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IMPORTANCE OF KNOWLEDGE TO AN ENTREPRENEUR'S INTERNATIONALIZATION PROCESS

Master's thesis in Technology and Entrepreneurship

Supervisor: Øystein Widding

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Master Thesis by
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NTNU SCHOOL *of*
ENTREPRENEURSHIP

Preface

The master thesis is written for NTNU (Norwegian University of Science and Technology). Work for the following thesis has been conducted from August 2020 until May 2021. The work conducted from August 2020 to December 2020 is cited with my maiden name, “Causevic”. The thesis is written as a part of the Master studies at NTNU's School of Entrepreneurship at the Department of Industrial Economics and Technology Management.

The main topic of this master thesis is how small and medium enterprises (SME) gain access to knowledge and in what way it affects their internationalization process and improves competitiveness. The thesis focuses on explaining the fundamental theoretical literature in combination with four cases studies to give an understanding of the importance of entrepreneurial knowledge for internationalization, competitive advantage and access to knowledge to facilitate SMEs internationalization process.

I would like to thank my advisor, Øystein Widding, that has motivated and guided the progress of this thesis and provided me with critical questions and insight, which has helped to create purpose and depth. I would like to thank all the four anonymous case respondents for contributing to the thesis. Finally, I would like to thank my husband for the support and contribution who continuously read parts of my thesis and gave his valuable feedback.

Trondheim, June 1st, 2021

Sabina Sahinagic

Abstract

Globalization has brought many opportunities, such as fast access to information and knowledge and country borders becoming invisible. With increased access to information, companies, such as small medium enterprises are still hesitant to scale and pursue internationalization due to lack of experience. Many studies that have been conducted cover internationalization strategies, but do not however focus on the importance of a fundamental knowledge base in SMEs for internationalization purpose. The field of internationalization framework and entrepreneurial learning are very well researched topics as standalone topics, but very few researchers have connected the importance of entrepreneurial knowledge and learning to the importance of fostering internationalization in SMEs. This case study uses an inductive approach to help bridge the gap and give insight into connected topics in both fields.

Data collection was collected through individual case interviews with four SME CEOs from four different companies that have graduated from the NTNU School of Entrepreneurship. Entrepreneurial theory and internationalization theory have been combined for case analysis. Even though the four selected cases are in different industries, they all show common points with relations to information and knowledge acquisition for their internationalization process.

Implications in this respective study gives insight into two fields that have been connected and is an addition to both entrepreneurial and internationalization literature field, which gives thoughts to new ways to view the phenomena of entrepreneurial learning fostering internationalization in SMEs, as well as opening up for new theories and motivations for further research. The study further highlights that policy makers are in power to contribute with financial funding to help encourage and facilitate network creation and cluster formation to boost SME knowledge base, which in turn fosters internationalization and growth.

This thesis analyses only four Norwegian SMEs. For future studies, further research could cover more geographical areas and examine more parts of the entrepreneurial learning process, as well as decide for a certain phase in the internationalization.

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List of Abbreviations

RQ- Research question

RBV – Resource based view

KBV – Knowledge based view

AC – Absorptive capacity

SMEs – Small and medium-sized enterprises

NTNU – Norwegian University of Science and Technology

1 Introduction

1.1 Importance of Topic

In the literature review (Causevic 2020) the author wrote about the importance of knowledge to an entrepreneur's competitive advantage and internationalization process. The purpose of the review was to bring forth which parts of the entrepreneurial learning process that are interesting for entrepreneurs to consider when internationalizing, and to see if the literature in the field of study was even trying to link importance of knowledge to competitive advantage and internationalization. The author explained that the knowledge which is derived through the entrepreneurial learning process has parts that are directly linked to improving a company's competitive advantage. However, the reviewed literature struggled to connect internationalization to the benefits that derived from an increase in a company's knowledge base and improved competitive advantage (Causevic 2020). This thesis will focus on linking knowledge seeking activities SMEs are a part of and how it is used for an internationalization decision in an early phase of business.

The globalized world has brought with it many opportunities for entrepreneurs. By organizing efforts to create value and combining resources, entrepreneurs are actively seeking and exploiting them (Kobia and Sikalieh 2010, Shane and Venkataraman 2000). In the global markets multinational corporations were dominating the playing field. Due to globalization, business is now dynamic and changing at a rapid rate. For SMEs this means that barriers that previously hindered them in entering are now removed to a certain extent. Through the help of advancements in transportation, communication and manufacturing, SMEs can now access global markets and contribute to innovation and economic growth overall (Dabic et al. 2020). Etemad et al. (2001) stated that *"competition in international markets was traditionally the realm of large companies, with smaller businesses remaining local or regional"* (p.481), SMEs are no longer subject to this.

Furthermore, globalization has brought a great deal of innovation and change to various and often rigid industries. Firstly, greater and faster access to information and knowledge have been vital factors that enabled this change and thus played an important role for the future of the various industries. On the grounds of this, competitive advantage is increasingly dependent on acquiring knowledge and information, so entrepreneurs can sustain it through periods of change (Powell and Snellman 2004). Secondly, companies are moving away from

their regional advantage and general production function and are pursuing new opportunities across borders due to globalization (Audretsch and Thurik 2001, Audretsch 2009, Causevic 2020). With globalization, both knowledge and competition have increased. Thirdly, companies that want to sustain their competitive advantage need to harness the increased information access (Liao et al. 2016, Ling 2013, Barney 1991). And finally, there is an increasing need to develop a global strategy early on in a SME. Entrepreneurs are being pushed by globalizing trends to make early strategic decisions. Being short on experience and resources, entrepreneurs need to engage in available networks. Customer expectations are rising, demands are higher in forms of more customized and specialized products. Some entrepreneurs find therefore the niche-market attractive to explore, while other piggyback on the spill-offs in the high-tech sectors where there is fast and simple knowledge transfer and much collaboration (Frislie 2013). Given all the reasons above, further questions arise such as *“What is the current state of the knowledge about internationalization of SMEs and international entrepreneurship?”* (Dabic et al. 2020, p.706) And what roles does a good knowledge base play in an entrepreneur’s internationalization decision? These are questions that have little available literature and other researchers have tried to summarize available literature on SMEs and internationalization, where all articles conclude with SME and internationalization being an unresearched topic and recommendations for further research is to connect internationalization to more of the available entrepreneurial literature in various ways (Dabic et al. 2020, Lee et al. 2020, Udomkit and Schreier 2017, Ribau et al. 2018, O’Cass and Weerawardena 2009, Bell and Loane 2010, Castagna et al. 2020, Vătămănescu et al. 2017, Menzies et al. 2020). Thus, giving motivations for this thesis and contributing to a under researched topic.

It is true that entrepreneurs can now reach larger parts of the industry through expanding their business internationally by scaling, this way strengthening their competitive advantage and market position. However, obtaining the right knowledge and information to pursue internationalization is in many cases an obstacle that makes many entrepreneurs hesitant to scale. Finding and managing information about internationalization and setting theory into practice are often the greatest challenges (Hus et al. 2013, Nguyen et al. 2006). Extensive literature has been written on benefits of social networks, entrepreneurial learning and competitive advantage (Stuart and Sorenson 2007, Cope 2005, Adams et al. 2014, Politis 2005). However, literature poorly links knowledge and information benefits that arise from entrepreneurs engaging in innovation clusters and social networks and how this aids them in

becoming transnational by internationalizing (Portes et al. 2002, Wai-Chung Yeung 2002, Costa et al. 2016, Adams et al. 2014, Stuart and Sorenson 2007).

1.2 Purpose of Thesis

The thesis will establish a link between the importance of the entrepreneurial learning framework theory and how it aids SMEs internationalization, this way adding to a field of limited literature. **The purpose of this thesis is to give insight to parts of the entrepreneurial learning framework that aid SMEs and their internationalization and emphasis the link between the two.** The author has in the literature review (Causevic 2020) found shortcomings in how current literature connects internationalization to knowledge seeking activities and aims to investigate if the two can be interrelated as assumed.

Figure 1 is a presentation of *entrepreneurial learning as a conceptual framework* (Politis 2005). In this thesis the theoretical backbone will look at various topics that are a part of *entrepreneurial knowledge*. The literature that has been used covers different parts of *entrepreneurial knowledge* and the thesis will elaborate on connected topics such as information and resource sharing, social networks together with ties and connections, structural holes, competitive advantage and its importance for internationalization, internationalization frameworks, absorptive

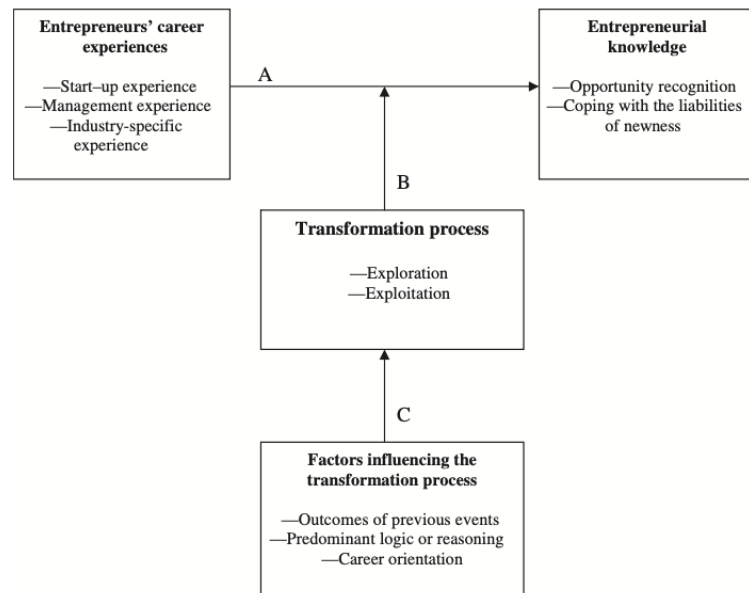


Figure 1 Entrepreneurial Learning as a Process (Politis 2005, p.402)

capacity and newness that comes with entrepreneurs being meet with new information. The thesis will however connect all of these topics to how they create grounds for an internationalization process and how SMEs should go about and seek them.

1.3 The Research Question & Contribution

The thesis aims to answer the following research question. The RQ will be used to guide the author and the reader through the course of this paper. In order to better answer the main RQ, there are three sub-questions that have been provided.

RQ: How does SMEs knowledge base affect their internationalization process?

Sub-questions:

1. *In what way do SMEs actively seek information prior to making an internationalization decision?*
2. *Where do SMEs find available information to support their internationalization?*
3. *How are past experiences influencing SMEs internationalization?*

In order to answer the RQ, this thesis will further look into the importance of knowledge seeking activities SMEs are a part of, and how they aid internationalization and to gain insight into which parts of the theoretical backbones in the entrepreneurial learning process influence internationalization decisions in SMEs the most. This thesis will through qualitative research try to give insight using case interviews with some of the alumni SMEs that have graduated from the NTNU's School of Entrepreneurship.

The author will elaborate on mentioned topics that are related to entrepreneurial learning and knowledge, the reason for this is to give insight into their interrelatedness and their importance for internationalization. The purpose of covering more topics is to help the reader better grasp the concepts behind entrepreneurial learning and better connect it to the topic at hand. In Figure 2, it can be seen that there is more to the

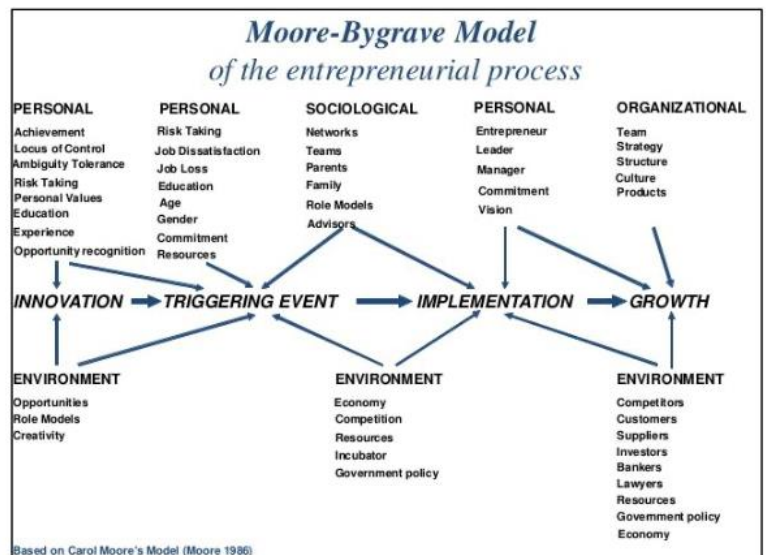


Figure 2 A Model of the Entrepreneurial Process (Moore 1986)

entrepreneurial process and where entrepreneurial learning becomes a phenomenon that happens as a part to this exact process SMEs have been through and sometimes revisit.

Factors such as; government policy, suppliers, competitors, opportunities, network etc. play a

tremendous role in how entrepreneurs in SMEs gather, seek and process information in order to create good grounds for decision making (Portes 1998, Moore 1986, Subrahmanyam 2019). However, this thesis will due to its time limit and focus only look at the major topics related to the fields of study and try to give insight into the most relevant topics that will give the reader a good understanding of the field and a fundamental base for understanding the conducted study.

Moreover, in figure 2, there is a triggering event for all entrepreneurs in SMEs that calls for innovation and change, which is *opportunity recognition* (Hisrich et al. 2005). It is important to note that *opportunity* recognition is also a part of *entrepreneurial knowledge* as shown in figure 1. The Austrian view considers that “*opportunity recognition hinges on access to scarce information*” (Stuart and Sorenson 2007, p.213). Opportunity recognition is not limited to geographic location only and therefore scarce information may reside across country borders. Access to information resides in *social networks* which contain a control function to control the flow of information. The focus point of this thesis will not be how important information is for opportunity recognition, but rather how entrepreneurial information and knowledge can contribute to SMEs internationalization process and decision making. By combining literature, the author will be contributing to both entrepreneurship literature and internationalization literature through connecting topics and integrating findings from both fields through the course of the thesis. Moreover, many topics are already very well researched within the field of internationalization frameworks and entrepreneurial learning as separate topics, entrepreneurial learning often becomes subject to research where it is a mere function of innovation, and great parts of the existing literature does not try to connect the two fields. This thesis will give a new perspective on SME-internationalization and the way it can be applied by non-entrepreneurs and entrepreneurs.

The next section will introduce the different topics related to the two fields study and give insight into relevant theory which is fundamental for understanding the research study. The theoretical context uses both current and classic theory to give an overview of relevant topics and connects them to SME and internationalization. All topics are picked in relevance to the RQ at hand and focus on giving the reader a good understanding of the material and its importance for the respective study. The literature selection, approach and limitation for the literature review below can be found in section 3.5 as a part of the Research Methodology.

In section three, the thesis will outline the research methodology and methods of analysis and proceed to empirical finding. In turn, findings will be analyzed and discussed in light of the theory, and finally a concluding part will summarize findings and shed light on implications and further research.

2 Theoretical Context

Knowledge and information are key resources that would improve a company's internationalization process (Costa et al. 2016). Much of this needed knowledge and information is gained by companies engaging with established ones through social networks, this way gaining first-hand experience from important players in the network, thus also benefiting from information sharing, creating opportunities for future collaborations and possible alliances and partners. Nevertheless, creating strong social ties by actively engaging in the network to gain access to resources, both tangible and intangible ones (Caiazza et al. 2015, Spence et al. 2008, Costa et al. 2016).

Moreover, entrepreneurs that engage in inter-organizational linkages can build competitive advantage through harnessing available information and knowledge in such environments. Entrepreneurs that fail to become a part of resource sharing alliances and networks, will have a disadvantage by missing out on valuable insight that can contribute to their competitive advantage and future internationalization (Aristei et al. 2015, Boehm and Hogan 2014, Powell et al. 1996, Carayannis and Alexander 1999, Huang and Yu 2011, Inkpen and Tsang 2005).

Today's global trends have enabled high-tech communication technologies to come to life and given people the opportunity to create relations in forms of *ties* across border, entrepreneurs are no longer bounded by local context only. Information and knowledge are now accessible everywhere together with channels available through the world wide web (Martinez and Aldrich 2011, Coe and Bunnell 2003). Moreover, entrepreneurs who reach out to social networks and actively create relations by collaborating with international actors, will have better grounds to stand on with relations to future partners that can be a part of supporting their internationalization process and guide them on the way to become transnational (Faist 2000, Costa et al. 2016, Castellacci 2014).

The following section is a literature review and will look into various topics that aid SMEs to build competitive advantage and lay grounds for internationalization. The context in which the review is written is an entrepreneurial one. The importance of knowledge and information will be highlighted first. Second, RBV, social networks and other topics related to the entrepreneurial learning process will be explained and their implications to build and facilitate an internationalization decision and process.

2.1 Knowledge Explained

For long, economists have looked upon *knowledge* as the body of the firm (Spender 1996, Grant 1995, Baden-Fuller and Pitt 1996, Nelson and Winter 1982). However, without *information*, there would be no knowledge. Information is “*inextricably antecedent to knowledge*” (Dretske 1981, Costa et al. 2016, p.561). Information has been defined as often structured and understandable data, and in many cases organized for the sole purpose of being used as input to create knowledge (Child and Hsieh 2014). While knowledge is “*created from information and is about beliefs and commitment, validated in a person’s perception or expectation for taking actions*” (Nonaka and Takeuchi 1995, Costa et al. 2016, p.561).

There are made two classifications of knowledge, in order to separate them; (1) *tacit knowledge* and (2) *explicit knowledge* (Nonaka 1994). The first one is to be considered as the base of all organizational knowledge and comes from a person’s experiences. Such knowledge is often undocumented, thus making it demanding to interpret and transfer, this is also referred to as *knowledge stickiness*. Tacit knowledge is difficult to verbalize and articulate, and the use of intuition is required in order to be able to understand such knowledge. In many cases such knowledge must be observed instead. Thus, making it hard to convey and code into a message and share across an organization. In contrast, *explicit knowledge* is accepted universally and also documented, making interpretation and transfer less demanding (Hau and Evangelista 2007, Ganguly et al. 2019, Szulanski 1996, Cavusgil et al. 2003, Nonaka and Takeuchi 1995, Polanyi 1962, Zander and Kogut 1995). Therefore, in order for people to make use of available information, all organizations are in need to create models of behavior and company standards and policies, thus trying to make *tacit knowledge* into *explicit knowledge*. This way, one can imitate and copy an organizations way of doing things and transfer best practice (Grant 1991).

2.1.1 Entrepreneurial Knowledge

Entrepreneurial knowledge in figure 1 is a part of the *entrepreneurial learning process*, that is often described as “*a continuous process that facilitates the development of necessary knowledge for being effective in starting up and managing new ventures*” (Politis 2005, p.401). *Entrepreneurial knowledge* on the other hand is knowledge that is acquired experientially (Politis 2005, Reuber and Fischer 1994, Reuber et al. 1990). This can also be related to the two dimensions of experiential learning; “*the first one being acquisition, such as grasping and the second being transformation of the latter*” (Kolb 1984, Politis 2005, Causevic 2020 p.14).

The number of studies who are trying to define “learning” are many. However, it is important to look at *entrepreneurial learning* and its outcome in this context. In this particular field of study, it translates to firstly entrepreneurs recognizing opportunities and then how to act on them (Ronstadt 1988, Corbett 2002, Shane and Venkataraman 2000, Politis 2005). Recognizing and exploiting opportunities has long been considered and vital ability of successful entrepreneurs (Ronstadt 1988, Ardichvili et al. 2003, Shane and Venkataraman 2000, Politis 2005). In order for entrepreneurs to assess if such an opportunity is worth taking on and act upon it, prior knowledge and acquired experience will help entrepreneurs to better segment and also shorten the decision-making process with regards to the opportunity at hand. There are two factors influencing such a decision. Which are; (1) the information that is possessed prior making a decision, and (2) the necessary knowledge necessary to assess and value to decision being made (Shane and Venkataraman 2000, Politis 2005, Ardichvili et al. 2003). Prior experiences help entrepreneurs value new information and creates and ability to learn and apply the knowledge to new venture creation (Cohen and Levinthal 1990, Politis 2005, Causevic 2020).

For this reason, entrepreneurs with an experienced knowledge base and skill set, will be more willing to search for information in a specific field of business and rely on sources and information that have previously proven to give success, hence their previous experiences (Cyert and March 1963, Shane 2003, Fiet et al. 2000, Politis 2005). On the other hand, those who lack experience have a difficult time discovering their benchmark and often have limited experience with information assessment, in order to recognize and identify opportunities (Politis 2005, Cooper et al. 1995). “*It can be stated that learning comes from transforming experiences, that through life are created and recreated continuously*” (Holmqvist 2000, Causevic 2020 p.14). Experiential learning is often described as “*the process whereby*

knowledge is created through the transformation of experience” (Kolb 1984, p.41). Therefore, *entrepreneurial knowledge* can be seen as a result of both “*grasping an experience as well as transforming this experience*” (Politis 2005, p.407, Causevic 2020). Minniti and Bygrave (2001) also support this; “*entrepreneurs learn by updating a subjective stock of knowledge accumulated on the basis of past experience*” (p.5). The natural forces of competition drive entrepreneurs to seek knowledge and information in order to continue growth and survive. This is essential for long-run survival and entrepreneurs ability to easily adjust in dynamic environments where information travels fast (Zander and Kogut 1995). Lastly, entrepreneurs can develop market-specific knowledge by using the external and internal sources of information, this way benefiting from other people’s experience and improving decision making as well as competitive advantage (Akerman 2014).

2.1.2 Knowledge & Competitive advantage

A competitive advantage is a benefit every company want to create, build and sustain, in order to outperform competition on factors like quality, performance and revenue (Dustin et al. 2014). Moreover, the competitive advantage originates from a company’s core competencies and is often related to internal company characteristics (Spanos and Lioukas 2001). Globalization has created dynamic markets, where innovation and strategic flexibility are now a vital part of sustaining competitive advantage (Barney 1991). An entrepreneur needs to be concerned with acquiring a good knowledge base, in order to maneuver in fast-changing markets. Among the different resources a company has, knowledge can be seen as the one with the largest potential to give grounds to a sustainable competitive advantage (Liebeskind 1996, Henderson and Cockburn 1994, Barney 1991, Caiazza et al. 2015).

A competitive advantage can only serve its real purpose in definition, when the competing parties have a difficult time discovering what drives a company’s competitive advantage (what the advantage is based on), and nevertheless struggling to imitate it (Porter 1985). Knowledge also has competitive abilities and can create *causal ambiguity*, making it difficult to and in some cases even impossible to traces effects of a competitive advantage, making the initial source of the phenomenon unwrappable. This is what gives companies the ability to strive for market share, gain new market share by altering their position in the market through the use of their competitive advantage (Liebeskind 1996, Henderson and Cockburn 1994, Barney 1991, Reed and Defillippi 2016). In essence, if companies use capabilities to combine, create and

transfer knowledge in a way where competition struggles to copy, the better their performance (Kogut and Zander 1992, Rumelt 2005, Caiazza et al. 2015, Dierickx and Cool 1989).

Importance of Internationalization for Competitive Advantage

Today, there is a greater need for entrepreneurs to consider their path to internationalization at an early stage to stay competitive. In many ways, internationalization is now seen as a key requirement to gain competitive edge (Dutot et al. 2014, Schweizer 2012, Costa et al. 2016). An internationalization process is a complex one and involves decisions which require sufficient amount of information, in order to be made (Santos-Alvarez and García-Merino 2010). *“In order for entrepreneurs to effectively implement activities that manage internationalization, there is need for assessment of internationalization related information”* (Knight and Liesch 2002, Benito et al. 1993, Child and Hsieh 2014, Costa et al. 2016, Causevic 2020 p.16). This type of information often resides in collaborative networks. Correspondingly, through collaboration the chance of interacting with companies that have similar products and services as well as business strategy is higher, than if no collaboration is pursued. This way entrepreneurs can figure out what worked for similar companies and decide accordingly, creating an easy way to copy successful processes and integrating them into current business. Moreover, engaging in social networks opens doors to new future alliances (Musteen et al. 2010, Spence et al. 2008, Costa et al. 2016, Ciravegna et al. 2014). This is a smooth way for entrepreneurs to learn about scaling and also gaining access to relevant knowledge for their internationalization process (Basly 2007, Fletcher and Harris 2012, Costa et al. 2016, Rodriguez et al 2010).

Information with a broad scope is needed if entrepreneurs are to make a realistic long-term decision for internationalization (Costa et al. 2016, Child and Hsieh 2014). Knowledge and information are seen as central for decision to be made and guide the search for ways to internationalize. However, internationalization is complex and additional information about the process will in turn rather help reduce ambiguity. Nevertheless, it could also help entrepreneurs reduce certain risks attached to the decision to a certain extent (Costa et al. 2016, Hsu et al. 2013, Nguyen et al. 2006). By seeking information and knowledge through various sources and places, awareness of available market opportunities will be raised (Zhou et al. 2007). Certainly, studies have shown that in order to facilitate an internationalization process, entrepreneurs are in need of engaging in collaborative networks and gain insight into available

information and knowledge that resides in those networks (Costa et al. 2016, Hutchinson et al. 2007).

Through engaging in collaborative networks entrepreneurs will gain access to many benefits, such as access to channels of information, resources and people with know-how that can be a part of strengthening their competitive advantage (Musteen et al. 2010). Moreover, such access will contribute to an entrepreneur's decision making in relation to what entry mode and market selection for their internationalization process (Ibeh and Kasem 2011). By actively seeking different network channels, opportunities to gaining access to expensive and often scarce resources open up. It can further contribute to ease resource constrains and help build and strengthen competitive advantage, which is crucial for internationalization (Ciravegna et al. 2014).

Various frameworks and theories have tried to explain the initial decision to internationalize (Pinho 2007). Some have used the *resource-based view* (RBV) (Barney 1991), while others have a more *social network* related approach to the internationalization decision, and both topics will be explained further (Costa et al. 2016, Coviello and Munro 1997). *“Keeping in mind the functions and implications of knowledge on competitive advantage, and the importance of entrepreneurs to identify capabilities and acquire capabilities early in order to be able to compete in the international market, one must also understand the different theoretical views that are an essential part of economic theory and has been researched for years. Entrepreneurs need to know where to lay their focus and how to build up their fundamental knowledge base”* (Causevic 2020, p.17) Central entrepreneurial and economic concepts should be highlighted and explained, in order to better understand this.

2.2 Resource Based View & Knowledge Based View

Due to a highly globalized world, competition is also on the rise. Every entrepreneur needs to pay attention to this constant change that is affecting their resources, in order to be able to sustain them and allocate enough time to those unique and complex resources that are a part of building competitive edge (Barney 1991, Barney 1986a, 1986b, Liao et al. 2016, Ling 2013). The general idea of *resource-based view* (RBV) is this, where companies actively are trying to improve their competitive advantage through increasing their knowledge stock,

which is in many cases the most complex and hardest capability to imitate by competition and is a vital recourse to invest in and care for (Caiazza et al. 2015, Rademakers 2005). The RBV can be seen as a more generic view of an entities capabilities, competencies and resources in comparison to the other view; *knowledge-based view* (KBV) (Liao et al. 2016, Wernerfelt 1984). If resources are to be strategically of any importance, they should by definition be; valuable, durable and scarce, to even be able to create a competitive advantage (Barney 1991). The KBV is a sub-segment of RBV and looks specifically at knowledge as a vital company resource, which is sustainable and very different from assets, both tangible and intangible a company has. It creates emphasis on companies that actively seek to improve their knowledge base, which gives such companies a better chance at learning. Hence, its ability to sustain the competitive advantage (Liao et al. 2016, Zack 1999).

Knowledge is by certain scholars considered to be one of the fundamental sources that make up a company's competitive advantage (Drucker 1985). Nevertheless, by updating current knowledge through acquiring new knowledge will help entrepreneurs sustain their competitive advantage. This way, growth can be created through eagerness and willingness to acquire knowledge and learn, and overall improve innovation performance (Liao and Hu 2007, Liao et al. 2016, Huang and Yu 2011). Moreover, knowledge can be a both tangible and intangible resource. Intangible, due to residing in the minds of employees in a company, which is referred to as implicit knowledge, this includes the know-how of each individual employee and their profession, the atmosphere the company culture creates and the team composition and their capabilities to problem solve. However, knowledge is also tangible in the essence where it is written down as explicit knowledge. In companies such knowledge can be found in forms of written documents that entail rules and regulation, such as code of conduct etc. Considering this from a RBV, implicit knowledge is better able to sustain a competitive advantage due to its difficulties of being replaced and imitated, and hopefully its unique rareness (Liao et al. 2016, Jiménez-Barrionuevo et al. 2011).

Both the KBV and RBV are breaking up components of the economic production function through deconstruction. Dividing it into components that are substantially more elemental to be considered with relations to the competitive advantage (Spender 1996, Schendel 1996). *“Since the origin of all tangible resources lies outside the firm, it follows that competitive advantage is more likely to arise from the intangible firm-specific knowledge which enables it to add value to the incoming factors of production in a relatively unique manner”* (Spender

1996, p.46). The reason for this is that tangible resources can be looked upon as something finite, while intangible are more extendable in their form. A form where they can be transferred between different management levels and also country borders (Penrose 1959).

Already in the early 90s, there were considerable changes to the world economy. Changes that occurred due to tremendous industrial advancements as well as the development of the “information age”. Companies saw a need to change the way they viewed resources. A need was created to seek other knowledge creating bodies to increase one’s own knowledge base through interaction and collaboration. Such knowledge creating bodies became in many cases potential alliances, where the goal of the relationship was to share knowledge and strengthen each other’s competitive advantage by complementing each other (Best 1990, Wheatley 1994, Stacey 1995, Nohria and Eccles 1992, Nonaka and Takeuchi 1995).

2.3 Social Networks

Entrepreneurs gain access to information, knowledge and resources by engaging in social networks, this is deemed crucial for a company’s future development and growth (Rost 2011, Jones and Jayawarna 2010). Social networks open doors for opportunity recognition in uncertain and often new environments, which entrepreneurs gain access to through information sharing and collaboration (Borgatti and Halgin 2011, Phelps et al. 2012). However, entrepreneurs do not only engage in social networks, entrepreneurs also become a part of building them through engagement, resulting in extension of their own network and gaining access to benefits that comes with such engagement. Benefits like; resource and information sharing, supplier and customer information and most importantly access to places and people with capital (Stuart and Sorenson 2007). Newly established ventures are limited with resources due to lack of contacts and solid network. Therefore, entrepreneurs in startups or well established SMEs are in need to continue to utilize every change of network engagement and use it to build their competitive advantage and path to internationalization (Carpenter et al. 2012, Koka and Prescott 2008, Phelps et al. 2012).

Social networks are made up of individuals with professional backgrounds, institutions, public and private organizations, vendors, customers, business partners and other innovative SMEs, these are all important society actors. Together these society actors create access to tangible and intangible resources which bring forth growth and innovation in entrepreneurial ventures

and also become a critical factor for each new venture and its success. For this reason, each social network will be unique in its structure, qualities and role for the venture engaging in it (Martinez and Aldrich 2011, Todeva 2011, Adams et al. 2014).

Social networks have been subject to extensive literature and research over the past years. Researchers have focused on capturing structures, effects and dynamics in mathematic, sociologic and economic terms (Saxenian 1994, Stuart and Sorenson 2007). *“Moreover, social networks are said to have implications for economic and social outcomes of interest. Five mechanisms have been identified in classical sociologist studies, that explain the effect of social networks on interest. The five mechanisms being; status, information access, sanctions, brokerage and embeddedness”* (Stuart and Sorenson 2007, Saxenian 1994, Causevic 2020, p.19). Structure has been given great attention in social network literature. One view especially looks at benefits which have been derived from open social structures through brokerage opportunities. This comes from actors that actively seek advantage opportunities of making new connections with various cluster networks that are in essence disconnected, and by creating these newly formed connections obtain to a certain extent information control (Burt 1992).

Entrepreneurs build knowledge through access to information, and therefore information access is vital. Studies are identifying two ways entrepreneurs can gain access to information benefits. Such as entrepreneurs that engage in networks that directly relate to their business area, example vise technology. They would benefit in two ways through collaboration with actors that reside in the respective technology network. The first benefit being access to resources, in the form of *resource sharing*; actors share knowledge, assets and skills. The second one being *knowledge spillovers* which occur as a result of networks being created, giving access to timely news, technology fails, insights into relevant information that is crucial for decision making and also game changing information about innovative technology approaches (Ahuja 2000). *“Knowledge spillovers serve as conduits where information can flow across the network and influence competitive advantage for all actors”* (Ahuja 2000, Causevic 2020, p.20).

One must understand the difference between know-how and information, in order to distinguish between the two benefits (Kogut and Zander 1992). Skills and expertise are embedded in know-how and are more likely to be composed of tacit or a non-codifiable

dimension. Whereas information on the other hand comes in different forms such as data and structured facts that can easily be transformed into communication, where the message keeps its integrity when being transmitted across from one party to another. Thus, building knowledge this way (Kogut and Zander 1992, Szulanski 1996). Assets and know-how are a part of *resource sharing* benefits, where information in collaborative social networks resides predominantly in *knowledge spillovers* (Ahuja 2000).

Furthermore, actors that engage in networks are also a part of contributing to it in other ways. Companies occupy a certain position in the network, this position will have an effect on firm behavior and outcomes (Powell et al. 1996, Walker et al. 1997). “*Certain companies can occupy positions that aid as a facilitative role in collaborative organizational contexts, thus relations formed in networks can now be named network resources*” (Causevic 2020, p.20, Gulati and Garguilo 1999). Networks are now a part of entrepreneurial company culture; this is because information access which has been made available gives new grounds for opportunity recognition and market entry (Gibb 1987). Nevertheless, social networks also work as a company competency enhancer factor, therefore it becomes crucial for ventures to engage in them (Caird 1992).

2.3.1 Ties & Connections

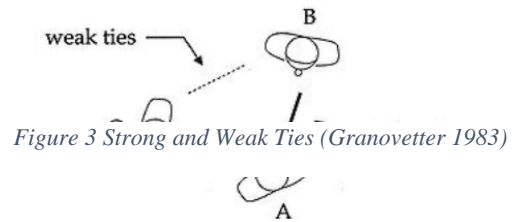
Network relationships that are formed can be valued as a source of *social capital*, which has an indirect impact on a company’s competitive advantage and way to internationalization (Subramaniam and Youndt 2005). Social capital is a result of interpersonal interactions between professional actors, resulting in a relationship being formed between different actors across societies over time and is referred to as a *tie* (Roussel and Deltour 2012).

Entrepreneurs can this way develop a better basis for strengthening their competitive advantage, through consciously harnessing knowledge that resides in these interactions and further create new ties with other professionals (Argote and Ingram 2000, Alipour et al. 2011).

Ties can be separated into *strong* and *weak* ties. Where *strong ties* are seen as a go to due to their reliability and willingness to help. Such ties usually begin with the closest circle to the entrepreneur, such as friends, family or a mentor. However, such ties might lack sufficient amounts of resources and type of resources needed to grow and support a venture over time.

Therefore, entrepreneurs will be naturally inclined to engage in social networks to seek relevant resources and such relationships will be referred to as *weak ties* (Adams et al. 2014, Stam et al. 2014).

Weak ties in social networks are presented by Granovetter (1983) as an important element of social structures. In social networks information resides that is unheard of and flows through the channels. Moreover, Granovetter (1983) explained that the existence of both weak and strong ties is highly necessary, because they aid in holding society actors together (Granovetter 1983, Barbası 2003, Adams et al. 2014).



In Figure 3, strong and weak ties are illustrated.

Where person A is identified with a strong tie with person B and C, thus creating a weak tie between B

and C automatically due to their direct strong ties to person A. Weak ties will always be present in a network (Granovetter 1983). For example, SMEs that are operating in the tech-industry where highly specialized competence is needed for a certain component or area of the project. The company will be inclined to seek access to this knowledge or expertise by engaging in their available networks and targeting relevant actors that can contribute. Sometimes, companies need to keep in mind the opportunity cost of such an action, in certain cases actors are demanding a certain price to hand over certain information or knowledge transfer in selected networks. Such a payment can come in forms of membership, subscriptions or onetime payment. The goal is to be able to assess which social network offers the greatest amount of value for the lowest cost (Jones and Jayawarna 2010, Adams et al. 2014, Stam et al. 2014). Keeping in mind that networks are unique, networks with a larger number of professional actors, results in a better source of knowledge compared to networks of pure strong ties (Adams et al. 2014).

Furthermore, previous studies show that actors that build and engage in networks where the number of indirect ties is larger, will benefit from saving money on tie maintenance, in comparison if they were direct ties that needed continuous maintenance to stay strong. Actors can this way benefit from network size without needing to allocate more time to nourish these new ties (Burt 1992). However, it must be stated that the one thing even connecting the two networks that have strong ties is a weak tie (Granovetter 1973, 1983). SMEs obtain *social capital* through formation of such ties, by connecting with actors that can contribute to reaching set goals (Portes 1998). Moreover, the network structure and strength of ties that resides in the

network are having a direct effect on the support level an SME will receive, which will further afflict their factor of growth (Adams et al. 2014). The number of collaborative relations an actor has, has been positively connected to the innovation output (Shan et al. 1994).

2.3.2 Structural Holes

Innovation output increases through increased engagement with new actors and the formation of new ties to relevant social networks. This in turn reduces the feeling of SMEs feeling “new” or “small”. By actively seeking new ties, SMEs can secure interesting business opportunities (Burt 2000, Shan et al. 1994, Adams et al. 2014). *Structural holes* increase in numbers simultaneously with the number of collaborative network relations SMEs engage in. A *structural hole* comes to existence when a network actors act as a bridging link between two unrelated network actors that usually come from different networks. In essence very much like the weak link between actor B and C in figure 3 (Burt 2000). The phenomena of *structural holes* is essential for SME growth and all parties engaging in them, where all actors engage for the benefit of resource sharing and access to important information and knowledge (Aarstad 2012, Rost 2011, Adams et al. 2014, Sullivan and Ford 2014, Cowan and Jonard 2007, Batjargal et al. 2013).

Burt (1992) is known in this field for his literature on the topic. Where actors engage strategically in networks which are disconnected, to purposely create a structural hole to be able to maximize the number of holes, resulting in many weak ties and network connections which they try to harvest in an efficient manner. SMEs that are relying on such a network strategy, also need to consider the number of ties their weak tie actor has. This is an often-used strategy by SMEs to easily gain fast access to needed resources, knowledge and information in the early phases of a project (Ahuja 2000, Burt 1992, Walker et al. 1997). “*The proximity between networks and how different networks relate will decide a structural hole being created*” (Causevic 2020, p.23). Usually, an overlap in knowledge and information will occur in similar social networks. If however, SMEs decide to engage in networks that have different proximity and network composition, then a *structural hole* is created as a result of SMEs approaching another network and growing their number of indirect and weak ties. The structural hole is represented in Figure 4 (Adams et al. 2014). It is important to stress that on either side of the structural hole, actors have access to different

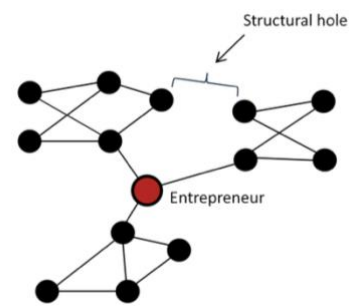


Figure 4 Structural Holes in Social Networks (Adams et al. 2014, p.21)

channels of information flow (Hargadon and Sutton 1997). For early growth phase SMEs in need of quick access to information, it is advantageous to create structural holes (Ahuja 2000).

Furthermore, due to the information asymmetry that arises as a result of structural holes being created and network structure changing, actors that engage in creating them gain information advantage and power leading to an improvement in competitive edge (Shi et al. 2014, Ibarra 1993). Information advantage through structural holes leads to a strategic advantage over other network actors, this way SMEs can improve their position by harnessing the benefits from gaining access to resources and information (Shipilov 2009).

However, there are naturally issues to the mentioned strategy. Questions have been raised with regards to how this strategy holds up when compared to the theoretical perspective, where social networks that are closed and have densely connected ties are to be seen as more advantageous, where Coleman (1988) has a more contrasting view (Coleman 1988, Ahuja 2000, Walker et al. 1997).

Social Capital – View of Burt and Coleman

In innovation research there is an ongoing debate with regards to which of the two views created *social capital*, and which of the two results in the highest number of innovation output (Subramaniam and Youndt 2005, Portes 1998, Rost 2011). The first view is the phenomena of structural holes by Burt (1992), which focuses on control and information benefits. The second view is on *network closure* by Coleman (1988, 1990), where partaking actors in professional networks are willingly sharing tacit information, due to *network closure* (Adler and Kwon 2002, Coleman 1988, 1990).

Burt's theory looks at relationships and connections different actors form and the structural configuration that follows it. While Coleman on the other hand looks at the quality of ties formed and their strength in fore om "closeness". However, with time passed, new literature has a different view, and see the two views as complementary. "*In the presence of strong ties, weak network architectures (structural holes) leverage the strength of strong ties in the creation of innovation*" (Rost 2011, p.588). This implies that structural holes hold no value unless there is a presence of strong ties in a network. However, strong ties hold value also as stand-alone structure but are also leveraged by structural holes (Rost 2011). The difference between the two mentioned views and how they view social capital, is that Coleman has

relational interpretation approach and Burt has a structural interpretation approach (Granovetter 1985).

Burt highlights in his work the information benefits and control that comes with engaging in sparse networks, while Coleman has a mere focus on solidarity which arises through formation of strong relationships (Adler and Kwon 2002, Wasserman and Faust 1994, Nahapiet and Ghoshal 1998). Today with globalization, the amount of new knowledge generation has increased, and all actors have to be able to maneuver in it, therefore there is a need to find information fast, especially information about solid collaboration and opportunities (Rost 2011). In order for new knowledge to be of any use, actors must be strategic enough to gain access to it first and act upon the knowledge (Gabbay and Zuckerman 1998, Moran and Ghoshal 1996). Therefore, actors are in need to form weak ties to various networks, in order to gain access to knowledge and resources outside their current network. Through such formed connections, actors gain direct access to knowledge (Granovetter 1973). Control and information benefits arise through connections where actors strategically create structural holes and this way gain a position in different networks, also referred to as network configuration. Actors that partake in creating structural holes have a greater chance of discovering brand new ideas as a result of network diversity and the people that make them up. Where each actor has a different interest, view and outlook on problem solving. Diversity is known to enrich a network with an increase in opportunities and knowledge access (Lin et al. 1981, Rost 2011, Burt 1992, Lincoln and Millner 1979, Ibarra 1992). Moreover, by connecting networks and actors to collaborate and share new knowledge, only then the value of the added knowledge is recognized and realized (Reagans and Zuckerman 2001). If value of knowledge combination and exchange is to be realized, then ties and the importance of tie strength must be acknowledged (Friedkin 1980). “*Strong ties have greater motivation to be of assistance and are typically more available*” (Granovetter 1983, p.209). This proves that solidary benefits emerge from solid collaborations where strong ties exist and their value is recognized (Adler and Kwon 2002). Therefore, one can say that the view of Coleman and Burt are in essence complementing each other (Rost 2011).

2.3.3 Importance of Social Networks for Internationalization

It is essential that actors engage in new collaboration and connections between different social networks, in order to acquire external knowledge (Powell et al. 1996). However, actors are not locked to their geographical proximity with regards to seeking knowledge in

networks. Actors should also seek knowledge in social networks where actors have diverse backgrounds, this would lead to an increase in creativity and also increase the number of structural holes. This will as a result create a better basis for development and learning in situations where actors are facing new uncertainties (Cohen and Levinthal 1990). Such connections over time result in actors sharing experience, competencies, gaining mutual trust and becoming good exchange partner. Such connections are in the position to recognize new knowledge and create value. Two characteristics of such a beneficial relationships is willingness to share tacit information and be open with the other actor, take on higher risk and mutual understanding in their partnership (Nahapiet and Ghoshal 1998).

Diversity carries benefits that last throughout the life of the venture and not only in the early phases of a venture (Martinez and Aldrich 2011). *“It would be counterproductive for entrepreneurs to increase their network size and not try to benefit from diversity, people who are added to the network should bring new information and relevant resources”* (Baker 2000, Causevic 2020, p.25). Any kind of diverse ties would be a part of increasing the likelihood of an entrepreneurs finding an actor which has relevant resources and skills, especially in the early development stages. Moreover, through a network that is diversified, entrepreneurs will benefit from various information and different behaviors, and not being forced to confide to one network only and its common behavior. Furthermore, this will consequently encourage innovation. Weak ties have a tendency to become predominant in diversified networks, due to strong ties being limited in numbers and often requiring more frequent maintenance (Martinez and Aldrich 2011). However, the entrepreneurs’ innovative output will increase with the number of strong direct ties, opening up for; complementary resources, knowledge sharing and scaling (Berg et al. 1982).

There are still many entrepreneurs that encounter hardship through increasing their network across border to pursue internationalization and scaling. The main issue to this process is the lack of information actors have about internationalization (London 2010, Hsu et al. 2013, Sommer and Haug 2011). In order for actors to identify a market opportunity abroad and go through with internationalization, company decision-makers and strategist are in need to acquire information about the certain market (Xie and Amine 2009). *“The lack of prior knowledge about such a process will require a company to seek large amounts of information from various networks to gain insight into experience and information, thus reduce uncertainty before internationalizing”* (Causevic 2020, p.26)

The globalized world gives access to diverse networks and information where actors that are new to the concept of internationalization are in need of, in order to be able to make a rational-decision with regards to scaling (Child and Hsieh 2014). It should be mentioned that social networks have played their part in making a rational-decision with regards to internationalization and how actors have proceeded (Aspelund and Butsko 2010, Cannone and Ughetto 2014). Collective knowledge is very beneficial actors that want to scale, since it is difficult to find information about scaling strategy and how to go about internationalization. Actors need information access from the ones who have experience (Castillas et al. 2010). Therefore, social networks can be seen as a source to fast learning for growing actors (Xie and Amine 2009).

By actively engaging in network collaborations, especially tech-development collaborations, resultant knowledge created through these developments becomes accessible to all actors. Instead of each actor independently investing in the same tech-project, actors are incentivized to collaborate for the greater good and collective benefit (Ahuja 2000). Collaboration is the key to open up for growth, complementary skills and knowledge sharing (Arora and Gambardella 1990, Richardson 1972). Actors that are working with tech, will find themselves experiencing that the innovation process is in need of actors with a different skill set and knowledge base to bring a new view to the project (Powell et al. 1996, Arora and Gambardella 1990). This way tapping into a new pool of relevant competencies from other actors, through just engaging in collaborative projects, opening doors to further develop existing knowledge, thus learn and improve (Ahuja 2000).

Actors engaging in internationalization will become over time transnational entrepreneurs and become a natural part of complex networks that take part in facilitating successful business operation across country borders (Wai-Chung Yeung 2002). Nevertheless, transnational actors also play a role in creating a bridge between the developing countries and western economies, which helps foster innovation and resource transfer to where they are most needed (Styan 2007). Entrepreneurial actors need to engage in networks where the actors are a part of a transnational networks, the reason for this is each actors established connections with clients, alliances and suppliers across the world that will be beneficial for an actors internationalization process and entry into a new and foreign market without any knowledge to lean on (Wong 2004). Actors will be better able to sustain collaborative connections, develop synergies and

tryst by actively engaging in collaborative relationships through transnational networks (Martinez and Aldrich 2011, Spence et al. 2008).

2.4 Absorptive Capacity and Knowledge

Knowledge sharing is essential. Actors that are willing to share benefit from new opportunities, insight to solutions that can improve their existing capabilities and also develop new ones, overall improve an actor's competitive advantage (Reid 2003, Akhavan and Hosseini 2016). A continuous learning process will give an increased knowledge base that will also affect the competitive advantage (Tsai 2005). Today, actors can easily gain knowledge through knowledge spillovers from different networks, which happens as a result from learning networks (Longhi 2015). Actors that build complex knowledge-based resources are investing in their competitive advantage by creating an advantage that is difficult to imitate and this way building long-term sustainable advantage (Liyanage et al. 2009). *“However, a strong competitive advantage does not simply happen due to entrepreneurs engaging in networks, knowledge sharing and knowledge spillover across borders, it is not a function of mere entrepreneurial activity, it is also a function of internal capabilities to recognize, value, assimilate and absorb knowledge and use it for commercialization purposes”* (Causevic 2020, p.27, Porter 1991, Pittz and Intindola 2015, Minguela-Rata et al. 2012, Cohen and Levinthal 1990). An ability as such is referred to as *absorptive capacity* (AC) (Pittz and Intindola 2015, Todorova and Durisin 2007, Cohen and Levinthal 1990). AC is further a function of the existing knowledge (tacit and explicit) actors have, also their culture, internal routines and existing competencies and resources (Gray 2006). Due to diversity, individual expertise and no individual being the same, the AC will differ from actor to actor (Cohen and Levinthal 1990).

Entrepreneurial actors need to have collaborative, absorptive and relational capabilities to engage in social networks, absorb knowledge created by actor collaboration and nevertheless, help create networks (Franza et al. 2012, Di Guardo and Harrigan 2015, Carmeli et al. 2011, Carmeli and Waldman 2010). However, actors also need *“prior related knowledge to assimilate and use new knowledge”* (Cohen and Levinthal 1990, p.129). The AC is viewed as a dynamic capability that can become a part of an entity's routines and processes. *“It can be used to analyze the company knowledge bases as a resource and look at its influence on innovation, growth and sustainability of competitive advantage”* (Causevic 2020, p.27-28, Zahra and George 2002).

This means that the easier and richer access a party has to resources and capabilities; which is also referred to as *social capital*, then the easier it is for a party to acquire and build competitive advantage and further sustain it (Touminen et al. 2013, Ou et al. 2015). Today's technology has enabled quick access to knowledge, and also transformed the way information travels and how fast. New skills are being thought through large e-learning platforms and shared worldwide, this requires an actor to continuously develop their AC and be up to date with the information and communication technologies (Gray 2006). A highly globalized world results in country borders no longer playing a real physical restriction. Customers have close to no limits with regards to where they want to order from. This way creating global competition that imposes a real threat to new entrepreneurial actors that have to carefully consider their use of resources, available technology, channels and networks to handle dynamic market changes (Ou et al. 2015, Andrevski et al. 2007, Kangarlouei et al. 2012).

Actors have to focus on developing and efficient AC that is able to acquire, filter and generate new knowledge through information that is found (Hermelinna-Laukkanen 2012). Moreover, actors will naturally seek other actors to partner with that can be of any guidance and help, to maneuver away from potential pitfalls that come with scaling internationally. This due to their lack of knowledge and experience, and also problems when dealing with uncertainty. Therefore, actors are in need to have the ability to assimilate and absorb knowledge, so it can be made useful for rational decision-making and growth (Xie et al. 2020).

Finally, all the reviewed topics so far are a part of giving the reader insight into how entrepreneurial topics are influencing internationalization in theory and which are most relevant for knowledge building with regards to SMEs internationalization process. The reason for an extensive literature review on connected topics is to give the reader a full picture of major topics and how they can be connected. The thesis will further elaborate on the research methodology and give insight into the conducted case study and further connect to the relevant theory.

3 Research Methodology

3.1 Methodological Approach

The aim of this thesis is to give an understanding of how the knowledge base of established SMEs influence and affect decision making with relations to internationalization. The following RQ was made to contribute to an under researched topic that is a part of both entrepreneurship literature and internationalization literature.

RQ: How does SMEs knowledge base affect their internationalization process?

Sub-questions:

- 1. In what way do SMEs actively seek information prior to making an internationalization decision?*
- 2. Where do SMEs find available information to support their internationalization?*
- 3. How are past experiences influencing SMEs internationalization?*

The data used to answer the RQ was qualitative primary data derived from four alumni SMEs from the Masterprogram: School of Entrepreneurship at NTNU through case studies.

The reason for selecting this type of research method was to gain insights into drivers, motivations, beliefs and ways of going about decision making to internationalize in SMEs. Case studies give more room for interpretation, flexibility to ask questions, help generate new ideas that are related to the field being researched or discover new connections, give insights that are meaningful and given in a natural setting. A case study is “*expected to capture the complexity of a single case, and the methodology which enables this has developed within the social sciences*” (Johansson 2003, p.2).

Furthermore, case studies have been through time mostly criticized for their lack of rigidity and being subject to generalization. However, generalization is a subject of analysis and are based on reasoning, and not on statistics. Reasoning has three principles: *deductive, inductive and abductive*. People generalize by using combinations of these principles or one alone (Johansson 2003).

Generalizing through a *deductive principle* is resembling an experiment, where there is a hypothesis, and one derives testable consequences through deduction. Where the essence is

to compare expected finding (deducted from theory) with empirical finding (through research), giving grounds to either confirm theory or falsify. Pivotal cases are selected to test theory through an experimental method, often done in a naturalistic setting. Researchers then draw generalized conclusion based on the case facts and selected theory (Johansson 2003, Robert Yin 1984/1994).

Secondly, the *induction reasoning principle*, is where generalization is derived from conceptualization, by using data available in the case. This normally gives a theory where there is a set of related concepts. Also referred to as Grounded Theory, where discovery of theory comes from data, and can be seen as a “general method of comparative analysis” (Glaser and Strauss 1967, 1999).

Third, is the principle of abduction that is “*the process of facing an unexpected fact, applying some rule (known already or created for the occasion), and, as a result, positing a case that may be*” (Johansson 2003, p.9). There are also two versions of the abductive principle which are explained in the figure below.

Procedure	Mode of reasoning	Result	Generalisation
HYPOTHESIS TESTING A theory (hypothesis) is tested in a case, and validated or falsified	Deductive	The establishment of the domain of the theory	From a hypothesis and facts to the validation of a <i>theory</i>
THEORY GENERATING A principle (theory) is generated from facts in the case	Inductive	A theory (Conceptualisation)	From facts in a case to <i>theory</i>
NATURALISTIC GENERALISATION An actual problem situation is compared with known cases	Abductive	Ability to act based on the conception of a case	From cases to a <i>case</i>
SYNTHESISING A CASE A case is synthesised from facts in the case and a principle (theory)	Abductive	The (re)construction of a case	From facts and a theory to a <i>case</i>

Figure 5 Modes of generalization and reasoning in case study methodology (Johansson 2003, p.10)

Rigidness was mentioned, and it is important to know that “*qualitative research also has a long history of suffering the (often well-deserved) criticism that it does not adequately justify its assertions, leading to some troubling skepticism about whether qualitative researchers are*

engaging in creative theorizing on the basis of rather thin evidence” (Gioia et al. 2013, p.18). However, both Eisenhardt (1989) and Gioia et al. (2013) have contributed largely to this matter of justifying the vitality of qualitative research and the richness it brings with regards to bringing new ideas and concepts, instead of just affirming the existing ones. Their work has given inductive research the opportunity to be applied as a *“systematic conceptual and analytical discipline that leads to credible interpretations of data”* (Gioia et al. 2013, p.15).

Case studies are not used to just justify the existing theory, but to further build theory, and a focused research question is formulated to guide the research. Selected cases are not as many as in quantitative research and it is important to highlight that cases that are selected are chosen for theoretical reasons and not statistical ones. In some cases, the findings might change the research completely and the research question, creating a shift and going with the natural change in research. What makes case studies stand out from other approaches is that one uses findings to build theory and not only to justify it (Eisenhardt 1989, Mintzberg 1979, Glaser & Strauss 1967). Finally, *“strong theory-building research should result in new insights. Theory building which simply replicates past theory is, at best, a modest contribution. Replication is appropriate in theory-testing research, but in theory-building research, the goal is new theory”* (Eisenhardt 1989, p.548). The known Gioia methodology itself offers a *“systematic approach to new concept development and grounded theory articulation that is designed to bring “qualitative rigor” to the conduct and presentation of inductive research”* (Gioia et al. 2013, p.15).

Keeping in mind the formulated RQ for this thesis, it was natural to use an inductive method to answer it since established SMEs were within reach of the alumni network and opened up an opportunity to see how SMEs with similar education backgrounds (same master program) internationalized. Another reason for selecting the inductive method, is that theory from the literature review conducted earlier (Causevic 2020) was used to create the RQ and see that there was a lack of coverage on the selected topic. However, one can argue that there are other methods that could easily be applied to answer the same RQ, such as group interviews, surveys or focus groups. The aim is to gain insight into new beliefs, thoughts, topics to see how SMEs connected entrepreneurial learning and the knowledge base they had when establishing the business to that of deciding to internationalize. In order to gain insight into such, a qualitative method was seen fit for the purpose and with Covid-19 making execution though at that moment, digital interviews were deemed beneficial.

Moreover, a case study approach to the phenomena, allows for focus on the dynamics behind the phenomena being researched (Eisenhardt 1989). Moreover, case study research is said to focus on “*contemporary phenomena within real-world settings and includes the experiences of the stakeholders involved*” (Williamson and Johanson 2018, p.194). Additionally, a case study approach gives flexibility and gives an opportunity to apply different philosophical paradigms in different ways, such as critical theory, interpretivist or positivist even (Cavaye 1996). In this case, the thesis has a more interpretivist approach and uses an inductive method (theory generating), as explained in the figure above (Shanks et al. 1993).

With relations to reliability and quality, the alumni network at the NTNU School of Entrepreneurships is tight and there is a culture of sharing as much as one can share. There is a certain trust by conducting individual interviews with four separate SMEs, where all belong to the same network the author has access to, and all SMEs are familiar with one another. All four SMEs were established on the same premises, which are; students managing a start-up as a part of their study program and using the available alumni network to gain support and resources.

The case study will not, due to its small number in participants and resources available to conduct it at such a scale, be applicable to a larger population with regards to external validity and generalization of findings. However, the objective of the thesis is to rather expand and understand the phenomena.

3.2 Data Collection Method

The case study was conducted with four selected alumni SMEs from the NTNU’s School of Entrepreneurship that have gone through an internationalization process. They were selected on the criteria that;

- Alumni students have a key stakeholder function such as CEO and have been a part of making executive decisions on internationalizing.
- The SMEs are in completely different industries and are selling to more than two countries.

To ensure this, a professor that is acquainted to all of the selected SMEs and their students has approved the selected SMEs. The reason for selecting four different SMEs from different industries, is to gain different views from SMEs in both B2C and B2B, also interview an equal number of male and female alumni founders. Each 30-minute semi-structured interview

was conducted digitally through platforms selected by the interviewee. The selected SMEs were not identified with their company name, but are named Case A, B, C and D. However, their industry and field of expertise will be explained. The selected interview guide can be found in Appendix A. The interview guide was designed using the three sub-questions for inspiration and the theoretical context. Moreover, the interview guide was submitted to the supervisor for feedback, after revision and changes the interview guide was submitted to two alumni students for feedback and after second revision tested on a start-up CEO in class.

The reason for conducting a semi-structured interview and not a self-administered questionnaire, was to obtain more in-depth data and also because questions are longer and require to be broken down into several sub-questions. However, with semi-structured interviews, there are chances of interview bias. Therefore, all interviews were held in English, to ensure that all interviews were transcribed properly and no translation bias occurred (Williamson and Johanson 2018).

3.3 Method of Analysis

The interviews had the following structure and questions were based on three different topics;

1. Short introduction questions about the SME
2. Core topics:
 - Entrepreneurial learning
 - Information and knowledge
 - Internationalization
3. Reflections and additional information

The topics that were discussed are considered to be the core of the interview and have been selected on the basis of literature mentioning that it is linked to internationalization to a certain extent. The topics were used as an underlying guideline for the conducted interviews in order to drive the focus and act.

The interview questions can be found in Appendix A and were **not** handed out on beforehand to the selected interview subjects. Questions are however open and give encouragement to further discussion and information. The interview was semi-structured, meaning that topics were approached in an orderly manner. However, the formulation of questions varied due to

all cases being different and the nature of the topic that was discussed. In certain interviews however, due to the natural flow of conversation, one would drift off into a linked topic that might be further on the list.

Interviews were transcribed the same day after being conducted and a content analysis was conducted together with grounded theory to see how the selected SME-cases could be linked to literature context. A colored mind-map in Excel was used to identify topics and respondent. The structure of the interview made it easier to move transcribed blocks into a diagram that had the core topics together with sub-topics that would naturally fall into the same category based on used literature.

3.4 Method of Evaluation

The method of evaluation is very far right on the inductive scale. An inductive approach was used to conduct the thematic analysis and generate theory. Firstly, after all interviews were transcribed, they were read through again several times to gain a good understanding of the findings. Further, based on the reading a few topics that were clear gave grounds for creating a colored topic-based Excel map. The following topics were found after the reading process;

1. Information about industry and product
2. Information about realization of opportunity and factors involved
3. Information about market
4. Information about guide and support from network/mentors/partners etc.
5. Information about the involvement in social networks and clusters
6. Information about relevant experience with internationalization

After the colored Excel map was made, transcribed blocks from each interview were moved into the different categories. Further, the additional three sub-questions from the RQ were used to derive common categories. All blocks in the mind-map were read through carefully again and after a careful analysis three common categories became clear. All four SMEs could fall into three main categories:

1. Seeking information
2. Information sources
3. Past experience

Data was pulled from all the three categories, data was firstly compared and then further linked to parts of the theoretical context and also used to derive new conclusions.

Limitations and challenges attached to the used approach need to be highlighted. It has to be emphasized that the four cases are not to be generalized beyond the sample group. The external validity of the research is weak due to number of samples and only one person being interviewed in each case. The aim of the case study was to gain insight into motives, beliefs and better understanding of the phenomena and also extend it. In order to gain deeper insight and understanding, a larger number of samples would have been needed. The number of samples were however limited due to the research having to be conducted in a short time frame and with limited resources. It is important to stress that the main objective of conducting a qualitative research study, like the one conducted in this thesis, is usually not used to be generalized to the broader population. Therefore, making it harder to compare to other cases and give a general statement that holds. An inductive approach comes with the challenges of stressed CEOs stressing the interview due to other meetings and therefore not sometimes fully listening to questions being asked or simply not taking the time to give a full answer, but rather withholding information as a result of little time and stress. To avoid this in other interviews, the author made sure to highlight that the interview takes no longer than 30 minutes and also used some introduction questions to warm up before the real interview took place. This ensured that some trust was formed before sharing information. Nevertheless, by keeping interviews very short, there is a risk of not gaining enough information to be able to conduct an analysis, this was an opportunity cost which the author was willing to make. The reason for this was the challenges of receiving cancellations due to length of set interviews and no other incentive to participate.

3.5 Literature Selection, Approach & Limitation

This section will shortly elaborate on the method of selecting literature. The main goal of the literature was to give insight to related topics which are within a part of the entrepreneurial learning framework and are able to influence it. There are many topics included in the theoretical context, the reason for this is to give readers an understanding of topics that are highly influencing an entrepreneur's journey. However, the selected topics are a small part of the entrepreneurial research field and certain complex parts have been simplified to be better graspable.

The Reading Process

Different sources were used to gather relevant articles. Before literature was selected, the author used much time on creating an overview of major topics within the field, to be able to

discover the classic authors that have had a tremendous impact on the view of certain topics. The reason for doing this, was to be better able to select and evaluate selected literature. Firstly, the author read various articles that contained the keyword “*entrepreneurial learning/knowledge*” to gain an overview over the literature field and its respective topics.

Snowballing & Classics

Through the reading process great attention was given timeless works that have engraved their names into the field of entrepreneurship, such as; Penrose, Burt, Coleman, Granovetter, Schumpeter, Shane, Alvarez, Nonaka, Barney, Venkataraman etc. Before an article was selected for deep reading, the abstract, introduction, conclusion were read, and references checked for known and classic authors used. The snowballing method was used to further discovery, often many good articles came from the references of another good article. Moreover, to find better articles, a combination of three keywords was sometimes used to find a more specific articles, such as mentioning Burt or Coleman in the same search.

The Mind Map

By creating a mind map with relevant topics which are connected to *entrepreneurial learning*, the author was better able to have full overview of the connection and influences the various topics had on the main one. The map was a tool that helped connect and organize topics easily, systematize articles and where information came from. A spread sheet was used to keep track of read articles and each article was printed and numbered with the same number from the spreadsheet and article numbers were also connected to different topics on the mind map. These articles were the primary articles that were further used to snowball other articles.

The available search engine “Oria” at The Norwegian School of Science and Technology was used to find literature, which gives access to articles from; Elsevier, Emerald, Sage, Wiley, ET&P and open access articles. Research Gate was used for open access articles and Google scholar was used to find books.

Keywords

After months of reading a revised mind map was drawn to finalize topics, a blueprint was made to build structure of thesis. Moreover, keywords were selected to narrow down search results and many of the numbered articles became the base for snowballing and selecting other articles. The following keywords were selected and used in combination to create a narrower search.

- Internationalization, knowledge, connections, ties, resource-based view, knowledge sharing, knowledge-based view, absorptive capacity, social network, structural holes and competitive advantage, entrepreneurial learning

Limitation of Method for Article Selection

It is essential to consider the fact that this master thesis covers many topics and was conducted in a short timeframe, in comparison to case studies that last for several months. Due to the time frame, certain connected topics that are a part of entrepreneurial learning and internationalization have been excluded. The reason for this is that the thesis would have become too broad if every topic was to be included and commented upon. The article selection method was used to be able to give enough insight into the different topics and for the reader to understand, without going in depth of each topic. The majority of articles are from the literature review written by Causevic (2020) and have been re-used for this master thesis.

Furthermore, there is only one author that has been a part of writing this thesis. Therefore, it is important to mention that there are human limitations to one person's interpretation of an article and how a third party would interpret the same article and its relevance. The author has to best of her ability consciously evaluated each article and tried to avoid personal bias and misinterpretation by using several different articles that cover the exact same topic.

Another limitation to the method being used is the combination of keywords when searching for articles. If other combinations were used, the author might have had a completely different base of primary articles to read and snowball.

4 Empirical Findings

This chapter will present the empirical findings from the investigated cases in this thesis. The findings are based on conducted interviews that can be found in Appendix B and reviewed literature. In Table 1 you can find the general info on the four cases.

Table 1 - Cases

Case Company	CASE A	CASE B	CASE C	CASE D
Role	CEO	CEO	CEO	CEO
Graduation year	2020	2017	2019	2014
Team members	6	8	5	13
Industry	Ski apparel	Camera accessories	Cosplay	Library technology/software
Product	Sustainable and retro ski apparel	Collapsible cable cam	Costume accessories for cosplayers	Technology for managing research data and different data assets

4.1 Case A

Case A is a web-based online shop selling sustainable and retro ski apparel for a set generation. The company has been present on Instagram and Facebook since day one and has strong digital presence. The company was initially founded in 2017 and further developed with another student at the NTNU School of entrepreneurship. International demand for their brand came from consumers worldwide through their social media presence and the CEO saw an opportunity to set up a web-shop with international shipping two years after launch. Today, the company is also negotiating deals with retailers in Canada and US through their agent and have come a far way since.

4.1.1 Seeking information

«We saw some traction from international customers almost from day one.»

-CEO, Case A

The company gained a lot of traction from followers worldwide very early and figured that one factor is important for their future success with international customers as well as scaling.

«We started to do some tests by shipping to some customers in the start, and then we got to see how the shipping was handled and all the costs so we could run some tests with real customers from day one»

-CEO, Case A

The cost aspect of the web-shop was important. Instead of establishing physical shops in different countries in their starts phase, they saw the opportunity to firstly gain information through Google Analytics and track customer origin via their social media presence and from there on do feasibility studies to find relevant countries and sell through retailers.

Being a part of the NTNU School of Entrepreneurship and starting the semester with many feasibility tests focusing on finding groundbreaking ideas and market potential, the CEO in Case A gained knowledge on how to conduct such a feasibility study.

« If we're going to really scale up, we will focus on some markets. And it's based on the sales revenue from the past and we have also done feasibility studies for each of the countries. We also, look at reports and talk with the customers and the experts in the different countries»

- CEO, Case A

Such feasibility studies have been very much a part of their scaling to other countries, such as Canada and the US.

4.1.2 Information sources

During a feasibility study, students need to call different market actors, such as; industry experts, competitors, alumni students that are in the industry or know someone who they can approach. The aim of the feasibility study is to gain insight into market trends, processes, value chain, size, potential, and numbers, as well as information about customers and where the problem areas are. Nevertheless, certain phone calls also lead to real meetings with company actors. This experience has led to the CEO and her team to know exactly where to look for information. Such as where experts are found;

«Through our network mainly, the NTNUs School of Entrepreneurship and we're also part of a cluster called the Norwegian Fashion Hub and also we have received some contact information from Innovation Norway and also through people in our current network»

-CEO, Case A

Moreover, the strong digital presence of company A made actually their agent find them and has been a key turning point for them with relations to their scaling. The team is also a part of an innovation program that aids their internationalization process.

«The last six months we have been a part of a program organized by Innovation Norway and Norwegian Fashion Hub and we have received help with our international internationalization process. So that has helped us when it comes to retailers.»

-CEO, Case A

Nevertheless, Case A has also received a lot of information about the process of selling through retailers through their agent that also contributes to the team's competitive advantage by negotiating good terms and deals for company A.

«We are working with a retailer in Canada now, we use our agent to handle most of the documentation, if we did not have her I think it would be difficult for us to reach them and close this deal.»

-CEO, Case A

The CEO also mentions that their warehouse in Norway has been a good shoulder to lean on since day one since the warehouse has their own partners with different shipping companies and can easily contribute to their different requests. Lastly, company A has also reached out to different web-shops that ship to different countries to seek advice on what is the most beneficial with regards to warehouse and tax, thus resulting in changes;

«We now registered VAT in Sweden, so we can ship cheaper. We have also chosen a Swedish warehouse so we can sell to customers that are living in EU without paying any taxes.»

-CEO, Case A

4.1.3 Past experiences

Experience comes with time and is beneficial for the learning process. By having experience with a certain business one can build competitive edge, experience also aids opportunity recognition (Politis 2005). The CEO explains an early encounter with having a web-shop and how to handle tax.

«I think the reason for that is maybe my mom, because she has also owned a webshop for many years, so I talked to her about it.»

-CEO, Case A

Moreover, a mother will become a guide and a mentor to a certain extent, but also a person one can gain help and knowledge about the different parts of the business model, such as production.

«That was mainly with the production and I have learned mostly by myself when it comes to the webshop.»

-CEO, Case A

Through trial and failure, one gains vital knowledge and experience to better understand what works and also building one's knowledge base.

«I think we have the knowledge base that is a mix from our own experiences and the people we have talked to.»

-CEO, Case A

With this being said, case company A is actively making use of available channels, resources and experts around to build their knowledge base and gain experience in the field of e-commerce and retail distribution. However, it does not stop there, their potential is large, and internationalization is something that takes time and information to achieve, especially when building a brand.

4.2 Case B

Case B is a tech-company creating collapsible cable cams for normal consumers and semi-professionals. Further, the team of 8 aims to also emerge on the journey to create filming tools that would enable new filming angels to filmmakers. The market company B is operating in is a fierce one, with many players and their many brands. However, the consumers are willing to pay a premium for quality equipment in order to be able to create impressive footage and content. The company is competing on the general categories of products, with an ocean of different brands in each category, thus the market is moving fast and quite innovative.

«I would say it's quite innovative, compared to a lot of other industries, you have, for example, if you look at the development of drones, which is kind of falls into our category, you have had a huge development the latest five years, the same period as we have been in the market. The gimbal industry has also developed really rapidly during the time we have been in this market. And now, like the product they bought three years ago is obsolete now and you see the huge drop in prices for some progress categories because innovation moves along so fast. So it's quite rapidly evolving industry I would say.»

-CEO, Case B

4.2.1 Seeking information

Through the feasibility studies at the NTNU School of Entrepreneurship quickly realized that there was no reason for them to start selling locally through their online-shop and get a foothold in the Norwegian market. Norway was too small, and the potential was larger in other countries, so the natural way was to immediately go abroad.

«We were seeking a lot of information. For us it was never a question about starting locally, and then go abroad. That was never, never in our plans. We didn't see any reason at all by starting to sell online to Norwegians. We could not find any good reason to start in the local market when we are a small country. Why not just sell immediately abroad?»

-CEO, Case B

Having established that and realized that shipping products around that are of a compact size is not very complicated. Gaining information about logistics involved distributing and shipping from a warehouse and handling logistics, made them realize that they had a good shoot.

«For us it's, it's a product, distributed it's like this big (shows the size of the product). Logistics are not that difficult to handle and are relatively quite easy. When it can just be shipped from one warehouse to the whole world with express shipping so there are not that challenging logistics in delivering products as we did.»

-CEO, Case B

Much of the work in the start for each company is seeking information about various markets and figure out what knowledge is transferable to another market, in order to grow and increase revenues. Company B used the US as a benchmark for much of the information they had gathered to apply it to other geographical markets.

«The US, like the single most important geographical market that it would be applicable for other geographical markets. We do not ask the same questions to potential customers in every geographical area. We don't split it like geographically to see if we get different questions from different geographical areas. It's about; If you are interested in the sport, if you're a downhill biker or if you are a video maker. Is this a useful tool for them to use?»

-CEO, Case B

4.2.2 Information sources

Company B was active to seek information in different communities, engaged and showed up at sports events to gather information from different actors and show their product. However, knowledge was something one needed to acquire. A person could know that one needs to ship parcel from point A to point B, the in-between and before and after needed to be resolved and learned. Such as what is the most efficient way and how to others do it. With this exact logic company B approached similar companies from the alumni network to figure out what could work the best for them and how to set up the value chain.

«I think the most important was other startups, learning from them, at least when it comes to just the exact knowledge. If you go to like the specific knowledge about website, logistics systems, everything then we were just learning directly for someone doing a very similar thing. But as other startups we had a whole system of mentors. Yeah, but we, to a large extent used other startups. Calling people that have done similar things.»

-CEO, Case B

Nevertheless, if there were no relevant people to talk to in the networks, one would search the internet thanks to globalization and pick up the phone and start calling around. Someone would know someone, and eventually one would find that person with the right knowledge. Much of the learning process is to search for information, making it easier to make a

decision, build networks and also stumble on interesting people, collaborations and also opportunities for future developments or pain-points that customers experience.

«Calling around was a very intense part of the work.»

-CEO, Case B

Moreover, the beginning of such a journey is always the toughest one. However, one must start somewhere. In case B, it was natural to copy someone else in the beginning, everything from strategies to set up crowdfunding campaigns, processes and to their strategies. Still, much can be copied and applied, but the question is always if there is a better way to go.

«The question was this, the international strategy. It's still a question that we answer ourselves when we ask like what is the best strategy to reach out to other regions, because it's hard to reach out to the whole world just from your own website with your own marketing associates in Norway... But at some point we also see that you need and should have boots on the ground in the different areas, have some more thought through strategy for one great geographic area in order to penetrate that market more. You know, otherwise you will have only reached early adopters, that buy whatever they find on the internet. It is really hard to reach more of the late majority of the customer group, then one also needs to be more present in the market.»

-CEO, Case B

It is clear that the CEO and the team are aware of the constant need for improving the international strategy on their road to internationalization and reaching a larger market share. Consumer knowledge is vital, and the CEO explained that parts of information is gained through interacting with consumers at sports events, but some of the consumer types are harder to reach than others and therefore need to be contacted in other ways.

4.2.3 Past experiences

In Case B none of the team members had any relevant previous experience and the path was made as they moved along with product development. However, one cannot underestimate the takeaways from other people's experience.

«I think the most important was other startups, learning from them, at least when it comes to just the exact knowledge.»

-CEO, Case B

4.3 Case C

Case C is company that makes custom made accessories for cosplayers worldwide. Through their online-shop they reach their huge niche market of cosplayers. The journey started as all others through a feasibility test at the NTNU School of Entrepreneurship and developed into a company of currently five people.

«There's a small amount of statistics attached to the market, because it's very new and there are very few other providers in the market. We are in the consumer goods industry and delivering technical products containing electronics, battery solutions and such, which we develop ourselves.»

-CEO, Case C

There are about 1000 people that are involved in cosplay in Norway, which also made company C look at the international opportunity quite early in the process.

4.3.1 Seeking information

Company C figured out early on that their target customers have high online presence and where they were to be found, namely Facebook groups. The team could easily engage with the cosplayers online and make them have a direct impact on the product development. Moreover, large cosplay conventions were also a good place to be in order to receive information about the product the team was developing.

«The easiest place to reach cosplayers is digitally, or the cosplay conventions, which are very specific places, so we can either target them online through ads and such.»

-CEO, Case C

Furthermore, with regards to information around product development, their team drew on experiences previous alumni startups had with setting up the production line and ended up therefore setting up the production line in Norway.

«Which is why we, because of their difficulties with production, we ended up setting up our production line in Norway. Maybe we wouldn't have done that if we didn't speak to alumni startups with experience and learned from their mistakes. But some parts of what they've done, we have just copy pasted - like the online shop.»

-CEO, Case C

The CEO further explains the difficulties of trying to use alumni startups as blueprints and that they were critical towards going the same way as the others have done before, through their criticism towards processes they have often arrived at different outcomes than alumni startups, where some of them are now large scaling companies.

«So we've tried to take like bits and pieces and just think like “okay there's a recipe, let's just do it that way.” And then in the more complex processes (like the bigger things), then we tried to pick a little bit from different places and some of it we've done just our own way to try to take into account all the high risk areas that we are aware of.»

-CEO, Case C

The most important for the CEO was to draw information on parts of business that was often deemed difficult and used alumni companies to seek information towards finding a solution. However, in many cases the experiences from alumni companies made them go in another direction and made their decisions easier with regards to which factors they wanted to focus on with regards to for example, their production line. Valuable information made them go in another direction, instead of using the alumni companies as blueprints for all their processes.

«We took a while to discuss just what factors we want to appreciate when we are setting up our production line. And we saw that the two of the alumni startups both valued high volume, and low prices. And then we figured let's just go the opposite way.»

-CEO, Case C

4.3.2 Information sources

The CEO explains that mentors have been an active part of their development and that they have often contacted relevant people and asked to become their mentors. Mentors would have one on one conversations with the relevant role in the team, such as a production line mentor would have a conversation with their production leader. Moreover, this was a way for them to get in contact with other companies and experienced CEOs in hardware companies.

«We have done the same thing in marketing, so we use a lot of the mentoring, which is not industry specific, but role specific.»

-CEO, Case C

The CEO emphasized that not having experience and trying to succeed at something one has never done before is hard and therefore a tremendous amount of information was needed to

guide them on their way. The CEO explained that entrepreneurial networks were heavily used and especially the alumni network.

«Every day you do something that you've never done before. So we try to find people who've done it and ask them; what did you do, and why did you do it, and what would you do differently... So we have been highly dependent on drawing on others experiences.»

-CEO, Case C

In order to make a better decision, company C has actively drawn on others experiences and their knowledge. They have paved their own way and adjusted the advice and knowledge they have acquired to benefit them in the best manner. There was no need to reinvent the wheel for the online shop, but for the more complex processes it was important to seek different ways actors had tried to solve them.

4.3.3 Past experiences

The team members have different backgrounds and work experience, and this has definitely played a part in how they have decided to run the company. Trusting one's intuition and combining their backgrounds has been crucial for their progress.

«Every day we do something that we've never done before. And just to acknowledge that and be like okay, we don't really know what to do but let's just find the way that we think sounds most logical and let's just walk down that road and see what happens. And you have to be willing to walk down a road that you don't know what looks like. And I think that's partially you need to have some experience in working but in the end, you just need to be willing to just explore.»

-CEO, Case C

4.4 Case D

Case D is a spin-off company from a worldwide known organization which works with particle physics. The company has based their business proposition on their technology and are today working with offering library technologies and software for customers such as libraries, agencies and universities to help them manage research data, data assets and store assets digitally, making them available around the world. The company offers subscription-based packages and also charge implementation fees. Their business model is software as a service, and they operate in a niche market with four large players and few smaller national ones in different countries.

«Our customers are mainly libraries, university libraries, and research libraries that are looking to store digital assets safely and make them available to the front patrons around the world.»

-CEO, Case D

4.3.4 Seeking information

The CEO explains that already very early in the process they received their first customer and through this experience realized that they had international potential. Their first customer was in Saudi Arabia and from thereon they did not limit themselves to national or only European boundaries, because the need for such a system was international. However, due to the type of customer they were seeking, the US seemed like an attractive market to scale too.

«The US market has been a big focus since the beginning, because it's very scalable, it's extremely large. So once we had a few reference customers there, it's always been about the US market, North American market.»

-CEO, Case D

Due to the attractiveness of the market, there were many reasons for the team to channel all their resources towards US in order to penetrate the market. Many customers have found them through reference, and this has also led to some huge organizations becoming customers, like the UN.

Looking at their current coverage, 70 % of the customers are located in the US and the others are spread across 10-11 countries. The customers are seen as a resource, due to company D providing software as a service and are in need to tailor-make library software solutions to each customer individually. Their software service is different from an off-the-shelf product, and

the customer is very much a part of the entire process. The CEO explains that one must dare to ask and seek information from the customer, and this way make them satisfied with the end results.

«Talking to the customer and understanding what they need, while you're at it without kind of exposing yourself too much, but at the same time not being afraid of asking it's totally fine. I think oftentimes people think that they need, or startups think that they need to keep this, you know, super professional image, not being able to tell the customer; "oh, actually I don't know this thing, why don't you tell me exactly what you need or how you want this". I think that's fine. Just allowing yourself to do that.»

-CEO, Case D

Nevertheless, the traditional way of seeking information was also a part of their strategy. Such as the approach thought at the NTNU School of Entrepreneurship, where one picks up the phone calls people and just “picks their brain” as the CEO explained. Lastly, in some cases they also did hires from the larger competing companies.

«I mean we've done hires from competitors. Now I mean not just because of that, but it's always interesting to get someone who has insights from the other side.»

-CEO, Case D

4.3.5 Information sources

Due to their close connection to the organization the spin-off was created from, it was natural to seek information from the professionals that worked closest to the technology. It was very much beneficial for their implementation and contract with making the first delivery to their Saudi Arabian customer.

«Because we're a spin-off, we also had some people at the organization whose technology is based on work on it. So we basically tried to pull in resources that we knew had some knowledge of the implementation, so some people from the organization had bits and pieces of the knowledge we needed, so we just talked to them.»

-CEO, Case D

Being active and knocking on doors has been a succeeding strategy for company D. Through engaging with external people and the alumni network, they have received needed resources. Their niche is very special, and it is not enough to just understand the business plan and

strategy, their customers are different from other industries. Libraries operate in different way than usual companies and therefore one needs to dig deeper the CEO explains.

«I If you're waiting for people to come to you, obviously, it's hard but if you knock on doors and are just polite then you'll get your answers.»

-CEO, Case D

In the beginning of their journey, they very much relied on reaching out to customer through going to conferences and any event that could bring them closer to their customers and receive information. Through tracking their traction from different conferences, they could cancel out the ones that did not bring the desired response. With time the team saw that trade shows were an effective marketing tool for them to show off their technology and reach out to customers that genuinely were interested.

«It is important to stress that trade shows are a big marketing tool in this market. So we decided let's focus on the ones where we knew we had something working. Maybe not realizing yet exactly why it was working. So we kind of went broad and then we narrowed it down and then after a while we realized - okay, so, if we were to go back here we would need a local partner in the Middle East. It's really hard to sell something without a local partner. That kind of stuff we realized, as we went along.»

-CEO, Case D

Before the company D was fully established, the first team members did a traditional feasibility study and talked to relevant customers as well as competitors while writing the business plan. The CEO admits this is very much a part of their strategy still. When a question arises, it is easy for the CEO to reach out to the established network that has been developed and grown over time and there are also possibilities to reach out to partners that bundle their technology with theirs.

4.3.6 Past experiences

The largest market company D is operating in is the US, there is usually as benefit to know the culture of the people you are doing business with. The CEO has previously studied in the US and is very well aware of their culture and this has been helpful in approaching customers and working closely with customers. Being familiar with a country's culture will make it less stressful to penetrate the market and improve the communication with the other party with regards to discussing business.

5 Analysis and discussion

In this section the findings which have been presented will be discussed in the light of the theoretical context. Both case findings and theory can be organized into the three categories that also fit with the three sub-questions used to answer the RQ. Each category will be discussed into further depth.

Sub-questions and categories:

- *In what way do SMEs actively seek information prior to making an internationalization decision?*
 - *Seeking information*
- *Where do SMEs find available information to support their internationalization?*
 - *Information sources*
- *How are past experiences influencing SMEs internationalization?*
 - *Past experiences*

5.1 Seeking information

SMEs often experience setbacks due to their resource limitation, international experience and lack of leadership and management. In many cases SMEs have limited to no information which can aid them make effective and informed decisions with regards to uncertainty management (Udomkit and Schreier 2017, Hilmersson and Jansson 2012, Liesch et al. 2011). However, SMEs that seek and actively want to expand their business, will do so when they have a deeper understanding and knowledge about the selected area for internationalization. In such cases, there is a lower degree of uncertainty and higher willingness to internationalize, due to more knowledge and information about the foreign market and its suppliers, buyers, networks and distribution systems (Udomkit and Schreier 2017, Grant and Bakhru 2004, Ketkar and Acs 2013). All studied cases have emphasized in their interviews that information seeking is a large part of what they do in order to grow and scale.

All four case studies have graduated from the NTNU School of Entrepreneurship and have gained valuable tools with relations to approach people to gain information and how to conduct a feasibility study to gain a clear picture of the possible market potential. Very early in the process all cases have done things like; Testing to see what works and what does not work, such as marketing, social media and shipment testing. Case A deliberately shipped to

all countries they could and were actively promoting their products on social media to see where they gain the largest traction. With time, their data increased, and they are now able to tell what works and what does not. Moreover, for each case there was one thing they had the most focus on.

For Case A it was costs that could make them or break them. Their focus was to gain information about how to keep costs in check leading them to carefully track shipping and also switch location of warehouse. The use of feasibility studies was also vital for their step towards reaching retailers and reducing uncertainty before making a decision to sell through retailers. Case B on the other hand used a different strategy, through a feasibility study understanding that Norway would be a far too small market, they decided to expand to the US and use the US as a benchmark to expand to different geographical areas. Case C is a part of a niche market and was in need to highly engage with their customers to make their product usable and user friendly. Moreover, the CEO in case C explained that they used other people's experience to draw their own conclusions and in many cases they decided to go a different path than the example cases, due to their difference in focus. Lastly, case D hit the ground running early on with their Saudi Arabian customer and have quickly learned that the customers wishes are the most valuable and things they could not solve they seek help for, such a leaning on the knowledge of professionals in the organization their spin-off originated from, but what all cases have in common is that all CEOs are previous alumni student at the NTNU School of Entrepreneurship and will not hesitate to seek information and ask around to find the right type of information for their problem at hand.

So, to answer the first sub-question: *In what way do SMEs actively seek information prior to making an internationalization decision?*

Well, interviewed CEOs do not hesitate to seek information with regards to new possibilities and are proactive to find ways to scale and grow and do so in different way. The alumni network that has been established has given each student a shoulder to lean on. Many studies have shown that networks are crucial for SMEs success and also in terms of enabling, initiating and sustaining internationalization. Networks provide actors with necessary information, support and advice. Moreover, they also contribute to ease the resource constraint that SMEs experience and help them navigate through international markets by offering access to knowledge and experience from professionals (Bhave 1994, Ozgen og Baron 2007, Johannisson 2000, Greve and Salaff 2003, Udomkit and Schreier 2017).

5.2 Information sources

In entrepreneurial SMEs that are internationalizing, there is a requirement for innovation culture which will help generate knowledge acquisition that further helps foster successful performance in other geographical areas due to their entrepreneurial learning (Gabrielsson et al. 2008, Weerawardena et al. 2007, Lee et al. 2020). Moreover, there is shown strong evidence that roles of networks have a significant matter, especially in situations where SMEs are only a small fish in the large global value-chain. Benefits from engaging in such network relationships is access to network knowledge and learning, as well as social capital (Cavusgil and Knight 2009, Schwens and Kabst 2009, Chetty and Campbell-Hunt 2003, Lee et al. 2020). Other studies that focus on experiential learning of firms, show that SMEs who embrace internationalization at an early stage also stay steady over a period, findings in studies show that SME learn from their internationalization and develop mechanisms which can be used repeatedly (Schwens and Kabst 2009, Lee et al. 2020).

This is true for all cases. Case A has through the alumni network and through the cluster they have joined gained valuable insight, contacts and knowledge. Moreover, through their agent and warehouse partners received guidance and solutions on how to handle business best possible. Case B is active in different communities where they customers are, actively joining sports events where they can connect and grow their current network. As well as using the benefits of globalization where the contact details are available for almost anyone and one can easily reach out to people when searching for their field of expertise. Case C is in a special niche market and has actively used people to mentor them and guide. Through mentors they have received recommendations on who to contact. Moreover, the CEO admits heavy use of networks to gain insight and information. Such as the use of the alumni network and copy certain processes that alumni companies have done before them. Lastly, case D being a spinoff has had the benefit of reaching out to experts in the developed technology and use their expertise to problem solve and product development. The CEO explained that they have not been hesitant to knock on doors and ask for information, also participating in trade shows and using the network they had available. But most importantly, use their partner and ask for people to talk to instead of just browsing the internet.

So, to answer the second sub-question: *Where do SMEs find available information to support their internationalization?*

All cases have used different strategies to find information about their customers, but one thing remains the same, they all use available networks, partners, professionals and mentors that guide them through their processes and the alumni network has been of tremendous help during the starting phase. All of them have engaged in creating ties and connecting to networks, creating structural holes by engaging in several disconnected networks and working across countries by connecting to communities through social platforms and reach outs. This way gaining experience and learning, acquiring new knowledge and information, improve decision making due to support and available networks to lean on, become better at opportunity recognition due to increased access to information, better survival and growth due to forces of competition pressuring them to seek new information, ensuring their long-term survival in dynamic markets, improving their competitive advantage with regards to succeeding at internationalization, ensuring a good RBV, creating growth through willingness to learn from other knowledge-creating bodies, benefiting from knowledge spillovers, through network closure in clusters receive fast access to tacit information, and thus strengthen their absorptive capacity ability (Costa et al. 2016, Politis 2005, Stuart and Sorenson 2007, Adams et al. 2014, Cope 2005, Holmqvist 2000, Minniti and Bygrave 2001, Cohen and Levinthal 1990, Shane and Venkataraman 2000, Ronstad 1988, Ardichvili et al. 2003, Zander and Kogut 1992, 1995, Akerman 2014, Rumelt 2005, Caiazza et al. 2015, Child and Hsieh 2014, Musteen et al. 2010, Liao et al. 2016, Nonaka and Takeuchi 1995, Rost 2011, Martinez and Aldrich 2011, Ahuja 2000, Caird 1992, Granovetter 1983, Burt 1992, Coleman 1990, Xie and Amine 2009).

5.3 Past experience

Past experiences are very much relevant for how people will decide to react and handle a situation. *Entrepreneurial learning process* has been explained in the theoretical context as “*a continuous process that facilitates the development of necessary knowledge for being effective in starting up and managing new ventures*” (Politis 2005, p.40). Entrepreneurial knowledge is said to be acquired experientially (Politis 2005, Reuber et al. 1990, Reuber and Fischer 1994). Moreover, this can be connected to experiential learning and the two dimensions. Where the first one is *acquisition*, where the actor needs to grasp, and the second dimension is *transformation* of the first one (Politis 2005, Kolb 1984). Meaning that people

learn from situations in the past and take something away from a situation in order to apply it in the future, making them aware. Prior experiences are a part of entrepreneurial learning and aid actors in finding value in information, recognizing opportunities and apply the their knowledge to a new situation to pursue a business opportunity (Cohen and Levinthal 1990, Politis 2005).

In case A the CEO explains the early contact with a mother's online web-shop and tax handling. Furthermore, case A emphasizes the importance of testing and gaining experience this way, as well as learning from other people's experience whether that being stories of success or failure. In case B the CEO also mentioned the experience of others and how important it is to acquire their exact knowledge, since none of the team members had relevant experience with internationalization. Case C had a somewhat different answer to past experience, their team had diverse backgrounds and work experience, certain members have been a part of other ventures and none of them have been on the road they were currently on. The CEO emphasized the importance of trusting their intuition and not blindly relying on other people's experience, because in many cases they decided a different strategy than the previous alumni students. Lastly, case D approached the topic of cultural knowledge about a people and a country. For case D, the US is their largest market and 70% of their customer reside there. Being the only one business in B2B out of the four cases, one can clearly see the importance of knowing geographic culture. Using sales representatives, they need knowledge of customer sensitivities and how to approach a customer in the US versus a customer in Saudi Arabia, where they quickly realized the importance of a local partner to be perceived as a serious actor from the locals. Being familiar with the US through many years of studies in the respective country, will result in the benefit of no culture shock.

So, to answer the last sub-question: *How are past experiences influencing SMEs internationalization?*

The four case studies show that past experience which is either their own or comes from others, can be used to guide decisions and discover new opportunities. This is very much in line with the research of Politis 2005, where the author explains entrepreneurial knowledge as a result of both "*grasping an experience as well as transforming this experience*" (p.407). All CEO's have learned by increasing their knowledge stock on the premises of past experience from either themselves or others (Minnit and Bygrave 2011). All cases have used external and internal sources of information to improve their development of specific market

knowledge and external and internal experiences that they and others have to improve their decision making with relations to internationalization (Akerman 2014).

6 Conclusion, implications and further research

6.1 Conclusion

The main objective of this thesis was to answer the following research question and investigate entrepreneurial knowledge as a driver behind internationalization:

RQ: How does SMEs knowledge base affect their internationalization process?

The author was interested to look at the journey of the learning process for each case study and to gain new insight into what has influenced the cases the most. It is a problem description which has an immense scope and therefore the three answered sub-questions have been provided to guide the author to arrive at a conclusion.

In conclusion, SMEs in the four studied cases have largely used the alumni network, other networks, mentors, partners, the internet, clusters, communities online and offline, events and tradeshows to gain fast and relevant access to knowledge and information that will aid them in their internationalization process regardless of their stage. A tremendous part of building competitive advantage to be able to compete internationally comes from SME building their knowledge base through network engagement and continuously improving it to sustain their long-term competitiveness through their internationalization process. It is clear that networks are key in the internationalization process of SMEs that need help to overcome the main constraint, which is access to market insight, information and drivers (Udomkit and Schreier 2017). Moreover, the four SMEs can be connected to much of the reviewed literature, such as the RBV, where they all look for ways to improve and sustain their resources through combining knowledge with the alumni network that is available. Furthermore, they are an essential part of creating structural holes and creating new weak ties to actors in other sectors and field of business, this way gaining access to social capital through connections and new tie formation, which will in turn be beneficial for every student entering the program and having access to the same people through the SMEs. Additionally, the four cases have all engaged in and created better outlooks for resource sharing and knowledge spillovers through expanding their networks. Nevertheless, all four SMEs have through recognizing opportunities and acting upon them increased their knowledge base, hence entrepreneurial

learning has taken place. By testing and failing they have been a part of grasping and transforming experience, which has resulted in learning experiences that become a part of their knowledge base and further strengthen competitive advantage and improve outlooks for internationalization (Kolb 1984, Cooper et al. 1995, Politis 2005, Cohen and Levinthal 1990, Minniti and Bygrave 2001, Rademakers 2005, Caiazza et al. 2015, Barney 1991, Ahuja 2000, Granovetter 1983, Adams et al. 2014, Portes 1998, Burt 1992 & 2000, Shan et al. 1994, Powell et al. 1996).

6.2 Implications

The findings in this thesis have practical implications for every entrepreneur. The thesis serves as a bridge by connecting internationalization to the knowledge seeking activities SMEs are a part of and how it is used for an internationalization decision, where reviewed literature failed to connect the two (Causevic 2020). It creates implications for new approaches and ways of collecting data to derive new conclusions, theories and looking at other parts of the entrepreneurial learning process, which might be better for understanding the phenomena at hand. Moreover, the study gives insight to new ways of looking at internationalization and the role SMEs play in knowledge sharing activities and their function in society.

Even though the sample of this case study is explained to not be applicable to the public majority, it still has takeaways which are subject to discussion. There are estimates which show that over 95% of enterprises worldwide are SMEs and account for 40% of the GDP and contribute up to 60% of employment (Dabic et al. 2020). With constant disruptions in technology and tech-advancements, globalization is only moving faster. Information speed is also increasing in correlation with these advancements. Competition is rising and SMEs have the freedom to penetrate a market online before deciding to make a market entry (Lee et al. 2012). The relevance of understanding the drivers behind knowledge acquisition in any company is key for building competitive advantage and internationalization. It is worth considering the ways SMEs can contribute to grow networks through structural holes and contribute to important knowledge spillovers. SMEs are a vital part of the national economic system and serve as a backbone, they encourage competition and foster innovation. Policy makers need to pay attention to SME development and contribute with financial funding to encourage knowledge sharing in clusters and the phenomena of knowledge spillovers.

6.3 Further research

A valuable extension to this research case study is to increase the number of cases and interview more stakeholders in the executive roles to gain more than one view from each case.

The four investigated cases are in different industries and three of them operate in the B2C. To give a more complete picture and findings, future research should focus on B2B due to the more complex selling process and larger requirements for information. Even though all cases are from the NTNU School of Entrepreneurship, they all have very different approaches to internationalization. Future research could analyze the difference between B2B and B2C internationalization and develop a structure to see if both are equally dependent on network engagement to increase their knowledge base.

Furthermore, a key takeaway from the thesis is the way actors learn from each other through network engagement and by talking to professionals. Further research could expand into how success and failure impact the learning process and if network actors are more interested to learn about other actors' failures or successes.

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Appendix A – Interview Guide

The research question being answered and its respective sub-questions:

RQ: How does SMEs knowledge base affect their internationalization process?

Sub-questions:

1. *In what way do SMEs actively seek information prior to making an internationalization decision?*
2. *Where do SMEs find available information to support their internationalization?*
3. *How are past learning experiences influencing SMEs internationalization?*

Intro Questions:

- When did you graduate from NTNUs School of Entrepreneurship?
- Tell me a bit about the current startup and product/service?
- What is your role in the startup?
- How is the industry you are operating in (competition, saturated/unsaturated market, specific customer requirements or a generic product etc.)?

Core Questions:

Entrepreneurial learning:

- How did your startup recognize an opportunity to internationalize?
- What were the deciding factors to make the decision to expand internationally, what crucial information made your startup to actually decide to go for it?
- How did your startup seek information to make a **rational** decision to internationalize?
- How have previous experiences helped your startup in making the decision to internationalize?
- In what way did guidance from partners/mentors help your internationalization?

Information and Knowledge:

- What information was the most important for your internationalization, and where did your startup receive this information?
- How did you use available information from entrepreneurial networks to support your internationalization decision?

Internationalization:

- In what way did your startup gather information for your internationalization decision?
- How was crucial information obtained about the selected market?
- What framework was used to guide your internationalization process and why?

Final Questions:

- Is there anything you would like to add to the above questions?
- Is there anything you feel is missing from the questions being asked?
- Any further reflections/thoughts on the matter?

Appendix B – Interviews

CASE A

Unknown Speaker 0:03

Then I'll switch to English. Okay, so the first question is, when did you graduate from the inter NTNUs School of entrepreneurship?

Unknown Speaker 0:14

I graduated last year in 2020.

Unknown Speaker 0:18

Could you tell me a bit about the current startup and the products or service that you offer?

Unknown Speaker 0:24

Yeah, Company X creates Instagram friendly and sustainable ski apparel for a generation set worldwide. We started four years ago with a small collection that we sold through our own web workshop in Norway mainly. And we have also been present on Instagram and Facebook from the start. And there we also got a lot of attraction from international customers from almost day one. So then we had to source the warehouse in Sweden, and look for shipping possibilities outside of Norway as well. So yeah, we did some tests in the other markets. But the two first years were sold. I think 90% of the sales income came from Norway. But then today, four years later, we have 25% of our income from international customers. And we're also working with an agent in the US and Canada that are planning to sell some relatively soon to retailers. So we are hopefully landing a big deal this week.

Unknown Speaker 1:53

Wow that is amazing. And what is your current role in the startup?

Unknown Speaker 1:58

From the start, I've been the CEO, and, of course, also the founder. And I started the company by myself in 2017. And then when I started at the NTNUs school of entrepreneurship my colleague joined, two years later. So we are currently two full time employees. And we also have four part time employees. So my main tasks are following-up and financials, investors and also some normal day to day tasks like yeah, order handling, customer service, but many of the non-value adding tasks we are planning to make someone else handle.

Unknown Speaker 2:59

That's good. Okay, so we can actually move on to the core questions. How did you actually recognize an opportunity to internationalize? When did it first occur that okay, we can actually go international?

Unknown Speaker 3:16

Yeah, as I mentioned we saw some traction from international customers almost from day one. And we got some followers from all over the world and they asked if we were able to ship internationally as well. Because in the start, we only sold to Norwegian customers through our web-shop. So, yeah, it was from the start, but if we weren't that big, neither in Norway or in the international market so yeah, after sometime we saw more and more traction. And now we have very many of our followers and customers are from outside of Norway. Yeah, I think from the start, but that's the good thing about the social media you can reach everyone in the world, almost. You can be International from day one.

Unknown Speaker 4:33

But if we look a bit away from the customers actually saying that they want the product themselves. Of course they live in another country but what were the deciding factors for you guys to make the decision to expand internationally, like what sort of crucial information, made your startup to actually decide to go for it. Did you guys do a lot of calculations regarding if it's profitable or if you should just stay national, up to like one point and then go international, how did you guys decide what sort of factors played a role?

Unknown Speaker 5:08

Yeah, for us it wasn't like, go international or not, as I said, We started to do some tests by shipping to some customers in the start, and then we got to see how the shipping was handled and all the costs so we could run some tests with real customers from day one. But when we decided to make an own web-shop for international customers. Yeah, that was after trying it out for some time and having good control over the costs that are involved. Yeah. So I think we chose to go international for real two years after the launch in 2017. So that was when we had control over the costs and saw that there was a bigger potential.

Unknown Speaker 6:21

Usually people go about to seek more information with regards to the international market before they actually internationalize. Considering things like, should we actually go to all of these countries or just some of them? How did you seek information to make a rational decision with regards to going international? Did anybody tell you about doing small tests or did you guys have a mentor or did you do it based on past experience? How did you gather the information to actually go that certain path?

Unknown Speaker 6:58

We thought this was very hard because we talked to a lot of different people. And everyone said different things. Some said that we should go for one market and push hard on those markets first. But others said that, as we already had some orders from international customers. They told us to just continue in that direction and see. Yeah, to run tests and see where the customers came from. So I think we were a little bit lucky that we got a lot of orders, without paying anything for ads in those countries. So we mapped out, looked in Google analytics to see where most of the customers came from, and today, after four years, we are ready to really tell which markets we really believe in. But there hasn't been a problem for us to just have the webshop open for everyone in the world almost, and just ship out to all the customers who want our product, but if we're going to really scale up we will focus on some markets. And it's based on the sales revenue from the past and we have also done some feasibility studies for each of the countries. Yeah, look at reports and also talk with the customers and the experts in the different countries.

Unknown Speaker 8:48

How did you reach the different types of experts that you are mentioning?

Unknown Speaker 8:53

Through our network mainly. The NTNU's School of entrepreneurship and we're also part of a cluster called the Norwegian Fashion Hub and also we have received some contact information from Innovation Norway and also through people in our current network. So the decision is based on all these different factors.

Unknown Speaker 9:28

Now I understand you better. So you have reached out to a social network, in order to gain more information regarding not just internationalization but how to internationalize if I understood you correctly?

Unknown Speaker 9:43

Yeah exactly. Today it is quite easy to just ship around the world. So in order to do so we didn't have to talk to so many people. But in order to focus on one market I think it's important to do a lot of background work, also in order to scale. In the first place, I think it was good for us only to check where the traction came from and just ship to those people. Yeah and because of that, we didn't have a lot of costs like people do when they establish country by country (physically). The only cost was like shipping costs and customs.

Unknown Speaker 10:31

Yeah. Did you guys use any partners or mentors throughout the process?

Unknown Speaker 10:39

And not in the start, because our warehouse in Norway and they had their own partners with different shipping companies. That could ship parcels all over the world. But we now registered VAT in Sweden, so we can ship cheaper. We have also chosen a Swedish warehouse so we can sell to customers that are living in EU without paying any taxes. So that was costing us a little bit of money, because we have a partner that chandels the tax declaration in Sweden.

Unknown Speaker 11:50

You are talking a lot about things that you guys have already done. And you've already made it this far, like to the international part. What I'm interested in is your journey from A to B, like where did you gain the information? Who did you contact? How did your previous experience play a role in your internationalization process? Because usually, when you get some sort of information, you need to process it to get some sort of knowledge in order to then be able to internationalize. So what I'm actually after is, which people played the major role in your knowledge process about internationalization? Like did you use a model? Was there any special people involved that you needed to lean on in order to make this happen? Or did you guys just do it mostly yourself to just reach out to random people? How was that process? How was the learning process involved in all of this?

Unknown Speaker 12:54

I think we have done a lot by ourselves, as I have mentioned, like, yeah, just starting to ship internationally. We didn't need any others in order to do that. Because all is handled through the shipping partners. So I think in the start we mainly made it ourselves.

Unknown Speaker 13:20

How did you decide on a shipping partner?

Unknown Speaker 13:27

The first international parcel was sent out from our logistic partners in Norway. So that was, like a natural way to go because I had already established a good contact with the Norwegian warehouse, so they also offered international shipping.

Unknown Speaker 13:51

That's great. So you just continued with the same ally.

Unknown Speaker 13:57

Yeah, yeah. But when we saw that there was a bigger traction. We saw that it's more expensive to send parcels from Norway than from Sweden because Norway has customs barriers. Yeah. So then we actually, we talked with some people. One is another web-shop based in Oslo that ships to different countries. So asked for their experience with the logistics in Sweden but then, but at that time we had already contacted different warehouses by ourselves and done a screening of them. But we also talk to another web-shop. They also gave us some advice for how to handle tax for example, but we also contacted the current company that is handling our tax in Norway and asked them. I think

the reason for that is maybe my mom, because she has also owned a webshop for many years, so I talked to her about it.

Unknown Speaker 15:40

Would she be a kind of mentor for you?

Unknown Speaker 15:47

Yes, definitely. She has gone through the same things, many of the same things. Not in the same way as we have done. They have mainly sold to Norway, but they tried some to sell to EU as well. So yeah, she has worked with textiles and import of goods to Norway for many years. I have learned a lot from her.

Unknown Speaker 16:23

Did you copy any of her processes?

Unknown Speaker 16:27

Yeah, but that was mainly with the production and I have learned mostly by myself when it comes to webshop. We also chose our own warehouse after some time. Because they had the lowest costs at the moment. But the tax company we are using today, I was advised to contact them from her a few years ago.

Unknown Speaker 17:01

How would you say your knowledge base is affecting your internationalization process? Do you feel that you would gain more knowledge through talking to more people? Would this have had a different outcome on your internationalization process or do you think it would have been still the same because of the industry you're in?

Unknown Speaker 17:36

Maybe there's more people we could have talked to. We have talked to a lot of people, but it's very hard when everyone says different things, you know. So, I think we have the knowledge base that is a mix from our own experiences and the people we have talked to. Still, there are not many that have been through the same process that we have. But we have tried to talk to the most important actors of course like previous Alumni successful startups. However, we are further in the process than them. Yeah, so that was not that much help. But of course, the warehouse has some experience with international shipping. Yeah, you get some information from different places. We tried to get as much information as possible. You eventually have to make your own decisions, based on what your company is, we have different needs than others so in the end it will be us making this decision.

Unknown Speaker 19:09

How did you know you had enough information? When did you think that this information is sufficient enough?

Unknown Speaker 19:32

In the internationalization process, I think the most important factor or Knowledge came from the sales records. That we had already because then we could see without doing much work in the different markets. We have a lot of data about our customers and we saw that some markets had a larger potential than others. So, I think that was the best information that we could get.

Unknown Speaker 20:14

What tools did you use to analyze the different markets?

Unknown Speaker 20:19

Google Analytics mainly and we get some information through WooCommerce or our webshop platform and also Facebook Instagram etc.

Yeah. So I think by trying out and testing first without paying a big amount of money to do it. I think we saved a lot of money and and we got enough data to just take the decision. Yeah, but of course it was mixed with advice from different people, but I think that was the most important factor, that we managed to test ourselves.

Unknown Speaker 21:15

Yeah. Absolutely everything you say makes a lot of sense compared to what I've been writing about. So it actually brings me to my last question. Do you have any further thoughts or reflections on the things we've been talking about?

Unknown Speaker 21:53

When I think about what I said It's sounds like we maybe haven't talked to any people, but I think we have talked to a lot of people, many more than I remember. But I think it's easier now to reach out, than only a couple of years ago because everything is online. It's not a decision to try to ship parcels international from day one. You can just do it without spending big amounts of money. But in order to scale I think it's important to have a lot of data and talk to people. For example, the decision we took about establishing our warehouse in Sweden, that was like a bigger decision, but in the start It's very easy for a startup to just test, try to reach out to customers without making a big deal. You can also find a lot of information online. You have Google Ads, YouTube videos and you can easily find this. I think it's important to find a Norwegian startup, and then try to do the same that we did. It's important to find good partners in Norway that have the possibility to try this out from the beginning. So when our warehouse told us from day one that they could ship internationally and deal with all the documents etc. It wasn't that time consuming for us. The groundwork was kind of laid out for us already.

Unknown Speaker 24:08

Yeah, it was. It was easier to just try it out and test first and then maybe simultaneously gather more information about how to take the next step. I think it's important to just test in the beginning. I think it's easier now than in the past. Then you had to talk to more people and go many rounds with them and now everything is international.

Unknown Speaker 24:50

So the internet and globalization has made life easier?

Unknown Speaker 24:53

I'd say yeah and for example, our payment provider gave us a global check from day on, so we could handle payments globally. All the different partners we use are international as well.

Unknown Speaker 25:15

Yeah, that has a lot to say.

Unknown Speaker 25:18

Yeah but of course, we have written a lot of documents and gathered a lot of information from different people. In the end you have to sort out all of this and make a decision. I can add that in the last six months we have been a part of a program organized by Innovation Norway and Norwegian Fashion Hub. And we have received help with our international internationalization process a little bit. So that has helped us a bit when it comes to retailers. However, the focus there is not e-commerce. So if we were going directly to retailers, I think we had to know a lot more than we know now, because e-commerce is easier.

Unknown Speaker 26:16

Yeah, that makes sense, from what I know about e-commerce.

Unknown Speaker 26:23

Yeah. Then you can just send out parcels to customers all over the world. But if you're dealing with retailers, you have to make separate contracts with each one of the retailers and you have to handle the shipping from Norway to each retailer. And they have different needs and requirements for payments. We are working with a retailer in Canada now, we use our agent to handle most of the documentation, if we did not have her I think it would be difficult for us to reach them and close this deal. This season we have sold like 2000 products, so the deal we are closing in Canada will hopefully be around 1000 products. So it is easier to scale up. We are planning to reach out and go through more retailers in Canada and the US through our agent so we can close larger deals and also sell through our web-shop.

CASE B

Unknown Speaker 0:15

When did you graduate from the NTNU school of entrepreneurship?

Unknown Speaker 0:24

I graduated in 2017.

Unknown Speaker 0:25

Could you tell me a bit about your current startup and the products you are selling?

Unknown Speaker 0:33

Yeah. Our startup called **** technologies, the initial idea was to make an affordable collapsible cable cam for consumer and semi professionals to make the product cable cam available for everyone. That was our idea and also further to expand our company with making filming tools that would enable new film angles to semi professional filmmakers, being able to create impressive footage that a previous dominant professional can make.

Unknown Speaker 1:23

That's great. And what is your current role in the startup.

Unknown Speaker 1:27

I'm currently the CEO of the company.

Unknown Speaker 1:31

And how would you say the industry is that you guys are operating in with regards to (just in short) competition, the market, the consumer requirements are they really generic products or more customized for each consumer?

Unknown Speaker 1:46

It's a quite packed market. It's a lot of brands. Competing on the general categories of products, then you have a huge variety of brands. It's a quite high willingness to pay, and it's quite costly equipment. A lot of it and you pay a lot for quality, a huge variety of from the low quality products to the high quality products but in general it's like the customers are willing to pay a premium to get quality products. I would say it's quite innovative, compared to a lot of other industries, you have, for example, if you look at the development of drones, which is kind of falls into our category, you have had a huge development the latest five years, the same period as we have been in the market. The gimbal industry has also developed really rapidly during the time we have been in this market. And now, like the product they bought three years ago is obsolete now kind of and you see the huge drop in prices for some progress categories because innovation moves along so fast. So it's quite rapidly evolving industry I would say.

Unknown Speaker 3:29

Would that be due to globalization?

Unknown Speaker 3:36

Yeah, at least the premium brands are very global. There are a lot of Chinese brands in the drone industry and in the gimbal industry, which are very comparable industries. Alright, it's the closest product categories within the camera accessories industry that we are in. They are all market leaders from China. So China is dominating that market.

Unknown Speaker 4:07

Okay then we can actually move on to the core questions, I think I've gotten like an overview of what you guys are doing as well. So I'm wondering how did you or your startup the one you're in now or a previous one, perhaps, how did you recognize the opportunity to internationalize, when did it occur to you that, okay, actually have a market.

Unknown Speaker 5:02

I think it's for us it was never a question about starting locally, and then go abroad. That was never, never in our plans. We didn't see any reason at all by starting to sell online to Norwegians. We could not find any good reason to start in the local market when we are a small country. Why not just sell immediately abroad? Yeah and like for us it's, it's a product, distributed it's like this big (shows the size of the product). Logistics are not that difficult to handle, and are relatively quite easy. When it can just be shipped from one warehouse to the whole world with express shipping so there are not that challenging logistics in delivering products as we did.

Unknown Speaker 6:04

Did you have to like seek a lot of information before you guys made that decision?

Unknown Speaker 6:17

We were seeking a lot of information. We never had this question, go international first or go local first, it was never a question that was evaluated. So therefore we're not specifically seeking information to take that decision. But of course, everything we did was seeking information. That's, I would say, an extremely high amount of the work you do in a startup is seeking information.

Unknown Speaker 6:53

Yeah, definitely. And when you guys already decided that, okay, you guys are more or less a born global firm. How did you seek information in order to decide on, in what way to internationalize like you have different ways, when, how did you decide on the best strategy? Did you use a model, or did you copy somebody else, how was that process?

Unknown Speaker 7:20

And in the beginning, we just, we were copying someone else. That was definitely the way we started, we copied ***** (a previous Alumni startup), and the way they did their crowdfunding campaign, which was successful for them and also successful for us. And after that we started to copy another Alumni startup. So we actually I think we still, at least to some point we have been copying a lot of their strategy; We have the same warehouse in Hong Kong. Started out with the same shipping courier - DHL, we copied a lot of their processes. The question was this, the international strategy. It's still a question that we answer ourselves when we ask like what is the best strategy to reach out to other regions, because it's hard to reach out to the whole world just from your own website with your own marketing associates in Norway even though you can get a lot of reach on the internet with using Facebook ads. We spent enormous amounts of money on Facebook ads, and you can geographically target those ads. But at some point we also see that you need kind of and should have boots on the ground in the different areas, have some more thought through strategy for one great geographic area in order to penetrate that market more. You know, otherwise you will own the reached early adopters, that kind of buys whatever they find on the internet. It is really hard to reach more of the late majority of the customer group, then one also needs to be more present in the market.

Unknown Speaker 9:37

Did you or anybody else on your team have any previous experience with internationalization?

Unknown Speaker 9:50

No, well I would say that internationalization is a very broad term. Yeah, that's so it's not internationalization in one, it's not directly transferable to a different process like selling abroad. Yeah, but no one had what I could say as relevant experience with it.

Unknown Speaker 10:12

How have partners or mentors helped you with the process?

Unknown Speaker 10:22

I think the most important was other startups, learning from them, at least when it comes to just the exact knowledge. If you go to like the specific knowledge about website, logistics systems, everything then we were just learning directly for someone doing a very similar thing. But as other startups we had a whole system of mentors and, yeah, but we, to a large extent we used other startups. Calling people that have done similar things.

Unknown Speaker 11:43

How did you go about to select the most crucial information about the market itself before you decided to set up a website and select your strategy?

Unknown Speaker 12:01

Like in general we are kind of assuming that the information we gather in one place, at least, let's say it was the US, like the single most important geographical market that it would be applicable for other geographical markets. We do not ask the same questions to potential customers in every geographical area. We don't split it like geographically to see if we get different questions from different geographical areas. It's about; If you are interested in the sport, if you're a downhill biker or if you are a video maker. Is this a useful tool for them to use. That was the question we answered and we went to different communities, approached all types of sports events to kind of gather information about the interest of the product.

Unknown Speaker 13:04

How did you find the communities?

Unknown Speaker 13:10

Yeah, we searched the internet and called someone who knows someone who knows someone. Calling around was a very intense part of the work.

Unknown Speaker 13:24

Alright, um, it actually brings me to my final question. Do have any further thoughts or anything that you feel is missing, to the questions you've been asked?

Unknown Speaker 13:35

No, not really.

CASE C

Unknown Speaker 0:03

Okay, so could you tell me when you graduated from NTNUs School of Entrepreneurship?

Unknown Speaker 0:11

2019.

Unknown Speaker 0:14

Could you tell me a bit about the current startup and the products you guys are selling?

Unknown Speaker 0:20

Yes, I'm part of a startup called ----, and we make costume accessories for cosplayers worldwide.

Unknown Speaker 0:32

And what is your current role in the startup?

Unknown Speaker 0:33

I am the CEO.

Unknown Speaker 0:34

How is the industry that you guys are operating in?

Unknown Speaker 0:49

We operate in the cosplay market, which is huge. There's a small amount of statistics attached to it, because it's very new and there are very few other providers in the market, but we are in the consumer goods industry and delivering technical products containing electronics, battery solutions and such, which we develop ourselves.

Unknown Speaker 1:26

When and how did your startup recognize an opportunity to sell internationally?

Unknown Speaker 1:40

From the very beginning. Cosplays is not that big in Norway. I mean there is some 1000 people that do cosplay in Norway, but it's a lot bigger abroad so since day one, we always plan to go internationally.

Unknown Speaker 2:01

Was this due to the feasibility study or how did you gain the knowledge of that it was an international market and not something local?

Unknown Speaker 2:10

Through the feasibility study, and main subject that focuses on the feasibility studies at the NTNU School of entrepreneurship.

Unknown Speaker 2:17

Okay. I'm always going a bit in detail. So was there any certain factors that made you guys decide to actually sell internationally, not just that it was a market but were other things also affecting this decision?

Unknown Speaker 2:34

Cosplayers have a very high level of digital presence. So we saw early on that they are very active in Facebook groups they're just like, they have a high online presence, which is why we thought okay that's a good opportunity to market to people anywhere because we're not dependent on like physically being where the cosplayers are as long as we digitally are where the cosplayers are. So, in our market it's easy to go worldwide from day one. Because the easiest place to reach cosplayers is digitally, or the cosplay conventions, which are very specific places, so we can either target them online through ads and such. Or we can go to a convention, and at the conventions, there is usually an international selection of cosplayers like people travel across borders to go to the big conventions. Yep, so it is easy to find them, even though they're spread across countries.

Unknown Speaker 3:58

Okay, so it's for specially interested?

Unknown Speaker 4:02

It's a niche, so that's very beneficial in targeting.

Unknown Speaker 4:07

How has previous experience helped you in getting the startup up and running and then making the decision to make a webshop and everything you've done up until now?

Unknown Speaker 4:22

And I think previous experiences have definitely played a part. We all in our team have different work experience. Some have been in startups before, some have not, but I think, combining our backgrounds has been crucial to get things going, but even more so, I think, like trusting our intuition. Every day we do something that we've never done before. And just to acknowledge that and be like okay, we don't really know what to do but let's just find the way that we think sounds most logical and let's just walk down that road and see what happens. And you have to be willing to walk down a road that you don't know what looks like. And I think that's partially you need to have some experience in working but in the end, you just need to be willing to just explore.

Unknown Speaker 5:18

Yeah, definitely. In what way did guidance from partners or perhaps even mentors, how did they help you guys on the way?

Unknown Speaker 5:30

We haven't had a lot of guidance from, like, business partners, or from our suppliers or stuff like that but we have used mentors, very actively. So we have asked specific people that we know like this person is really good with production. And we've asked them like would you maybe consider being a mentor for our production leader, and then they have had one to one conversations about production, and I've spoken to someone who's experienced as CEOs and other hardware companies, and had one to ones with them, and we've done the same thing thing in marketing, so we use a lot of the mentoring, which is not industry specific, but role specific.

Unknown Speaker 6:24

How did you use available information from the entrepreneurial networks to support your internationalization?

Unknown Speaker 6:30

Yeah, um, we use the entrepreneurial networks a lot, actually, we use them heavily, such as the Alumni network from our studies. Like I said, every day you do something that you've never done before. So we try to find people who've done it and ask them; what did you do, and why did you do it, and what would you do differently. Yeah, and then try to, based on that experience pave out the way that we thought was close to what someone else has done but maybe with some adjustments from

their experiences in what was not good enough or what was difficult and stuff like that. So we have been highly dependent on drawing on others experiences.

Unknown Speaker 8:02

And that brings me to my last question, did you guys use any framework to guide you?

Unknown Speaker 8:13

We structure our everyday business conduction in OKRs. So we use the OKR framework. It stands for objectives and key results, which is just like a management tool where you structure all the tasks in the company in goals, instead of just simple to do lists. It's to make sure that everyone in the team is actually working towards the same goal, so it should give you a better direction and a more set direction. So we use OKRs as a tool and have weekly check-ins on how we are doing in reaching our goals. I think that has been very crucial for us. We've accomplished a lot in a short amount of time, and we would have never been able to do that, if we didn't use OKRs as strict as we do, because we started using that in summer 2019. We started using OKRs and since then we have been a lot more speedy, and we have also had a better sense of control in what the other departments are doing and that we're all going in the same direction, and working towards the same goal which you would think, is the given that you are doing all the time but it's not. So OKRs have been very good.

Unknown Speaker 10:04

Yeah. Do you feel that you guys have copied, any of the other startups from the alumni. So, did you use anybody like a benchmark or as a blueprint on how to do certain things?

Unknown Speaker 10:19

I'm not really, but we did you two known alumni startups a lot, but we, we've done a lot of stuff pretty differently from them. So I think, not as a blueprint, we haven't copy pasted it because obviously there were a lot of things in some that didn't work. And same with the other startup and I think they again copied the other startup. They did the same thing, like they had the same suppliers that use the same manufacturer and everything. So we tried to draw on their experiences in what was difficult. Which is why we, because of their difficulties with production, we ended up setting up our production line in Norway. Maybe we wouldn't have done that if we didn't speak to alumni startups with experience and learn from their mistakes. But some parts of what they've done, we have just copy pasted like the online shop. We've talked a lot to one of them on how to set up your own online shop and what kind of store builder they used. And in those cases we use the same sort of things, because there's no reason to like, reinvent the wheel. Yeah. So we've tried to take like bits and pieces and just think like "okay there's a recipe, let's just do it that way." And then in the more complex processes (like the bigger things), then we tried to pick a little bit from different places and some of it we've done just our own way to try to take into account all the high risk areas that we are aware of.

Unknown Speaker 12:06

Did you do some pre-testing on some of the things that you thought okay, we're not going to do it like them, we're going to do it our way?

Unknown Speaker 12:18

There wasn't. The main things was the production line and the assembly line, and we didn't do a lot of testing, per se. However we took a while to discuss just what factors do we want to appreciate when we are setting up our production line. And we saw that the two of the alumni startups both valued high volume, and low prices. And then we figured let's just go the opposite way. And then let's just forget about the price because you can always push the price down on production at a later point. Since you can switch manufacturer, you can switch assembly line, you can buy components in bulk to get a lower price. So we sort of figured that price is something that we can change later. But quality, and the ability to deliver and have predictability, that's something that we consider to be very high value. Value is something that will be hard to create later if you don't have it from the beginning. So we just set some parameters: what are we going to value in our partners and what are we going to

focus on. And then we took some things and said let's just agree to not care about this, price and volume were one of the things that we did not care about a lot in the beginning, because we could fix that later.

Unknown Speaker 14:02

Yeah. So value was more important. In the end.

Unknown Speaker 14:07

Yeah, to make sure that we had a predictable and stable production line rather than to be able to deliver cheap products. Yep.

CASE D

Unknown Speaker 0:04

When did you graduate from NTNU's school of Entrepreneurship?

Unknown Speaker 0:06

In 2014.

Unknown Speaker 0:08

Could you tell me a bit about your current startup and the services and products you guys are offering?

Unknown Speaker 0:22

Yeah. So it's based on technology from a worldwide known organization for basically managing research data and lots of different data assets, often related to research and libraries. So our customers are mainly libraries, university libraries, and research libraries that are looking to store digital assets safely and make them available to the front patrons around the world. Our business model is software as a service. We provide subscriptions and have also kind of large implementation fees associated with the product.

Unknown Speaker 1:13

What is your current role in the startup and how large is the team?

Unknown Speaker 1:26

Yep. So I'm the CEO and we are now. I think 12, or 13 people. We just hired a new person. We're actually hiring five more people this year.

Unknown Speaker 1:44

And how would you say the industry is that you guys are operating in?

Unknown Speaker 1:55

Yeah, I would say that it's a really large, small niche. So, we operate within what we call library technology and library software. There aren't that many companies in that space, there are three four large companies that have revenues of few 100 million dollars each. And then there are a few small companies here and there, but very few of them are global companies. So there are lots of local, national companies but not so many smaller global ones.

Unknown Speaker 2:40

Yeah. You were mentioning that you have a small but large niche in the sense of, everybody needs some sort of system to keep track of everything. How would you say your customers are? How did you acquire the knowledge to know what your customer needs to be able to deliver better than the competitors?

Unknown Speaker 3:13

Yeah, I'm learning by doing. You are just trying to sell the product and understand what that particular customer needs, and then acquiring another customer. You have some idea what you think the customer needs, learning what they need and then kind of as you grow, you at some point get an understanding of the broader set of needs and then you can kind of stop customizing so much or stop developing so much on a customer by customer basis, and try to scale to a broader market application.

Unknown Speaker 3:59

If you go back to your first customer and the learning process there. How did you guys acquire the knowledge that you needed in order to approach a larger customer and how to actually sell?

Unknown Speaker 4:18

Oh, that is starting to be a while ago, but it was scary to sell something that you didn't really know if you could deliver or you didn't really know what to deliver. So, for first customer we faced this, we said, why don't we do a pilot, a paid pilot. We didn't really tell them that we didn't know how to do this. But we framed it as a pilot with them, because they needed the products really fast. And we basically said that; "oh you know we're not sure we can deliver it this fast, because your requirements are so large, so why don't we do a pilot and if that pilot goes well then we can do the full system", so we did. I think the pilot was \$10,000 or something and then we worked on it for a couple of weeks, and then we quickly realized that we can do this. And because we're a spin-off, we also had some people at the organization whose technology is based on work on it. So we basically tried to pull in resources that we knew had some knowledge of the implementation, so some people from the organization had bits and pieces of the knowledge we needed, so we just talked to them. And then at some point, we just figured it out, so at some point we signed a full contract.

Unknown Speaker 6:02

And you're mentioning different types of resources. How did you know which resources you needed, and how did you reach these resources?

Unknown Speaker 6:15

One resource is the customer. So, talking to the customer and understanding what they need, while you're at it without kind of exposing yourself too much, but at the same time not being afraid of asking it's totally fine. I think oftentimes people think that they need, or startups think that they need to keep this, you know, super professional image, not being able to tell the customer; "oh actually I don't know this thing, why don't you tell me exactly what you need or how you want this". I think that's fine. Just allowing yourself to do that. And then the other way is kind of just the traditional school of entrepreneurship approach where you call people that you think have some knowledge and just pick their brain.

Unknown Speaker 7:33

Yeah. Was it hard to interact with the people in the organization you used technology from in the beginning, like to learn from them, to acquire the knowledge that you needed or did you mostly just use people from the network that the school of entrepreneurship has?

Unknown Speaker 7:49

I would say, mostly external people and the school of entrepreneurship, in particular with the technology. And also we're in this weird niche where it's not enough to understand just strategy and business plan, and all these general generic things. Because the niche is so special and libraries operate in a little bit of a different way than companies, you have to dig deeper. It's never been hard to get any resources or approach any resources. If you're waiting for people to come to you, obviously, it's hard but if you knock on doors and are just polite then you'll get your answers.

Unknown Speaker 8:42

How did your startup recognize the opportunity to scale internationally. I see you guys have our school also on your site, many from America, but have you scaled further?

Unknown Speaker 9:02

Yeah, I mean, our first customer was in Saudi Arabia, so we kind of hit the ground running. We quickly realized that there is some international market potential. So we never really limited ourselves to national or even European boundaries. The US market has been a big focus since the beginning, because it's very scalable, it's extremely large. So once we had a few reference customers there, it's always been about the US market, North American market. We tried to channel our resources towards that. And then, other countries have just more or less just happened randomly. People find us for references. For instance, we have quite a few UN agencies and that just happened through getting one

UN customer and then word spread. But that's not something we tried to get very hard. So we have, I think we have customers in 10 or 11 countries now. Wow. But 70% is from, from the US.

Unknown Speaker 10:31

Did you have to make a different strategy for each country, or could you copy paste many of the strategies?

Unknown Speaker 10:44

So, my opinion is that it's not that easy to copy paste. I mean you can copy paste some of the strategies but each approach has to be different. So the way you do marketing, and find customers is going to be different, and also the sales approach is different; how you pitch the products, what's unique to the country, to the region is going to be different. Because these are large sales. The relationship in the sales process is really important. It's not something that you just buy quickly. Some of the sales cycles are two years. So the salesperson is important and because of that we have to definitely approach this country by country. Because of limited resources in a startup, we've been mainly focused on the US, and we'll look ahead at countries that have a similar culture then Northern Europe, North America, so, UK, Germany, Australia, probably, if we would aggressively go into other regions that will be high on the list.

Unknown Speaker 12:07

How did you acquire the knowledge to know exactly what you needed to change in a strategy to make it adaptable to the country that you were deciding to go for?

Unknown Speaker 12:30

I think the approach in the beginning was that we didn't know this. So what I'm telling you right now, I didn't know that then. So, we went to a bunch of conferences, anything we could find. For the first one or two years. Just kind of spray and pray. And after a while we figure out that, oh, there are differences here, something's not working here, or we're not getting any engagement from this conference in France. And so, we also realized that we couldn't do all of these conferences and it is important to stress that trade shows are a big marketing tool in this market. So we decided let's focus on the ones where we knew we had something working. Maybe not realizing yet exactly why it was working. So we kind of went broad and then we narrowed it down and then after a while we realized, okay, so, if we were to go back here we would need a local partner in the Middle East. It's really hard to sell something without a local partner. That kind of stuff we realized, as we went along.

Unknown Speaker 13:51

You mentioned one local partner in the middle east. Did you feel that you needed the same strategy in other countries?

Unknown Speaker 14:23

We tried to do more sales there, but that was hard. We also tried to partner, but we didn't find the right partner. So we kind of just left it for now. But certainly, regions in the Middle East, they want to see kind of local more local customers and a local partner and local data hosting, and in other countries it just did not matter.

Unknown Speaker 15:36

That's interesting. How has previous experience that you have or the other people in your team, how has it helped you towards this international process?

Unknown Speaker 16:00

I studied in the US so I think that helped. I knew the culture. So that wasn't scary.

Unknown Speaker 16:16

Have you had a startup before this one?

Unknown Speaker 16:19

No, not really. I mean, not something relevant, really.

Unknown Speaker 16:40

What I'm also wondering about is, was there any framework used especially to know how to proceed and was a framework important for your process?

Unknown Speaker 17:55

One thing I recall is the concept of born Global's. So I remember that from kind of a theoretical perspective. The fact that some companies have, they may not have an extremely large market but a global market that is relatively or, you know, big enough. So I always kind of figured that we were in that category of being a more global and a lot of research based spin offs are also born global. The fact that there's an open source version of our technology and that has been implemented a few different places, and kind of gave us, gave me from the very beginning kind of the idea that there's a global potential here. And, why don't we just kind of trace those points, and just keep expanding.

Unknown Speaker 18:56

Did you talk to any of your competitors to see how they work, to gain some sort of knowledge there?

Unknown Speaker 19:06

Yeah, So we did a traditional feasibility study. So as a part of that we talked to a lot of competitors, and customers and same through writing the business plan. Yeah, I mean I still do.

Unknown Speaker 19:27

So it's still a part of the process, it makes sense.

Unknown Speaker 19:31

I mean we've done hires from competitors. Now I mean not just because of that, but it's always interesting to get someone who has insights from the other side.

Unknown Speaker 19:44

Let's say you were about to go to a new country and a completely new market, how would you go about to seek all information you need, before entering?

Unknown Speaker 20:00

I tried to talk to someone who's doing sales there already who's good at it. Getting so called market penetrations, so I would talk to. So there are direct competitors but then within the library technology industry are also you know, we have a partner for a product that we integrate with through selling to the same customers. So trying and figuring out how they're doing sales, and like, what's important is that the salesperson, is it compliance with local standards, is it a specific kind of application or features of the product, what are they concerned about (the sort of partner or local data hosting). But I would try and find someone who's really successful there.

Unknown Speaker 20:57

Yeah, how would you find this person?

Unknown Speaker 21:02

I would look at my network, my industry network that I have built up. So probably try and reach out to our partner. So we have a partnership with a company that's extremely large. I mean, in the industry at least they have. I think their revenue is at least a few 100 million dollars. It's a US company and they're doing global sales and they have this technology that we've bundled together with our technology. So I would talk to an expert I know, people that are pretty senior there so I will talk to them and be like: "hey, is there someone I can talk to? How are you doing this? What's important

here?" Or ask them if they know someone or. I also know of companies in the industry, I may not have talked to them before, but I could also just hit them up on LinkedIn and figure out who the people are, and reach out.

Unknown Speaker 22:15

Everything you're saying is actually, and of course making sense. Do you have anything that you feel is lacking from my side? Something I haven't asked you about?

Unknown Speaker 23:12

Yeah, I'm trying to think. It's hard to summarize all these years, but I think one thing that was really helpful in the US was that we hired a local sales person. And in general, we have people in the US so really early on we hired someone local. So, making these kinds of decisions is important.

Unknown Speaker 23:46

That is great, actually, that sums it up.

