A3 seems to have shared the same concerns as A1 as he says that because they are aware of the time that it takes to have board meeting and other types of meeting, they have agreed with the board of executives that not everyone should be in every meeting. They come up with a way to distribute this information, that frees up the time that the different meetings take, so that it can be spent elsewhere. He does however find the roles that the investors play in the company to be important, as he says that this is a great way to professionalize their board.

“What has been very important to us is to try to structure the operation of the company and professionalize the operation of the company in the best possible way, in such a way that not all owners actually sit on the board. We are happy to include a couple of external board members, professional board members, in addition to the fact that I sit as the owner's representative from the various owners. We have also tried early on to get a good structure where you have a board, and then you have an administration, daily management, the general manager and the administration report to the board. The board reports to the owners, and if the same person is part of all these 3 “departments”, then you get an ineffective structure. We have also been very concerned that when we bring in external investors, that we create a good control structure where the entire support apparatus contributes to scaling the business.” A3

Norwegian banks have in the last years tried to be considered as a more important stakeholder in the ecosystem by offering advisory services to start-ups and scale-ups. However, these groups of informants do not mention any banks as being part of their business network. A2 explains that the loans that they have received has been from Innovation Norway and A1 says that he stays as far away from banks as possible. According to Bogdan-Florin (2012), receiving borrowed capital can in some cases be better than venture capital. With some of the perks being tax reduction and a greater return compared to invested capital, one would think that at least one of the informants would have some ties to a bank. It might make sense in the case of A3 who values knowledge sharing and therefore wants to have investors that are part of the business, but for A1 who enjoys keeping his investors at an arms-length, perhaps this could be a good solution for him. However, he was the only informant that shared that he wants to stay as far away from banks as possible, which makes it seem that banks still have a questionable reputation amongst entrepreneurs. Another reason as to why the banks are not approached

more, can be that entrepreneurs with technical and innovative value propositions receive loans from Innovation Norway. And with these loans comes advisors, EU councilors, mentors, knowledge sharing and an extended network towards other governmental support organizations. Which might explain why entrepreneurs choose to go to Innovation Norway to fill a role that the bank could have filled.

Another role that the entrepreneurs have in the ecosystem is giving back by sharing their success and knowledge with other entrepreneurs (Clayton et al., 2018; Feldman, 2014; Budden & Murray, 2019). This is important because of the different types of knowledge that might be required to solve a task. Going back to the topic of analytic knowledge, synthetic knowledge and symbolic, it is evident that knowledge can be heavily tied to experience. Certain types of knowledge can only be achieved through experience, which makes it even more important for the entrepreneurs that achieve success and gain this experience, to share with others. A1 was the only informant that shared that he has worked as a mentor through a couple of governmental programs. He has been a mentor for a start-up company, where his knowledge in scaling outside of Norway was necessary and appreciated. A1 is also the informant who has stated the importance of more experienced entrepreneurs sharing with new businesses, which might explain why he has taken this role himself, as he felt that he would have benefited from this when he was a new entrepreneur. Knowledge sharing is one aspect of this, another one is that when young business owners see those who have made it, they are hopefully inspired to be ambitious. None of the other informants stated to be mentors or be in any direct contact with other entrepreneurs that they share knowledge with.

When it comes to the exploitation phase of the entrepreneurial process, two themes are identified as important: business model and the entrepreneurs' network. Two of the informants have had to alter their business model to prepare for scaling, while the two others have already taken this into consideration while business planning. A2 and A4 have chosen to include business partners that are in the markets that they are launching in, which is recommended as a success enabling activities for growth (Nielsen & Lund, 2018; Piaskowska et al., 2021).

Regarding their network, A1 has chosen to keep his network small and doesn't consider this to impact their scaling in a negative way, as he feels that he doesn't need an input from his current network. He has restricted his business network as a result of bad encounters with support organizations. Although this is not recommended by research, he has managed to scale several

businesses with this approach and doesn't regard this as a limitation. 3 of the informants have incubators and governmental support organizations as part of their network, which they all find is great for knowledge sharing, however two of these informants believe that these stakeholders have not helped with extending their network towards scaling. They have used their private networks for this. Lastly, three of the informants have mentioned using investors as part of their networks and that they believe that they play a role towards helping them scale.

4.2 Financial resources

The next group of informants is financial resources. They are either from venture capitals or banks. There is a total of seven informants in this group, where three banks are represented and two venture capitals. Two of the banks represented here, are represented by two informants each, as some informants only works with start-ups and others work with scale-ups. In the previous chapter, there is a table with some background information about the informants, however, there is a short presentation of the informants here as well, that can be used as a guideline while reading. This group of informants are in group "B":

B1: works as an assistant bank manager in a local bank, with more than ten years' experience. He works mostly towards start-ups and has recently started advising academic start-ups.

B2: works as an assistant bank manager in the same bank as B1. He has industrial experience as well as fifteen years of experience from working in the bank. He works with Scale-ups and businesses that have already experienced growth.

B3: works as head of start-up and growth at one of Norway's largest banks. He has thirty years of experience from working in the bank, but also experience from being an entrepreneur. His work is mostly directed towards finding young talents within entrepreneurship, as well as being part of building the offering towards start-ups and scale-ups.

B4: works as a senior business developer in another one of Norway's largest banks. He has ten years' experience and works with developing the offerings that his bank has towards scale-up businesses. He has some contact with scale-ups as well.

B5: works as a start-up and growth specialist in the same bank as B4. He is mostly in contact with start-ups and has experience from being an entrepreneur himself.

B6: is an investment director in a venture capital and has more than 22 years of experience in her organization. Works with investing in early phases in start-ups that are followed until scaling or being listed.

B7: is a senior associate at a venture capital where she works with sustainable technology start-ups. Their agenda is similar to B6, as she also invests in start-ups and follow them until and sometimes beyond scaling.

The findings from this group are divided into three categories as presented in table 5 and is based on the data from the interviews and theory presented in chapter two. First, the financing aspect will be discussed, where the type of financing is presented as well as the phase that the entrepreneur can receive this financing. Then knowledge sharing will be in focus, going into how the banks and venture capitals share their knowledge with the entrepreneurs. Lastly, the networks of the informants are presented as well as the way that the network is used to contribute towards the entrepreneur's business scaling.

Financial resources	Financing
	Knowledge sharing
	Network

Table 5: Main themes for Financial resources

4.2.1 Financing

4.2.1.1 Borrowed capital

As mentioned in chapter two, there are several reasons why it can be beneficial for a business to receive borrowed capital. Some of them being an increase in financial funds with the potential to receive higher return, and tax reduction on the interest cost (Bogdan-Florin, 2012). However, because of the high risk that comes with lending money, banks typically don't lend

to start-ups with limited equity, and no previous financial results to showcase. Which has resulted in banks not being perceived as an important part of the entrepreneurial ecosystem. It seems that some banks want to change this reputation, by offering strategic advice to start-ups and new entrepreneurs, (DNB, 2022; Nordea, 2022; Danske bank; 2022). Some of the biggest banks in Norway now promote their services towards start-ups, seemingly to attract those customers.

All entrepreneurs in the sample received some outside capital for their businesses, which is mostly in form of grants from the government and venture capital. All the banks in this group offer some type of service to start-ups and new entrepreneurs. B1, who works at a local bank reveals that their bank has gone from having all their corporate customers in one department, to splitting the department in two, to distinguish between start-ups and big corporates. Which is similar to what the bank that B4 and B5 work at, has done. Their bank opened a department that gives free advice to both customers and non-customers. B5 explain that they have hired people with entrepreneurial background to work at this department, because they have the experience needed. B3 explains that his bank wants to be the best in Norway at encouraging new talent, which they do through their program for start-ups. As previously stated, which we will also come back to, knowledge sharing is important in the entrepreneurial ecosystem as it can help increase the level of success that the entrepreneurial ecosystem experience (Ratten, 2021). When it comes to the financing the banks give to scale-ups, it is quite limited because of the high risk that comes with lending money to start-ups. Which is as mentioned before, because the start-ups don't have enough equity. One way to still be able to lend the entrepreneurs money is through Innovation Norway's "Start-up warranty", where the entrepreneurs normally can lend up to NOK 4 million and Innovation Norway gives 75% warranty to the bank. B1 explains that when considering who they lend money to, they follow two criteria's

"We look at 2 things; This is whether the customer can service their loans and showcase this to us in a good way. we might actually find that there are some who can pay for their product at least in the near future. And 2; security coverage. We have to think about if the business fails, how will the bank be able to recover what we have lent." B1

He also goes on by sharing how they sometimes work with Innovation Norway, who gives a warranty for the loans of the start-ups, making it possible for more start-ups to borrow money.

“As I said, they have this growth guarantee scheme, so the bank gives loans since they (Innovation Norway) provide the security through a warranty.”

Although this might make it possible for more start-ups to get loans from banks, as Innovation Norway has this deal with all Norwegian banks, it is still only companies that qualify that can follow this approach. First, they have to qualify with the bank and then they have to qualify with Innovation Norway, which we will come back to with the next group of informants.

On the other hand, for scale-ups, they follow a different approach. When a business comes to a phase in the entrepreneurial process where they have brought in investors, they might come to the point where they want additional capital to finance their activities (Bogdan-Florin, 2012). When they get a loan from the bank, they will also become corporate customers of the bank. Although banks are more willing to lend money to businesses that either have good financial records or received investments, there has still been some limitation to how much money that can lend out. One of the informants from a bank, wanted to do something about these limitations. B3’s bank explained that because they wanted to be viewed as the best bank in the business for start-ups and scale-ups, they went to the European Investment Fund to extend their credit limits. They wanted to extend the credit limits for start-ups that is normally, at NOK 4 million, to NOK 75 million and for scale-ups, up to NOK 3 billion. He explained that they are the only bank in Norway with this offering as the others were not interested in this:

“So, we negotiated with them (The European Investment Fund) and arrived at NOK 5 billion in warranty frame, where we can then borrow up to NOK 75 million, with an 80% state warranty from the EU. This is an offering that only our bank has. The other banks were not interested.” B3

After his bank did this, they were able to lend money to a company that is on its way to become one of Norway’s Unicorns. They were able to lend out a couple of billions to this business, as a result of the extensions they received from the European Investment Fund. Which makes it

seem that their idea to change the limitations might have been a smart move and nonetheless that they also might take their role as a stakeholder seriously.

The other informants have previously mentioned that they normally are limited in financial funds that they can offer start-ups, both due to limitations from The Financial Supervisory Authority of Norway and the high risk that comes with borrowing funds to start-ups. However, when B3 revealed that there are possibilities for the banks to actually help businesses more, it raises the question if most banks are doing all they can to contribute to the ecosystem. It also raises concerns as to if they are keeping the entrepreneur in the central of the ecosystem.

4.2.1.2 Investment capital

When it comes to what Venture capitals does for entrepreneurs, it can mostly be divided into two categories. The first one is that they invest money into companies, as they are known for financing high risk projects (Gompers & Lerner, 2001). The two informants from the sample that work at venture capitals, shared that when finding companies to invest in, they have some requirements that they pay attention to. The first one is the level of innovation that a business has, which is in line with research by Gompers and Lerner (2000), who found that venture capitals are more like to invest in businesses with an innovator strategy.

“We invest in technology companies in all industries, as long as they have an international potential and ambition. The companies we invest in are those that have unique advantages and often ambitious and difficult tasks ahead of them.” B6

“Our strategy may change, but up to and including today, we look for companies that represent either a unique technology or business model.” B7

Another thing that both informants highlighted, was the fact that although they can invest in companies in different phases, as long as it is before commercialization, they normally invest in very early phases. They called the phase “pre-seed”. This, yet again is in line with Gompers and Lerner (2000)’s research, stating that businesses with an innovator strategy often get financing from venture capitals at an earlier phase than business that don’t have an innovator strategy. B6 even explained that it is important for them so make sure that they allocate enough funds to each of the companies that they invest in, and that financing has to be spread out to the different phases. The reason why it is important to them to allocate enough funds, is to ensure that the entrepreneurs and their teams are preoccupied with working on the product and

getting it into the market, instead of constantly be looking for more investments to continue their operations. Which might be the reason why companies with venture capital, tend to have a shorter timeframe from product to market, compared to businesses without venture capital (Hellman & Puri, 2000).

The last thing that the informants find important when deciding which company to invest in, is the ability of the person(s) behind the innovation, to make sure that they will be able to carry out the project. B6 explained that they don't expect the entrepreneur to "have it all", which is why they have put a greater emphasize on the entrepreneurial teams' abilities and traits. Which is what Stuart and Abetti (1990); Wetering and Koster (2007) say is a shift from the characteristics and knowledge of the entrepreneur, to extending these requirements to the team and network of the entrepreneur.

The way that the venture capitals invest, is by sometimes going together with other venture capitals, where they decide which one of them will be "lead" in the business. By doing so the one that is best fitted takes the lead and the other ones can focus on the businesses where they are lead. B6 explains that this is to make sure that they have time to spend on the different businesses, they make sure to only be lead where they are best fitted to do so. Which might be a good way to ensure that entrepreneurs get the knowledge that is best suited their business.

This brings us to the second role that the venture capital play in the companies. Which is by taking a board seat in the company and becoming part of the decision-making unit of the company. By doing so, they are able to work closely with the entrepreneurial team and help develop the business. This takes us to the next theme, which is how banks and venture capitals share their knowledge with entrepreneurs, to contribute to theirs scaling process.

4.2.2 Knowledge sharing

Kortum and Lerner (2000)'s research on the effects of venture capital on innovation in a business, shows that compared to funds that the companies allocate to their Research and Development department, the funds invested by venture capital is 3-4 times more potent in stimulating patents. Based on the roles that venture capital plays in the businesses, two reasons can be identified as to the effectiveness of the financing of venture capitals. The first one might be because the entrepreneurial team doesn't have to spend time looking for financing or a way to pay borrowed financing, they can focus on developing their business and further innovate

their product. The second reason why this might be, is the involvement of the investors through their board seat and involvement in the business.

“We actively join the boards over a period of time and help to develop it” B6

“This usually means that we take a board seat. And if we do not do that, then it might be because we don’t possess the expertise that the company needs at that stage or that sector. If that is the case, then we try to find someone who can represent us. So far, we have taken the board seats ourselves, except for two companies, where we left the board when the company got listed.” B7

It has been stated several times that knowledge sharing is at the core of the entrepreneurial ecosystem and is part of important success factors. Which explains how the investors involvement in the companies might help the entrepreneurs succeed, partially because of the knowledge sharing that happens between the entrepreneurs and investors. The investors seem to take knowledge sharing seriously, by providing the right expertise in the company when they don’t have it themselves.

An example of the investors being part of the decision-making unit in the company is by finding a fitting CEO for the phase that the business is in or one that can help scale the business. Although the focus is on the team, rather than on the entrepreneur, the informants reveal that in some cases, they suggest changing the current CEO, which in most cases is the entrepreneur, with one that will help scale the business. This is because most entrepreneurs might have good industrial or technical knowledge, but not have the business development knowledge and experience, which the informant say is necessary when scaling a business.

This is good example of the investors using their knowledge of what a good entrepreneur is, to ensure that the business has the right knowledge to reach their goals. B6 also explained that the founder gets another role in this time period and gets trained by the new CEO, so that he/she will be able to take over at a later time. Which is also a way of enabling knowledge sharing (Qian, 2018).

When it comes to the banks, they have not typically been known for the knowledge sharing role in the entrepreneurial ecosystem (Budden & Murray, 2019). But the Norwegian banks, have in more recent years, tried to change this by offering strategic advice to start-ups.

“I help companies with how to talk to investors and make them investor ready. My team and I tend to turn it around and say that we help with most things in the start-up and growth phase with the exception of specific accounting issues and also not with law. But it is twofold, strategic advice, and then we are very much out giving lectures, are on accelerators” B5

In this case, the knowledge that is shared is said to be strategic, which can be useful for the companies. However, several of the informants from banks explain that in most cases, if the entrepreneurs want to get back in touch with the bank after first contact, they have to fill out a form online, for each time they need advice from the bank. Keeping this in mind, in addition to the fact that the entrepreneurs in the sample have not used this type of offering, raises the question if it is a disadvantage to have to fill out a contact form when you need help with your business. All the banks in the sample seem to have a similar approach to this, where none of the entrepreneur has a given advisor that they can come back to, that know their business well. This is what B5 say about how they approach this:

“With the most common inquiries, I do not usually call from my private phone, and if they want to contact me again, then they have to fill out the form again.” B5

B5 has previously also shared that their bank normally let entrepreneurs from start-ups fill out a form for each time that they want to contact them. Although they are trying to share knowledge through providing strategic advice to the entrepreneurs, it raises the question of how that is possible if the entrepreneurs might encounter different advisors each time they contact the bank. How strategic can the advice be, when there is a new advisor each time the entrepreneur reaches out, that is not familiar with the business? Another aspect worth mentioning, is that it might become tiresome for the entrepreneur to constantly having to fill out a new form for each contact, in addition to having to share their business proposition with

different advisors before getting strategic advice. If this becomes complicated for the entrepreneurs, they might not take up this offer that could be helpful for them.

For more developed businesses, that are customers in the bank, they have another knowledge sharing processes. All the informants from banks, explain that for their corporate customers, they provide a designated advisor, that they can contact. This advisor can give them some strategic advice and help with business development. However, since the banks are not part of their businesses, they can only suggest things, but never impose this in the entrepreneur. B3 has shared that they've been in a situation where they advised a company to hire a CFO to help with the financial aspect of the company.

4.2.3 Network

Another way that the stakeholder financial resources might be able to contribute to the entrepreneurial ecosystem is through their network. There is a lot of value that can be created through being part of a network, by transferring knowledge and information amongst network members (Ratten, 2020). It is assumable that when entrepreneurs are in contact with banks and have investors in their company, they become part of their network. When they are part of this network, it is reasonable to assume that they may be exposed to other important stakeholders and gain information through interaction, that otherwise wouldn't be accessible to them (Stam, 2015). Through these interactions the entire network can increase their overall performance. The venture capitals network, except for the businesses they invest in, seem to consist mostly of other venture capitals:

“It is important for us to understand the co-investors. Who are we going to do this with? And there, the co-investors are important because we can never take the entire issue round alone. A sweet spot for us is to be a minority shareholder, 15 to 30% of the company. And then it is important for us who invests with us.” B6

This raises the question of how this network can benefit the entrepreneur, which can be summed up in two answers. The first one is that the venture capital can be used to co-invest in the different businesses, and so this network can be extended to the entrepreneur. As B6 shared earlier, it is important to understand how their co-investors work and find it if they are the right

the right fit for the business. By co-investing in the business, they extend this network to the entrepreneur, by letting them have access to the other venture capital as well.

The second way that entrepreneurs can benefit from the investors network, is as B7 shared earlier, that they extend their network by bringing in another board member who fits the business better, in the cases that they are not able to take the board seat themselves.

When it comes to how the banks network contributes to the entrepreneurial ecosystem, it seems that the banks tend to bring in or refer the entrepreneurs to governmental support organization, such as Innovation Norway and The Research Council of Norway. This has mostly been mentioned in context with start-ups either wanting to borrow capital from banks and being referred to Innovation Norway so that they can offer a “Start-up Warranty”, so that the bank is able to lend them money. In those cases that the business does not have enough equity or investors, so that they can receive a loan, redirecting them to Innovation Norway can of course be a game changer for them. However, since Innovation Norway is a governmental company that everyone has access to, it is questionable if they can be considered as an additional “perk” that comes with interacting with the banks. When actually Innovation Norway is part of all stakeholders’ networks and can’t be “claimed” by anyone, in a sense.

Financing, knowledge sharing, and network sharing are all ways that financial resources can contribute towards scaling businesses. When it comes to financing, this is done through either borrowed capital or investment capital. Borrowed capital seems to be mostly directed towards businesses that already has investors. In the case that start-ups receive loans, this is often a result of Innovation Norway’s contribution with the “Start-up Warranty”. There are some limitations as to how much banks can lend out to businesses in different phases, however, one of the informants increased their limitations by meeting with the European Investment fund. Which is an indication that banks could do more to contribute to the entrepreneurial ecosystem. Investment capital is done through venture capitals investing a company, and by doing so, becoming a board member. They often invest with other venture capitals and make sure to have enough funds to follow the business up until the expansion phase. The informants here tend to come in at 15-30 percent ownership.

Regarding knowledge sharing, venture capitals do this through their board seat and through being part of the operationalization of the company. They also tend to bring in necessary

expertise where this is needed. Banks offer strategic advising for both start-ups and scale-ups. Start-ups don't receive a given advisor and must fill out forms each time they contact the bank. Scale-ups receive a given advisor as they become a customer of the bank and with this also receive strategic advice. Since banks are not owners of the company, they are limited to only suggesting things to entrepreneurs, as opposed to deciding like the investors do.

The last observed way that this group contributes to the entrepreneurial ecosystem is through their network. Venture capitals do this by bringing in other venture capitals to invest on different project as well as find the correct board members or other expertise that the entrepreneur needs. The banks mostly seem to refer to governmental organizations.

4.3 Support organizations

This group of informants are support organizations and they are divided further in to two groups. The first one is government, which consist of two informants from the same governmental organization, but in different parts of Norway, from different department, different positions, and offerings. The second group consist of two informants from different incubators and one from a business cluster. As with the two other groups, there is a table in the previous chapter with information about the five informants. However, below is some information, that the reader can use while reading the findings and discussions.

C1: has 30 years of experience from the governmental sector and is the manager of a cluster program for different clusters. His task is to make sure that the clusters have a place to gather both physically and organizational, and to develop an offering that is in line with what is needed.

C2: works as an advisor at the same company as C1, but works with start-ups and scale-ups, to help them prepare to receive outside (global) investments. He also works with getting non-Norwegian company to open offices in Norway as well as staying in close contact with the international offices of his organization.

C3: works as a manager in an incubator and works with both start-ups and scale-ups. His work us to help develop program offerings for both start-ups and scale-ups.

C4: is a manager at an incubator where he works with businesses as well as having academic responsibility. He is responsible for the internal competence related to business development in the incubator.

C5: is the manager of a cluster and works with developing the program offering for several different businesses, such as banks, co-working places, law firms etc. Although he doesn't work with start-ups himself, the companies that are in his cluster work with start-ups and scale-ups and often want to use the cluster as an extended network for these businesses.

The findings from support organization are divided in to three main categories. First, the grants that is offered by governmental organizations are presented. Furthermore, as with the two different groups, the knowledge sharing that this group has with entrepreneurs, are presented. Lastly, these groups networks are presented as well as how this is beneficial for the entrepreneurs. The different themes might not be applicable for informants from both government and incubators but will be applied where it fits. Although there is an informant from a cluster in this group, he will fall under the category "incubator" because of the similarities between their role and offering.

Support organizations	Grants/Aid
	Knowledge sharing
	Network

Table 6: Main themes for Support organizations

4.3.1 Grants/Aid

4.3.1.1 Program offerings

One of the five areas that governments can help businesses with scaling is by providing certain complementary assets (Trott, 2017; Afuah, 2013; Porter, 1990). As previously written, there are mainly three governmental support organizations in Norway, that help businesses that are in the start-up and/or scale-up phase. One of the ways that they help promote higher activity in the entrepreneurial ecosystem is through their different offerings. The two informants that work in the governmental organization, help promote entrepreneurial activities in different ways.

While C1 helps develop the program offerings for businesses that are part of clusters, C2 works directly with companies that are in start-up and scale-up phases.

“I help companies position themselves to receive capital. There are tech founders or young people who have not done this before, and when you start to scale the company, it is competence outside the products that is needed and to get the company mature enough to accept competence and to perhaps structure companies in a sensible way so that investments can be made. So that's the financial knowledge we come in with, to help the business.” C2

The mentoring that the businesses receive is an offering that the government offers for free, to businesses with an innovative strategy. This is in line with what researchers (Trott, 2017; Afuah, 2013; Porter, 1990) say is necessary for governments to offer the entrepreneurs in order to grow the entrepreneurial ecosystem. C1 works at the same governmental organization and shares that their clusters program is something that is free for different clusters to attend, in order to share experiences and be mentored within different fields and topics. He also informs that every cluster that becomes part of the program receive at least NOK 3 million, depending on which program they are enrolled in. He does however add that there is an enrollment process and that last year, only 20 percent of the applying clusters were accepted to this program, because they didn't have room for more.

“The cluster program that we offer is a support scheme and in addition to this, we have a number of other activities that are linked to these clusters.

We have an annual enrollment, where we pick the clusters that we choose to support because we have limited funds that we have the opportunity to use. During the enrollment process, we take into account what type of activities the clusters say that they will prioritize and how they will follow up on this. The cluster program is there to be useful for companies and to be useful for ecosystems in the regions that these clusters are in.” C1

Even though this does not impact the businesses directly, it does however impact the clusters that their incubators and/or venture capitals might be a part of. This indirectly might have a positive effect on start-ups and scale-ups. The reasoning behind this is that while this

governmental organization is supporting clusters from all over Norway, the clusters that they are supporting are able to again support the entrepreneurial ecosystems in their regions. Which is an indirect way of contributing to the entrepreneurial ecosystem, where the overall goal is to contribute to the entrepreneurs scaling process. With the different program offerings that the government has toward the entrepreneurial ecosystem, it raises the question of the effectiveness of these program offerings and if they have a way to measure the results of these programs.

4.3.1.2 Results

Governments have received some criticism regarding how they refer to and handle the concept of entrepreneurial ecosystems (Brown & Mawson, 2019). The criticism is mostly related to there not being enough studies that showcases the cause and effect of the entrepreneurial ecosystem as a concept (Alvedalen & Boschman, 2017). The Norwegian government seemingly is one that have adopted the idea of promoting entrepreneurship and entrepreneurial activities. This observation is based on the different governmental organizations mentioned in this thesis that are working to help with this agenda.

Regarding the question of the effectiveness that these offerings have on the entrepreneurial ecosystem, it still seems unclear what the results of these allocated funds are. C1 says that measuring the effect of the offerings is not something that they have been encouraged enough to do. Based on his statement, it may seem that the government, seeing that there was a need to promote higher entrepreneurial activities, started developing different programs to achieve this goal. And that along the lines, the results of the effectiveness of these programs might not have been prioritized. C1 explains that although there are no official statistics of the effectiveness of the different offerings that the government has towards entrepreneurs, his department has done a bit of research to see the effect that their cluster programs have on the businesses that are in them.

“We see that members of the clusters compared with a similar group that is not part of the clusters have a rather much higher value creation, sales income and numbers in general, i.e., development in the number of employees. And it usually happens early in the period that they are part of a cluster, but it is clear that the difference continues further down the line. However, after a while it is not as easy to see the big difference, the gap decreases over the years. In the beginning, it is possible to see about 14-15%

higher value creation and sales revenues than the comparable group, so these are measurements that we make every single year for that group.” C1

Although it seems that there are some measurements that can be used to see the effects that the cluster program has, it is only limited to the effects of the cluster. There doesn't seem to be any measurements that showcases how the clusters that are members, regard this offering. In addition to this, the fact that the organization don't seem to prioritize to measure the effects of their programs is in line with the criticism that some researchers have had towards governments. C1 goes on by mentioning that except for the results shared above, they've also seen that most of the companies that brought home funds from EU in 2019 were members of clusters in a way or another. He believes that this might be a result of that the clusters program places their EU advisors in the different clusters and they help with EU applications, when needed.

This gives an indication that there are several offerings to help promote entrepreneur and although some of these seem to produce results, because the measurements do not seem to be conducted in an intentional way, it seems rather challenging to truly know the effect they might have.

4.3.2 Knowledge sharing

Similar with the two groups above, it is worth mentioning that knowledge sharing is something that is important for this group of informants as well. Knowledge sharing is generally something that is considered to be a powerful tool for the ecosystem as a whole, and when this is done intentionally it will produce even higher levels of entrepreneurship (Ratten, 2020). When it comes to the contribution that support organizations adds to the scaling of businesses, knowledge sharing seems to be one the most important contributions, if not the most important.

All five informants have shared how they share knowledge with entrepreneurs and said that this is the main reason why entrepreneurs come to them, they need help with developing their businesses. Which makes them seek out those that have the correct knowledge. C1 previously shared that one of the ways his organization share knowledge with entrepreneurs is through helping them with EU applications. C2 shared that he helps new businesses become ready to receive capital form investors, by helping the entrepreneurs develop their business models so

that they are scalable and have strong value propositions. He uses his knowledge from being an entrepreneur himself, and his education to help the entrepreneurs through symbolic knowledge, as defined by Qian et.al. (2018).

There are some aspects of the knowledge offered by this governmental organization that are worth mentioning. Firstly, they seem to offer this knowledge transfer to entrepreneurs for free. Secondly, they seem to work with companies both individually and through different programs with other entrepreneurs, which enables different types of knowledge sharing (Qian et al., 2018).

When it comes to the other informants, both C3 and C4 share that they follow a similar approach with the entrepreneurs that are part of their incubators. They give the entrepreneurs strategic advice individually, but they also like having joint events and programs that they can be part of and learn from each other. However, as opposed to the governmental support organization, businesses that become part of one of these incubators must pay a membership fee, to have access to this knowledge and network.

C5, who works as the manager of a cluster, explains that although they don't typically work directly with entrepreneurs, they do work with the incubators that these entrepreneurs are a part of, and therefore understand the challenges that the entrepreneurs might encounter. Which is why C5's business cluster arrange workshops, where they pick some entrepreneurs that can receive knowledge and benefit from the different companies that are part of the cluster. At the workshops that can receive help on topics within law, financing and other things that might be important for the entrepreneurs to know.

“We have not had it as a main role, but last week, we had a digital workshop, we started by planning this and talked to 3 Coworking companies, some of the collective environments and the incubators we have in our region, and then they came up with 3 growth companies. Then our cluster invited many of our companies who either have capital and can invest, have great expertise in international growth, market, could give some qualified advice, or perhaps be attracted as an investor into the business. We think that our cluster has done a good job if we can connect companies that want to grow, but that have challenges, with the right expertise and capital.” C5

Which again, for a stakeholder that normally does not aim at interacting directly with entrepreneurs and that normally contribute indirectly to the entrepreneurial ecosystem, they seem to understand the challenges that entrepreneurs meet. And based on this knowledge that they have about these challenges; they wish to do what they can to help them solve their challenges. By making sure that those who have the knowledge that the entrepreneurs can benefit from, can share this with them through a workshop. Compared to the knowledge sharing from governmental organizations, this is only for entrepreneurs that are members in the incubators and not accessible for all entrepreneurs. It also comes at a price.

4.3.3 Network

Having a big network to access is something that any entrepreneur can benefit from towards building a successful business (Ratten, 2020). However, in the beginning of the business venture, most entrepreneurs have a limited network, as a result of being new in the entrepreneurial ecosystem. Which means that they have to consider how they can join a business network and also which business network they should join. Trott (2017) describe entering a strategic alliance as a three-step process where the process consists of considering the goal of the venture, negotiate the terms and lastly, managing the relationships. The informants in this group all have different networks that their organizations are part of, which the entrepreneurs in one way or another can have access to and benefit from. As previously discussed, C5 described the workshop event that they organized for the entrepreneurs to have access to their network. Which by doing so, expanded the entrepreneurs' networks. When it comes to the governmental organization, their network seems to be consisting of mostly other governmental organizations. This is what C1 says:

“We work closely with the Research Council. We run this program together with the Research Council, and we run it closely with SIVA, so they are 2 very relevant partners.” C1

By having access to different types of governmental support organizations, the entrepreneurs can engage in knowledge sharing and receive different grants. However, they governmental organizations seem to prioritize technology-based and innovative businesses, which both C1 and C2 have shared. In the cases of the entrepreneurs in the sample, this is a good thing.

However, this might result in other good business ideas not receiving the right attention and encouragement. Which again might result on other good business ideas dying out.

The informants from the incubators share that they have a very broad network and refer to the governmental organizations as important stakeholder in their network. They do also mention venture capitals, banks and other large corporation as part of their network, and that, when necessary, they extend their network to the entrepreneurs.

“We connect them with stakeholders that lightens much of their weight. Being part of an environment with entrepreneurs who are a bit in the same phase, position and situation makes it much easier for many entrepreneurs. Our company is very preoccupied with having partners. We use our entire network, we engage experts, subject matter experts, legal, etc. where it is needed.

We contribute towards funding, we help the founders navigate with the help of soft funding, we know Innovation Norway and The Norwegian Research Council very well.” C4

This statement explains the role that the incubators can play in the entrepreneurs’ businesses. C4 also explained that although they have an extended network of resources that the entrepreneurs can use, they also make sure to have the right expertise inside the company. Which means that if the incubator needs hiring someone with a special expertise that several of the entrepreneurs need, they do not hesitate with hiring someone who fits the description. Support organizations have different ways that they impact the entrepreneurs during their entrepreneurial process. The governmental organization offer different grants and programs that the entrepreneurs can be part of, some mentioned by the informants in this group are mentoring, cluster programs and strategic advice. Regarding the effects that these offering have, there seem to be no general statistics that showcases the effects. One of the informants mentioned that they have however compared the companies from their clusters and see that, there is a positive effect for those that are part of the cluster.

The informants are also familiar with sharing knowledge with entrepreneurs to help them scale. The informants from the governmental organization shared that knowledge sharing is typically done through mentoring, individual strategic advice and through different programs and

workshop that they organize. Incubators share their knowledge similar to the governmental organization, while the cluster that typically don't interact directly with entrepreneurs, has provided knowledge sharing through a workshop. Through the workshop, they also extended their network to the entrepreneurs, by inviting different stakeholders that are member of the cluster. Their network consists of different large corporations within law accounting and IT, to mention some. The incubators have a broad network that consist of both governmental organizations, investors, banks and other large corporation. They use their network when necessary to help entrepreneurs receive the help that is needed regarding start-up and scale-up. The governmental organization seem to have a network mainly consisting of other governmental organizations. The entrepreneurs can access this network for help with innovation, different applications and grants.

5 Conclusion

The Norwegian government want to increase exportation from Norwegian companies with 50% before 2030 (Regjeringen, 2021). A way of doing this is through encouraging growth and scaling among Norwegian companies. The Norwegian government has also over the years implemented several measures to promote higher levels of entrepreneurial activities.

By using the concept of entrepreneurial ecosystem, this thesis identified important stakeholders in Norwegian tech companies' ecosystems. The ecosystem was divided into three categories: the entrepreneurs, financial resources, and support organizations. The sample consisted of 16 informants, where four were entrepreneurs, seven were from financial resources and 6 support organizations. The entrepreneurs had to either be in the scaling phase or planning to scale in the near future and their businesses had to be tech-based. For the rest of the informants, it was important that they either worked with businesses on the entrepreneurial process or are part of the management that offer programs schemes to them.

Through the interview process I was interest in finding what how the entrepreneurial process was for the entrepreneurs and identify factors that contribute toward scaling. For the rest of the informants, the focus was on finding out what they offer to scaling businesses and how they contribute to the entrepreneur's process towards scaling.

As confirmed through previous research (Meredith et al., 1982), having high ambitions was a contributing factor for a successful entrepreneur. 3 out 4 informants said that they were and still considered themselves to be ambitious people, all these three informants have several years' experience from being entrepreneurs and having successful businesses. Which indicates that their high ambitions have contributed to their success.

Furthermore, previous experience and/or background is according to research (Crijs, 2001) something that contributes to the success of an entrepreneur. This was only correct for the entrepreneurs first businesses, all of them seem to have stepped outside of their education and previous experience for the businesses that they are currently working on. Which brings us to next point, which is being able to handle high risks. Only one of the informants described himself that way, but he insisted that this was something that he learned over time. Which is seemingly what happened to the two other informants as they have stepped away from their original field of knowledge and are planning to launch their businesses international right after

development. For the two informants that did not plan to scale their businesses right away, they have found that adjusting their business models to be able to scale to other companies has been highly necessary, which is in line with (Nielsen & Lund, 2018)

One thing that all four informants have in common is they have all received some help on their entrepreneurial process, that contributes towards their scaling. They've all used their networks in mainly two areas, financing, and knowledge sharing, which has been focus areas on the thesis. For financial resources three of the entrepreneurs have received investment capital, the last informant has just recently warmed up to the idea of an outside investor.

Venture capitals have contributed with capital that will help the entrepreneurs with scaling. Two of the informants identified that except for financing, they find that knowledge sharing and the active role that venture capitals play in their company is highly necessary. Because of financing they are able to focus on developing and innovating their products. Because the investors have extended their network to the entrepreneurs, they've had the correct knowledge at hand to tackle different tasks. Which is exactly how the informants from venture capitals describe their role in the entrepreneurial ecosystem. None of the entrepreneurs have gone to banks for borrowed capital or for strategic advice. Which is what previous research show, as banks are not typically considered as an important stakeholder, especially in the case of tech firms that typically receive capital from venture capitals because of their innovative nature (Gompers and Lerner, 2001).

The informants from banks, on the other hand believe that they've position themselves towards businesses that need financing and strategic advice, both start-ups and scale-ups. Which means that there is a discrepancy between the contribution that banks believe they have in the ecosystem and what the entrepreneurs perceive. The entrepreneurs in the sample have shared that when they needed borrowed capital, they went to a governmental organization instead of going to the bank. Which seemingly means that they have replaced the banks role to better fit their needs.

Three of the informants are connected to support organizations, which seems to be their main go-to stakeholder when it comes to knowledge sharing. They use them individually for strategic advice, in groups with other entrepreneurs, or through workshops. This is exactly how informants from support organizations describe their role in the entrepreneurial ecosystem. The

distinguishment here between incubators and governmental support organization is that the informants also receive grants and some financing from governmental organizations.

An aspect that is important to consider, is how networks are used as a contributing factor towards scaling. The entrepreneurs shared that they've benefitted the most on the networks of their investors and of governmental support organizations. Some have gotten help with technical challenges, while others have been able to add necessary knowledge to their business and used their contacts for launching in other countries. Which is in line with both what the informants from venture capitals and governmental support organization, describe their role to be. This is also in line with (Ratten, 2020)

All in all, except from banks, it seems like the entrepreneurs are in agreement with the other stakeholders regarding how they contribute towards scaling. In line with previous research, financial capital and knowledge sharing are the two main areas that contributes toward scaling, which also seems to be the case for Norwegian technology companies.

Implications for research

Because of the lack of research in entrepreneurial ecosystem theory, there are a couple of areas that this thesis can enrich to existing literature. The first one is the need for research that showcase the cause and effect of the entrepreneurial ecosystem concept. Although the results might not add directly to this area, I believe that by studying the different stakeholder's contribution in the ecosystem, it helps provide a basis for further research that might help with this. The thesis also provides a wholistic view of the interactions of actual stakeholders in the ecosystem, based on empirical studies. It is reasonable to believe that few people have done similar studies before, especially for the Norwegian market.

Furthermore, by adding informants from banks as part of the sample, this will add to the limited research conducted on banks as stakeholders. Especially for Norwegian banks that want to be recognized as contributing stakeholders for start-ups, through strategic advisory, it might also help legitimize them as stakeholders.

Implications for practice

Regarding how the thesis can be applied practically, there are mainly two areas that are identified. The first is to help different stakeholders get an insight of how they are perceived

by each other. For instance, support organizations get an insight of how they are perceived by entrepreneurs, and by doing so, they can adjust their offerings to better suit the entrepreneurs, if necessary.

The second one is that it can be used by policy makers, by having research that has studied the interactions in the ecosystem, they might get some ideas as to what is needed. This can also be used to understand the importance of measuring the effects of their offerings, so that they become even more effective in encouraging more scalable businesses.

Limitations

Every research project has its limitations, and so does this one. The first limitation that is observed is an obvious one, that was mentioned in the methodology chapter. Which has to do with generalizing. Because of the size of the sample, which happens in most cases when using the qualitative approach, it is not possible to generalize the results to a broader population. A way to tackle this would have been through triangulation. However, because of the time limitations that comes with writing the masters thesis, it was not possible to go through with triangulation. Another reason why this was not possible, is because of the large sample of informants, and the time-consuming aspect of interviewing and analyzing the data, that left no room for adding a quantitative element. Another limitation worth mentioning is the limited research literature within the topic of entrepreneurial ecosystems. There are several frameworks and unscientific literature, that could be added, but could not stand on its own as theory. Which was challenging, but by adding theories about the different stakeholders and the entrepreneurial process, it provided the wholistic perspective that I aimed at.

Lastly, a limitation that came to my attention after the last interviews were conducted, was that a lot of the different stakeholder are financed governmentally. Although they are managed and ruled privately, they are partially financed by the government. Of course, this is not the case for any of the entrepreneurs' businesses, but this was the case for a couple of the other stakeholders. What inspired to continue following the distinction between governmental and non-governmental, was because they are ruled and managed privately, and because although most governmental stakeholder provide their services for free. This was not the case for the other stakeholders that are finances governmentally, as they charge entrepreneurs for being part of their programs, just as the private stakeholders.

Further research

When reading theory for the thesis, it was obvious that this topic still needs a lot of research. The first recommendation is to do similar research while focusing on one stakeholder at a time, for instance, studying only incubators or governmental organizations. This would allow for a more in-depth look into how they contribute to the ecosystem.

The next suggestion is to conduct similar research while using triangulation. This would allow for generalization as well as still getting in-depth insight from the informants. This could possibly also make it easier to see the cause and effect that is missing in this field of study.

The last suggestion is to study different business hubs. By doing so, comparing the differences and similarities that they have based on their regions and locations. This could be used as a source of inspiration for business hubs within the same country. As most of the stakeholder and policy makers are similar, if not the same within a country, they can identify opportunities that they have not been aware of beforehand, by looking at how other hubs perform.

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Attachment 1: Consent form

Vil du delta i forskningsprosjektet ” *From start up to scale up*”?

Dette er et spørsmål til deg om å delta i et forskningsprosjekt hvor formålet er å studere hvordan oppstarts bedrifter tilrettelegger for vekst. I dette skrivet gir vi deg informasjon om målene for prosjektet og hva deltakelse vil innebære for deg.

Formål

Denne undersøkelsen er en del av en masteroppgave i “Internasjonal forretningsdrift” ved NTNU der vi ønsker å gjennomføre dybdeintervjuer for å kartlegge hvordan økosystemet i Norge er med og støtter/bidrar til teknologi bedriftenes vekst. Formålet med studien er å finne ut holdninger norske teknologi selskaper har til vekst.

Hvem er ansvarlig for forskningsprosjektet?

Forskningsprosjektet blir utført ved institutt for internasjonal forretningsdrift på NTNU Ålesund, der masterstudent Flora Joelle Larsen er ansvarlig for prosjektet, sammen med veileder Kjersti Kjos Longva.

Hvorfor får du spørsmål om å delta?

Utvelgelsen foregår ved å kontakte relevante hjelpeorganisasjoner, investorer og oppstarts bedrifter som har vekstambisjoner. Kontaktpersoner skal enten være de som jobber med støtte og tilrettelegging eller ledere i oppstartsbedrifter.

Hva innebærer det for deg å delta?

- Hvis du velger å delta i prosjektet, vil du delta i et kvalitativt dybdeintervju som vil vare i ca. 70 minutter. Under intervjuet vil du bli stilt ulike spørsmål som vi ønsker at du svarer på så ærlig som mulig. Spørsmålene vil omhandle organisasjonens arbeid rettet mot skalering, overordnede mål og strategi for å nå disse. Videre vil det bli spurt spørsmål knyttet til ulike rammeverk for innovasjon og hvordan bedriften anvender eller forholder seg til disse. Det vil bli gjort opptak og notater av intervjuet som senere transkriberes. Et utplukk av ulike utsagn fra transkriberingen og notater fra intervjuet vil bli brukt i oppgaven.
- Intervjuet vil enten gjennomføres digitalt eller på et sted som vil avtales nærmere på et senere tidspunkt.
- Sett bort i fra data som samles inn gjennom dybdeintervjuet kan det ved relevans innhentes informasjon om bedriften gjennom offentlige innsats som f.eks. brønnøysundregistrene. Dette kan være informasjon om stiftelsesdato, styret og bransje.

Det er frivillig å delta

Det er frivillig å delta i prosjektet. Hvis du velger å delta, kan du når som helst trekke samtykket tilbake uten å oppgi noen grunn. Alle dine personopplysninger vil da bli slettet. Det vil ikke ha noen negative konsekvenser for deg hvis du ikke vil delta eller senere velger å trekke deg.

Ditt personvern – hvordan vi oppbevarer og bruker dine opplysninger

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

- Prosjektansvarlige (Flora Joelle Larsen) samt veileder (Kjersti Kjos Longva) vil ha tilgang til opplysningene. Opplysningene samlet inn fra intervjuet vil bli lagret i skytjenesten som universitetets benytter, ved navn «Onedrive». Informasjonen vil da kun være tilgjengelig for prosjektansvarlige. Skytjenesten krypterer alle datafiler, som fører til at uvedkommende ikke har tilgang til informasjonen. Navnet og annet kontakt informasjon vil være lagret adskilt fra lagret datamaterialet i et annet dokument, slik at det ikke kan knyttes tilbake til deg. Transkriberingen vil skje gjennom google sitt transkriberingsprogram.
- Dersom informanten ikke ønsker å navngis i oppgaven, vil dette kunne gjennomføres ved å bruke fiktive navn. Når det gjelder navn på bedrift, kan dette anonymiseres ved å f.eks. kun informere om hvilken bedrift bransjen tilhører, uten å navngi bedriften. Dette klargjøres i forkant av intervju.

Hva skjer med opplysningene dine når vi avslutter forskningsprosjektet?

Opplysningene anonymiseres når prosjektet avsluttes/oppgaven er godkjent, fristen for innlevert oppgave er etter planen 1. juni og masteroppgaven vil ifølge NTNUs retningslinjer være ferdigsensurert innen 1. september. Ved prosjektets slutt vil alle personopplysninger og opptak slettes.

Hva gir oss rett til å behandle personopplysninger om deg?

Vi behandler opplysninger om deg basert på ditt samtykke.

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

Dine rettigheter

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

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

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

- NTNU Ålesund, institutt for internasjonal forretningsdrift ved masterstudent Flora Joelle Larsen på epost (flora.m.larsen@ntnu.no) eller telefon: 98024265 eller Veileder Kjersti Kjos Longva på e-post (kjersti.kjos.longva@ntnu.no) eller telefon: 70161294.
- Vårt personvernombud: Thomas Helgesen på epost (thomas.helgesen@ntnu.no) eller telefon: 93079038.

Hvis du har spørsmål knyttet til Personverntjenester sin vurdering av prosjektet, kan du ta kontakt med:

- Personverntjenester på epost (personverntjenester@sikt.no) eller på telefon: 53 21 15 00.

Med vennlig hilsen

Flora Joelle Larsen

Samtykkeerklæring

Jeg har mottatt og forstått informasjon om prosjektet [*From start up to scale up*], og har fått anledning til å stille spørsmål. Jeg samtykker til:

- å delta i kvalitativt dybdeintervju
- å delta i evt. spørreskjema
- at opplysninger om meg publiseres slik at jeg kan gjenkjennes ved navn
- at mine personopplysninger lagres etter prosjektslutt, til sensur er publisert

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

(Signert av prosjektdeltaker, dato)

Attachment 2: Interview guide

Bedrifter

Om intervjuobjektet

1. Hva heter du?
2. Fortell litt om deg selv?
3. Hva gjør du i dag?
 - a. Hva er din personlige bakgrunn?
 - b. Hva er din profesjonelle bakgrunn?
4. Hva er en entreprenør for deg?

Om oppstart

5. Hvordan kom du frem til å starte for deg selv? (Kan hende de har startet flere)
 - a. Kom det inspirasjon internt/eksternt miljø for å starte bedrift/bli entreprenør?
6. Kan du/dere forklare hva slags forretning(er)/forretningsmodellen er?
7. Har dere brukt inkubatorer?
8. Har dere mentor(er)?
9. Har dere dagjobber ved siden av, eller får dere jobbet fulltid med bedriften (rettet mot oppstartsbedrifter?)
10. Hvilke ambisjoner hadde du/dere for bedriften når dere startet?
 - a. Har disse forandret seg med progresjonen?
11. Vokse bedriften organisk eller uorganisk?
12. Hvordan var deres prosess med å innhente finansiering?
 - a. Har dere fått tilskudd/støtte for bedriften, i så fall hvor mye?
 - b. En stor sum eller mange mindre summer etter hvert som dere trengte?
 - c. Involverer investorer seg i bedriften?

Om utvikling og vekst

13. Har dere strategi for videre utvikling av operasjonen?
14. Har dere strategi for videre utvikling av ekspansjon?
15. Har dere strategi for videre utvikling av produktutvikling?
16. På hvilken tid bestemte dere for å ekspandere bedriften?
 - a. Hvilke begrunnelser hadde dere for å utføre ekspansjon?

Avslutning

17. Er det noe mer du ønsker å legge til?

Investorer og banker

Om intervjuobjektet

1. Hva heter du?
2. Fortell litt om deg selv?
3. Hva er dine interesser?
4. Hva er din stilling?
5. Hva slags bedrifter jobber du med mest?

Om organisasjonen

6. Kan du fortelle litt om organisasjonen du jobber i?
7. Hva slags forhold har dere til vekstbedrifter?
8. Hva jobber din avdeling med?
9. Hvorfor har dere en slik avdeling?
10. Hva er det dere vil oppnå?
11. Hva slags hjelp er det dere tilbyr?
- a. Hvor stor grad er dere med på operasjonelle aktiviteter i bedriften?
12. Hvem er det dere hjelper/invester/gir lån?

Om investering

15. Hva fanger deres oppmerksomhet hos en bedrift?
16. Er det personene eller ideen dere ser mest på?
17. Hvor i bedriftens prosess begynner dere å få interesse i bedriften/gir lån?
- a. Ser dere etter visse faktorer?
18. Hvordan er dere som investorer, sammenliknet med "rene" investeringsselskap?
19. Hvor viktig er grønn forretningsidee for om dere investerer? Har dere et gjennomsnittlig beløp dere investerer?
20. Hva er det største beløpet og det minste beløpet dere har investert?
22. Investerer dere i mange mindre beløp eller en stor? Vurderer dere den norske regjeringens ambisjoner om økt eksport, særlig i forbindelse med teknologiske tjenester når dere gir lån?

Avsluttende

23. Er det noe du vil legge til?

Utviklingsorganisasjoner (inkubatorer)

Om intervjuobjektet

1. Hva heter du?
2. Fortell litt om deg selv?
3. Hva er din stilling?
4. Hva slags bedrifter jobber du med mest?

Om organisasjonen

5. Kan du fortelle litt om organisasjonen du jobber i?
6. Hva jobber din avdeling med?
7. Hva slags forhold har dere til vekstbedrifter?
8. Hvilke samarbeidspartnere/aktører er viktige for organisasjonen?
9. Hva slags hjelp er det dere tilbyr?
10. Hvem er det dere hjelper?
11. Hvilken rolle er det dere tror dere har hos de dere hjelper? (essensiell, eller andre alternativer som er like gode?)
12. Hvordan forholder dere dere til den norske regjeringens ambisjoner om økt eksport, særlig i forbindelse med teknologiske tjenester?

Om etableringsfasen

16. Når bedrifter tar kontakt med dere, hvordan ser prosessen ut?
 - a. Hvordan forholder dere dere til mentorprogram?
17. Har dere en utvelgingsprosess til et utviklingsprogram?
 - a. I så fall er den basert på noen kriterier?
 - a. Hvordan går dere fram for å avdekke bedriftens behov?
 - b. Er person eller ide viktigere?

Vekst

18. I forhold til vekst, kan du utdype deg om person/ide?
 - a. Basert på gründerens bakgrunn?
19. Hva bør oppstartsbedrifter gjøre først etter de har formelt etablert seg?

Resultat av hjelp/ikke hjelp

20. Hvordan måler dere suksessraten for oppstartsbedrifter som bruker inkubator? (Komme seg ut av oppstartsperioden)
21. Har dere vært i kontakt med noen bedrifter som ikke har brukt inkubator men som fremdeles lykkes?

