



**UNIVERSITY OF GOTHENBURG**  
**SCHOOL OF BUSINESS, ECONOMICS AND LAW**

Master Degree Project in International Business and Trade

**Influence of Digitalization on business model  
innovation in the Internationalization Process of SMEs**

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## **Abstract**

In the changing business environment characterized by the emergence of modern digital technologies, SMEs are in a great need of innovating their business models in order to remain competitive in this digital era. Moreover, being a competitive global player can be a challenging task for SMEs who are often constrained with limited resources in running their businesses efficiently. However, digitalization has emerged to be one of the solutions that can help SMEs in innovating their business models and eventually contributing to scaling of their businesses in cross border markets. Therefore, the purpose of this study is to expand the existing knowledge on how digitalization influences business model innovation in the internationalization process of SMEs. In order to reach the purpose of this study a multiple case study on three Swedish SMEs was performed. Our research findings align with most of the findings in earlier studies and show that the influence of digitalization on business model innovation in the internationalization process of SMEs falls under the dimensions of value creation, value delivery and value capture, market knowledge, resource commitment and the speed of internationalization. Therefore, in order to overcome the challenge of limited resources, SMEs can make use of the modern digital technologies in innovating their business models in a way that will facilitate the scaling of their business abroad. However, business model innovations that are enabled by digital technologies entails extra cost in acquiring and implementing them which might pose challenges for SMEs as technology keeps on changing and advancing day by day.

**Keywords:** Digitalization, business model, business model innovation, internationalization, SME

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## **List of abbreviations**

A1- Artificial Intelligence	EC - European Commission
B2B- Business to Business	ERP- Enterprise Resource Planning
B2C- Business to Consumer	FSA- Firm Specific Assets
BMI- Business Model Innovation	HoM- Head of Marketing
CAD- Computer-Aided Design	IB- International Business
C2C- Consumer to Consumer	INV - International New Ventures
C2B- Consumer to Business	IoT - Internet of Things
CEO- Chief Executive Officer	R&D- Research and Development
COO- Chief Operating Officer	RI- Research Institute
CRM- Customer Relationship Management	SME- Small and Medium-sized Enterprises

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# 1. INTRODUCTION

*The purpose of this chapter is to present the background of the research topic, which is then followed by problem discussion in which different theories in relation to the research topic will be discussed for the purpose of identifying the missing gaps in the earlier research done by other researchers. This will then be followed by the research question and finally, the delimitations and structure of this study will be presented.*

## 1.1 BACKGROUND

Last decade was marked with an increase in new business models with digital innovation features and in recent years, there has been an increase in scientific research in the area of digitalization and how it influences business models. (Caputo, Pizzi, Pellegrini, & Dabić, 2021). Digitalization in an organization perspective refers to “*any changes in the organization and the organization’s business model due to their increasing use of digital technologies to improve both the performance and the scope of the business.*” (Rachinger et al., 2019: p.1145). Therefore, in order to better understand the definition of digitalization, it is important to clarify the meaning of the term business model . So, the Business Model (BM) according to Teece (2018, p. 40) is defined as “*an architecture for how a firm creates and delivers value to customers and the mechanisms employed to capture a share of that value.*” Therefore, BM refers to a specific activity of producing and selling of products and services to the identified target market in order to make profit while considering the anticipated expenses (Massa & Tucci, 2013). On the other hand, Visnjic, Neely & Jovanovic (2018), describe that business models create and capture value over the product life cycle according to the solution delivered by each company.

The fourth industrial revolution (Industry 4.0) has to a large extent transformed the traditional ways of producing products to now include digitalization aspects in the manufacturing processes. This phase is being characterized by the digital connection of machines, where decision making can be done by computers without involving human concern as computers are linked to each other and information can be transferred from one computer to another (Marr, 2018).

The changing business environment has made most firms become more keen in understanding how the new digital technologies can help them in implementing their strategies. New

technologies like Artificial Intelligence (AI), and Internet of Things (IoT) have been the trending technological innovations in recent years (Caputo et al., 2021) and have transformed businesses in different aspects such as production, distribution, sales and marketing etc. Furthermore, other digital technologies like big data and machine learning are pushing forward digitalization within firms (Banalieva & Dhanaraj 2019). These modern digital technologies are offering new opportunities for designing and modeling of not only Business to Consumer (B2C) business models but also Business to Business (B2B), Consumer to Business (C2B) as well as Consumer to Consumer (C2C) business models (Bigcommerce, 2021). In general, it is evident that digitalization is drastically altering the ways, activities and functionalities of doing business (Caputo et al., 2021) in terms of *what the company are willing to offer, how these offering being delivered and sold* (Gandhi, Thota, Kuchembuck, & Swartz, 2018; Syam & Sharma, 2018). This digitalization trend has in some cases been driven by customers' demands. The increase in demand in compatibility and comfortability requires different products and services to be connected and integrated into different digital platforms (Ritter et al, 2020). Therefore, it can be contended that customers are driving the digitalization of existing value chains therefore the digital business models require further alignment and improvement between their components in order to create value (Ritter, 2014).

Furthermore, the rapid advancement of technologies in information and communication drives business model innovation (thereafter BMI) to satisfy perceived needs and requirements in order to create value for customers, firms as well as their partners (Zott & Amit, 2009). It is evident that the growth of digital firms such as Facebook, Airbnb, Uber, etc can demonstrate the influences and impact of digitalization on business model innovation (Caputo et al., 2021). According to Foss & Saebi (2017, p. 201) business model innovation (BMI), is defined as *“designed, novel, nontrivial changes to the key elements of a firm’s business model and/or the architecture linking these elements.”* Furthermore, Lindgardt et al., (2009) emphasized that business model innovation can also mean to completely alter the existing business model of an organization. One of the major drivers of business model innovation in this digital era has much to do with the existence of digital technologies. Therefore understanding these aspects is crucial since technologies and business model innovation are interrelated (Chesbrough & Rosenbloom, 2002) and are driving the performance of most firms. Companies need to innovate and reconfigure their business model by incorporating them with digital technologies in order to ensure business profitability, sustainability, competitiveness and futuristic (Parida et al., 2019).



On the other hand, studies have shown that the use of digital technologies can speed up the internationalization process of a firm. Over the past five decades, the internationalization process of firms has been one of the most focused areas of discussion for both academic and non-academic researchers. Johanson & Vahlne (1990, p.11) defines internationalization as a *process in which the enterprise gradually increases its international involvement. This process evolves in the interplay between the development of knowledge about foreign markets and operations on one hand and increasing commitment of resources to foreign markets on the other.*” Furthermore, Gankema, Sunif & Zwart (2000) also emphasize the importance of sequential activities like gaining knowledge of the foreign market, integration and entering in the new market with commitment. However, for some firms like International New Ventures (INVs) the internationalization process is oriented from their inception, and takes a short period of time frame like three to five years (Bell, McNaughton, Young & Crick, 2003). So, digitalization facilitates knowledge acquisition and enhances business networking (Johanson & Vahlne 2009).

Technology today has advanced in such a way that business model innovations (BMI) that are enabled by digitalization are not limited to only large enterprises but also Small and Medium-sized Enterprises (SMEs) can make use of modern digital technologies in innovating their business model and offers such firms a possibility of expanding their business in multiple countries. According to Johanson & Vahlne, (2009) digital technologies create a business environment through which young exporters can learn fast and make early and rapid internationalization possible. However, SMEs are most of the time hindered by limited resources ( Denicolai, Zuchella, & Magnani, 2021) this can pose challenges to them and affect their ability to expand internationally.

This study focuses on understanding the research topic on the case of SMEs. There is still no specific definition of SMEs that has been accepted by all the academic, industry practitioners, economists and statistical agencies (Berisha & Pula, 2015). However, in general SMEs can be considered as a non-subsidiary and independent organization with a specific range of employees (OECD, 2005), and this is the most used common criteria (Hatten, 2015). According to the European Commission (EC) the range of employees with less than 10 to a maximum of 250 is categorized as SME, Sweden also follows the same. Less than 10 employees is defined as micro, whereas less than 50 employees and less than 250 employees are categorized as small

and medium sized SMEs respectively. Apart from employees, SMEs can be defined with the range of below two million euro to a maximum 50 million euro as annual turnover or balance total (EC, 2021). The SMEs are the backbone of the EU's economy which amplifies the EU competitiveness, technological sovereignty, sustainable industrial ecosystem and financial growth that contribute more than half of the EU's GDP (EU, 2021). Considering the facts this study emphasized to focus on the SMEs industry context.

The Research Institute of Sweden (RI) has published several reports that emphasized the influences of digital technologies in future BMI in respect of process, strategies, communication, market activities, customer offers, products and services in both local and international markets (RI, 2021). Furthermore, recent research by Gartner shows that the need for digitalization has increased among firms during the period of the pandemic Covid-19 (Gartner Inc., 2020b). Digital trade is booming and it is expected that telecommuting will continue to drive how international business will be conducted even after the pandemic (World Economic Forum, 2021a). So, there is a need to increase an understanding on how digitalization affects and influences BMI in the internationalization process of SMEs

## 1.2 PROBLEM DISCUSSION

Most of the previous literature that have studied the concepts related to BMI, digitalization and internationalization have discussed these concepts in isolation yet; the three concepts are interconnected to each other. The existing literature either discusses digitalization and business model innovation or digitalization and internationalization. While others discuss business model innovation and internationalization.

The existing literature on digitalization and BMI, include but are not limited to the studies by Cozzolino, Verona & Rothaermel (2018) on factors that promote and hinder business model adaptation in organizations. The authors argue that the existing strategy literature on *digital transformation* and *disruptive innovation* have a limited scope on how organizations adjust their business models to match the *disruptive* technologies. In their study the authors examined how incumbent firms adjust their strategies to align with different aspects of disruptive innovation. And in their findings the authors were able to identify drivers in disruptive processes as the emergency of disruptive technologies as well as the entrance of new actors with disruptive business models. These drivers have influenced business model adaptation

within incumbent firms (ibid). Therefore, it is important to expand the existing knowledge on how disruptive technology, especially digital technologies can influence BMI as this plays an important role in not only increasing the performance of SMEs but also in expanding their businesses across borders. Furthermore, Caputo et al., (2021) have studied the developments that have taken place during the last decade in relation to digitalization and BMI. The authors emphasize that previous studies have stressed how the transition towards a new business model can be challenging work for organizations mainly due to the opportunities and challenges brought by the use of new technologies in certain processes of the firm (ibid). This further stresses on the need of increasing an understanding of how the integration of digital technologies can contribute to BMI in SMEs and more specifically in their internationalization process. Understanding this topic from the perspective of SMEs is of interest in this study since these firms are in most cases limited in terms of resources. On the other hand, Bouwman, Nikou, & Reuver, (2019) stress that the existing literature on BMI has mainly discussed large organizations hence less attention has been given on how digitalization influences BMI of SMEs. The authors further argue that investigating SMEs has its challenges given the fact that SMEs vary from one another in terms of industry, level of growth, type of ownership and size (Ibid). Despite the increased research in digitalization and its influence on business models, Rachinger, Rauter, Müller, Vorraber, & Schirgi, (2018) argue that there is still a research gap in this area as there are only few empirical insights that exist in this topic.

On what concerns digitalization and internationalization, the existing studies include but not limited to studies by Banalieva & Dhanaraj (2019, p.1372), on *“how digitalization alters internationalization theory’s assumptions in relation to firm-specific assets (FSA) and the theory’s predictions about governance choices in cross-border transactions”*. The authors limited the research on the two aspects that covered the influences of transfer and creating competitive advantages in the local and international market through digitalization in respect of firm-specific assets, especially technology and human capital. Other scholars like Brouthers, Geisser & Rothlauf, (2016) have studied how information and technology have resulted in the internationalization of ibusiness firms. The authors stress only the impact and the value creation by the digital platform in the internalization process based on the cross relationship between the users and network of the firm (ibid). Banalieva & Dhanaraj (2019) further highlight that most of the ibusiness firms discussed in the International Business (IB) literature have evolved around organizations offering digital platforms such as Airbnb, Facebook, Amazon, etc. However, one can argue that the application of information and technology can also influence

the internationalization of other firms as well. Wittkop, Zulauf & Wagner (2018) emphasize that digitalization not only affects most of the sectors in the global economy but also alters the way of doing businesses in both local and international markets. The authors have discussed the influences and impact of digitalization on the internet based companies that how digitalization creates and delivers value propositions. Furthermore, the author argued that most of the literature has focused on the internationalization process in respect of value creation and not included the perspective of value proposition. And gives the future research point as to investigate the internationalization process in respect of BMI through the digitalization (ibid)

Moreover, there have also been studies on how information and technology are changing the international expansion strategies of firms and several advantages have been outlined such as minimization of transaction costs, speed as well as scalability (Banalieva & Dhanaraj 2019). As digitalization is being part of this information and technology therefore it is very important especially for SMEs to leverage the modern digital technology as it offers them the possibilities of reducing costs as well as collecting more revenue not only from their domestic markets but also other foreign markets. This can be considered as one of the ways in which SMEs can use in order to mitigate the challenge of having limited resources. Moreover, Westerlund (2020) investigates digitalization differences that exist between online SMEs whose majority of their online sales come from the international markets and those whose majority of their online sales are from the domestic markets. This manifests that digital technologies have a role to play in SMEs business across borders hence creating the further need in developing the existing knowledge in this research area.

The existing literature on BMI and internationalization include but not limited to studies done by Dunford, Palmer, & Benveniste, (2010) on business model replication as a means for new ventures to attain early and rapid internationalisation. Whereas, Cavallo, Ghezzi, Ruales, & Bertha (2019) discuss how firms can internationalize by innovating their business models. Moreover, Casadesus-Masanell, & Ricart, (2010) investigate on “*Competitiveness: business model reconfiguration for innovation and internationalization*”. Furthermore, Cavallo et al., (2019) argue that despite the fact that the main components of business model i.e value creation, value delivery and value capture have been discussed by several researchers, bridging these concepts with the internationalization process has been rarely discussed by researchers.

Casadesus-Masanell & Ricart (2010) argue that in some cases internationalization has pushed the BMI focusing on increasing competitiveness in the market. The BMI stresses the company to create and capture value in such a way that the company creates the opportunity for cost efficiency and profitability. Casadesus-Masanell et al., (2010) stress the three dimensions that drive the BMI – first, the environmental changes force the company to innovate a radical business model modification. Secondly, the components of the business model support each other to create cyclic consequences that are connected and interdependent with each other. Lastly, the market and customer needs are the factors that drive the BMI that offers added value (ibid). The authors argue mostly that the BMI drives for internationalization considering globalization, demographic differences, environmental changes to gain competitive advantages in the cross border markets through providing and adding value to the customers (ibid). The authors have not stressed and argued the impact and influence of technical innovation and advancement in the innovation of business models in respect to internationalization.

By making use of the modern technologies in the value chain and handling huge volumes of data, organizations have the possibility of grabbing new opportunities with new creative approaches to reach their future customers as well as operate at a fast pace in the international level (Hervé, Schmitt, & Baldegger, 2020). Coviello, Kano & Liesch, (2017) argue that digitalization affects the internationalization process of a given firm with regards to availability of skills and resources, acquisition of expertise as well as learning and development of knowledge. Moreover, Hervé et al., (2020) mention that other factors influenced by the use of digital technology include entry mode as well as location or scalability and speed. Indeed, modern technologies driving digitalization can offer opportunities for both small and large firms to compete internationally (Caputo et al., 2021). According to Denicolai et al., (2021) despite the relevance of the research area in digitalization and internationalization, literature in this field is still scarce. Hervé et al., (2020) stress that the majority of the existing studies on internationalization capabilities have investigated mostly large organizations than SMEs and the existing literature, theories as well as models have limited insights on the digital context.

Given the important role that digitalization plays an important role in BMI and international expansion of organizations, one would expect that the overlap of these concepts would have to a large extent drawn the attention of scholars. Yet, not only that there are limited studies on these concepts but also there is still a research gap in understanding how these aspects influence each other. By following the assessment of the existing literature, there is no doubt that there

is still a need for further extension of the existing knowledge on the overlap of business models, digitalization and internationalization.

Since, most of the existing literature that have studied business models innovation, digitalization and internationalization have not only rarely discussed the relationship that exists between these three aspects but also little is known about to what extent these aspects affect the internationalization process of SMEs. Given the fact that not much has been investigated on how these concepts can be understood together as one, one can argue that a limited knowledge still exists on how to better conceptualize the overlap of these three aspects for both scholars and practitioners. And as previously mentioned in the beginning of this chapter that all the three main concepts of this research topic complement each other. Considering the new era of digitalization it is important for both scholars as well as practitioners to understand how digital technologies can enable BMI in the internationalization process of SMEs. Since such firms are mostly characterized by having limited resources, therefore by not understanding the overlap of the main concepts in this research topic (digitalization, business model innovation and internationalization) these firms will be exposing themselves to a higher risk of being left out of the global competition. This is because the business environment is changing quickly in this digital era.

### 1.3 PURPOSE FORMULATION

The aim of this study is to extend the existing knowledge on how digitalization influences BMI in the internationalization processes of SMEs. Given the fact that the existing studies in relation to this research topic is limited and have mainly discussed the main concepts of this research topic (digitalization, business model innovation and internationalization) in isolation, we argued that by investigating the overlap of these concepts useful insights will be generated, in order to increase an understanding on how SMEs can leverage the modern digital technologies and innovate their business models to match with the on-going digital business environment as they grow their businesses internationally.

## 1.4 RESEARCH QUESTION

In order to fulfil the purpose of the study, the following research question has been posed.

*How does digitalization influence business model innovation in the internationalization processes of SMEs?*

## 1.5 DELIMITATIONS

Given the fact that the three components of our research topic – digitalization, business model innovation and internationalization process have many different aspects with various dimensions. The focus of this study is to identify the interconnectedness and influence of these three concepts and how digitalization influences the business model innovation in the internationalization process of SMEs. We investigated three Swedish SMEs with international business to get an in depth insight of our research topic. Furthermore, a holistic view of overall perspective on the research topic hence the case companies do not belong to the same industry.

## 1.6 RESEARCH OUTLINE

The outline of this study consist of the following six chapters:

**Introduction**-This chapter consists of the background of this study, problem discussion, the purpose of study ,the research question and delimitation of the study.

**Theoretical framework**-This chapter discusses the theoretical framework that builds the base of this study.

**Methodology**-This chapter outlines the method used in this study

**Empirical findings**-This chapter consists of the summary of the empirical findings.

**Analysis** -This chapter presents the analysis of the empirical findings in relation to the theoretical framework.

**Conclusion and recommendation-**This chapter answers the research question as well summarizes the key findings. It also consists of the recommendation in relation to the research problem in this study. Finally the chapter provides the suggestions for future research

## **2. THEORETICAL FRAMEWORK**

*This chapter discusses the three main concepts of the study i.e digitalization, business model innovation and internationalization. These concepts are developed based on a review of the existing theories and models related to the research topic. Each concept has been discussed independently but also has been connected to the other concepts. And at the end of this chapter a conceptual framework connecting the main theoretical findings has been presented.*

### **2.1 DIGITALIZATION**

As previously mentioned in the introduction chapter, digitalization is to a large extent changing the ways in which business are done, by making use of digital technologies such as big data, the Internet of Things (IoT), artificial intelligence, automation of machines, the cloud services, predictive analytics as well as increased exchange of data (Parida et al., 2019). The use of digital technologies has several advantages like improving different business processes which can lead to increase in productivity as well as efficiency. Digitalization also enables BMI (Rachinger et al., 2019) and may lead to creation of new business opportunities as well as realization of new revenue streams (Parida et al., 2019).

And by making use of modern digital technologies with different solutions, organizations can create value out of the collected data, hence reducing the costs related to human intervention in performing such tasks (Parida et al., 2019). Digital technologies like the cloud offer organizations the possibilities of storing huge volumes of data that can be used to generate value (Ibid). Furthermore, the wireless interconnectedness of machines can facilitate the sharing of data across several digital units in an organization. While the use of digital technologies like machine learning can help to improve the decision making processes of organizations (Hervé et al., 2020). Indeed, one can argue that digitalization is to a large extent contributing to the improvement and sophistication of business activities. However Parida et al., (2019) argued that *technological application* alone is not a sufficient factor for an



organization to obtain the benefit of digitalization, there is still a need for organizations to innovate their business models in order to realize the full benefits of digitalization.

## 2.2 BUSINESS MODEL

Since pre-classical times business model has been integrated with the business trading and economic perspective. But since early 1990's the business model concept has become predominant in the business operations and got momentum due to the focus by the scholars, researchers and business practitioners through documented with different definitions and dimensions in numbers of articles, research papers, journals and even books (Zott, Amit & Massa; 2011). Different researchers have defined the business model differently in their literatures, in general aspect these authors have referred the business model as a statement, a description, a representation, an architecture, a conceptual model, a structural template, a framework, a pattern and a set of activities (Zott, Amit & Massa; 2011). According to Massa & Tucci (2013), Business Model (BM) is the company's business activities and processes that describe how the company is doing their business activities. To make business successful and profitable, BM refers to a specific activity of production and selling of products and services towards the identified target market for making profit with considering anticipated expenses (Massa & Tucci, 2013). Zott & Amit (2010) insists the business model is a key decision for a company as well as a crucial to ensure the functional activities in such a model that is right for the company as it purposefully integrated all the interdependent activities performed by the company and its suppliers, partners and customers. In the broad domain of definition, a business model needs to answer the questions related to who, what, when, why, where, how, how much the process involved for providing the products and services to the customers (Zott et al., 2009). Afuah (2004) mentions the business model has three dimensions of performance in respect of which, how and when the activities are performed. Hence, Zott et al., (2009) argue that in some cases the business model gives the holistic perspective of business operations that describe how the business is conducted rather than describing the details and particular functions of the whole process. BM focuses on how the activities performed instead of what, when or where (ibid). Zott et al., (2010), further stress that the business model as 'the content, structure and governance of transactions designed so as to create value through the exploitation of business opportunities', how the transactions perform with the control governance.

Chesbrough & Rosenbloom (2002) illustrate the business model as a set of activities through which value is added throughout in the different layers from raw material to final products towards the customer. Visnjic et al., (2018), describe that business models create and capture value over the product life cycle according to the solution delivered as per the company defines. Thus the business model ensures the value delivered for all the involved parties based on the co-defining the value created through its functional activities. The business model not only gives the notion of value proposition but also provides the process, rules, norms, cost and revenue structure that involve resources like people, technology and assets (Zott et al., 2009). Hence, Zott & Amit (2010) argue that the greater value creation by the business model gives the greater bargaining power of the company that also gives the greater value appropriate or captured for the company as well as for its partners and stakeholders. In the summary, the business model states as a framework that provides the impression of business activities of a firm along with the linkages factors of value creation and value delivered to the all involved parties.

### 2.3 BUSINESS MODEL INNOVATION

In the early stage of digitalization in the 1990's BM concept was taken esteem with a vibrant and diverse research activity as it brought new innovation mechanisms for revenue increase possibilities (Zott, Amit & Massa, 2011). It was also used to demonstrate any complex, interdependent, multilayer business activities and processes in a simplified way to the organizational management and the potential investors (Zott et al., 2011). Researchers have tried to conceptualize the BMI by considering different elements and aspects and according to Giesen et al., (2007) the BMI is categorized in three types. First, industry model innovation refers to innovating and creating changes in the existing value chain to move towards a new industry, redefining or creating a new industry or entering into a new market. Second, revenue model innovation through pricing and value mix of products and services. And third, enterprise model innovation which is not limited to changes in value chain networks but also functional processes, employees, suppliers, capabilities, asset and market proposition. Furthermore, Chesbrough & Rosenbloom (2002) insist on eight perspectives that comprise all elements and aspects of BMI that have been captured by different researchers in different timeframes. The authors state the viewpoints as - value created for users by an offering based on digital technology; market segmentation and specify the revenue generation mechanism; restructure of the value chain; different revenue mechanisms through diverse offering; estimates the cost

structure and profit potential; positioning the organization linking with suppliers and customers; and innovative strategy for competitive advantage over rivals (ibid).

## 2.4 DIGITALIZATION AND BMI

Digitalization can influence BMs of firms through resource and cost optimization, transformation of their existing BM or even creation of new BMs (Rachinger et al., 2019). Furthermore, to be more specific Parida et al., (2019) stress that digitalization influences BMI in all three components of an organization's BM which are: value creation, value delivery and value capture.

First, value creation refers to what an organization offers to its customers, this could either be products or services (Burström, Parida, Lahti, & Wincent, 2021; Parida et al., 2019). Digitalization offers firms the possibilities of creating new products, services as well as business models and by doing so this creates new forms of partnerships between firms. Not only that but also new types of relationships are built between organizations and their customers as well as employees (Rachinger et al., 2019). Taking an example of business relationships between suppliers and customers, the use of modern technologies like AI makes such relationships more transparent (Burström et al., 2021). Parida et al., (2019) further stress that digitalization results in collaborative value creation by firms and their networks as well as by engaging customers in value creating processes. Furthermore, the use of digital technologies like the IoT and digital platforms allows organizations to create unique offerings to customers based on the customers or markets specific requirements. This may have a positive impact on the market positioning and leveraging the competitive advantage hence resulting into *value creation* in the BMI (Laudien & Daxböck, 2016; Luz Martín-Peña, Díaz-Garrido & Sánchez-López, 2018). Furthermore, Loebbecke & Picot (2015) argue that SMEs are acting as pathfinder to adopt such digitalization based on value creation to leverage the business opportunities in cross border markets irrespective of company size and category like micro, small and medium even startups fallen under the SMEs categorization.

Second, value delivery refers to how business related activities as well as processes are applied in order to deliver the intended value to the customer (Burström et al., 2021; Parida et al., 2019). BMs that are supported by digital technologies are characterized by changes in the way of delivering value to customers. This is due to the fact that digitalization tends to bring significant

changes within the internal and the external environment of the organization. Therefore, implementing BMs that are enabled by digitalization might require organizations to possess new capabilities. This could be through the development of the required skills and competences in the organization as well as increasing collaboration with other organizations. The success of the latter has been mentioned to be crucial for ensuring the future of SMEs (ibid).

Third, value capture refers to an organization's revenue streams as well as cost structure. With digitalization organizations can capture value in their BMs by reducing costs, improving revenues as well as developing new sources of revenue (Parida et al., 2019). Since digitalization offers organizations the possibilities of improving their business processes this enhances efficiency and hence minimizes costs for organizations (Burström et al., 2021). Firms can achieve this by integrating digital technologies such as AI in their business activities (ibid). And as business processes are being improved, more value is being added in organization's offerings which tends to increase price margins (Parida et al., 2019) hence improving revenues. As previously mentioned, digitalization facilitates the creation of new products and services therefore organizations can also generate new revenue streams from them.

Therefore for an organization and especially SMEs who are often constrained with limited resources to fully benefit from the integrating digital technologies in their business models, it is important for them to understand how they could succeed in aligning all the three components of the BM (value creation, value delivery and value capture) (Parida et al., 2019). This is because these components are connected and interdependent with one another (Cavallo et al., 2019). On that account, SMEs can succeed in utilizing their resources optimally, increase their productivity as well as efficiency, satisfying customer needs and optimizing their supply chain activities (Rachinger et al., 2019). And by doing so SMEs will be able to minimize cost in their business activities (ibid).

**Table 1: Summary of the influences of digitalization on BMI**

<b>Value Creation</b>	<b>Value Delivery</b>	<b>Value Capture</b>
- Productivity and efficiency - Creation of new offerings	- Acquisition of new capabilities	- Reduction of costs
- Establishment of new forms relationship with the members of the ecosystem	- Development of required skills and competences	- Improvement of revenue
- Collaborative value creation	- Increase of collaboration with other firms	- Development of new revenue streams

Source: *own compilation based on Parida et., (2019) and Burström et al., (2021)*

## 2.5 THE INTERNATIONALIZATION PROCESS MODEL

*In this section the Uppsala Model by Johanson & Vahlne (1977) will be used in order to understand the background of the internationalization process of a firm.*

For several years, the internationalization of a firm has captured the attention of different scholars. Where different internationalization viewpoints have been addressed in the International business (IB) theories, however according to de Perea & Ramírez-García., (2019), the main focus of previous studies on internationalization was mainly on large organizations than on SMEs. According to Coviello et al., (2017), for over 40 years, the Uppsala model has been used as a main conceptual framework for understanding the internationalization process of a firm. In this model the internationalization process of a firm has been considered as a stepwise process whereby, as a firm's experience increases overtime, firms tend to acquire market knowledge that is considered as an important resource when a firm operates abroad (Hervé et al., 2020). Johanson & Vahlne (1977) emphasize that an increase in market knowledge and resource commitment influences the speed of firm's activities abroad and the main way that a firm can acquire the market knowledge is by going abroad. Hence firms tend to enter a nearby market in terms of *psychic distance* with a low degree of commitment such as exporting from their home country and with time their degree of commitment increases to even reach the extent of building a production facility in a host country (ibid).

## 2.6 DIGITALIZATION AND INTERNATIONALIZATION

Referring to the discussion in part 2.4, one can have a different argument on how a firm can acquire knowledge of a given market when digital technologies are integrated in the business activities as this might lead to the development of a more sustainable business model. Digitalization offers firms the possibility of collecting as well as making use of huge volumes of data (Neubert, 2018). And by analysing the collected data, organizations are able to assess their on-going conditions as well as the attractiveness of the potential foreign markets (ibid). Furthermore, Hervé et al., (2020) argue that digitalization allows SMEs to have direct communication with their customers through feedback and comments shared in digital platforms. This has offered organizations like SMEs an opportunity to customize their solutions, improve their activities across borders as well as offset the problems related to “liabilities of outsidership” (ibid). Osterwalder and Pigneur, (2010) further mention that the use of digital platforms such as online user communities allows organizations to co-create values together with their customers. Whereas, Schmitt & Baldegger, (2020) further stressed that digital platforms offer organizations with databases that can allow them to reach out to potential markets. With digitalization SMEs have a wide chance of improving business relationships with their customers hence offering the possibility of reaching out to distant markets. Therefore, in this way, the concept of acquiring knowledge of the foreign market is perceived differently from the traditional way that was addressed in the Uppsala model.

Furthermore, Hennart (2014) discusses International New Ventures (INVs) which could also be SMEs. These types of firms are in less need to *adapt* to their techniques of acquiring customers since most of the time their aim is to reach out to international niche markets that are alike. This has removed the need for gradual increase in knowledge acquisition, hence challenging the assumptions of the Uppsala Model (ibid). Knight & Cavusgil (2004) argue that one of the reasons why INVs can quickly take part in cross-border activities is the fact that such firms have distinctive resources. And according to Rialp, Rialp & Knight (2005) among the resources that INVs own include but are not limited to advanced technological resources that they use in order to offer high know-how products to their customers across borders. One could argue that among the advanced technologies owned by such firms could be digital technologies. Hence it is evident that organizations can make use of the modern digital technologies and innovate their value propositions in order to meet the demands of their

customers and internationalize quickly. In general, this is how SMEs can acquire *new experiential knowledge* through digitalization (Hervé et al., 2020).

Therefore, the stepwise concept in the Uppsala model has been criticized by different scholars such as Rennie (1993) as well as Oviatt & McDougall (1994). Oviatt & McDougall (1994) argue that the traditional internationalization process model like the one of Johnson & Vahlne (1977, 1990), are not sufficient enough to explain International New Ventures (INVs), since their internationalization process happens so fast. Therefore, given the changes observed in the trend of internationalization of firms, a new stream of studies has been developed focusing on the entrepreneurial firms characterized with a high speed of internationalization. This new stream of studies on internationalization has been said to be more applicable for SMEs (Hervé et al., 2020).

On the other hand, another concept discussed in the Uppsala model is the *resource commitment* in the foreign market which indeed entails additional costs for SMEs. However, by making use of digital technologies, one can draw a different conclusion concerning the costs related to increase in resource commitment in the foreign market. Brouthers et al., (2016) highlight that modern technologies have the ability to not only dematerialize production channels but also distribution channels, hence reducing extra costs that SMEs could have incurred when operating abroad. Furthermore Autio & Zander (2016) insist that, by making use of digital technologies, SMEs operating abroad can to a large extent minimize the resources required to run their operations as well as costs related to *location specificity* because business activities can be handled from a distance. Hervé et al., (2020) mentioned other benefits of digitalization to include allocation of resources in different markets, reduction of transaction time, and improvement in decision making.

So, this means that, with digitalization, SMEs are not limited to expanding their business to the international markets that are close to them in terms of *psychic distance* but can easily reach out to other distant markets as well. Digitalization's influence on distance and location has eliminated the border issues and resulted in a rapid internationalization of firms (Hervé et al., 2020). Schmitt & Baldegger, (2020) further argue that digitalization is moving the borders hence calling for a need to develop new internationalization theories. Overall, digitalization and internationalization supplement each other (Schmitt & Baldegger, 2020).

## 2.7 BUSINESS MODEL INNOVATION AND INTERNATIONALIZATION

The duplication of BM might not be considered as sufficient factor for firms that need to successfully expand their business abroad, instead such firms need to innovate their BM in a way that will allow them to attain a competitive advantage (Cavallo et al., 2019). By doing so, they can be able to speed up their internationalization process and at the same time match the needs of their customers (ibid). Few scholars such as Casadesus-Masanell et al., (2010) also stressed that organizations might be required to adapt instead of replicating their existing BM when choosing to expand their business activities in a foreign market. One can argue that this means adjusting or transforming the BM of a firm to match the needs of the market that it is designed for. Furthermore, Teece (2010) argued BMI is a key driver for increasing competitiveness of firms. Therefore BMI is to be considered as a continuous process for firms in order to attain a gradual growth in the foreign market (Johansson & Abrahamsson 2014).

## 2.8 SUMMARY OF THEORITICAL FRAMEWORK

Digitalization is to a large extent playing an important role in facilitating business activities by enhancing the efficiency and productivity of firms. Hence, resulting in business model innovation which offers organizations the possibilities of creating new offerings to customers. And in the process of creating new offerings to customers, new business relationships are built between firms and their ecosystem. This offers SMEs the possibility of grabbing new business opportunities as well as increasing their revenue streams. Business models innovations enabled by digitalization can also allow SMEs to attain a quick internationalization process. This can be achieved through either acquiring the market knowledge by making use of digital technologies in collecting and analyzing data of foreign markets or through the reduced costs related to resources commitment abroad. Despite the fact that digitalization facilitates the internationalization process of SMEs, Onetti et al., (2012) and Landau et al., (2016) insist that in order to match with the foreign business environment in terms of institutional as well as competition, firms might need to make some adjustments in their business models. This means that a business model that works for firms in this case SMEs in their home country does not necessarily have to be the same as the one that will work for them abroad (Ibid). As going international also means facing more and tough competition with other big and small actors in the market, so by keeping on innovating the existing business model SMEs can gain a competitive advantage over their rivals. Furthermore, digitalization facilitates the growth and innovation of SMEs as it offers the possibility for them to reach out to the global virtual market

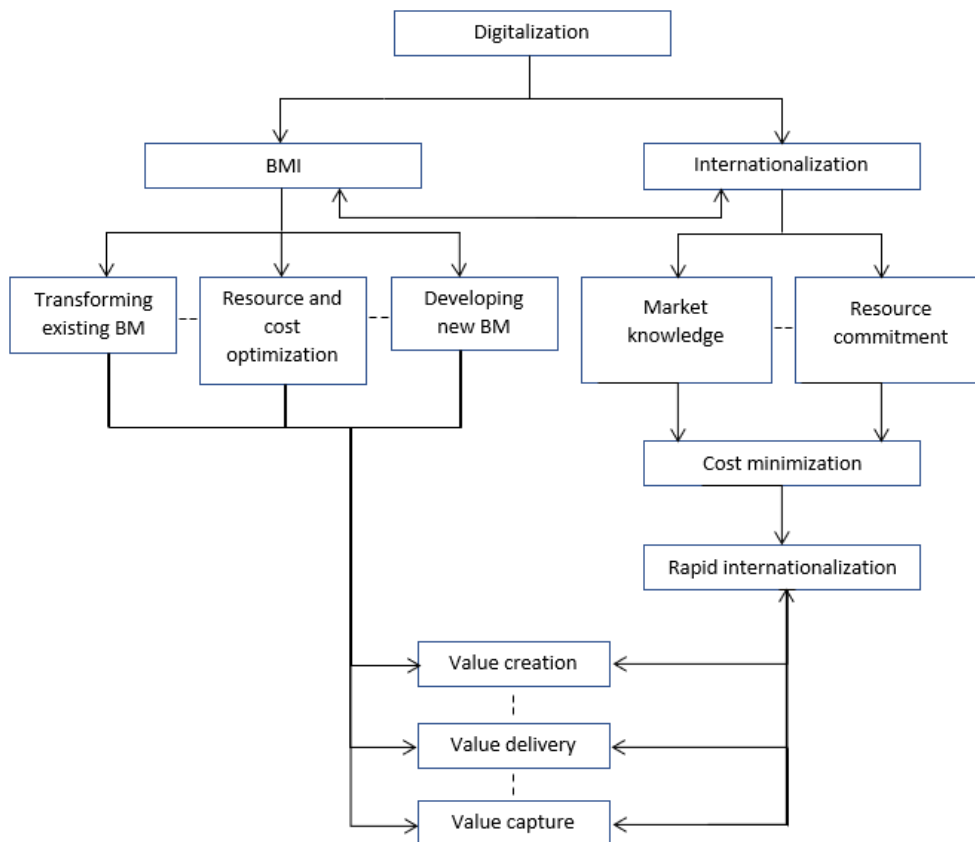


as well as reduce the costs related to the use of digital technologies such as Artificial Intelligence, cloud computing etc (Makarius et al., 2020).

## 2.9 CONCEPTUAL FRAMEWORK

In order to better understand the important aspects and the overlap of the main concepts in our research topic on how digitalization influences business model innovation in the internationalization process of SMEs, a graphical presentation in Figure 1 was developed. This graphical representation is built on the foundation of the literature review and the following assumption was made: Firms will continue using the modern digital technologies in innovating their business models in order to match with the demands of the foreign market resulting in a continuous process of creating, delivering and capturing value.

**Figure 1. Conceptual framework**



Source: own compilation based on Cavallo et al., (2019), Parida et al., (2019), Rachinger et al., (2019), Casadesus-Masanell & Ricart (2010).

The conceptual framework presents how digitalization influences business model innovation in the internationalization process of SMEs. The arrow from digitalization towards BMI represents the influence of digitalization on business model innovation. This is the main area that this focuses on together with all the aspects that follow under it as the result of this relationship as shown in the model. However the aim is to understand this topic in the internationalization process of SMEs therefore the arrow from digitalization pointing toward internationalization is meant to represent the internationalization process of SMEs.

### **3. METHOD**

*This chapter aims at discussing how the authors have conducted their research and derived their conclusion. The chapter begins by analysing the scientific approach and research design, which is then followed by explanation on how data was collected as well sorted. Then the authors continue by explaining how the collected data was analysed and lastly, aspects of conducting quality research and the ethical considerations in doing research are presented.*

#### **3.1 SCIENTIFIC APPROACH**

##### **3.1.1 Qualitative research method**

According to Bell & Bryman (2015), research methods can either be qualitative or quantitative. However, the authors further discuss the third type of research method known as a mixed research method, which is referred to as a combination of both qualitative and quantitative methods. In order to reach the purpose of the study, a qualitative research method was considered to be the most applicable research method for this study. By using qualitative research methods we were able to gather in depth information relevant to how digitalization can influence business model innovation of SMEs that have undergone the internationalization process (Bell & Bryman, 2015) hence allowing us to get a deeper understanding of our research topic. Another reason why the qualitative research method was regarded as the most relevant research method for this study is because this method offers us a higher degree of flexibility compared to quantitative research methods. This was evident especially during the data collection process as we were able to conduct semi-structured interviews that offered respondents with more freedom of explaining relevant aspects of our research topic in a detailed manner which contributed much in the analysis of the empirical that finally led to answering the posed research question (ibid).

However, qualitative research is in some cases often criticized by quantitative researchers for being subjective as well as impressionistic as their findings depend to a large extent on a researcher's opinion of viewing things (Bell & Bryman, 2015). For the case of this critique, we as authors of this study tried to limit our own perception to a large extent in influencing the research findings by allowing the respondents to provide us with detailed information in aspects related to how digitalization has contributed to their business model innovation in their expansion abroad. Furthermore, replication has been addressed by quantitative researchers as another limitation of qualitative studies; however this limitation could be quite challenging to overcome given the nature of studies in social science in not having the standard approach to be adapted (ibid). Given the fact that the aim of the study was to get a deeper understanding of how digitalization influences business model innovation in the internationalization process of particular SMEs, this made us to neither proceed with the collection nor generation of numerical data as the intention was to make analytical generations rather than statistical generalization. Meaning that our research findings are generalized in relation to theory rather than the population (ibid).

### **3.1.2 Research approach**

In order to capture the insights relevant to the main three concepts of this research study (digitalization, business model innovation and internationalization process) were first identified based on the existing theories in different academic literatures. The academic literature we obtained mainly from online library databases, especially from the University of Gothenburg library database. By using the supersearch that is found in this database different academic literature were obtained. These academic literatures were searched by using the main key words of our research topic such as digitalization, business model, business model innovation and internationalization. Furthermore, the search was also done by connecting these keywords in order to identify the previous studies that investigated the relationship which exists between these concepts. After gathering the relevant academic literature we got an idea of what areas of research were investigated in prior studies. This allowed us to spot out the missing gap in those studies. We found out that most of the prior studies investigated these the main concepts of our study in isolation. So in order to fill this missing gap we decided to extend the existing knowledge in how digitalization influences business model innovation of SMEs in the internationalization process.

Therefore after developing the first chapter of our study, a theoretical framework was developed in the second chapter. This chapter discussed the relevant theories and models in relation to our research question. The main concepts of the study were first discussed independently and then after they were discussed in a way that captured the relationships that exist between them from a SMEs' perspective. This led to the development of a conceptual framework in which the key takeaway from the prior studies in the academic literature were identified to form the foundation of the graphical presentation of the framework. All these steps contributed to the formulation of the theoretical framework and served as a guideline in the collection of empirical data. Alan (2014) insists that most of the research begins with increased predetermined ideas.

After gathering all the empirical data from the selected case companies an iterative process was applied since we kept oscillating between the theory and empirical data that was collected (Bell & Bryman, 2015). Iterative process is a circular process that strengthens the logical reasoning of the research topic (Alan, 2014). This process was done in order to check if more insights were generated from the empirical data that was collected in relation to how digitalization can influence the business models innovation of SMEs in the internationalization process. Iterative process was deemed important for this study because it gave us a clear and deeper understanding of the theory and empirical data. Furthermore, this process provided us with the flexibility of comparing and contrasting the valuable insights of our research topic by using both deductive and inductive approaches. This combination of the two research approaches is what (Bell & Bryman, 2015) refers to as an abductive way of reasoning. Therefore this process was considered important in reaching the purpose of our study as it increased our understanding in what ways are the main components of our research topic influencing each other.

### 3.2 RESEARCH DESIGN

To understand the research topic with more deeper insights, one needs to have a flexible approach that gives the answering of the *how* and *why* research question, the case study approach is the right fit for this study (Blumberg, Cooper & Schindler, 2011; Bell & Bryman, 2015). The approach for any qualitative research method depends on the complexity and dimensions of the research topic. For this study, considering the exploratory research question and factual empirical data collection multiple case studies have been chosen. Furthermore, multiple case study approaches have gone through in order to gather a more comprehensive

understanding of the research topic and to identify the similarities and the differences in the cases that would have the opportunity to achieve higher certainty in empirical findings and analysis (Yin, 2009).

By conducting multiple interviews from multiple companies, we have collected data that gives the answering of the question *what, how* and *why* in respect to our three components of research topic. These collected data gives us the flexibility to examine, compare with the findings of the existing theories, define the description, identify gaps between theories and practices in the real business field that enables various levels of analysis (Yin, 1994; Eisenhardt,1989). In the process of data collection, we get to have a deeper understanding of how companies utilize digital technologies in innovating their business model innovation as they expand their business abroad. Along with that we gathered insights into different dimensions, methods and utilization of digital technologies in business model innovation in the context of similar kinds of industry as well as different industries. By doing so we were able to compare the similarities and differences between the cases (Yin, 2009). Furthermore, multiple case research design helped us to get the understanding of the internationalization process that was influenced by the digitalization in different industry contexts within the SME category. We identified the pattern and motives for the internationalization process of our case companies, which gave the holistic viewpoints of a particular business field. These findings have strengthened the analysis in relation to the theoretical framework (Yin, 2009; Eisenhardt, 1989). The empirical data collected from multiple cases companies provides the flexibility and conviction that the findings can be compared and contrasted to each other in order to identify the similarities and dissimilarities. This enhanced the credibility, transparency and strengthened the logical reasoning of the analysis and the conclusion (Yin, 2009; Eisenhardt, 1989).

The most common limitation of the case study has been considered as the low level of generalizability that could not confront that the findings of this study may be applicable for all the companies irrespective of industry in the SME context. Comparing other research methods, capturing the complex and interrelated components of how digitalization influences business model innovation in the internationalization process of SMEs, case studies in general are the most common research approach especially in the context of international business fields (While Welch, Piekkari, & Pavilainen, 2011). To be more specific, conducting a multiple case study we were able to generate more strong and reliable empirical findings on the research

topic (Baxter & Jack, 2008). Therefore, in order to answer the research questions of this study, multiple case study was regarded as the most suitable approach for conducting this study.

### 3.3. Data Collection

#### 3.3.1 Primary data

Considering the importance of the primary data, we have collected data in a way that they can be compared and contrasted with the theoretical perspective. In order to collect the primary data, interviews were conducted with the main decision makers of the case companies as these personnel had the real time experience and knowledge of *how* and *why* the digital technologies have influenced the company business model innovation in their internationalization process. Therefore we have gathered an in-depth understanding of the specific phenomenon related to this research study (Bell & Bryman, 2011). and As all the three case companies were not located in Gothenburg and due to the pandemic situation, the interviews were conducted and required through zoom meetings. Furthermore, the interviews conducted semi-structured approaches that offered the participants to provide information uniformly and freely based on the valuable experience. The interview guide with questionnaires has sent beforehand the interview conducted to ensure the comfort and reduce the hesitation to share the company internal information. The interview guide was divided in two parts beside the introduction part of the companies with general information. First part consists of factual information and motives in regards to the research topic three components - digitalization, innovation in business model and the internationalization process to get the information in respect of *what* and *why*. And the second part was focused to identify the influences and interdependencies of the study components on each other. This interview guide was designed in a way that allows the participants to share their insight, thoughts and experience more spontaneously and without any limitation (Bell & Bryman, 2011). The interview guide and questions can be found as Appendix 1 (Interview Guide) on the last pages of this study. Furthermore, while the interviews were conducted, certain follow up questions asked to take the discussion in a specific direction that provided more clarity and understanding since the respondent can elaborate the critical factors, paths and complex process in detail (Bell & Bryman, 2015) with greater insights.

### 3.3.1.1 Case selection

In order to reach the objectives of this research topic, the selection criteria of case companies was very critical and crucial. The main criteria that were used in the selection of the case companies were SMEs who have international business. And second, these companies utilize digitalization in the business model innovation while operating across borders. The case companies selection was not limited to the boundary of SMEs as micro, small or medium rather considered the cross border business operations that utilizing digitalization in the business model. Different online sources like Nordic SMEs' association, SMEs' groups in LinkedIn and Facebook as well as with the help of colleagues were consulted to identify the case companies; however, we only had an opportunity to collect the empirical data from only three SMEs that matched the research topic criteria.

**Table 2: Selection criteria for case companies**

Selection Criteria:	Parameter
Company employee size:	less than 10 to maximum 250 employees
Business Operation:	International business operation
Digitalization:	Using digital technologies or platforms

The main reason that made us choose these companies was the majority of these companies are categorized as SME (less than 10 to maximum 250 employees), out of this some are transforming their business from distributor to digital store and premium based product selling firm, some are digital from its initiation and other are start-ups. The common phenomena was selecting these case companies as all of them have digitized as much as possible their business model in respect to the internationalization process.

After obtaining the relevant sample of case companies key personnel were contacted for the interview through emails and phone calls. The key personnel included the Chief Executive Officers (CEOs) or Chief Operating Officers (COOs) or Business Head or personnel of the company representative. The aim of choosing the key personnel of the companies for the interview was to get an in-depth knowledge and experience about matters in relation to our research topic. The companies' key personnel were contacted through emails, LinkedIn and

phone calls, but only three companies accepted the request for the interview. The rest of the companies have not given any response even though we have further contacted through emails and LinkedIn. The interviews have been scheduled as per the participants' availability in consideration of their regular business workload. The relevant data and information in relation to the research topic was collected through interviews. Focused to conduct the interviews with at least a convincing number of companies that can provide logical arguments with the empirical analysis on the collected data. Based on the availability, accessibility and willingness of participants in a given situation define the convenience sampling in a research, that argues by the Dornyei (2007).

### **3.3.1.2 Interview Process**

Before having the interview sessions a brief summary of the research topic and the interview questions were sent to the respondents in order to familiarize themselves with the research topic. The interview session was conducted through Zoom and the respondents were asked to give their consent to the recording of the interview as well as whether or not they would want to remain anonymous in this study. While conducting the interviews, we have recorded the whole discussion with the consent from the participants keeping in mind to ensure that no important information was missed during the transcription of the interview. On what concerns anonymity (Bell & Bryman, 2011) the aim was to make the respondent feel free to share their insight on practical matters related to the research topic. However, these meetings of the interviewers after the interview session were conducted in all interviews despite being recorded or not. Since the interviews were semi-structured, this allowed the interviewers and the respondents to be flexible in their discussion hence giving room for adjustments of the research questions depending on the response provided by the respondent during the interview session. Based on the responses of the pre-set questionnaires, there were few questions that have been asked to the participant to take the discussion more in a direction to gather more deeper and clear insights on the research topic that may help the empirical analysis. Hence these questions were not limited only to any specific aspects of the research topic in holistic viewpoints rather considered to identify the in-depth, comprehensive and interrelated phenomena of the specific components with the other components of the research topic that can contribute to the empirical analysis of the study. Moreover, at the end of the interviews the respondents were informed that as soon as the interview transcripts were ready these information will be sent back to them for validation. The respondents were encouraged to comment and suggest on the transcripts in



order to ensure that the respondent was interpreted correctly as this contributes toward improving the quality of the collected data. This is what Bryman & Bell, (2015) refer to as respondent validation. In the process of empirical finding and analysis, authors involved the participants to provide direct and specific comments to avoid the deception in outcomes or summarize based on the collected data by which to avoid the misinterpretation or friction of data. Therefore, we ensured the respondent validation (ibid) and the quality of research conducted.

While transcribing the interview and discussing between ourselves, it has identified and generated more follow up questions based on the participants answers, to get a deeper perspective for the case companies. Considered to gather more findings we have requested the participants for a follow up interview which was essential to make this study more validate, reliable and transparent. Upon assurance from the participants we have conducted the follow up interviews with the participants in the zoom platform for two companies. The conducted interview was also recorded to ensure the transcription of that interview without any misinterpretation and captured the accurate insights. In the follow up interview the participants shared further information that helped the analysis of this study even more widespread, meaningful and credible. Hence, we have also shared the transcript of the interview with the participants to secure the consent from their side that the information was captured precisely.

Furthermore, it was identified that it would be more comprehensive and radical to conduct interviews of co-workers of the case companies beside the CEO or COO or Co-founders as first respondents. Considering having another round of interviews with the co-workers of the case companies, we have contacted the first respondents to introduce their co-workers for the said interview who have the experience and knowledge of the company's functionalities as well as the industry context. Hence, also asked to ensure that the co-worker needs to carry the responsibilities that are related with the research topic. The first respondent has shared Sales Analyst and Head of Marketing as the co-worker for company A and company B respectively, who have the responsibility and experience with knowledge that rightly fitted with the research topic. After getting the contact information, we have sent the similar brief summary of the research topic along with the interview questions to the respondents in order to make themselves conversant with the research topic. The conducted interviews have followed the similar method and process as the like for the first respondents. In the interview the pre-set questionnaires also were the same to have the contrast and find the additional information that

added value in the empirical findings. The interviews were recorded and the transcripts were shared for the validation from the respondents. Collected data and information have compiled with the previously collected data and information under the same context in the empirical findings chapter. Though this process of data and information collection gave the acceptability, transparency and trustworthiness of the analysis of the study. All the interviews were conducted in a way that the professional values, ethics and manners were highly maintained. Furthermore, ensured the confidentiality and security of provided data and information of the case companies as well as the personnel.

**Table 3: Summary of the interviewed companies**

Company Name	Respondent	Interview	Date	Duration
Company A	COO	First interview	15 April 2021	100 minutes
Company B	CEO and Co-founder	First interview	28 April 2021	60 minutes
Company C	CEO	First interview	12 May 2021	80 minutes
Company B	CEO and Co-founder	Follow up interview	14 May 2021	40 minutes
Company A	Sales Analyst	First interview	18 May 2021	60 minutes
Company A	COO	Follow up interview	19 May 2021	60 minutes
Company B	Head of Marketing	First interview	21 May 2021	60 minutes

### 3.3.2 Secondary data

The secondary data was collected from the case companies web pages and published reports. The data found in the published reports and web pages gave the background and basic information of the case companies. Note here that the information in reports and web pages may be presented with bias. However, the collected data from reports and webpages was presented in a neutral way. And furthermore, a triangulation method was used to cross check the collected secondary data from the case companies webpages and LinkedIn with the

empirical data collected through semi-structured interview, discussion, consequences questions and follow up interviews from representatives of the case companies. Based on that, this study captured the comprehensive business model of the specific firms and developed our logical arguments in the empirical analysis. The collected data and information with validation gives us the opportunity to have a deep understanding of the case companies in respect of our research topic of this study and strengthen the analysis and logical reasoning.

### 3.4 Data analysis

The initial step in analyzing the collected data began immediately after every interview where we as authors discussed how the interview session went on. The aim was to check if the respondents were able to answer all the interview questions. In cases where we identified that information provided by the respondent was in some way not enough or was misinterpreted, the respondents were contacted further for more clarification. Therefore follow up interviews were conducted to gather the additional information that was missing initially. After gathering all the important information from each respondent we transcribed each interview recording. This process was done in order to make sure that all the necessary information that was provided by the respondents were included in transcripts as it could not have been possible to remember all the information that were collected during the interview session (Bell & Bryman, 2015). So after the transcription of the interviews was done, the transcripts were grouped in different themes in relation to our study. The process of sorting out the empirical data was done in order to facilitate the analysis of the empirical findings in a later stage (ibid). In order to verify if the transcription portrayed the same message as what the respondents meant we decided to send it to the respondents for validation. This step was considered important in our study as it ensured trustworthiness of the collected data.

Qualitative studies have been criticized by some researchers on issues related to validity of research findings. This made different researchers in the methodology literature to have different opinions regarding this issue. However, we agree with what Merriam (1998) highlights that researchers conducting qualitative studies can overcome this critique by using strategies like respondent's validation to ensure trustworthiness of case studies. After the validation of the empirical data by the respondent we decided to break down the main themes into sub-themes in order to further facilitate the analysis of the empirical findings with the theoretical framework. The aim of doing this was to see to what extent the collected empirical findings relates or differs with the findings in prior studies. Moreover at this stage we kept

moving back and forth between theory and data. This process is what (Bell & Bryman, 2015) calls an iterative process. This process helped us to identify if the empirical data that we collected generated additional insight to the earlier research or not.

### 3.5 Quality of research

Deciding to use a qualitative research method means that the researcher should aim at persuading a reader by presenting critical arguments of a given research topic. Given the fact that this approach does not involve the use of numerical data to justify the research findings, it was therefore crucial for the researcher to focus more on the quality of the research. Therefore a qualitative research method imposes higher requirements on the quality of data used in case research. Furthermore, in qualitative research empirical data analysis might be affected by the researcher's subjective interpretation and assumptions. According to Bell & Bryman (2015), the concept of assessing the quality of research in qualitative studies should be viewed differently compared to the way of assessing the quality of research in quantitative studies. Among the ways of assessing the quality of research in qualitative studies suggested by Bell & Bryman (2015: p390) include the criterion of *trustworthiness*. This criterion consists of four criteria which are *credibility*, *transferability*, *dependability* and *confirmability* (ibid).

#### 3.5.1 Credibility

The credibility refers to the reassurance and the truthfulness of data that has been collected as not only the primary and secondary data but also included the interpretation of that as well. Lincoln & Guba (1994) has stressed that the credibility of qualitative research is divided in two aspects - first the method and the process of study for data collection. And secondly, the active participation and contribution of the participants for the case companies that demonstrate credibility and authenticity. For our study, we have conducted interviews with either Chief Executive Officer (CEO) or Chief Operating Officer (COO) or Co-founders or Owners of the case companies, who are the decision makers for the business operations as well as driving force for the company strategy and initiatives. This process has been followed in order to understand the case companies' business operations along with the motives and factors behind the utilization of digital technologies in business model innovation for the internationalization process from their perceived knowledge and experience. Credibility criterion has much to do with the way in which other people perceive the research findings. In order to maintain the credibility of our findings, we made sure that the research was conducted in an ethical way.

Therefore, we sent back the transcription of the interview recordings that we made to the respondents in order to ask them to verify the credibility of the information. This process has been referred by Merriam (1998) as respondent validation whereas other scholars like Stake (1995) refer to this process as *member checking*. The aim of implementing this strategy is to check if we properly captured the *social world* (ibid). Furthermore, another method that we used to ensure credibility of our findings we also applied a triangulation method whereby we consulted other sources of data (Bell & Bryman, 2015; Yazan 2015) in order to compare and contrast our findings. An example of how we applied this method was during the data collection process where we succeeded in interviewing more than one respondent in company A and B, like Head of Sales or Head of Marketing to ensure the trustworthiness of information that collected from their co-workers. Furthermore some important information of the case companies that were obtained from their webpage and LinkedIn profile were confirmed and validated by the respondent during the interview session.

### **3.5.2 Transferability**

As previously mentioned, qualitative research studies aim at getting a deeper understanding of a specific phenomenon. Therefore we conducted a multiple case study on SMEs that used digital technologies to innovate business models in their internationalization processes. Using multiple cases eases the theoretical understanding of the research topic. However, the research findings of this study may not necessarily be applicable in other contexts but the rich and *thick description* of the study can be used to set a background in developing other studies (Bell & Bryman, 2015: p 392). Therefore, in the data collection process we made sure that we collected as much information as possible in order to answer our research question. The implication of the study is not dependent on the findings of the study rather related to the level of generalization based on the empirical findings either analytical or statistical (Yin, 2009), where the analytic generalization gives the flexibility to compare the findings of the case studies with the existing theory (ibid). We have used this method for this study where the theoretical framework was considered as the standard benchmark level to the empirical findings from the case companies.

### **3.5.3 Dependability**

Dependability is the critical approach that explained and audited the method and process steps of the research study (Lincoln & Guba, 1994). In order to ensure the dependability aspect of trustworthiness, we made sure that all the research data records such as the final manuscript of this study, interview recordings, interview transcripts and notes taken during the whole research process were kept for future references. The main reason why we decided to keep all the research data records is because such records can be used by peers in verifying whether the good research practices were taken into account or not when the research was conducted (Bell & Bryman, 2015). All the stages of this study were also communicated to our supervisor who guided us in the writing of this thesis. Not only that but also as we advanced in the writing of this thesis four peers had a chance to provide feedback on our paper. This process is what Yazan (2015) refers to as *Peer validation*. Furthermore to ensure dependability of this study the research findings will be presented to the public. Furthermore, the final manuscript will be archived by the graduate school so that it can be used for future references by the public.

### **3.5.4 Confirmability**

In qualitative research studies, this criterion is used to show and to secure to what extent the research findings were validated as genuine. By applying this criterion in assessing the quality of research means that reducing the risk of the research findings to be influenced by the researcher's own personal judgement (Bell & Bryman, 2015). So in this study we have limited ourselves in influencing the research findings by allowing the respondents to give us detailed explanations on how they understood our research topic. Furthermore as previously mentioned strategies like respondent validation and triangulation were also employed through validating the transcripts with findings from the participants of the case companies. Also crossed checked the information from the co-workers. Moreover, *peer validation* by the supervisor and our class colleagues gave their feedback and suggestion from the third eye view to reshape or explain further or establish more logical arguments with the relevant aspects that decrease the risk of biased and personal assessment. This strengthens the study relatively more reliable and subjective within the research topic.

### **3.5.5 Ethical considerations**

We as researchers are aware of the importance of complying with the ethical standards in all steps that we go through when conducting a research. Ethical values and moral principles influence the process and method of conducting research (Ghauri & Gronhaug 2002). Furthermore, Myers & Newman (2007) emphasize on the mutual trust and respect in the process of primary data collection in the qualitative research method. According to Bell & Bryman (2015) ethical principles allow participants to have the right to remain anonymous and to participate voluntarily in the interview process. To ensure the confidentiality of the provided company internal and strategic information, we have followed the guidance by the Swedish Research Council's general and *professional ethics* rules (Good Research Practice, 2017) to maintain the standard relationship with the respondents.

Therefore, in this study we decided to anonymize all the case companies as well as the respondents names in order to avoid damaging their professions as well as their business in general. Since the investigated case companies are SMEs in the early stages of business and the products and services that they offer are quite unique in the market, if we were to disclose their names in this study, the possibilities of them being easily identified by the public could have been higher and perhaps this could in one way or another harm activities. This decision was reached by us because some companies wanted to be anonymous and some not. So in order to ensure confidentiality of the information provided by the case companies we decided to anonymize all the companies with fictitious names so that we would be consistent in our writing and avoid confusing the reader.

Furthermore, we shared a short summary of our research topic along with the main interview questions to the respondent before we conducted the interviews. So that respondents would be willing and confident enough to share their knowledge and experience in relation to our research topic. This helped the respondents to prepare for the interview in advance to offer as much information as possible hence it enhanced the opportunity for us to gather empirical findings in a more reflective manner. Moreover, the draft of this study was shared with the respondents from the case companies before the publishing of the final report of this study. The aim of doing so was to ensure their consent on the interpretation of the collected data. Ethical perspectives have been considered as much as possible to intend a fair and trustworthy result reflected in the study.

## 4. Empirical findings

*This chapter begins by presenting the collected empirical data from the three case companies*

### 4.1 Company A

Company A is a Swedish Fintech start-up located in Stockholm. The company started its operations in 2011 and over time the company has offered several financial products to clients, all related to equity selection. But in 2019, the company decided to specialize in a subset and become a data-driven Fintech. Therefore, the company is a Research and Development (R&D) company, their main activities include constructions of algorithms, and the company researches the financial data. Company A sells curated data products to professional *equity investors* in any part of the world. Company A has five employees and has no external foreign presence in terms of manpower but its client base is potentially global.

#### 4.1.1 Internationalization

The company has clients in different parts of the world and their biggest potential market is the US market. It took less than 3 years from when it decided to pivot to its current business model in Fintech to set the first business deal with an international client from the US market. Company A succeeded in entering the US market through a partnership with a US firm. One of the drivers for entering the US market was the fact that this market holds great potential for company A since the company is working as a provider to specialized fund companies and financial institutions and the US is home to a majority of the global financial entities working with delivering such products. Furthermore, firms in the US have access to the most liquid market in the world.

*“It was a big shot for us to come into the US market and then establish the name especially for us because this client is a pretty big client in the investment management industry. So getting our model to be used by someone like that is a big deal especially when it comes to branding of our company.”* Sales Analyst

The company is also in partnership with a Germany index provider.



### **4.1.2 Digitalization**

Company A businesses rely on financial data that the company buys from different vendors then data is being processed and value is being added to it in order to provide qualitative and customized solutions to their professional clients. To achieve this process company A works with a big data set, machine learning, business analytics such as mathematical algorithms and programming language to sort out the obtained information from the data vendors.

### **4.1.3 Influence of digitalization on business model innovation in the internationalization process**

In the beginning of company A's business, the business model was at one time building applications that facilitated equity selection for citizens. The private individuals were able to access this application on their cell phones. Despite the fact that the application functions worked properly, company A decided to discard this business model because of various reasons. Among the main reasons was that company A faced increasing regulatory burden in relation to this business model. Not only that but also despite the functions of this application worked accordingly, the application did not reach the intended volume. Furthermore there was a lot of competition in the stock analysis for private citizens from other applications. And since the stock analysis requires a massive amount of data therefore getting the cost of data that comes with different types of licences it made more sense for company A to only reach out to actors that can build scale such as fund companies instead of private citizens. The reason for this is because such actors can control majority of the capital.

Later on the company also had a sub corporation in Luxembourg where they ran their own fund company in their own name. However, this business model had very little to do with digitalization. The company basically delivered and acted on data to a fund company that it owned but later on the company decided that someone else should act on the data. According to the COO of company A, this business model in Luxembourg was a good way to get their name out there, but company A was really good at developing and curating data so it was also decided to discard this business model as well in order to focus more on working with data. Furthermore, the COO mentioned that if they were to continue delivering data to this fund company today they will face challenges in relation to regulatory burden.

Therefore after discarding these previous business models, in the following years company A has been performing advancement on the way that they are working with data. Since working

with data has been the core of everything that company A does. The difference between the current business model and the previous business model of distributing data via an application is that now company A sells curated data products to professional *equity investors* instead of private citizens. Whereas on the other hand, the difference between the current business model and the previous business model in Luxembourg is that Company A no longer sells data to the company that they own but rather sells to anyone who has interest in their data.

Since company A is an R&D company, the COO mentioned that the business model for him has little to do with R&D because this is something that they do internally. However, he further mentioned that some aspects of digitalization have played a part in changing a few aspects in what they do with R&D. This made the company move from having their own physical servers and go to the cloud which turned out to be cost efficient for company A. However the company will continue on working with developing their models and incorporating new sets of data. Therefore the business model for the COO is how the company reaches out to their clients and sells their products (data). Therefore the company has decided to go digital by building an online customer platform that will increase their efficiency as well as reduce the back-end business hence saving time for both the companies and customers as well. The digital platform will be a sort of showcase for the existing clients to buy more from company A. Another reason why the company is innovating its business model to have a digital platform has to do with the competitive position. The company found out that every similar company to them not everyone focused on digital presence, so company A thought of at least making one or a few of them that will be accessible to their clients. This platform will provide company A's clients with information about different offerings of the company. It will also allow clients to customize their requirements. Apparently company A redistributes its offerings (data) to clients through emails.

*“Emails put a lot of dependency on us and our ability to redistribute the data in a timely fashion on a day that is relevant to our clients. So what we are doing now is we are building an online platform to do this automatically and by working with the client experience.”* COO

Therefore, according to the (COO) of company A, *“Business model innovation is not necessarily adjusting the business model but tweaking a little bit how you usually work in this business and making sure that we have the technology to our clients search wherever they are.”* COO

The COO also mentioned that investing in building a user digital platform will also require them to use other technological software such as Customer Relationship Management (CRM) in order to facilitate the interaction with the customers.

*“We have not used CRM before but now that we are building this platform we will have to use it. If our clients call up we can still follow up so that the client will feel that there are people and not just a home page or application. Digitalizing this business entails a lot of considerations.”* COO

Therefore, the current clients would not have to call company A to request the information on products that they have procured; instead, they will be able to access such information through the online customer interface. The COO further mentioned that this customer platform will change their business model quite significantly because the company will not have to participate in every step of the client’s journey since customers will be able to customize their requirements themselves.

*“My hope is that this will provide value to clients and at the same time save time for us otherwise it is a hen and egg scenario ...where okay we want more clients buying more products but at the same time once you get more clients you also have to devote more time for each client.”* COO

However, the COO sees one of the challenges that the company is going to face in relation to innovating their business models by digital technologies will be the online presence of branding.

*“BM is there and we will continue with re-innovation of it, but the branding aspect of it, that is the toughest question. Every business is going digital but since everything is digital it is basically a big shopping window and how do you make sure that they look at your window?”* COO

Before the official launch of this online platform the company offered an opportunity to some few clients to try to use the platform and they received positive feedback from their clients. They appreciated that they could see more data and it was easier for them to disseminate. This platform will change the way that company A will be distributing their data since previously the company distributed the data in an old limited fashion and now this process is moving

towards being more digital. The company is also planning to have a couple of demo users so that they can try the platform before buying any company's offerings.

Building an online customer platform has made company A establish business relationships with stakeholders outside Sweden. During the interview the COO mentioned that peer companies using similar customer platforms are quite a few but still it is important for company A to learn how others managed to develop their digital presence. Therefore, to get the right tool in place company A seeks the knowledge from other international analytics through peer comparison and collaborates with other stakeholders and IT developers.

*“We are aligning the contract of developing this platform between works with numerous other parties, not the same but in a similar field to make sure that from a user perspective, the international perspective from everything we build so that it provides a fresh yet familiar look and feel to our clients” COO*

One of the challenges that the COO mentioned in relation to digitalization and business model innovation concerns the ability to make the product that is innovated easily used by everyone. This was a very difficult task for company A to achieve when building the online customer platform. So the company had to invest time in having internal discussion not only that but the company had to consult a professional expert with experience in designing this platform in accordance with their requirements. Furthermore, the sales analyst also highlighted the challenge related to limited resources. Since company A is a small company, the company faces challenges in getting their online customer platform done in a timely manner at a lower cost due to limited resources. The company has only one employee who is specialized in quantitative analytics, this has made other employees start learning some quantitative related tasks.

Overall the business model of company A changed from the digital distribution via an application to owning an old fund company in Luxembourg and now the company is moving toward having a more digital distribution of data to everyone who is essentially a professional investor and not a private citizen.

## 4.2 Company B

Company B is an e-commerce start-up started in 2019 in Stockholm Sweden, the company has no formal employees but rather works with several consultants and has five people working as co-owners who run the day to day operations. The company started its business with the production and selling of kitchen knives that are made in different designs and sold in different parts of the world. However, the company sees the whole cookware industry as their main market and future target. So, the company decided to start their business with production of one item in order to be focused on one particular cook item where the competition is low. The founders of the company B had connections with a few renowned restaurant chiefs, out of them some are also Michelin chiefs as well. Based on the peer discussion and insights from the known chiefs, the co-founders identified the needs of good looking kitchen knives with the quality and high performance. They found a gap of having a nice interior designed with high quality blade knives in the market, especially in the kitchenware segment. This was the first thing that drove the founders to start the company with a single item 'kitchen knives' as the initial product in the business.

### 4.2.1 Internationalization

Company B was born digital and partners with two suppliers in France who are responsible for the production of kitchen knives. Traditionally the knife making culture is popular in Japan, but in Europe, the capital of quality knife making is in France. So, company B chose to have a supplier with manufacturing facilities nearby. Since company B is an e-commerce company their target is to sell globally however their initial sales were from the domestic market (Sweden) but in a period of three days the company was able to sell in the UK, France and Germany. Apparently the company's main sales are from mainland Europe.

From the inception, the vision of the founders of the company was to be a global brand and targeted consumers from all over the world. The company has so far succeeded in selling their products in 11 countries on 4 continents. But currently focuses mostly on building the brand in the European and US markets. As mentioned by the CEO & Co-founder of company B, initially the company contacted over hundreds of knives manufacturing companies from different parts of the world in order to find the right partners that would create value for their product. The main criteria of choosing the manufacturing partner was the ability to produce

quality knives and establish a long term relationship. Finally Company B managed to find two suppliers from France that could produce knives for them.

During the interview session with the CEO, it was mentioned that one of the challenges that the company is facing today is marketing their products in different countries at the same time. Therefore in order to mitigate this challenge, the company has decided to focus on marketing its products in fewer markets just to try out the internationalization process. The company also does not want to sell their products via any middlemen such as distributors in order for them to offer competitive pricing in their business. However, in one of the distant markets where company B has no opportunity to ship their products due to high transportation costs and complications of entering that market, company B has decided to sell their products via another e-commerce retailer in that market. The business deal with such retailers is done so long as they are willing to guarantee long term business relationships which has been deemed to be crucial in facilitating the branding aspects of company B. The CEO mentioned that this entry strategy has been another interesting way of innovating their business models. From company B point of view this method was used just because they saw an opportunity of entering that market and wanted to test the method out. Since the company is currently investigating different markets the plan is to try this method in other markets as well but for the moment the company is considering their options as limited because they need to have a strong and long term strategy for everything. The CEO thinks that it is important to establish themselves as a sophisticated kitchen knife brand with high quality and exclusive design, a first step on the market before they start to try to push out for more sales globally.

Using a third party poses challenges for company B because the company has to always consider what will be their next step. If for example company B wants to enter the same market via direct sales (their own channel), this means that the company will be competing with the other e-commerce companies in that market who have been in the market before company B started their sales. The company also needs to consider whether or not they will cannibalize on their own offering when partnering up with the third party. Company B also has to be aware that there could be cannibalization in the future.

*“...since the company is still a start-up we will see everything as an opportunity right now and not as a challenge.” CEO*

As mentioned earlier, transportation cost and timeline are the main challenges for delivering the products to the customers. Therefore company A uses other e-commerce partners to sell their products in distant markets. The CEO and Head of Marketing (HoM) mentioned that the company has a strategic plan of expanding their business to the Asian market through partnering with similar kinds of e-commerce companies who have adequate market knowledge required by company B. By doing so, the company will to a large extent overcome the challenge related to transportation cost and timeline .

#### **4.2.2 Digitalization**

According to the CEO the fastest way of scaling a company today is to have a digital business. So, everything that company B does from marketing, advertising to their digital store is based on being digital and being able to integrate as many parts of the value chain as possible. The company's online store that is found on their website is built on a cloud solution Shopify, a world leading e-commerce store provider. Partnering with Shopify facilitated the launching of their e-commerce store to start the business in the local and international market at a go. In this store the company runs google analytics so that every single customer that visits their store can be analyzed. Company B is also integrated with payment providers, banks and CRM systems. The company also uses a cloud based ERP system in the back-end to manage their daily activities such as tracking stocks, sales, forecasting etc. Therefore everything is fully integrated and cloud based. Furthermore, the company also uses Chatbot on their website, a digital and automated responding system for interacting with the customers. By having a chatbot on their website the CEO believes that this will increase the likelihood of people purchasing on their website as it reassures the customers that company B is a serious company.

*“I cannot imagine how someone today can create a store or a brand without being fully digitalized in every step of the process, it would be madness to build something and maintain everything in house. I mean we would have to be thirty people to do this.”* CEO

The company believes that using digital technologies gives them an opportunity to reach the global market within a short period of time. Moreover, as the CEO mentioned that nowadays most of the consumers are using mobile phones that are equipped with digital platforms, therefore having an online store is the easiest solution to reach all the customers across borders. Furthermore he argued that, to increase efficiency and reduce the cost, like running the

operations with only five Co-founders and without any formal employees, that is possible only for such integrated digital technologies.

One of the challenges that company B mentioned in relation to digitalization and business model innovation was that they could not use the standard module which is embedded with the Shopify webstore solution that the company had implemented on the digital store since each country had their own check out options and verification process for payments that the local consumer uses for any online purchase. This influences business model innovation for convenient and reliable payment solutions from the technical point of view. Therefore the company had to build a customized store in order to adapt to customer behaviour in different markets they served. Company A implemented the payment frontend module integrated with Stripe, the biggest cloud based currency platform via Shopify. This payment module is connected with the company's bank account in Sweden and gives the option to pay through EURO and Swedish Kronor. The company has also integrated PayPal that handles currency exchanges as well. This unique solution was made possible with the help of consultants that are good at coding. So it was not the in-house people of company B who did that.

Another challenge faced by the company relates to their production side as the knives are custom designed with sophisticated interiors and the process involves a lot of manual work since the products are handmade. The company has two knife manufacturers in France. It has been challenging for them to plan orders in advance because they cannot manufacture knives immediately after the order has been placed. The company needs to plan their orders and volumes on a yearly basis. The CEO insists and expects that the advancement in digital technologies may solve these certain challenges in future.

*“In an ideal world we could have a huge 3D printer at our manufacturing site so that when someone purchases on their store that the knife is produced at the site but unfortunately that is not the case. We need to produce beforehand.....so production is the main challenge.”*

CEO



### **4.2.3 Influence of digitalization on business model innovation in the internationalization process**

On what concerns business model innovation, the CEO defines it as “*..finding new ways and to attract new customers regardless if it is within the same kind of demographics and segments we have been selling to or mainly results directly to consumers. So basically innovating a business model could mean that we find ways to attract other types of end customers or find a completely new channel to sell. We don't have to mainly sell via our own channels to find new customers.*”

Business model innovation has been referred by the HoM as “*being able to communicate with an innovative slogan or introducing and selling new innovative products to the targeted customers group that the customer haven't thought of beforehand.*” Also emphasized to communicate and build the brand awareness of the products and services to create the standout placement in the market. In respect of the innovation, initially the company B had mostly focused on standout and unique designs with highest quality. The company used a group of personnel from a designing company to design the product that gives the uniqueness in the kitchen knife category. The design is usually drawn by the designers manually with their artistic hands. With several corrections and discussion on the designing aspect between the designers and the co-founders the final design is then set for production. And then the final design is captured in a digital format using the designing tool called *CAD*. Then this digital format of the final design is sent to the manufacturing companies in France for final production. Furthermore, the company has concentrated on ensuring the high quality and efficiency, they used the best of the best material like xyz carbon blade mixed with stainless steel that gives the unique proposition in the industry context as the kitchen knives which is attributed with both highly sophisticated design and high quality of sharpness and longevity.

On what concerns marketing of the product abroad, digitalization has made it easy for company B to reach out to different customers and introduce their brand. The awareness and reach that the digital platform has given was much higher in comparison to the physical presence if the company B's products were placed in any retail stores even that located in the centre of the city in a specific locality, as commented by the HoM. Furthermore, HoM insisted that in the context of marketing nowadays, companies need to have a good profile in different social media platforms that consists of good quality and attractive contents with distinct themes and strategies. It provides the organic growth of awareness and reach in social media. On top of

that, it needs to add marketing twists and relevant content that plays a critical role to increase the viewers and followers of the profile. Company B does not use the ad works in the digital media platforms; rather the company is trying to use famous influencer that drives sales in different markets.. So company B reaches out to these influencers by contacting them via direct message in Instagram. So instead of company B paying for advertisements via Google or Facebook. These influencers use Instagram and Facebook as their digital channels. The CEO believes that the influencer trust building strategy that they use in their international markets is more scalable than using the same strategy in premium brands stores on the market. This is because there are much more influencers on the market than the premium brand stores. Therefore, from a scalable perspective, company B sees the long term way to scale the e-commerce business in a new market is to partner up with influencers.

*“So we have actually changed our business model from driving sales and making the introduction via influencers profiles rather than paid advertisements in Facebook and Instagram.” CEO*

One of the most important outcomes that Company B has experienced when using the influencer marketing strategy is the reduction in customer acquisition cost if the strategy is used properly. In regards to contact and creating contents from the influencers for the social media the company focuses on contact with the food bloggers, recognized chiefs and actual customers who have already purchased and using the company B’s ‘kitchen knives’ in their daily life. The company considered a perfect and optimized way to make and promote contents through the collaboration with food bloggers and chiefs or even real customers rather than involving lifestyle influences. In most of the cases the company has mentioned the expectation from the influencer but not limited to the creative and innovative part as well as control of the content creation. The contents were created focusing and relevant with the foods and cooking, the bloggers and chiefs are using the company B branded knives. Most of the content that has been published or tagged in the social media, was created by the real customers or food bloggers or kitchen chiefs by their own and the company B has got those free of cost. Moreover, the company got lots of good testimony from the high profile local influencers in the social media. Currently the company has three thousand and five hundred followers in social media and the company set marketing and digital strategies to scale it up to the next level in this year as mentioned by the HoM.

In the context of marketing and promoting, the company has taken an innovative path to categorize and register them as kitchenware, kitchen knives, cooking knives or chef knives in the digital platforms. This business model innovation in the digital platform gives the flexibility to overcome the generic challenges as knife selling companies in the digital platforms. The most outcome of such a bio profile of the company has given the opportunity to reach the targeted customer segments and helps to avoid the auto restriction for weapon rules in the search engine and social media platforms for the keyword 'knives' category. The company always uses food or cooking as a hashtag for any promotion. And the content that is relevant to the food and cooking rather than knives as isolated. Furthermore, the company is not using any picture that focuses only the knives instead use the nice looking, attractive images relevant to food or cooking.

However, the company is facing challenges in regards to designing and guaranteeing high quality, as all the competitors in the industry having the same digital strategic like utilize local social media influencers. Moreover, in some cases influencers are getting spoiled due to paid offers from different companies and industries. Hence, CEO and HoM insists on extending and diversifying the product line of the company in consideration to bring back the customers who have already bought the existing products. Furthermore, as like other start-ups and SMEs, company B faces the resource scarcity that leads to extra workload for the existing workers. And needs to go beyond the assigned responsibility with maintaining the nobility of the works. In the future, a digital specialist may redeem the challenges in respect of digital marketing to keep track of the changes and predict the further optimization that is required to step up to the next level.

### 4.3 Company C

Company C is an e-commerce start-up company that started in 2007 in Sweden. The company offers *a wide selection of fixed blade knives, folding knives, gloves, calls, hand forged axes, reindeer leather products, diamond sharpeners, traditional remedies from Lapland, fire striker steels, outdoor cooking and eating appliances, fileting knives, priests, slings, leather goods, knife making materials, gifts and other accessories for hunting and outdoor pursuits* (company C webpage, 2021). The company is also an e-commerce wholesaler for several brands that manufacture hunting, fishing and outdoor products in Sweden and the UK. Apparently the company has seven employees.

### **4.3.1 Internationalization**

The company started by selling knives in Sweden then later on these knives were tested out by selling them online via ebay. So already the whole birth of the company comes from being able to test the markets where there is sort of concept of the company's idea on ebay and seeing what kind of demand was for the kind of product that the company wanted to sell. Basically for the first six years the company only did distribution where by it was more of buying from other companies and reselling to shops but also online on ebay and on the web shop. Around 2013 the company launched their own first model. This is because the company found out that the profitability as a wholesaler was not quite good enough. So the CEO, who is also the founder of the company, wanted to find a way to control all the products and the price better but also he had some ideas of designing knives since before. Therefore the company was able to find their main manufacturers in the South of Europe in Italy, Spain and Portugal who managed to make company C's products according to their specification.

The reason why the company chose not to have a manufacturer in the Northern part of Europe is because of a couple of reasons such as there were very few manufacturers of knives that were left in this region and most of them were struggling financially to make profitable manufacturing even though there was a good amount for the products, it was just too expensive to make things in that way. And when looking to start company C's business project it was not possible to look at manufacturing on their own because it was going to be too expensive. This would have required the company to have big and expensive machinery, a lot of space as well as a lot of workers so company C saw this as a huge risk as the company just wanted to test the project. So, they managed to find a manufacturer in the southern part of Europe who had spare capacity. Company C did that in order to find a cheaper way to manufacture the products and still maintain the good quality. Another option that the company could have considered was to go to China or India but the problem with these countries and especially China is that quantities are generally much higher. Furthermore the company wanted to work with wood and in China the knife industries are mainly based around the Southern East part of China and it is very humid there, so that would have not been a good place to have wood because it would swell and when it comes to the Northern part of Sweden where company C is in the Arctic North it is very dry this would have made the wood to shrink and crack.

Not only that but also the company wanted to make knives with a particular design using woods that are more Northern woods. This would have entailed extra cost for company C if they had

to maintain the production in China because they would have to send the goods there and then send it back to Sweden. So this option did not feel like a good way to work. The CEO further mentioned that they also could find any manufacturer who was familiar with the way company C wanted to make their product in terms of the steel that they wanted to work with, the kind of quality processes that they wanted to put in place. However there were really good manufacturers but for the needs of company C as a very small company there was not a very good fit. That is why the company decided to find manufacturers that could benefit just as much as company C could from the relationship.

Furthermore company C has individual suppliers of materials and components in few other countries like Finland, Taiwan, Germany, UK and the US. The company launched their first custom branded product that went very well and since then the CEO has carried on transferring the business from a distribution company to a manufacturer and a brand owner. Apparently the company is growing at a rate of 25% per year in terms of revenue growth. The company is continually removing the distribution side of the business more and more from the company. However, the company is still doing a little of distribution particularly in the UK as well as in Sweden, but the company is moving away from that as it wants to focus more on building their own brand because that is the part that is growing more profitably.

From the beginning of the business, company C started by selling their products through their online store. However, back in 2007, the company thought that it could not expand the company quickly enough by just selling online and therefore decided to sell their products through retailers. The reasons why company C used these retailers in their initial stage was because these were the distribution channels that worked in most places in the UK and in Sweden. However, one of the major challenges that company C faced was that these retailers were small brick and mortar shops that were basically struggling more and more from competition online in terms of orders and used to have problems with payment. So, the company has been very quick in moving away from selling through small retailers and instead decided to focus more on selling to larger groups with extended networks abroad.

*“..When we started our own brand and started tapping into more of the international market, we could see that we have got much bigger customers mainly online retailers who had bigger orders and they would pay upfront and therefore it was a lot easier for us to work with them.”* CEO

Furthermore, company C also sells their products worldwide through bigger online retailers. However the company has limited their selling to certain very restricted markets but sells to about 95% of the world. Company C sells direct to almost every country but their main sales direct online go to Europe but the company also sells to Asia, Japan, South Korea, Australia, New Zealand, North America and Canada. Although in North America company C has tried to work with partners there, in Canada the company has two main retailers which are big online retailers supplying most of the market and in the US the company has got their main distributor that the company sells into the rest of the country. The company uses distributors in the US because their insurance company does not like company C to sell direct to customers in the US, they prefer that the company sells to an importer, it shows the litigation risk of getting sued with somebody injuring themselves with the knives.

Furthermore, company C has a sister company in the UK. So this is the one country that the company has actually established their own company and in the long term this is probably one way that company C thinks that will work with in other countries with bigger markets like the US. The company is planning to do this in case they see if there will be the benefits of doing that. In the European Union there is really no point of having a company in all the different countries because it works as a single market. In the UK the company did not do it because of Brexit but after Brexit the company realized that it was very beneficial to have the company in the UK. But the CEO mentioned that he can see a point of having a company in North America but the company is not quite that size yet. Because of the way the world is right now, it is possible to set up a company in almost any part of the world so there is definitely an opportunity there. But the way company C has done it in most countries is to start by trying to find the partner locally to try to sell to and then they sell to the end consumers but also the company sells direct to customers.

Moreover, company C has been a little bit quicker than other knife companies in utilizing social media marketing and influencers and building relationships with them. Therefore, the marketing activities like promotion of company C is international. Company C uses social media like Instagram a lot and works through influencers who are on different social media. These influencers put out content using company C's products which spreads the marketing from everywhere basically and the CEO believes that this is a good way of working.

### **4.3.2 Digitalization**

Company C is using the digital technologies in most of the business functionalities like in product design, communication with the manufacturing companies, transport companies, supplier, distributors and customers that included individuals, wholesalers, different e-commerce sites and others. In the product designing stage the company is using a digital designing software CAD (Computer-Aided Design) to make a model for production. The models are then transferred to their manufacturers who are communicated via e-mails, web conferencing and then using cloud based file transfer solutions to share the designed product with the manufacturing companies for production. As the company C is working with different manufacturing companies from Southern Europe in Italy, Spain and Portugal and suppliers from different parts of the world, there is a language barrier in communication, as English is not the common language for most of these partners. Therefore, company C and its partners are using digital translating solutions like Google Translate for all sorts of communication.

The CEO mentioned that one part of the business where digitalization has been very important is their ability to source a lower cost transport because transport is such a big part of company C's cost as the company sends materials to factories but also receives the materials back. The company also buys materials, components, boxes and marketing materials from lots of different people and assembles the final product which is then sent out to their customers. This results in high costs of transportation so what the company does is sourcing the cheapest alternative to ship. The company has three different services that they search to find the best price for shipping their products. The company uses three different service companies because if they had to use one company the variation of prices offered by these service companies would have affected company C transportation costs. So the company has decided to cherry pick from the best and cheap transportation companies. This could not have been possible if the company was in an old kind of undigitized sort of situation. Furthermore, the company has integrated much of their shipping out to customers through the company e-commerce site and their business software which is linked up to a platform, which is a sort of a digital platform where you can negotiate all the transport deals.

Company C has integrated their web shop with Enterprise Resource Planning (ERP) system, to manage their daily activities such as tracking all the production, selling, stock management etc. The company is using a customized 'buying tool' which pulls out information about the sales trends from our ERP system and feeds that into an Excel spreadsheet and then from the

Excel spreadsheet they've built in a formula that shows the sales trends of each product and the stock levels and the current orders. The company has to purchase at least 300 products that they buy regularly but the core products are 100. Unless using such ERP and 'Buying tool' it was impossible to track and manage such a complex product line to have the right forecast based on the actual sales trends and ensure the right level of stocks. However is planning to use a new ERP system that will facilitate production planning.

The CEO is focusing on utilizing and integrating more digital technologies and systems that ensure more automation and apparently which will simplify the business activities and make the back office side of the business more efficient. However, he mentions that digitalization is useful in some senses but the problem is that it can make their company run into a situation where they have to teach their employees how to work with it. So this will require staff to learn a new way of doing something within an electronic system and they cannot employ anyone to do the job because they need a certain level of knowledge. This means in order for company C to scale the business properly it needs to be as simple as possible so that they can quickly train new people to use the system in a simple way.

*"...Digitalization still continues to drive trends, movements around the world and this is something that I think will continue of course in different ways. Maybe there will be a new social media or new platforms or new ways of influencing and sharing between people around the world so that will probably change the ways and the needs that will sort of ideas and the audience and the customers so we have to sort of follow that."* CEO

Another challenge is that when choosing a particular system or a particular way to integrate or build on something they become stuck with it for a certain period of time so it is difficult for them to become flexible. This is because it is very expensive for the company to change to other systems and also the new system will require the company to invest more time in learning how the system works. All the challenges are due to the fact that company C is a small company. The CEO mentioned that the larger they become the more complex and beneficial to have these integrations but also it will be easier for them to absorb these costs if the company will have a larger turnover and profitability base.



### **4.3.3 Influence of digitalization on business model innovation in the internationalization process**

The CEO defines business model innovation as *“a way for us to try to find some competitive advantage in terms of how we can change the way that we compete in order to be better in some way. Can we change the way that we are working in some way? Can we sell in an easier way for a customer? Can we change the product in some way? Can we be in other places or channels and this sort of thing?”* CEO

The area that Company C puts a lot of work into the innovation of their business model is the promotional side. So business model innovation for company C has been focusing more on marketing in order to attract more customers. This includes the way the company promotes their business, shifting more from advertising in magazines to more online and social media marketing. There has also been a change in the way the company works as the company is moving from a traditional way of selling i.e. face to face to online store. Furthermore, the business model of the company has also changed from buying products from other companies and reselling them. Before the company was selling a lot of goods in the whole range that were sold to small companies. Company C also had lots of shops but now the company is selling to fewer customers and they have a much smaller range of products but sold in bigger volumes of each product. So this has been something that they have changed significantly.

So, for the CEO Business model innovation *“...Is basically like you know... the way you make money basically. It is the structure of how you make it work and how you choose to compete and when you innovate that, there should be with the aim of being better than a competitor, being quicker, being cheaper...you know getting an edge somehow.”*

The CEO mentioned that the business model is driven by both the company itself as well as the customers. Therefore for company C business model innovation was much driven by the fact that the CEO who is also the founder of the company could not get a proper wage from the company as he was not making enough profit in the company. The company was growing every year in terms of turn over but there was no profitability. So, the founder had to find a better way on how to approach his business. This is when they decided to innovate their business model which was also contributed by the influence from customers.

*“You have to take different concepts, different ideas, maybe copy somebody else, then you put it all together in a new way and it becomes something new. And then it is also the process of testing. The way the world is now, we can test things quickly, we can test new products, new concepts, I can even build a prototype, take a picture of it, put it on Instagram and I can see instantly if there is a lot of feedback that is positive or there is no so much interest. So I can tell whether this is a concept that we should carry on working with or not. So I think the speed of feedback loops are a lot quicker now and that makes innovation possible and necessary. CEO*

The CEO mentioned that when companies make money then there is no need to innovate. For him business model innovation has to come from some kind of necessity whether it is a competitor that is disrupting the market or whether it is from the unsatisfied customers. Furthermore the existence of different actors in the business ecosystem increases competition which eventually leads companies to innovate their business models. The CEO mentioned that business model innovation is all about decision and less about time and resources. He further highlights that it is important for company C to have an opportunity of testing out things on a small scale first in order to get a hunch as to whether or not they are on the right track. This is very important for company C as the company does not have enough resources to do a big market research and study a big market somewhere that is isolated and see the results. What company C does is just testing their concepts online and talking to a few key influencers that will float their idea. And then the company has to make a decision about changing something. This decision can impact lots of things down the line which makes it difficult to take it back. This sometimes creates some sort of reluctance to change because the company will be changing away from something that they are familiar with and comfortable with. Therefore the main challenge for company C in relation to business model innovation is about the risks of consequences of what will happen on whether it is going to be better or worse.

Company C has tried to test several ideas but not all of them have been successful, for a while they tried to test trying to start lots of different websites and having sub branded websites. The company also tried to do more of an i-business model to sell to retailers but this did not work very well. Furthermore, the company has tried other ways of approaching direct selling in their business. However not all the ideas yield the success that the company wanted so in such cases the company decided to leave behind the idea and move on to new ideas that were successful.

*“...if you test ten ideas, two of them are going to be good and you carry on with them. With time I have become much more comfortable with leaving unsuccessful projects behind me and finding a way to move on building strong ideas and promoting strong products.”* CEO

Digitalization has influenced business model innovation of company C in their internationalization process by facilitating the selling of the products to international customers. Because keeping track of the regulations of exporting to other countries, keeping track of customer's preferences and meeting their needs could have been difficult to do without using digital technology.

*“...it could have been difficult for us to internationalize as quickly as we did without digital technologies .”* CEO

Digitalization has allowed company C to reach out to an international audience through social media. This has been one of the main drivers for their business to expand internationally and led the company to change towards online promoting. Before the company used to spend all their money on local magazines within Sweden or in the UK but it was challenging for them to take an advertisement on each magazine in each country but they could certainly put a campaign on Facebook or Instagram. This has influenced a lot the way company C's business model works. However, one of the biggest challenges for company C faces is marketing their products in big companies like google and Facebook as well as Instagram as these companies apply a certain policy about weapons. So they do not allow weapons to be promoted and even though company C's knives are not really weapons, they are tools for outdoor use but still these big companies classify them as weapons. So company C is not allowed to take a paid advert on Facebook or Instagram. So the company cannot buy and promote a post instead they have to do it all organically. Moreover, It has also been very difficult to get company C's shop plugged in Google shopping because they also have a similar policy against weapons. This challenge has to some extent contributed to damaging the expansion of company C abroad. Therefore, the company found an alternative way of promoting their products through social media influencers available in the local markets. The influencers grow their presence organically and they do not place paid advertisements. These influencers are more about their outdoor life and about themselves and the things they do, lifestyle and others. In their images in social media, maybe only 5% of the images show the knives, not predominantly and the majority of the picture is all about other issues like lifestyle. Through this process the company C has been

able to promote their products which are also not recognized by the software of these platforms. And this is not a paid promotion, and influencers do not get paid but rather the company tries to help them become more famous.

Furthermore during the period of Covid-19 pandemic the company has started using digital communication channels like zoom and teams to communicate with their customer, manufacturing companies, retailers, and even within the company internal employees to ensure the continuation of business operation. This is something that the company has used before. The CEO mentioned that with these digital communication channels it has been easier to communicate and organize regular meetings. Before the company used to meet with their suppliers and customers in the trade shows but now the company can communicate with them more regularly through the digital platforms.

Moreover, company C also faces challenges with translation of languages in their online store. Apparently their online store can only be translated into either English or Swedish despite the fact that there are available web shops that can translate their online store into different languages but the company has not chosen to use them and instead choose to translate the language on the store by themselves. Furthermore the company sells to a few different currencies that is Swedish Kronor and Euro through PayPal. The company chose these two currencies in order to minimize the currency conversion cost with PayPal. However, the CEO emphasized that the company may go further to integrate more currencies and payment methods in future to become more easily accessible and convenient for the customer to buy the product from the company web shop.

## **5. Analysis**

*In this chapter, empirical findings will be analyzed in relation to the theoretical framework that has been presented in the second chapter of this study. The analysis is based on comparing the similarities and differences of the empirical findings collected from case companies with what has been discussed in the theoretical framework. This analysis was developed based on the sub themes that we used to develop our conceptual framework together with the empirical findings from the case companies. The analysis will be presented in order to make evident of*

*this research contribution by answering our research question on how digitalization influences business model innovation in the internationalization process of SMEs.*

## 5.1 DIGITALIZATION INFLUENCE BMI OF SMEs

In this subsection we will analyze our empirical findings in relation with the main takeaways and sub-theme that were discussed and developed in the theoretical framework. In general all the respondents that we interviewed agreed that digitalization influenced their business model innovation in the internationalization process in one way or another. However to what degree these aspects differ from one SME will be presented as follows:

### 5.1.1 Value creation

**Table 4: Summary of empirical findings in value creation aspects**

Themes	Company A	Company B	Company C
Changes in customer segment	From private individuals to global professional investors.	From domestic customers to global customers.	From domestic customers to global customers.
Creation of new offerings	Facilitating data analysis process.  Slight influence on R&D.	Exceptional designing of high quality products.  Less digitalization on the manufacturing side .	Design through CAD and using cloud based solutions for file transfer.  Less digitalization on the manufacturing side.
Establishment of new forms of relationship with the members of the ecosystem	Co-creation of value with customers.  Establishment of relationships with other stakeholders.  Working with professional experts on building the digital customer platform.	Partnership with design company for unique interior design.  Partnership with Shopify in hosting the online store  Partnering with French manufacturers	Partnership with manufactures from the southern part of Europe.  Partnership with individual suppliers of materials and components from other countries.

#### ***5.1.1.1 Changes in customer segment***

In all the three SMEs that we interviewed, digitalization offered the possibilities for these SMEs to expand their customer segment from domestic customer to global customer. By making use of the digital platforms these SMEs have been able to understand the customers' needs and preferences in different markets hence facilitating the processes involved in the creation of unique offerings in order to satisfy the demands of their customers. This is in line with the discussion of Schmitt & Baldegger, (2020) and Herve et al., (2020) that digitalization results in dematerialization of borders therefore offering opportunities for firms to internationalize quickly.

#### ***5.1.1.2 Creation of new offerings***

From Table 4, we observe that digitalization has not really resulted in the creation of new offerings for the three SMEs but rather played a big role in improving the quality of the existing offerings. For company B and C digitalization influenced product designing processes whereas for company A, digitalization facilitated the data analysis processes and had a slight influence on R&D activities. This aligns with what Rachinger et al., (2019) discuss that digitalization improves business processes hence contributing to increasing productivity and efficiency of a firm. However, for a firm to have sustainable competitive advantage business model innovation should involve both product and process innovation but attaining this in SMEs that are in the initial stages of their business could be quite challenging given the fact that such firms are to a large extent constrained by limited resources (Denicolai et al., 2021).

#### ***5.1.1.3 Establishment of new forms of relationship with the members of the ecosystem***

Furthermore, according to Parida et al., (2019), collaborative value creation among firms and their networks has been discussed as one of the outcomes of digitalization. Similar findings have been observed in all the three SMEs that we investigated. It was evident that these companies established new forms of relationships with employees, suppliers, design experts and manufacturing companies as well as customers from different parts of the world. All these actors contributed in different stages of the value creation process in these SMEs. For company A, the customer platform that the company is building will allow customers to personalize their requirements according to their preferences. Moreover, the company had to establish business relationships with other stakeholders as well as professional experts in designing. This means

that company A will be co-creative value with their customers. Company B had to partner with a designing company in order to design a unique offering and ensure the production of their product. The company had to establish business relationships with manufacturers from France. Company B is also in partnership with Shopify as a host of their e-commerce store. Whereas company C established business relationships with manufacturers in the southern part of Europe as well as suppliers of materials and components. Furthermore we observed that digitalization played a big role in facilitating the communication between the companies and these actors especially in the period of Covid-19. These companies have been able to make use of the digital communication channels and succeeded in running their business from a distance.

### 5.1.2 Value delivery

**Table 5: Summary of the empirical findings in value delivery aspects**

Themes	Company A	Company B	Company C
Productivity and Efficiency	Expected to reduce back-end business.  Planning to use a CRM system.	Focusing on digitizing all steps of the business.  Using a CRM system.  Using the ERP system.  Using google analytics.  Introducing 'Chatbot'	Using ERP system  Using the buying tool  More automation .
Acquisition of new capabilities	Move from having physical servers to the cloud.  Need for a CRM system.	Building a customized online store.	Integration of online store with ERP systems and the buying tool.
Development of required skills and competence	Knowledge sharing among employees.	Digital and social media knowledge on the on-going trends.	Need for knowledge sharing among employees.

Increase in collaboration with other firms/actors	Partnership with a US client.  Partnership with professional designers in building the customer online platform.	Strategic Partnership with DHL Express for delivery of products to customers.  Long term agreement with another e-commerce retailer in Australia.  Collaboration with social media influencers in different markets.	Partnering delivery companies.  Working with online retailers in Canada.  Working with distributors in the US market.  Collaboration with social media influencers in different markets.
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### ***5.1.2.1 Productivity and Efficiency***

In the process of empirical analysis of case companies in relation to value delivery, we observed that digitalization contributed to increasing the productivity and efficiency of company A, B and C. With company A, it is expected that by integrating the digital customer platform with the CRM system the company will be able to reduce the back-end activities in the former as well as to manage the interaction with their customers hence increasing productivity and efficiency of the company. Company B and C use the ERP system. Furthermore company B also uses the CRM system and chatbot on their online store to enhance the interaction with their customers. All companies are focusing on digitalizing their business in order to simplify their operational functionalities and facilitate the scaling of their business abroad. Therefore our empirical findings aligns with Rachinger et al., (2019) that with digital technologies companies can optimize their value chain activities and resources to increase productivity and efficiency.

### ***5.1.2.2 Acquisition of new capabilities and development of required skills and competence.***

We observed that all the three SMEs had to acquire new capabilities as they innovated their business model in their internationalization processes. Developing these new capabilities was important for these SMEs in order to cope up with digitalization of their business models. Burström et al., (2021) and Parida et al., (2019) conclude that firms might be required to develop new capabilities when they choose to implement business model innovations that are



digitally driven. Therefore in the process of building the digital customer platform company A had to shift their data from their physical servers to the clouds in order to ensure easy accessibility of data as well storage of data since the company works with a huge volume of data. Furthermore the company will be required to use the CRM system when they start using the digital customer interface in order to manage the interaction with their customers.

On the other hand company B had to build a customized store that could meet the needs of different markets with a specific customized payment solution that enabled their sales function to fit with the different countries' payment verification process as well as international currencies like EURO. For company C the company integrated their digital store with the ERP system to manage the data related to their business information and a buying tool that was built internally in order to facilitate their back office operations. Furthermore, we also observed that as digitalization enabled the business model innovation of company A, B and C there was a need for the employees to develop their knowledge in order for them to match with the changes that digitalization brought in different aspects of the business.

### ***5.1.2.3 Increase in collaboration with other firms/actors***

As digitalization might require firms to possess certain new capabilities, this also allows firms to collaborate with other partner companies (Burström et al., 2021; Parida et al., 2019) that could either be domestic companies or from other countries as well. Company A is partnering with a firm in the US which is the world largest equity investor marketplace. Not only that but also the company is partnering with designing experts in building the digital customer platform. Whereas company B and company C are partnering with e-commerce retailers to enable them to be a SME with sales in Australia for the former, US and Canada for the later. For these operations in distant markets these three SMEs did not need to allocate any physical resources rather than the digital facilities. Furthermore company B and C have increased collaboration with transportation companies in order to ensure quick delivery of their products to customers. Both companies have also increased their collaboration with social media influencers who promote their products in their profile in different social media. Company C has also chosen to work with a distributor in the US market in order to minimize the regulatory burden in this market.

### 5.1.3 Value capture

**Table 6: Summary of the empirical findings in value capture aspects**

Themes	Company A	Company B	Company C
<b>Reduction of cost</b>	Using the digital customer platform and the CRM system .	Using a CRM system.  Using the ERP system.  Using google analytics.  Introducing ‘Chatbot’  Reduced production and transportation cost.  Using social media marketing and influencers	Using ERP system  Using the buying tool  More automation .  Reduced production cost and transportation cost.  Shift promotion from local magazine to social media marketing and influencers.
<b>Improvement of revenue</b>	Expected increase in sales as customers buy more	Increased sales as the company started selling products internationally immediately.  The use of social media influencers pushed the sales up.	selling a few categories of products in large quantities increased sales.  Direct online selling to customers.  Use of influencers with profiles in social media.
<b>Development of new revenue streams</b>	Expected new revenue channel by incorporating new sets of data in the online customer platform.	Partnering with local e-commerce retailers in Australia.  Expected to extend in Asian market.  Expected to add new products and services.	Expected to enter new markets with efficient sales and stock management.

### ***5.1.3.1 Reduction of cost***

We observed that all three case SME companies were focused on implementing digital platforms to efficiently run the business operations that resulted in the cost reduction and optimization. As mentioned earlier, by using the CRM system and the digital customer platform company A is expecting not only the efficient back-end operations but also the company is expecting to optimize cost as well. By using the ERP system, company B and C have been able to manage their day to day activities and interaction with their customers respectively. The use of CRM system and chatbot to enhance the interaction with customers as well as google analytics in analysing the behaviours of the customers as they visit the online store has also contributed in reducing cost that company B would have incurred in order to capture customers' insights. These systems have reduced costs for these companies as it could have been expensive and challenging for the companies to innovate their business model if these systems were not integrated. This aligns with Burström et al., (2021) that digitalization creates the possibilities of efficient business functions that minimize cost for the company.

Furthermore the use of social media influencers by company B and C also contributed to the reduction of the marketing and promotion cost of these companies as well as customer acquisition cost. Other marketing channels like magazines and paid advertisement in social media that could influence their brand awareness internationally entailed extra costs for company B and C and since these firms have limited budgets so these modern ways of marketing and capturing customers insights have been considered as cost efficient strategies for them. This empirical finding is affiliated with the arguments of Casadesus-Masanell et al., (2010) that business model innovation stresses the need for companies to create and capture value in order to be cost efficient and profitable.

### ***5.1.3.2 Improvement of revenue***

Rachinger et al., (2019) and Parida et al., (2019), insist that digitalization permits the flexibility in the business model innovation that creates the opportunity for new revenue streams. Similar findings have been observed in our empirical findings, we observed that by innovating the way in which company A will be distributing its offering to its customers with the digital platform that the company is building, the company is expecting to have increased sales since customers from anywhere in the world will be able to access different portfolios of company A offerings and buy more from that platform. The e-commerce store of company B contributed to the

increase in sales of its offerings as the company was able to sell internationally to countries like France, Germany and the UK immediately after the start of the business. Not only that but the use of social media influencers was mentioned to be one of the ways that company B has used to create brand awareness in different countries which led to the increase in sales in this company. This similar marketing strategy has also been used by company C. Furthermore, it was observed that company C has experienced an increase in sales when the company decided to focus on selling a few categories of products in huge volumes online. This online store has enabled the company C to sell products directly to the customers in different parts of the world.

### ***5.1.3.3 Development of new revenue streams***

Company A stressed that by implementing the online customer platform and the CRM system will provide value added data sets that will offer the company an opportunity to grab customers in different markets hence developing new revenue streams for the company. We also observed from our empirical findings that company B focused on developing new revenue streams through partnering with other e-commerce retailers in distant markets like Australia. The company is expecting to use this similar strategy when entering the Asian market. Furthermore the company aims at also selling other kitchenware products in their online store in the long run this will also result in the development of new revenue streams that will be generated from different customers in different markets. Whereas company C is expecting to enter new markets with improved ERP systems in order to be more efficient in managing their stocks and sales. This will create opportunities for company C to develop new revenue streams in distant markets. This relates to what Brouters et al., (2016) mentioned that digital technologies have the ability to dematerialize the distribution channels of SMEs to develop the revenue streams.

All the perceived factors in this study in respect to value capture through digitalization, have observed that digitalization plays a significant role in the business model innovation in reducing cost, improving the existing revenue, creating new revenue streams (Parida et al., 2019).

## 5.2 Influence of digitalization in the internationalization process of SMEs

**Table 7: Summary of the empirical findings in the internationalization aspects**

Internationalization factors	Company A	Company B	Company C
Market Knowledge	Obtained by curating data bought from different vendors.	Obtained by running google analytics on the online store.  Obtained through customer feedback in social media as well as online stores.  Partnering with local e-commerce retailers to enter distant and complex markets.  Partnering with local influencers with profiles on social media.  Obtained through using a CRM system.	Online testing of concepts.  Partnering with local influencers with profiles on social media.
Resource commitment	In the process of building the online customer platform.	Outsourcing production to French manufacturers and exporting final products globally.  Sales via other e-commerce retailers in distant and complex markets.  Partnership with influencers in social media.	Outsourcing production to manufacturers in the Southern part of Europe and exporting final products globally.  Partnership with online retailers in Canada.  Partnership with influencers in social media.
Speed of internationalization	Medium	Very quick, three days after the initiation of the company.	Quick

Referring to Table 7 we observe that in all the three SMEs that we investigated, digitalization facilitated market knowledge acquisition. This to a large extent reduced the *psychic distance* between markets hence allowing these SMEs to reach out to even distance markets. This was possible since all the three SMEs made use of digital technologies in analyzing data that they collect from different markets. Furthermore, we also found that company B and C acquired market knowledge by partnering with different influencers in the local markets with profiles in social media. The fact that SMEs have limited budgets to carry out big market research of distant and isolated market digitalization has offered solutions for dealing with this challenge by testing the different concepts online. This argument was addressed by the respondent of company C. Whereas company A obtains market knowledge by processing data they buy from different vendors. Indeed, digitalization offers SMEs modern ways of overcoming the challenge of lack of market knowledge that has been addressed in the classical internationalization process model by Johanson & Vahlne (1977) hence challenging the arguments raised by these authors that internationalization of a firm is a stepwise process because of lack of market knowledge.

On what concerns resource commitment, for company B and C production is outsourced to manufacturers in other countries and since both companies have online stores this offers them the possibility of selling their products globally. Furthermore both of these companies also have partnerships with other e-commerce retailers in other countries, hence contributing to having more customers. This is supported by Dunning (1988), that one motive of why firms choose to internationalize their business is the need of acquiring more customers. Not only that but also the marketing of the products by social media influencers has contributed in building the awareness of their brand in other countries. Whereas company A, is the process of building the online interface in which all the data will be distributed to their customers in any part of the world. Hence we argue that digitalization played an important role in the quick internationalization of all companies and especially company B and C. Therefore we argue that digitalization has made it possible for these SMEs to reach out to not only nearby markets but also distant markets in terms of *psychic distance* with also a low degree of commitment. This extends the arguments by Johanson & Vahlne (1977).

## 6. Conclusion

*In this chapter the conclusion is presented that has developed from the empirical analysis with the theoretical framework context to answering the research question - “How digitalization influences the business model innovation in the internationalization process of SMEs”. Following the conclusion, a discussion of significance as theoretical contributions and managerial implications is stated. Lastly we conclude with the recommendation for future research.*

This study focuses on how digitalization influences the business model innovation in the internationalization process of SMEs, with the purpose of extending the existing knowledge through getting a deeper understanding of the interconnectedness of the three main concepts of the research topic (digitalization, business model innovation and internationalization). In order to answer our research question and reach the purpose of this study, we performed a literature review on similar topics in earlier research. This served as a guideline for us in collecting the empirical data from the case companies that we interviewed. Not only that but the empirical data was analysed in relation to the theoretical framework. This assisted us obtaining interesting findings that contributed to the better understanding of the research topic. The finding shows that SMEs can leverage the modern digital technologies and innovate their business models in the way that will allow them to scale quickly in the international markets. The research finding of this study supports and extends the theories in earlier research on digitalization business model innovation as well as internationalization. Therefore, digitalization's influence on business model innovation was studied in the dimensions of business model that is value creation, value delivery and value capture as well as in the dimensions of market knowledge, resource commitment as well as speed of internationalization since digitalization affects all these dimensions.

First the study presented the value creation aspect as one of the results that digitalization has in the BMI of SMEs in the internationalization process. From our empirical findings it was evident that digitalization facilitated the development and designing of products and services irrespective of the industry that these SMEs belonged to (Rachinger et al., 2019). This played a significant role in their internationalization. We further observed that digital technologies created the possibilities for all the case companies to shift from the traditional way of doing business to a more online based way of doing business that also shifts the market dynamics

from domestic to global. This allowed the case SMEs to sell the products and services to new customer segments that belonged to a global market (Schmitt & Baldegger, 2020; Herve et al., 2020). Moreover, we also observed that the case companies have used digital technologies and communication channels to ascertain an innovative and extended relationship with the customers, design experts, suppliers, producers and other stakeholders. Such relationships provide the collaborative value creation (Parida et al., 2019) in respect of product designing, production, promotion and communication even in physically distant locations and pandemic situations like Covid-19.

Secondly, in the context of value delivery, integrating different digital technological based systems, solutions and tools like CRM, ERP, Chatbot, payment and buying tools resulted in business model innovation, increased efficiency in productivity and business operations (Rachinger et al., 2019) this was observed in all three SMEs that we studied. In our empirical findings, it is evident that digital technologies have persuaded the case companies to acquire and develop new capabilities and competences of their employees as well as business processes. Such digitalization enables company A to deliver more complex and critical data in a simpler and convincing manner to the customers for an easy decision making process. Additionally, in company B and C this digitally customized solution enhances the capabilities that provide simple, secure and flexible for both the customer and companies (Burström et al., 2021; Parida et al., 2019).

Furthermore, it was observed that through partnership and collaboration with different stakeholders (Burström et al., 2021; Parida et al., 2019) from different countries enabled the case companies to sell their products in different markets. Strategic association with experts in designing, specific firms, retailers, distributors and even social media influencers facilitated these SMEs to deliver not only the customized and customer friendly online platform but also increase awareness and presence of the company's products and services. Also partnership with transport companies ensured product delivery in distant markets within the promised timeline. Moreover, we observed that collaboration with digital and social media local influencers helped company B and C to promote and market their products efficiently to reach the specific targeted customer segments with minimal cost (ibid).



Third, the study presented the value capture as one of the significant results observed in the empirical finding for deployed digitalization as much as possible in the value chain. Implementation of digital solutions like CRM, ERP, Chatbot, Payment and buying tools, google analytics, observed the result as reduction of operational and functional activities that leads to resource optimization as well as the cost reduction for the case SMEs. Additionally these digital solutions facilitate the companies to interact with customers and capture customer insights (Burström et al., 2021) easily with minimal cost that might be expensive unless such solutions. We observed that for the digital store the case SMEs experienced to enter new markets as well as increased sales as it went internationally in different distant markets within a very short period of time or even from the inception of the commercial launch. This online store facilitated reaching distant markets as it shifted the product selling business process from physical retail points to company owned online stores. It observed that utilization of social media influencers instead of traditional ways of advising in local magazines and paid ads in digital platforms was less expensive. And resulted in increased sales volume and brand awareness not only in the local market but also in the international markets.

Furthermore, we observed that integrating improved digital solutions in online platforms creates the possibilities to develop new and enhanced sales volume in distant international markets with efficient stock and service management. Also partnering with e-commerce retailers and introducing a new portfolio of products and services could develop the new revenue streams for SMEs along with dematerializing the distribution channels (Brouthers et al., 2016).

Last but not the least, we observed that digitalization facilitated and significantly played a big role in obtaining market knowledge that influenced the strategic decisions on how companies committed their resources to ensure production as well as sales in different markets. Through analyzing the empirical findings it was evident that different forms of digital technologies give the possibilities for all the three SMEs to gain customer insights and market knowledge. By collecting raw data from vendors (company A), running google analytics as well as partnering with e-commerce retailers (company B) and collaboration with social media influencers (company B and C) these SMEs have been able to acquire market knowledge. Hence assisting these SMEs in overcoming the market knowledge gap which is one of the big challenges for firms that may hinder their internationalization process (Johanson & Vahlne, 1977). On the other hand, we observed that through the strategic partnering with production companies

(company Band C), other e-commerce retailers and influencers (company B and C) assisted the case SMEs to achieve improved outcomes with optimized resources and cost in distant markets. Furthermore, it was observed that digitalization enhanced the speed of internationalization of these SMEs.

Therefore, we argue that digitalization influences business model innovation in the internationalization process of SMEs in all the dimensions of their business models and allows them to acquire market knowledge in an efficient way. This allows SMEs to commit their resources in an optimized perspective to achieve outcomes and scale their business internationally. However, implementing modern digital technologies in the business model innovation might entail challenges for SMEs in terms of cost and resources as these firms often have limited budgets.

### 6.1 Theoretical contributions

Previous studies have investigated the concepts related to digitalization, business model innovation and internationalization in isolation. Meaning that either a single concept among these has been discussed or only any of the two concepts have been investigated in the earlier studies. However, we argue that better insights can be captured in studying the relationship that exists in these concepts as they are interconnected. Furthermore, earlier studies have put more attention on understanding these main concepts of our study in the context of large companies and less has been researched on SMEs. Therefore, our study contributes to the theoretical world by examining the overlap that exists between digitalization theoretical field, business model innovation theoretical field as well as internationalization theoretical field in the context of SMEs. The conceptual framework presented can be used as a guideline in better understanding of similar research topics.

### 6.2 Managerial implications

The conducted research observed the influence of digitalization in business model innovation in the process of internationalization. There are several managerial implications observed in the empirical analysis of the studied case SMEs, mainly addressed the practices and the opportunity in respect of revenue increase and cost efficiency that arises for the implementation of digital technologies.

The rise of companies with strong digital and social media focus creates the opportunities to enable the company to operate the business and develop the new revenue streams in the international market. All the three studied SMEs having business operations in cross borders, they were focused to innovate their business model through utilizing the digital technologies as much as possible that would remove the constraints related to psychic distance as well as lack of market knowledge. These factors are exclusively connected for all the three SMEs.

We observed in this study that digital and social media have played a greater role in brand awareness, market visibility and promotion through local influencers of social media motivate the SMEs to concentrate on such communication activities. Such activities also demonstrate resource optimization as well as cost minimization. One of the managerial implications from this study is that the drive and implementation of digital technologies in communication, work process and value chain creates the new possibilities of productivity, efficiency and streamline the sales activities more simple and convenient for the customers. The importance of physical presence is decreasing due the e-commerce based sales channel arise and build a digital network landscape, where the geographical boundaries and physical distance are not considered to the same extent as before in traditional business aspects. However, compared to the digital and virtual meeting and showcasing of product and services with face-to-face interaction or meeting, local market knowledge and physical experience of products is still crucial and could not be ignored considering the nature of business and industry specifics, where the trust and relationship with the stakeholders are the key derivatives as managerial implication.

### 6.3 Recommendation for future research

This study covered the main aspects of how digitalization influences business model innovation in the internationalization process of SMEs. However the main concepts of our study (digitalization, business model innovation and internationalization) are very broad which offers the possibilities of future studies to investigate more on other aspects in relation to these concepts. Nevertheless, future research on relevant topics can build their foundation on this study. By continuing to expand the existing knowledge the role of digitalization in business model innovation in the internationalization process of SMEs will contribute in helping SMEs thrive in this digital era and grow their business internationally. Investigating the overlap in these three main concepts was important because of their interconnectedness. Since our study is based on understanding Swedish SMEs with cross border activities, future studies therefore

investigate similar topics in SMEs from other countries and in a specific industry. Furthermore future studies could go deeper into understanding similar topics in a particular type of digital technology or business model. We believe that by doing so interesting insights will be generated to help SMEs to be innovative and competitive in a rapidly changing digital business environment.

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# Appendix 1

## INTERVIEW GUIDE

### Introduction

- Respondent Name:
- How long have you been working for the company?
- Which position do you hold in the company? Responsibilities
- How many employees does the company have?

### Internationalization

- In which country did your company start their internationalization process?
  - Please explain why?
- How did the company first start its operations in a foreign market?
- How long has it taken to first internationalize?
- What factor(s) motivated the company to go abroad?
- In how many markets are you operating?
  - Please explain why?
- What other new markets are you expanding to?
  - Please explain why?
- What entry mode are you planning to use when entering these markets?
  - Please explain why?

### Digitalization, business model innovation and Internationalization

- What does business model innovation mean to you?
- What business model innovation(s) has your company done when internationalizing?
- How has digitalization influenced these business model innovation(s)?
- Which digital technologies has your company used in innovating its business models?
- Why did your company innovate its business model when internationalizing ?
- What change(s) did your company undergo in order to innovate its business model?
  - If any, please explain why your company made such changes?
- What outcome has your company got after innovating its business model that has been enabled by digitalization when internationalizing?

- What challenge(s) has your company experienced in relation to digitalization and business model innovation when internationalizing?  
-If any, please explain how your company mitigated such challenges?
- Has your relationship with other business partners, customers and employees been affected after innovating your business model through making use of digital technologies?  
-If yes, please explain how?

**Last question**

- Is there any additional information related to the topic that you would like to add?