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# **The internationalization process model of a small-sized technology company**

Case from mechanical forest industry

School of Management  
Master's Thesis  
Master's Degree Programme in International Business

Vaasa 2021

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<b>Topic of the Thesis:</b>	The internationalization process model of a small-sized technology company : Case from mechanical forest industry		
<b>Degree:</b>	Master of Science in Economic and Business Administration		
<b>Programme:</b>	International Business		
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<b>Year:</b>	2021	<b>Pages:</b>	113

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**ABSTRACT:**

**The purpose of this study** is to examine the process of internationalization of Finnish small and medium-sized enterprise (SME). The goal is to study the process of internationalization, factors that contribute and inhibit to it, and create a dynamic model for the case technology company. The created model is dynamic, as it must be applied to a constantly changing environment and the elements of it need to be changeable.

**Internationalization** of companies has been widely studied in the world of science. Researchers have found different theories and processes around the topic. However, most of the studies has mainly concentrated on large corporates or other countries, not the small companies who are starting their journey of internationalization. The internationalization is one of the key factors for many growth-minded SMEs. The field of research has not been either done for a similar case company before. Thus, this study examines how researcher's and SME's perceptions of internationalization can differentiate and how can SMEs benefit from the general models and theories about internationalization and implement them in their industry.

**The theoretical framework** of the study is based on different theories and models, such as the Uppsala model. The framework combines internationalization process and entry mode literature. Based on the theoretical framework has created a model, which are used when analysing the empirical findings and it combines the findings with the previous literature.

In order to succeed, the company needs to have a unique product or service. The process of internationalization usually ends up in the middle of success and failure, as the boundary can be volatile. After that, company needs to measure their process and learn fit. Overall, the findings emphasize how important is planned well and do strategies before starting the internationalization. The findings illustrate the main criteria for land comparison at the micro level as well as at the macro level. The findings also show how the process model can be viewed from the perspective of internationalization and what factors contribute to each of the four different stages of the process.

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**KEYWORDS:** Internationalization, small and medium-sized enterprise, forestry industry, entry strategy, entry mode, market selection, model of internationalization

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**Abbreviations**

<b>COFFI</b>	Committee on Forests and the Forest Industry
<b>EFC</b>	European Forestry Commission
<b>EECCA</b>	Eastern Europe, Caucasus and Central Asia
<b>EU</b>	European Union
<b>FAO</b>	Food and Agriculture Organisation of United Nations
<b>FHI</b>	Forest Harvest Index
<b>GDP</b>	Gross Domestic Product
<b>kN</b>	Kilonewton
<b>kN·m</b>	Kilonewton-meter
<b>MBE</b>	Multinational business enterprise
<b>MNE</b>	Multinational enterprise
<b>SME</b>	Small and medium-sized enterprise
<b>UNECE/ECE</b>	United Nations Economic Commission for Europe
<b>USD</b>	United State Dollar (currency)

# 1 Introduction

The main goal of this study is to examine the internationalization of Finnish small and medium-sized enterprises (later, SMEs) technology company and its development based on strategic choices. More specifically, the goal is to study the process of internationalization for the case company, the factors of contributing and inhibiting, and create a dynamic model based on these and identify different ways of how to process when entering a new market.

The aim is to create a dynamic model of internationalization process that describes the stages of internationalization for the case company. The aim of the model is to have a clear explanation of the process and the factors that affects the next steps. The model is intended to describe the internationalization process at a general level, making it useful for the case company to know what factors needed to take consider when choosing the market where to enter. Using the model, the case company can prepare for and develop their own process of internationalization and help them to start in a new market.

## 1.1 Research gap

The internationalization of SMEs is a nationally important goal for economic well-being. Usually, the motivation why a company is considering going to a foreign market is that domestic competition has intensified, a desire to expand sales and increase profits, or have noticed a country with no or little competition (Ahokangas & Pihkala, 2002; Albaum & Duerr, 2011; Vahvaselkä, 2009). In addition, digital services and digital presence in different markets play a vital position in SMEs' internationalization. Therefore, it is important to study how to develop the services and products when company wants to improve their sales and internationalize.

The forest-based industry sector is going through a radical structural change. The 21st century has been very different from the 20th century in several ways. Forest industry is affected because of the global competitive advantages and declining demand for



communication paper products, that happens in the market now. Not to mention, there is a record long economic downturn that has an impact on the structure of the forest products industries (Hetemäki & Hurmekoski, 2016; Khanam, 2019; Toppinen et al., 2017). The development of forestry has been largely linked to the development of the forest industry itself (Vidal et al., 2016). In addition, the global forest sector has been in a phase of transformation. Several of the established products are declining and new products and companies are emerging at the same time. Nevertheless, the situation with Finnish companies in the field is in relatively good shape. Such as the statistics have shown that in the 2020 rankings of the top forestry and paper firms worldwide, in Finland we have the biggest and third biggest based company on market capitalization. (Hetemäki & Hurmekoski, 2016; Hurmekoski et al., 2018; Lindström, 2020; Statista, 2020).

In a radically changing global competition, maintaining competitiveness is even more challenging. Additionally, there is a need to take advantage of digital methods in the future, which is why the digital environment should be realized in order to find the right solutions for your own company. Innovation is even more necessary when looking at competitiveness. Despite these, the forest industry slows climate change, and it is seen as strengthening the national economy and the well-being of Finns in the future even more than at present. Many traditional forest-industrialized countries are suffering from the declining production of traditional forest products. Secondly, new production opportunities for bioenergy, biochemicals and prefabricated wood products have increased. (Fagerblom, 2020; FOREST EUROPE, 2015; FAO & UNEP, 2020; Hetemäki & Hurmekoski, 2016; Hurmekoski et al., 2018).

Previous studies have shown a disturbingly low scale of research on global forest goods markets (Hetemäki & Hurmekoski, 2016; Hurmekoski et al., 2018). Therefore, the companies from industry might have difficulty in doing any analysis, especially from the global aspect. The competition within the SME companies is totally different with global corporations, as they are taking higher economic risk to the growth. If the SMEs do not

do the correct steps in the implementation phase, the failure might have significant impact on their operations than with global corporations. Therefore, there is a need for the study what are the challenges and opportunities regarding the global competition.

Typically, large corporations can be seen to do international business and SMEs are those that stay in the local markets. In addition, traditional internationalization concepts are mainly focusing on large corporates and less on the SMEs (Bae & Jain, 2003; Bose, 2016; Dana, Etemad & Wright, 1999; Geringer, Tallman & Olsen, 2000; Lin, 2010; Morone & Morone, 2013). However, in this era of globalization with the ability to communicate and benefit digital, small companies can accomplish global markets more easily.

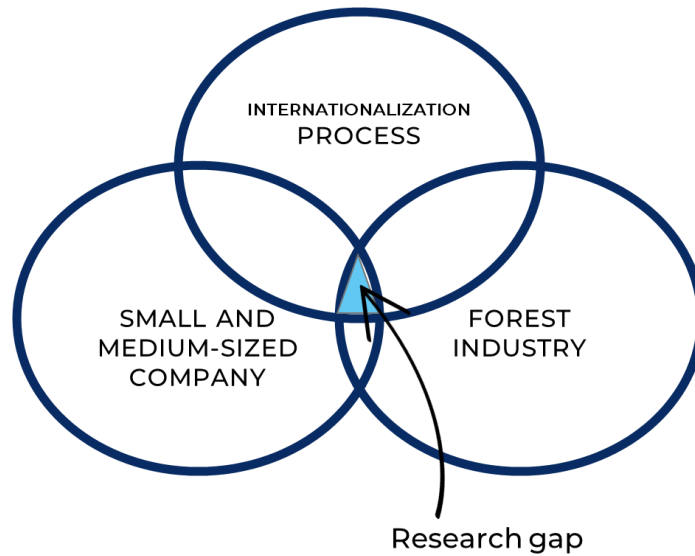
According to Wood and Robertson (2000), when doing selection among alternative international markets through export, it requires detailed information. As if the company is going to increase its business and to become global, selection of an export market is very important phase (Miečinskienė et al., 2014). Particularly, for SMEs which do not have experience on how to enter global markets, there are risks and difficulties of knowing which entry model would be cost-efficient and an efficient choice for their business, but usually exporting is the most popular option for small companies (Leonidou et al., 2007).

Daniels, Radebaugh and Sullivan (2011) have stated that a selection of an entry mode when decide to go into a foreign market, depends on several factors. These include such as what are the location or internationalization benefits of the market, as well as company's ownership advantages. The roots for the decision about how the company should enter a new market can be better understood by analysing different options for exporting and analysing the specific industry.

As mentioned before, due to the non-disclosure agreement, I will not mention any company names in this thesis, but I am able to present the industry and the aim for the project. This research is part of a collaborative project with a company, which is coordinated

by the University of Vaasa. Even though there are previous research and studies regarding of strategy as practice cases and internationalization processes, there are no studies of what different opportunities SME could use with the internationalization process in forest industry. In addition, previous studies are missing how forests are managed in different countries. Likewise, the case company has found that forest management practices differ significantly from country to country, which is reflected in the needs of forest or company users. For example, combining the amount of timber harvested with spatial data creates service opportunities, the value of which depends on the customer's use situation and method. Additionally, the company has not investigated before the data analysis of different export methods and did not have enough knowledge of how to collect the relevant data.

There is a need to develop a business model, and without coherent analysis and study, the implementation of international strategy might go wrong and can be risky for the SME. Therefore, there is a need to study the industry in different markets and what different exporting methods there are already existing and what are the possibilities for the case firm. In addition, it is vital to do this research as an exploratory development because it is finding the best solutions and studying what possible products could be digitalized. These products can be suitable for the modern technology market. The **Figure 1** is illustrating the research gap for this study. (Daniels et al., 2011).



**Figure 1.** The gap in the existing research.

## 1.2 Research questions

In order to examine why there is a need for the study, the goal and research questions needs to be presented. The aim of this thesis will be presented in more detail in this section using research questions.

Thus, it can be stated that the aim is to demonstrate through previous research and the literature in the field of internationalization of SMEs. The theoretical framework focuses on analysing the different theories, models and approaches of the internationalization process. Additionally, the focus will be on analyse the factors that influence internationalization and its practices as a process itself. The aim is to do the research based on the case study method for one company. The company has explained that they need to find how the process of SME internationalization can be modelled. Final goals are to obtain country-specific comparative information and a process model that could be utilized in business development.

In spite of the complexity of the area in the research, the main purpose of the thesis is to analyse what are the different exporting modes in internationalization for the SME in

forest industry. This research limits to one industry only. Our society has been wildly digitalized in recent years and the trend will continue (Aaby & Slater, 1989). Companies, especially in the technology sector, are digitalizing faster than others and the market is expanding. It is also interesting to take a closer look at how its products, which are not normally seen as digital products, could be digitized. Therefore, the main research objective could be following:

*To find key dimensions which can be identified from the process of internationalization of SME company in forest industry.*

In order to specify the research area and to answer the research question unambiguously, objectives must be set. Research objectives will provide more a clearer view of the steps that needs to be taken to clearly find solutions for the study. With the objectives, it can be clarified deeper level what are the main themes of the paper. With the objectives of this thesis, it could be defined to examine the internationalization process model for an SME company, which is a digitalized technology company. Thus, the following objectives are:

- *What are the aspects and stages of internationalization when considering entering a new market?*
- *How to compare different markets and competitors in forest industry?*
- *How international market can be looked at and start the internationalization?*

This thesis will give both theoretical and empirical contribution to present literature by fulfilling these presented objectives and answering to research questions. It will give a case perspective in forest industry and present an internationalization process model.

### **1.3 Delimitations of the study**

There is existing previous research regarding different export models and entry strategies, strategy as practice and the forest industry in general. These show that the topic of

research has the potential to collect a detailed literature review. However, the global forest industry for SMEs has not yet to be studied from a strategic management perspective, necessitating further study. The ever-changing nature of the forest sector makes it fascinating to learn what is done and what methods and tools are used in the global forest industry's implementation. Additionally, there are a few studies regarding of the digitalization and technologization in this field, which will be concluded into this research.

Nevertheless, there are not similar studies that examines of how digitalized companies from this field could analyse the potential markets. Therefore, this thesis will examine the global forest industry products and solutions in the global market through a case study with a Finnish company. This study can help the company to increase their business value and expand into other markets and thus improve its own position. Building an internationalization model for the company, it can effectively improve their business and hopefully help them in the future to analyse different markets.

#### **1.4 Structure of the thesis**

The structure of the study is going to follow coherently and follow step by step and trying to follow the order of objectives. The paper will begin with an introduction, that defines the reason and need for analysing this topic. This is followed by objectives and limitations, which explains the limitations and the expected results of this study further.

The next section outlines the theoretical framework, that covers previous and current theories. The literature review will consist of two main parts — internationalization as a process and entry modes. In the first part of literature review, the internationalization will be evaluated in general and the process of it. The most important theoretical part will be argued in this chapter and described carefully for the reader in order to give a coherent picture of the field and definition. There will discussed about different models and ways to see the internationalization process, and especially for SMEs. The second part of the framework evaluates export operation more deeply and discusses the advantages and disadvantages of different export models. In addition, research will

describe coherently different export modes to give a more in-depth view of the specific topic. After these explanation factors of export performance will be discussed and how to develop the process of export strategy in different markets. Lastly, in this chapter there will be different opportunities discussed global forest industry and what have been found in the different markets to get mutual understanding about the industry.

Once both broad parts have been presented, literature review will be ended with a summary of both fields and presenting a synthesis of these two topics internationalization process and export modes. The presented model works as a central combination of two fields and provides a model of how to do the process and choose the correct mode when internationalizing, and therefore, offers a solid support for the empirical part.

Later, the chapter and the methodological section provides details on the case study approach employed. In terms of research approach, qualitative has been chosen as the more appropriate choice. The primary data for this thesis was collected by the author from the case company, through a semi-structured interview and four different workshops, which were held between September and December 2020. The secondary data included records and data from previous meetings and workshops with the client at the beginning of the project. This chapter will discuss the research strategy, the research method, and collection of data. This is followed by a presentation of the findings during the project. Moreover, validity and reliability will be discussed critically at the end of this section and how the case selection process and analyze has been done.

The fourth chapter will focus on the empirical research and findings. Research describes the findings by benefiting both benchmarking and within case analysis. This chapter started with empirical examination, following then by the analysis and evaluation of the findings. Moreover, the theoretical structure and actual findings will be combined at the end of the chapter. Contributions of the thesis will be discussed and will give suggestions for the future research for the case company.

Finally, the thesis ends with conclusions and implications, and provides directions for the model of internationalization and next steps. It will conclude the main findings and summarize themes. Moreover, it will describe the limitations of this paper and suggestions for the potential research within this field.



## **2 Literature review**

In this section, the literature review begins with the relevant opening of internationalization theories. After that, moving on to the process of internationalization and from there into practices and entry modes. Despite the fact that the literature contains a variety of hypotheses and approaches to the internationalization process, this research will concentrate on addressing these two questions (Albaum & Duerr, 2011):

1. Defining the process of internationalization
2. Comparison of practices and entry modes

The literature review ends by combining the main themes of the literature and explains how the internationalization process of SME can be used as a part of the case company's strategy.

The idea for utilizing and opening the literature is to present the process and models for the internationalization. To get a better overview of what entry modes the company needs to have a better knowledge of what are the different opportunities and challenges with each market which will be analysed in this paper.

### **2.1 Theoretical approaches**

Internationalization is seen as a phenomenon with various definitions of its purpose today. It has been found that studies about SMEs internationalization are relatively new, although economic theories have been proposed for over two centuries ago, there are studies about multinational enterprises (MNEs) and trade between two countries (Mejri & Umemoto, 200). Peng (2017) reported that it is a misconception that global and export business is only done by large multinational companies and that SMEs operate more domestically. Moreover, theories about the internationalization of SMEs have started about two decades ago. (Mejri & Umemoto, 2010).

Previous researchers have studied more than twenty years the topic of the internalization and the process of enterprises and therefore, the definitions have given different explanations from different researcher (Ahokangas & Pihkala, 2002; Bose, 2016; Brush, 2013; Johanson & Vahlne, 1977; Lin, 2010; Oviatt & McDougall, 2005; Mejri & Umemoto, 2010). In order to understand what internationalization in this study means, it is important to take a closer view into the former research.

There is a lot of research about internationalization process. According to Johanson & Vahlne (1977, p. 23), a corporation's internationalization is a systematic process in which the organization gradually raises its international involvement. Ahokangas and Pihkala (2002) also suggest that the internationalization is a chain of events in which an individual or a company develops the capacity to operate in different cultural or national unrestricted operating environments.

Shortly, companies begin the process of internationalization by exporting goods to countries with similar cultures. (Sharma & Blomstermo, 2003, p. 740). To get the best knowledge of what includes in the process of internationalization, we need to take a look into different theories and models. **The Table 1** below shows the main explanations of internationalization based on the previous research by Della Corte (2014; 2016).

**Table 1.** The main explanations of internationalization (adapted by Della Corte, 2014; 2016).

Writer (s)	Year & page	Description
Welch & Luostarinen	1988, p. 36	<i>"Internationalisation is the process of increasing involvement in international operation"</i>
Calof & Beamish	1995, p. 116	<i>"The process of adapting a firm's operations (strategy, structure, and resource, etc.) to environments."</i>
Ahokangas	1998	<i>"Internationalization is the process by which companies move, pool and develop resources for their international operations"</i>
Oviatt & McDougall	2005, p. 540	<i>"International entrepreneurship is the discovery, enactment, evaluation, and exploitation of opportunities—across national borders—to create future goods and services."</i>
Zain & Ng	2006, p. 184	<i>"The internationalization process of SMEs from the social exchange perspective on social networks seem to be a more useful concept since it is possible to overcome the problems of limited resources, experiences, and credibility"</i>
Saarenketo, Puumalainen, Kyläheiko & Kuivalainen	2008, p. 365 & 592	<i>"Internationalization is interpreted as an orderly process progressing incrementally from domestic operations, via exports and foreign direct investments (FDIs), to full-fledged multinational business"</i>
Chandra, Styles & Wilkinson	2009, p. 31	<i>"Internationalization is the recognition and exploitation of entrepreneurial opportunity that leads to new international market entry"</i>
Hessels & Parker	2013	<i>"Internationalization is measured in terms of both exporting and foreign purchasing"</i>

Hence, there are many different perspectives in the study of field of internationalization. From **the process perspective**, companies move in the process of internationalization from a company that is operating in the domestic market into an export firm. In the next phases, it can set up its own sales and production unit, gradually moving to more distant markets (Johansson & Vahvaselkä, 2010).

In addition to the growth of the company's internal resources and knowledge, **the network perspective** focuses on the company's business relationships related to markets and customers. Networking is particularly useful for SMEs, which can benefit from the market knowledge and resources of their allies or contacts. The company's entire network has an impact on the shaping of the internationalization path. (Perämäki 2005, pp. 17-20).

However, researchers tend to accept that internationalization is a multidimensional process that occurs over time rather than a specific event or decision (Kenny & Fahy, 2011; Welch & Paavilainen - Mäntymäki, 2014). This perspective can be also reflected in the definitions of internationalization. There is a possibility to study one part of the process or a whole process, as well as possibility to study the process in general level or operational level. Still, SMEs does have a good place to succeed in the global markets, but only if the process has implemented well and they have found their competitiveness in the international market (Kananen, 2010). When researching companies and their business, there is a perception that a company needs different strategies to implement several different direction solutions as it internationalizes. Based on this perception, it has been found that the internationalization is thus often analysed as part of a company's strategic behaviour. (Reinikainen, 2001).

The competitive situation, pressure on the domestic market and the opportunities created by expanding into the international market are typical reasons that attract companies to look at their activities in other countries. However, internationalization is not a matter of course nor a necessity. A sizable number of SMEs operate only in the Finnish market and do not plan global expansion.

It has been found in 2015, that 29.0 % of Finnish SMEs are still considering or already engaged in their own exports, which shows that there is an interest in the internationalization. According to the Federation of Finnish Enterprises (2019), it has been found that

about 93 % of the companies operating in Finland are micro-enterprises, 5.7 % are small enterprises and 1.2% are medium-sized. In addition, it has been noted more than 57.0 % of the turnover of Finnish companies of more than EUR 445 billion was generated by SMEs, with the SME sector accounting for more than 40.0 % of gross domestic product or GDP (The Federation of Finnish Enterprises, 2019). Despite these figures, the share of Finnish SMEs in Finland's total exports is rather modest, which shows that export activities are mainly carried out by larger companies. The internationalization has also its risks and challenges, and it has been recognized that today's challenging economic situation, changes the demand, competition and digitalisation, new competitors and the aging of entrepreneurs are current challenges for the SME field. (Palomäki et al., 2017).

## **2.2 Internationalization process**

It is not possible to define an unmistakable model for internationalization. It is important to examine the ideas and models suggested to describe international business. Typically, the internationalization of a company occurs gradually, country or function at a time. Therefore, in this chapter is trying to present relevant approaches and models, that can help to recognize what have been found from previous studies and what are benefits for the model of internationalization for the case company. (Palomäki et al., 2017).

Internal and external factors are both encouraging going into international markets. As Well, existing contacts in the internationalization of the company and partnerships play a significant role. According to Colapinto, Gavinelli, Zenga and Di Gregorio (2015), the process of internationalization includes all the firm's decision-making, management, organizational and marketing procedures. On the other hand, the enterprise's motives for an internationalization can be divided into reactive and proactive motives or approaches (Albaum & Duerr, 2011; Hollensen, 2017; Palomäki et al., 2017). These drivers or motives are described later in this chapter.

According to Oviatt and McDougall (2005, p. 540), which have clarified that "*international entrepreneurship is the discovery, enactment, evaluation, and exploitation of*

*opportunities—across national borders—to create future goods and service*". Hence, internationalization therefore creates opportunities. This claim is also supported by Peng (2017, p. 115) who has stated by defining global entrepreneurship "*as a combination of innovative, proactive, and risk-seeking behaviour that crosses national borders and is intended to create wealth in organizations*". This shows the new way of seeing internationalization and how there can be many drivers behind the decision. This definition also shows the components that increase the behaviour of being an international entrepreneur. It has been stated that companies, that have already started an export stage, nearly always start their internationalization process. Usually, a company starts its process in countries that are nearby to home country and gradually expands on to various countries. (Roque et al., 2019; Pogrebnyakov & Maitland, 2011).

Few questions can be used to answer whether a company should go international or stay in the domestic market. Firstly, a company needs to think is there an international demand for company's products or services. If yes, then the next question is to whether the products or services can be modified to fit a foreign market. If yes, then the next step is to think is the foreign business environment appropriate to imports. If the company says yes, then they need to think that does the enterprise have necessary knowledge and skills to do business abroad. If they do, then definitely going into global markets are worth to risk. However, usually small companies jump out when asking the last question, as they do not have enough resources to develop their knowledge or analyse the possible markets. Thus, this research is trying to help the case firm to find the steps how to begin the process when considering a new market, and hopefully with a less-risk selection.

There is not one and only path how to make business growth. The growth depends on what kind of options will be making with the product or service and markets, but the strategy can be based on existing products or services, serving only in current markets or expanding into new ones (Kyläheiko et al., 2011). In the entrepreneurship literature and when discussing about the internationalization, risk is a central concept and

unfavourable movement, which need to take consider (Oviatt & McDougall, 2005; Peng, 2017). But taking risks is also opportunity to increase the business, and when entrepreneur is more like to take those risks, they can internationalize earlier than others.

In order to analyse the process of internationalization of SMEs, it is effective to look at the models used to help highlight the key variables and contents of the theories (Rask et al., 2008). They make it possible to take a closer look at best practices that can possibly be used by the company involved in the study.

Based on previous studies (Ahokangas & Pihkala, 2002; Della Corte, 2014; Johanson & Vahlne, 1977; Johanson & Vahlne, 2009; Lin, 2010; Oviatt & McDougall, 2005; Peng, 2017; Vahlne & Johanson, 2017;), there can be found different approaches to explain the behaviours of SME's internationalization process. The best-known phase and process models include such as the Uppsala model by Vahlne and Johanson (1977), and likewise Innovation Model by Bilkey and Tesar (1977). However, traditional models such as the Porter Diamond Model, Uppsala model or OLI-paradigm, were not initially extensively based on the operating environment of the organization but were later modified to fit organizations of all sizes and ages (Coviello & Munro, 1995; Elo, 2005; Johanson & Vahlne, 2009). From the traditional models, Porter's Diamond Model and OLI-paradigm are not considered to be important for more in-depth analysis in this section, but it is important to mention their existence and therefore they will be added to the theoretic conclusion table (**Table 2**). (Ahokangas & Pihkala, 2002, pp. 62-86; Johansson & Vahvaselkä, 2010).

In the study by Vahlne and Johanson (1977), they recognized a model for the basic mechanism for internationalization, which is also known as **Uppsala-model or U-Model**. This model is based on the company's development, especially on its gradual internationalization process including knowledge on foreign markets and increasing dedication to these markets. Johanson and Vahlne have created the model as a complementary and broader version of previous models that focused on clarifying why multinational corporations exist (Buckley & Casson, 1976; Dunning, 1977). They have developed the model

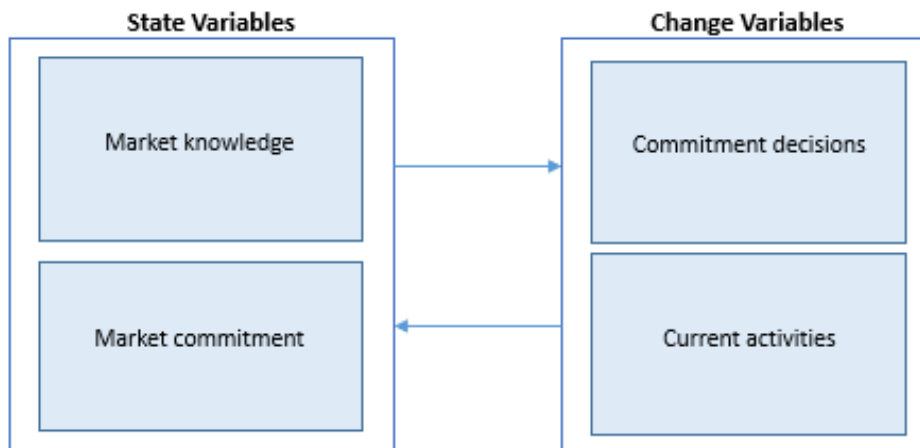
several times with a new, updated data. Likewise, their concept of internationalization has changed at the same time.

As first, Johanson and Vahlne (1977, p. 23) stated that *“internationalization of the firms is a process in which the firms gradually increase their international involvement”*. After that, they changed their view and added impact of networking in internationalization. Johanson and Vahlne (2009, p. 1423) defined that *“internationalization is seen as the outcome of firm actions to strengthen network positions by what is traditionally referred to as improving or protecting their position in the market”*. This indicates that internationalization of companies has begun affects relationships and networks more from a learning perspective than country specificity (Johanson & Vahlne, 2009).

At the first stage, they tried to explain the process, not the actual internationalization or globalization. Therefore, their latest extension has changed into evolution, and the character of Uppsala model is more of a concept than a model (Vahlne & Johanson, 2017). They presented a concept of multinational business enterprise (MBE), that replaces MNEs. They claimed that this updated model emerges from ongoing internationalization processes rather than mechanisms, by acting proactively and entrepreneurially rather than reactively, and by engaging in business exchange rather than development. (Vahlne & Johanson, 2017).

The original structure of the Uppsala model, which is presented in **Figure 2**, is created by Johanson and Vahlne consists of two elements: space and change, differences. The status element refers to the current status of the firm, which can be defined according to how it has committed resources to foreign markets as well as the firm’s knowledge of foreign markets. The element of change, on the other hand, deals with the company's current transactions and decisions on how resources will be committed abroad. This original model from 1977 was based on current knowledge and research and has been updated and developed to be more appropriate today. (Lin, 2010; Vahlne & Johanson, 2017).





**Figure 2.** The original U-Model (Vahlne & Johanson, 1977).

After the first Uppsala model the authors realized that relationships between sides were observed to be vital for all business activities (Johanson & Vahlne, 2003, 2009). Furthermore, they argued that internationalization should be viewed as a network's entry or strengthening of a focal network's role (Vahlne & Bhatti, 2019; Johanson & Vahlne, 2003, 2009). Therefore, they realized the importance to add some aspects into model and updated it.

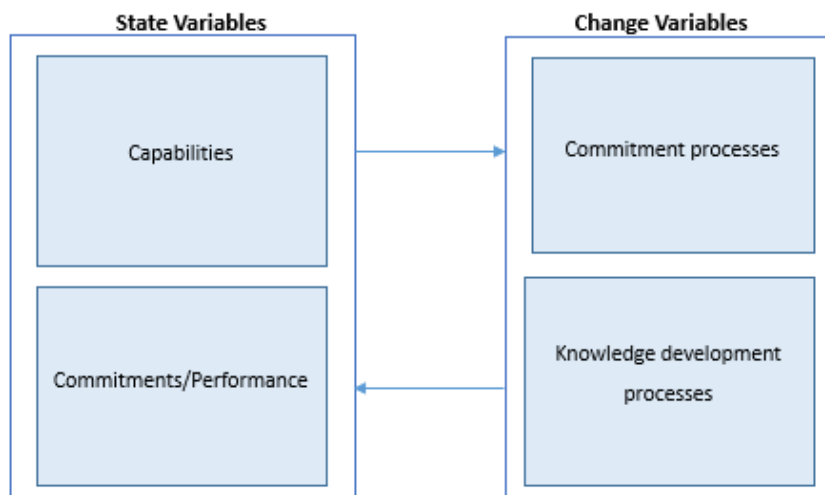
**The Figure 3** illustrated the updated Uppsala model, which includes two different elements of change: the organization's commitment decisions to a performer, and the ongoing processes of learning, building, and building trust within the organization. The state aspects reflect the current state of the company's capabilities and experience as well as its place in the network. Capabilities of the company reflect what can be done and a place in a network tells you where a company is in its networks. In addition, both Vahlne and Johanson (2009) claimed that Uppsala model is appropriate to any size of a company.

However, some research has criticized previous versions of the model and its usage. It has stated that U-model is too deterministic, and it does not take into account interdependencies between two different countries. The model's rules are expected by

evolution of time. This model is not valid for service industries since they can be dynamic and need more time for commitments. And nowadays, internationalization is faster than before, and firms do take big steps as they can be available to enter distant or physical distant markets easier. (Forsgren, 2000).

Some of the other researchers came and argued that there is no micro-level globalization, and the authors realized that the practices behind the development of the characteristics of the MBE shared the same attributes as these processes (Rugman & Verbeke, 2004, 2007). This modification can help the reader to understand wherefore increased economies of scale are pursued and how internationalization and globalization will follow an improved technological improvement. In addition, the authors claimed that *“this broader view of the development of the focal firm makes it motivated to talk about firm evolution”*. (Vahlne & Bhatti, 2019; Vahlne, 2020).

Hence, they have updated the Uppsala Model and presented **“capabilities”**, rather than only using knowledge as a state variable. Additionally, they wanted to introduce two aspects of commitments that are from previous commitments and commitments for the future. This can be described also as **“performance”**. In the change variables, they have made some changes in those concepts and have added that evolution in practice is about co-evolution with the partners and parties in the environment. (Vahlne & Johanson, 2017; Vahlne, 2020).



**Figure 3.** The updated U-Model (Vahlne & Johanson, 2017).

**I-model**, or also called innovation model is another of the basic theories of internationalization and created by Bilkey and Tesar (1977). Some have claimed that the model was hypothesized by Cavusgil (1980), but actually the name of it has developed from the view of exports considered as an innovative, periodic process (Andersen, 1993; Della Corte, 2014; Reid, 1981; Rogers, 2003; Roque et al., 2019; Welch & Paavilainen - Mäntymäki 2014). Since 1977, several empirical studies on the theory of the innovation model have been performed. Four major studies in which he compared innovation models were summarized by Andersen (1993, pp. 212–213). The main differences between the models are in the number of levels and their explanations. Incentives for internationalization of models often vary. Additionally, there are three steps that includes in the models, which are unsolicited export, export to geographically nearest countries and third, export to more distant countries (Bilkey & Tesar, 1977; Roque et al., 2019). To date, the fundamental elements of the I-model have survived, such as the principles of creativity and the essence of internationalization as a process.

While no I-model has been developed since its initial growth, its elements concerning the internationalization of businesses, which are still worth considering even today, are important. Additionally, it is evident that the basic characteristics of the compatible adoption of innovation behaviour can also be combined with the adoption of export

behaviour. We get a better understanding of how export activity is initiated and how it evolves when we think of exports as the implementation of innovations (Reid, 1981). Therefore, innovation has a major role, particularly in current research on internationalization. It can be found that the innovation provides to increase employment, economic and economic growth, and thus, it is one of the most vital characteristics for SMEs' internationalization and that is also the strength of the model. (Della Corte, 2014; 2016; Lin, 2010).

According to Della Corte (2016), **the Knowledge-Based Model** is model that covers three different stages, which are pre-internationalization, novel internationalizing, and then experienced internationalizing. This model is originally created by Mejri and Umemoto (2010), and additionally, Della Corte (2016) has presented that it includes market, cultural, entrepreneurial and network knowledge. However, this model has not been utilized as much in the internationalization literature as other models, but its sharing is still useful. It explains a different type of knowledge than the U-Model since it covers only "market knowledge", but this model also examines other knowledges. Hence, the model's strengths are that it provides an opportunity to explore and understand of how various types of knowledge occurs simultaneously throughout the internationalization. In addition, in terms of foreign markets customer needs and behaviour the model examines cultural information resulting from in-depth analysis. (Della Corte, 2014; 2016; Mejri & Umemoto, 2010).

**The resource-based model**, also known as the **resource perspective**, focuses on internationalization in terms of the company's external and internal resources, as well as its interest and ability to learn and improve them (Palomäki et al., 2017). Research of resource-based perspective is increasing, and they are built on already existing models. The basic idea of the resource-based perspective (Wernefelt, 1984; Barney, 1991) is that firm internal factors and competencies are more important than external factors influencing strategic decision-making and success. This model focus on more sustainable and unique factors, which are not easy to copy. There can be found at least two resource-

based models from Tallman and Fladmoe-Linquist (1994) and Ahokangas (1998). The model of Tallman and Fladmoe-Linquist examines internationalization from two perspectives, which are the resources available to the company and the company's interest in developing and learning resources. (Ahokangas & Pihkala, 2002; Vahvaselkä, 2009).

The same situation is with the model of Ahokangas (1998), which seeks to recognize different strategies by which firms evolve. Internationalization is defined by Ahokangas (1998) as *“the process by which companies mobilize, pool and develop their resources for their international operations”*. His model is based on studies of the activities of SMEs in the 1990s. The key concept or idea of the model is that companies develop their international experience based on either their own internal knowledge or outsourced knowledge. However, this model would not give coherent explanation of the process in the internationalization and that could help to develop own process model for the case company. (Ahokangas & Pihkala, 2002; Vahvaselkä, 2009).

According to Ratajczak-Mrozek (2012, pp. 30-36), she claimed that *“according to the network model of internationalisation, the internationalisation process is neither linear nor sequential, as it is in the case of the stage-based models”*. **The theory of networks or network model** can be used for an analysis of internationalization process of specific company and it is set of two or more institutions (Axelsson & Easton, 1992; Roque et al., 2019). In other words, this model is created based a network perspective, a market with a network of relationships. Because companies are sourcing and practicing their resources interdependent, they must coordinate their activities to provide interdependence through interaction. From a network perspective, internationalization would be a process that develops business relations with other countries, by expanding, by penetrating deeper into networks or by combining networks to each other. Companies could use a range of technological and economic expertise and even collective cost and risk expectations through shared versatility. (Bachmann, 1999; Johanson & Mattsson 1988; Palomäki et al., 2017; Ratajczak-Mrozek, 2012; Roque et al., 2019).

There can be found different behaviours that drives for the choice of internationalization. According to Della Corte (2014), the strategic decision to internationalize is connected to the desired and expected level of performing. Therefore, the strategic choice needs to be higher than the existing one. As the company is developing their strategy and begins their internationalization process, the market selection policy is one of the key strategic choice. There has been found that many companies have been used reactive or proactive approach when doing the market selection (Albaum & Duerr, 2011).

**A reactive approach** has been described as a situation in which the exporter acts passively in selecting markets by completing unsolicited orders or awaits initiatives by foreign buyers, foreign representatives, or other export change agents indirectly selecting the company's market (Albaum & Duerr, 2011). Passive market selection has been seen usually using by SMEs, since they usually have little or no experience at all about exporting and the motive is short-term profit. In fact, Uppsala's model is strongly based on this reactive approach and has therefore been criticized for also underestimating proactive choices (Autio et al., 2000).

In contrast to reactive, **proactive approach** is marketing oriented and so-called proactive motives influence in the selection. It is and formalized and systematic process, it may involve different market research or other investments that might be too difficult or too expensive usually for small companies. Nevertheless, this approach can help to develop a company's strategy and when doing broader research of the industry, it might give new opportunities or views that could not see through a passive approach. (Ahokangas & Pihkala, 2002).

**Proactive motives** can be such as opportunity to make a profit, growth targets, unique product, opportunities in foreign markets, competitive and technological advantage, exclusive information, management's desire and commitment, potential tax benefits, available resources and production costs (Palomäki et al., 2017). In turn, competitive pressure, the limited size of the local market, and the lack of sales potential are all examples

of reactive motives. In the next chapter, the focus will move into finding more information on what kind of different practices included in the selection process, that has discussed before. To give a more coherent explanation of the theoretical framework, **Table 2** illustrated the main directions, definitions, and key papers. (Albaum & Duerr, 2011; Hollensen, 2017).

**Table 2.** Theoretical directions, definitions, and key papers (adapted from Ahokangas & Pihkala, 2002, pp. 62-86; Johansson & Vahvaselkä, 2010).

<b>Theoretical directions</b>	<b>Main definitions and targets</b>	<b>Key papers and authors</b>
<b>Porter Diamond Model</b>	Explains the factors that can drive competitive advantage for one national market over another.	Porter (1992).
<b>OLI-paradigm</b>	Dunning's theory of FDI, based on ownership advantages, location advantages and internalisation. Includes a variety of factors that realization encourages direct foreign investment.	Dunning (1998; 1993).
<b>Uppsala Model</b>	The internationalization of the company in stages through learning.	Johansson & Vahlne (1977, 1990, 2009, 2017); Vahlne (2020).
<b>Innovation Model</b>	An awareness of the innovation process and describing the development path. Internationalization can be seen as a learning process, which is adapted to the company's operations.	Bamberg & Evers (1993); Bilkey and Tesar (1977); Rogers (2003); Roque et al. (2019).
<b>Network Model</b>	An analysis of internationalization process of specific company and it is set of two or more institutions. Internationalization depends on the amount of company network relationships.	Axelsson & Easton (1992); Johanson & Mattson (1988); Ratajczak-Mrozek (2012); Roque et al. (2019).
<b>Knowledge-based models</b>	Defines how various types of information coexists during the internationalization process.	Mejri & Umemoto (2010); Della Corte (2014).
<b>Resource-based models</b>		
	International development - strategic classification	Tallman & Fladmoe-Lindquist (1994).

	International development - describing competence strategies	Ahokangas (1998).
<b>Others</b>		
<b>Reactive approach</b>	Situation in which the exporter takes a passive role in market selection by filling unsolicited orders or waiting for initiatives.	Albaum & Duerr (2011).
<b>Proactive approach</b>	Marketing oriented, so-called proactive motives influence in the selection. Formalized and systematic process.	Albaum & Duerr (2011); Hollensen (2017).

### 2.3 Practices and entry modes

The internationalization path can be called also the company's internationalization process. The amount of countries in which the organization exists, the percentage of foreign revenue and investments in transactions, the number of foreign employees and members, and international staff are all factors that can be measured. The path to internationalization has four stages, which are preparation, initiation, growth, and maturation. (Palomäki et al., 2017; Äijö et al., 2005).

Internationalization can be characterized as strategic choices to adjust the actions of the organization to its operating environment so that it is possible to guarantee competitive advantage and consumer profit and thus long-term success. (Johansson & Vahvaselkä, 2010).

When you want to invest in a brand-new market, it is important to choose the correct market opening strategy. For new modes of transport with different options, such as either setting up a joint venture with a local partner, setting up an independent wholly owned subsidiary or setting up a business through a subsidiary (Pelle, 2007). The company's own resources are internationalizing. There are both advantages and disadvantages to the forms of opening strategies, which is why it is good to consider all possibilities (Cavusgil et al., 2013).



A significant part of the decision is the company's preparedness for internationalization. Any organization determines for itself whether it is prepared for internationalization. For example, the company's expertise and capability to compete in foreign markets and current experience in international business are influential factors. Furthermore, the abilities of the workers, such as linguistic skills and cultural competence, are the factors affecting the decision. A well-prepared business has sufficient skills to thrive and increase market share in foreign markets. (Hollensen, 2012; Johansson & Vahvaselkä, 2010).

The traditional process of internationalization can be clarified through **Figure 4**, which is adapted from Luostarinen and others (2001) as well as Palomäki and others (2017). It explains the usual actions that moves forward from the basic operational development into other activities. At first, the company needs to develop its main vision and strategy, including competitive position, in its home country before moving into another market. When the company's competitive situation is under control and on a stable basis, it is a good idea to start considering export opportunities. The beginner in internationalization is still inexperienced in the international market and therefore, it usually utilizes agents to expand into nearby markets, and through them ensures access to market information and important information contacts. SMEs tend to prefer the easiest and riskiest options, such as direct exports or another in the beginning, before boarding on a larger expansion. (Luostarinen et al. 2001; Palomäki et al., 2017).

As the company has gained some experience or develop their global networks, it has opportunity to benefit the relationship when considering what might be the next steps. As an example, with the co-partners or agents, they can share own experiences and help each other. Other activities can include such as licensing and contracts. These activities will be presented later on in this chapter, where the discussion focus on what different opportunities and choices there are for going into global markets, in other words, entry modes. (Luostarinen et al. 2001; Palomäki et al., 2017).



**Figure 4.** The traditional process of internationalization (Luostarinen et al. 2001; Paloma et al., 2017).

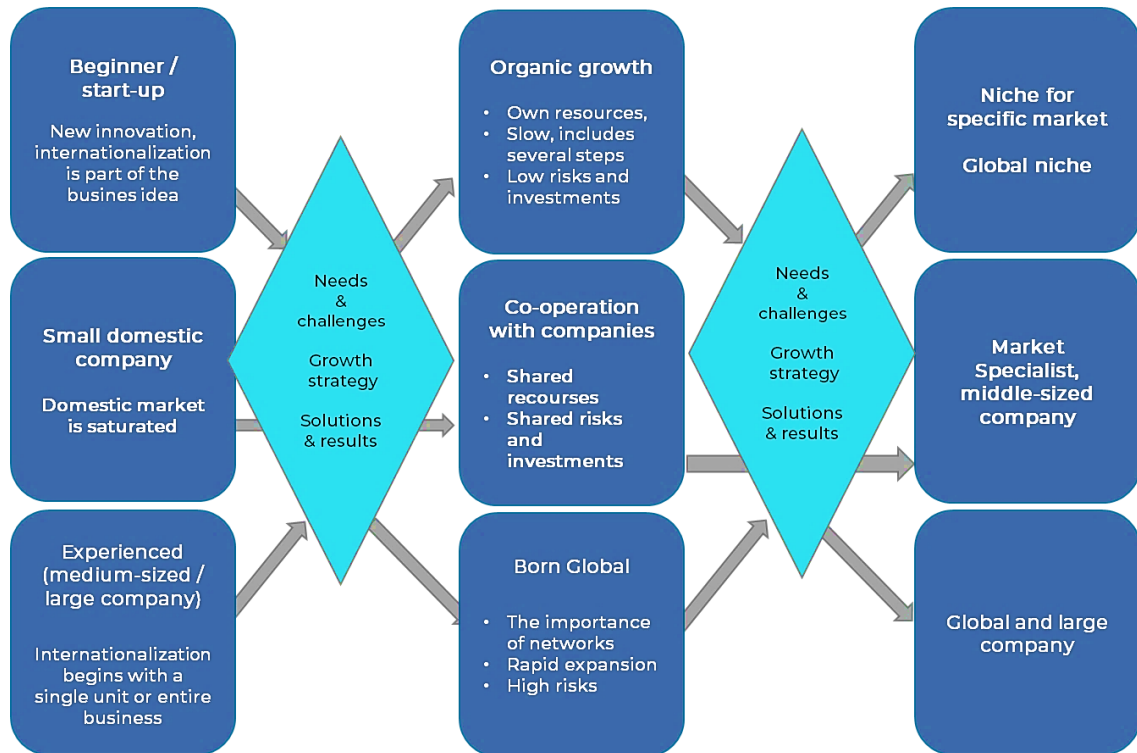
In terms of resources, SMEs do not have the same potential as larger competitors, which makes it very important to think carefully about steps, the right market and timing. It has been stated that selecting the optimal path for internationalization is a part of the overall strategy design and should be dependent on the company's resources and skills to address the opportunities and challenges posed by the environment (Luostarinen & Welch, 1990). According to Palomäki and others (2017), the internationalization on a strategic point of view, when describing their own process, the firm should consider the following:

- What are the strengths of the organization on which global success can be built?
- How large a geographical area wants to go to?
- Which country or countries are to be chosen?
- How fast you are available to go and what are the risks?
- How closely the organization plans to collaborate with others?
- For what the organization needs external experience?
- What things do they dare to hand over to outsiders?

As it has been showed before, the internationalization is a process where the share of international business or involvement in international operations increases (Welch & Luostarinen 1988; Luostarinen & Welch 1990). Typically, the process of the internationalization occurs gradually, country or function at a time. The practises in internationalization process can be adapted by the process model from Albaum and Duerr (2011), that have been studied about what are the practises and processes when going into international markets. They have found that when the company is implementing the proactive approach when selecting the market, there are two methods that can be applied which are expansive or contractible (Albaum & Duerr, 2011).

There are a variety of styles to entering a foreign market. Based on studies from Vahvaselkä (2009) and Äijö and others (2005), there can be found typical elements of the path of internationalization. The **Figure 5 on** explains these elements that has been adapted from both studies. This figure explains how different size of company can choose their path for the internationalization. In order to succeed, the path should be the right kind of frame of reference for choosing company's growth strategy. When doing to selection path, it must be a component of the overall strategy of the company as mentioned before. The choice must be made so that the company's resources and capabilities meet the opportunities and challenges that arise from the environment (Ahokangas, 2002; Vahvaselkä, 2009). Therefore, the choice of path depends on the company's business model.

Even though, it has been trying to simplify how does the process looks like, the design model is difficult to build. The stage of internationalization, the lifecycle stage of companies, organizational level and competitive situation vary in each company significantly. For example, small domestic company needs to first analyse what are their needs and challenges when considering a new market. They need to plan and analyse what is their growth strategy, meaning by in which direction they wanted to be seen in the future. In addition, possible solutions and results needs to be analyse and if the company have some previous experience of expansion, it is relevant to analyse those results. After these, the company can choose their own path and analyse the possible results for the future. (Vahvaselkä, 2009; Äijö et al, 2005).



**Figure 5.** Choosing the path of internationalization (Vahvaselkä, 2009; Äijö et al., 2005).

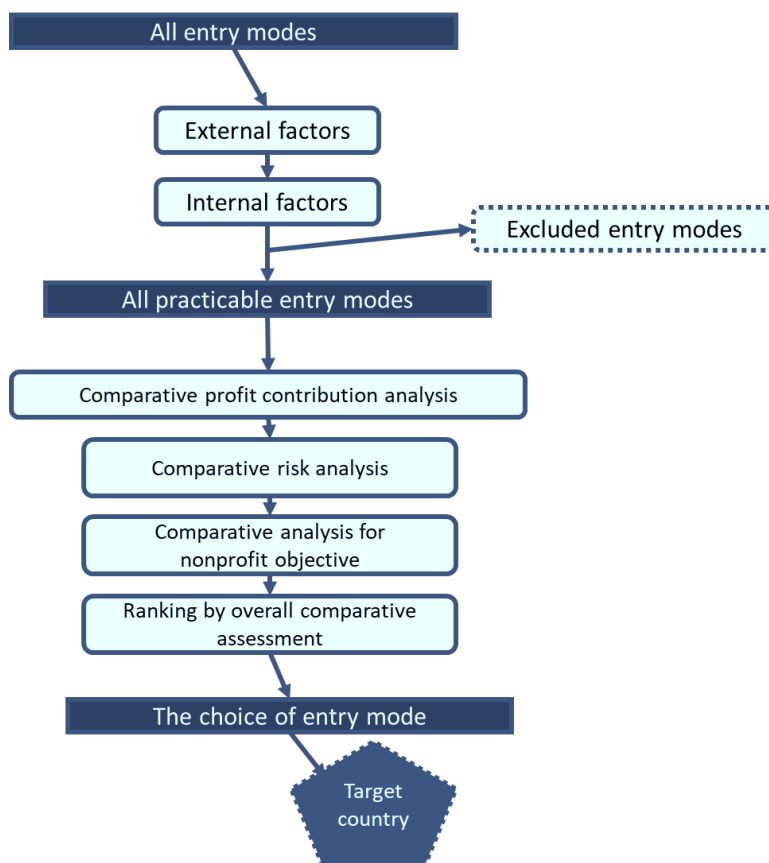
When a company is considering a possible strategy for entering a different market, it is important to know what the different options, opportunities, and risks may be. In order to also be able to anticipate potential problem situations in advance, a company needs to care what strategy they are taking when they plan to expand into a new market. When choosing the strategy and model, the company consider, among other things, the entrepreneur's previous experience, willingness and willingness to invest money in the market, as well as the willingness to manage the export itself. The choice is also influenced by internal and external aspects, such as the company's own goals, management's self-confidence, financing and human resources, domestic and target market conditions, availability of operations, level of risk and market access. According to Peng (2017), the first step for entry mode is to decide whether to follow equity or non-equity modes of entry. (Albaum & Duerr, 2011; Bradley, 2005).

As Peng (2017, p. 151) has previously stated, equity modes indicate allusive of bigger and harder-to-reverse obligations, whereas non-equity modes have a tendency to show

comparatively smaller obligations to foreign markets. This shows that non-equity modes are a little easier to approach and choose when a company is considering internationalization. They do not require as much capital and independent establishments as equity modes. In this research, we are mostly focusing on only the possible choice of export modes, but we are still analysing different solutions from different markets that other competitors have done. (Peng, 2017, pp. 150-151).

It has found that there are lot of different clarifications for entry modes and what does it include, in which they require information before any action (Wood & Robertson, 2000). According to Hollensen (2017, pp. 340-350), when company is having an institutional arrangement for the organizing goods and services of into a foreign country, it can be called as an entry mode. When discussing exports in general, it refers to a company's goods that are produced in its home country and only sent to the destination country. (Hollensen, 2017).

The **Figure 6** explains coherently how the selection process can be seen. In the beginning, the company needs to analyse all the entry modes and compare them to external and internal factors. These will be affected the decision, which is the practicable one. Hereafter, there is needed to take the deeper level to analyse such as compare profit contribution, risks, non-profit objectives, and ranking by overall comparative assessment. These steps have an impression on the selection of the entry mode. It can be stated that this process model very clearly observes the important steps that should be taken into consideration when making the choice of the target country, so it is clearly useful to utilize this model in the final conclusions as well. (Albaum & Duerr, 2011).



**Figure 6.** The selection process for market entry (adapted by Albaum & Duerr, 2011).

There is existing several different ways of how-to entry into a new country (Vahvaselkä, 2009). Entry mode can be chosen as through exports, contracts (licensing, franchising, management contracts, subcontracting, production sharing, strategic alliances) or through foreign direct investment (Anderson & Gatignon, 1986; Hill et al., 1990; Roque et al., 2019; Wood & Roberston, 2000). The main modes of exporting are indirect export, direct export and own export, which are non-equity modes (Peng, 2017, pp. 124-151; Wood & Robertson, 2000). Additionally, the second way to enter can be done through contractual entry modes, which are licensing, franchising, subcontracting, production sharing, management contract and strategic alliances (Johansson & Vahvaselkä, 2010; Roque et al., 2019; Vahvaselkä, 2009; Wood & Robertson, 2000). Exporting, especially direct, is normally the most common entry mode for SMEs because it seems to be the simplest and quickest way to reach a new audience and new market. While it is important to research the target region, there are a variety of considerations that can

control the option of entry mode, and contractual modes are often a better option than self-exporting (Hill, 1990). Likewise, the evaluation of information around different types of markets depends mostly on company's own final goals and decisions. (Albaum & Duerr, 2011; Wood & Robertson, 2000).

The third way enter foreign country is to benefit foreign direct investment, or also known FDI (Hill et al., 1990; Roque et al., 2019; Wood & Robertson, 2000). Foreign direct investment can be called equity entry modes, and those equity modes are wholly owned subsidiary, or WOS, and joint venture, or shortly JV. The distinctions between the methods are that they both have their own unique consequences in terms of operations management, resource commitment, and risk distribution (Hill et al., 1990; Roque et al., 2019). One of the other known models is the Dunning's model (1977), which is called OLI paradigm, also known as the eclectic paradigm. This model examines the company- and location-specific factors influencing investment and the reasons why a company chooses direct investment as a form of internationalization. (Albaum & Duerr, 2011).

Internet operations are perceived as an interesting form of internationalization, which is why this study has also wanted to highlight digitalisation and its benefits. Nowadays, the internet serves an effective global distribution channel as well as advertising and communication media. Through e-commerce, geographical location is also losing its relevance, thus facilitating market access. (Ahokangas & Pihkala 2002, p. 56).

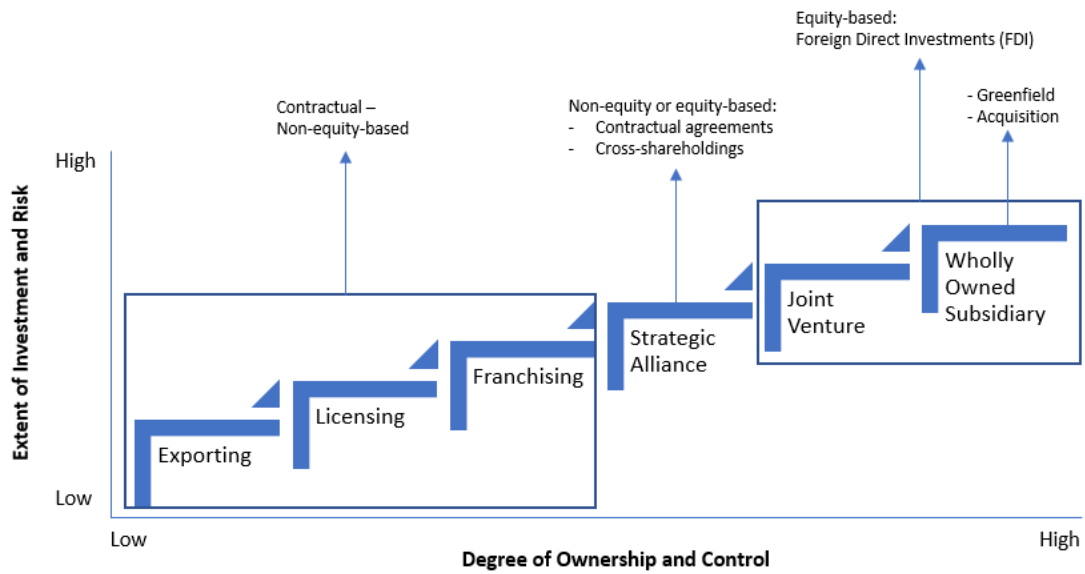
Born Globals are defined as a company that pursue becoming global since the foundation (Bell, 1995; Gabrielsson & Kirpalani, 2004; Knight & Cavusgil, 2004; Roque et al., 2019). For a company, that would more like to see that they could internationalize quickly, it has presented that they are using this model. It has stated that Born Globals can even rapidly globalise without short time activity in the home country (Gabrielsson & Kirpalani, 2004; Roque et al., 2019). Thus, it can be claimed that these companies have decided to internationalize since the beginning in the hope of great success, despite of limited resources such as labour or finance (Knight et al., 2004). If comparing this model to Uppsala

model, there is clear difference with the starting point between those models. Based on Uppsala model, the company follows that model if they are seeking to internationalize after operating in its home country for several years, while Born Global companies usually start their internationalization less than two years after the establishment and at least 75 % of sales are coming from exports (Moen & Servais, 2002).

Building relationships with relevant stakeholders, such as international agents, joint venture partners, or host government representatives, is what networks or networking can be described (Welch & Welch, 1996). In international operations, companies may provide a strong recognition of the importance of their networks (Welch & Welch, 1996). According to Möller and Rajala (2007) they have stated that there no boards for networks, and they are self-organizing systems which appear in local collaboration. However, when creating bonds are exist limited resource and in order to satisfy the expectations, company is available to have only limited amount of network connections (Gulati et al., 2000). As the type of companies network connections may be Collaborative or exploitative it determines the cooperation whether being competitive or supportive (Gulati et al., 2000).

Forms of co-operation include alliances, project operations, and management agreements. Alliance or strategic alliance as a concept describes cooperation between companies in internationalization. Alliances are less structured than a joint venture or acquisition (Wall et al., 2015). Alliances prevent strategic, multi-faceted alternatives with foreign companies in long-term partnerships. The partners may be competitors with each other, but they are integrated by the same goals, which may be product development, sourcing, production, or sales in a particular area. (Vahvaselkä, 2009). In order to clarify different kind of entry modes and strategies, the **Figure 7** illustrates them to give clearer insight.





**Figure 7.** Entry-mode strategies (adapted by Root, 1994; Vahvaselkä, 2009; Wall et al., 2015).

When analysing different markets, there are usually good models and tools for finding the right markets and companies' own strengths and difficulties. One of the most widely used models, especially in marketing, is the 4Ps model or marketing mix. This model enables companies to comprehensively design and implement their own marketing programs, which are an important part of the strategy and when it comes to growing sales and customer base. McCarthy's created traditional model, more easily known as the 4Ps, identifies marketing techniques or practices that are using in advertising for a company's brand or product (Yudelso, 1999). Price, Product, Promotion, and Place are the four dimensions that has been identified to be in 4Ps. (Yudelso, 1999). However, today's marketing mix involves many other components, such as packaging, positioning, and people. And as we are marketing services, its key additional element of competition is physical evidence. However, due to the non-disclosure agreement in this paper will not be openly presented the 4P of the case company, but it is important to mention that each country will need to have its own model, since the same marketing strategy may not work in another country than in-home area. (Leonidou et al., 2010; Vahvaselkä, 2009).

In addition to the 4P model, in order to discover what is the situation with different markets, you need to analyse the total industry in a specific country. As for the company who is expanding their area into a new country, it would be useful to make more use of market environment analyses as tools for strategic decision-making and to find out what the different options are. Another well-known model to analyse different markets, is called PESTEL analysis. It is a marketing framework for analysing and monitoring macro-environmental variables that affect a brand. PESTEL can be used to decipher external problems that the company has no control over. The analysis consists of political, economic, sociological, technological, environmental and legal factors, and it revealed most important future regulations and changes that can happen in the industry. In this thesis, PESTEL will be used later on in findings, in order to give more coherent view of the forestry industry. (Bradley, 2005; Johansson & Vahvaselkä, 2010; Vahvaselkä, 2009).

## **2.4 Synthesis**

This chapter merges the main research areas based on the presented theoretical framework. Synthesizing information enables a case company to generate options that can resolve the challenges or problems facing the main firm. (Hitt, Ireland & Hotkinsson, 2007). Therefore, the most important part in this section is to present a model that can be used when developing the internationalization process model and which will be filled base on the empirical part and findings. In the findings of this paper, there will be presented in deeper level synthesized model that has gained from the analysis of the company's internal and external environments and combined with the created dynamic model of internationalization.

The core of thesis concentrate was chosen to be internationalization and the mechanism because a well-planned entry policy has a positive impact on sustainable export and market growth while minimizing potential risks (Zou, Kim & Cavusgil, 2009; Vahvaselkä, 2009; Wall et al, 2015). In addition, the case company has a lack of information of what kind different opportunities and approaches there could be, even though they have gained already international experience. The case company has currently a great amount

of in-house expertise and a strong competitive advantage with its products, but a lack of information about opportunities in other countries. This brings difficulties when the company wants to increase the growth of business and find new customers. Also due to lack of resources and time management, they do not have the experience and time to study this in more detail, so there was a need and demand for this case study.

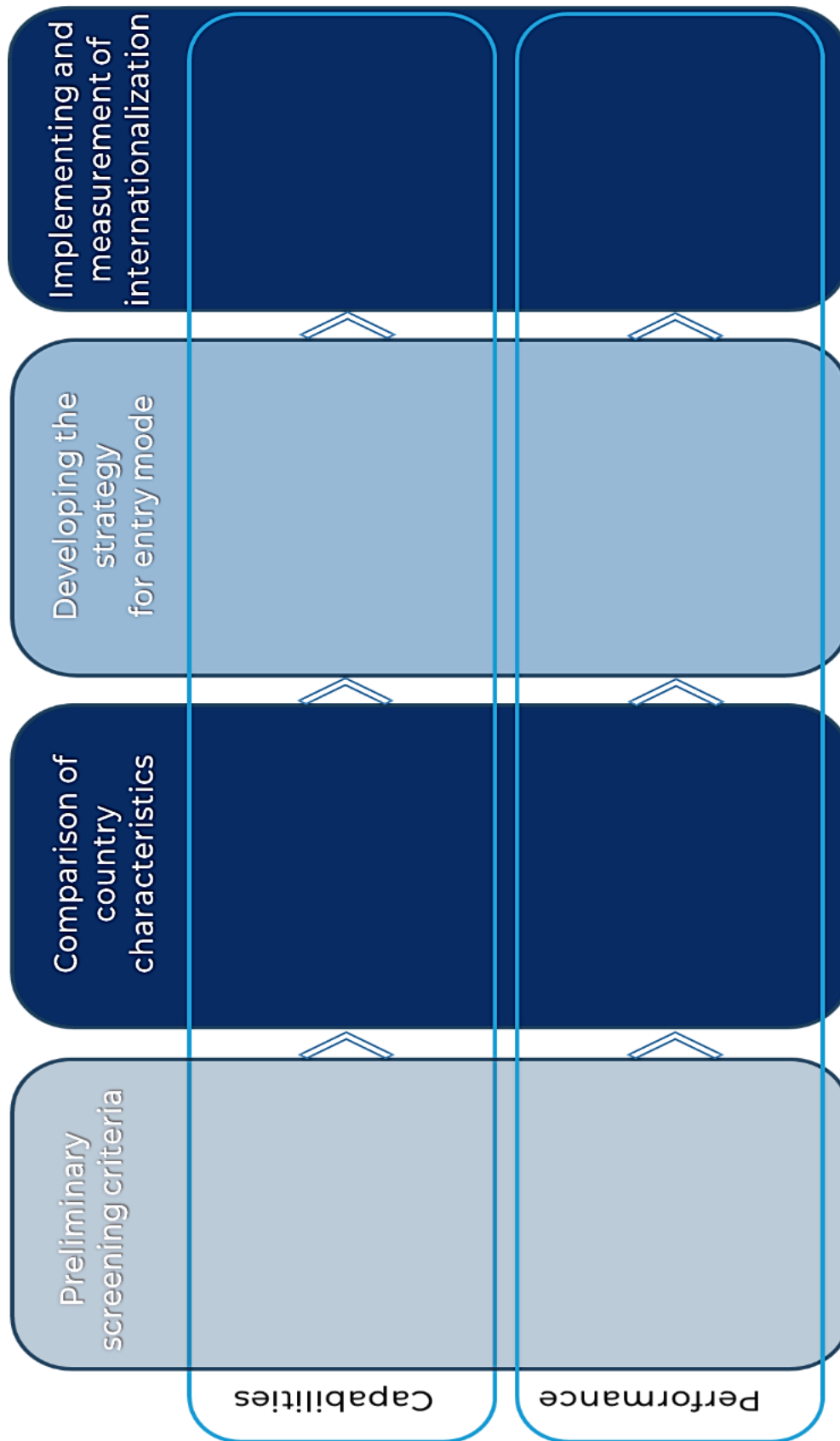
As a determining factor of entry success, both internal and external variables influence the entry strategy, and the strategy needs to be well planned before going to foreign country (Chen et al. 2016; Cavusgil & Zou 1994; Peng, 2017). As previously stated, an organization will ensure the best possible method of internationalization where their policy is considered, environmental considerations are considered, and marketing campaigns are implemented (Luostarinen & Welch, 1990). Thus, it is especially useful for SMEs to start by looking at familiar models to see what their business model looks like and later to develop their business model.

Instead of analysing of how to enter one specific country and creating a strategy for one foreign entry, the thesis focuses more on the process perspective and looks at the total process of internationalization. It will describe more broadly of different elements that would be good to think when doing the selection process. The process is defined differently by each author, but the main elements remain the same. Therefore, one simple four-step process model was chosen. However, combining the internationalization process with country decision strategy perspective is challenging because both are quite wide topics and different areas has different impacts into selection process. Therefore, the idea in this thesis is to provide a framework and to illustrate how to look at different areas rather than presenting each area in detail. The more in-depth country specific has been given to case company's representative, but in this paper the focus will be on to give a framework.

The created process model has been adapted by models of Albaum & Duerr (2011) as well as Vahlne and Johanson (2017). The model is presented at the end of this chapter

(**Figure 8**). The findings of Albaum and Duerr (2011) has integrated into model through four phase categories. In addition, based on the Uppsala-model (Vahlne & Johanson, 2017) that has been presented before, there can be found two phases in this model. *Capabilities* includes all the internal and external factors which affect to the process. The factors can be seen as a strength, weakness, opportunity or even as a threat. The other phase, *performance*, includes each specific indicator that can be analysed or interpreted. In other words, performance can be measured such as volume growth, language skills, country selection criteria, different strategies, competitive structure, customer or product growth and productivity.

In the first stage of the model is as identification of preliminary screening criteria and evaluation of opportunities and involves both internal and external evaluation and the selection of target markets. The second stage focuses on the country selection and involves the comparison of a country characteristics through an example. The third stage includes the developing the strategy for entry mode, which focuses on the strategy's operationalization and comparison of different entry modes. The last step combines the previous one and focuses on the implementation and measurement of the internationalization. This includes those activities and processes that helps to implement the strategy and possibly help the business development in the future. (Albaum & Duerr, 2011; Vahlne and Johanson, 2017; Vahlne, 2020; Vahvaselkä, 2009).



**Figure 8.** The base internationalization process model for the case company.

### **3 Methodology**

This section presents the methodological decisions for the research structure and the method of the empirical part. It will also discuss about the case selection, data collection, defines the key topics of this study and analysis of the case. Moreover, there will discuss about validity and reliability of thesis, that will give certain explanations of how and why this thesis has been done.

#### **3.1 Case selection**

The philosophical assumptions need to be taken into account in every research before the thesis can be carried out. According to Hirsjärvi, Remes and Sajavaara (2007), understanding the philosophical starting points is considered important in the activities of those who start work their research. These assumptions have an effect on the research strategy and both data selection and collection. The philosophy of study reveals the system of conviction and assumptions regarding knowledge creation. Even though the research philosophy may emerge unintentionally, it is more important to carefully weigh the options. As a consequence, the researcher's science philosophy may be thought of as a road map for generating new knowledge. (Eriksson & Kovalainen, 2016; Saunders, Lewis & Thornhill, 2019).

Ontology as a philosophical frame of reference is intended to ask questions about the nature of reality. It affects how the researcher perceives the research object itself. Epistemology, on the other hand, deals with the origin and nature of understanding and the formation of knowledge. Thus, perceptions relate to problems of awareness and access to information. Subjectivist ontology and positivist epistemology are used in this research because data acquisition is based on conclusions based on measurement and observations. This also means that there is no single reality and total real answer because people can have different perspectives and many things can affect reality itself. This is essential to keep in mind when looking at the content and analysis of the study. It is relevant to consider what are the values of the researcher and how those might effect

into analysis. (Eriksson & Kovalainen, 2016, pp. 14–18; Hirsjärvi et al., 2007; Saunders et al., 2016, pp. 120–135; Sirén & Pekkarinen, 2017).

A case study is often chosen as a strategy for research when the author or authors are doing a business study (Ghauri, 2004). Additionally, as this study is attempting to discover answers to “how” and “why” questions, the case study method is appropriate for finding answers since these questions deal with operational links to be discovered over time rather than with frequency or incidence (Dubois & Gibbert, 2010; Yin, 1994; 2009, p. 9). According to Yin (2009), a case study may be exploratory, descriptive, explanatory, multiple or even single. The reason for this selection is that it can illustrate business theory and show the application of such theory. Thus, all the parts of the literature review will be merged into a theoretical framework, which would provide theoretical suggestions on how SME company can increase their business globally and how to choose suitable markets effectively. (Eriksson & Kovalainen 2016; Saunders et al., 2019; Tuomi & Sarajärvi, 2018).

The case study also has weaknesses such as its narrowness. The results may not be generalizable. Often the subject of research is chosen because of the interest it stimulates and thus cannot be considered typical of the entire population. In addition, the researcher's own subjective input might affect the evaluation of the results. (Anttila, 1996; Yin, 2009).

### **3.1.1 Key definitions**

Initially, small to medium-sized enterprises (later SMEs) was established in 1996 and modified 2003, and according to European Union (2012), they have defined that “enterprises qualify as micro, small or medium-sized enterprises if they fulfil maximum ceilings, which have fewer than 250 staff headcounts and an annual turnover is not exceeding 50 million euro, or an annual balance sheet total is not exceeding 43 million euro”. There can be found previous studies of internationalization of SMEs which determine that exporting is the tend to be a dominant entry mode into global market areas, since it is the

simplest and fastest way to enter into another marketplace (Aaby & Slater, 1989; Cavusgil & Zou, 1994; Chetty & Hamilton, 1993; Katsikeas et al., 2000; Leonidou & Katsikeas, 1996; Leonidou et al., 2002; 2007; Sousa et al., 2008; Wheeler et al., 2008; Wolff & Pett, 2000; Zou & Stan, 1998). Nevertheless, as we speak about one case company and how to internationalize their products and services, it is beneficial to study what are the suitable strategies for export operation and is it suitable for each market or should be there to consider different modes.

Digitalisation is a change that affects us all, whether we like it or not. At the moment, major structural changes are taking place in our society. According to Gardener Glossary (2019), which defined that *“digitalization is the use of digital technologies to change a business model and provide new revenue and value-producing opportunities; it is the process of moving to a digital business”*. In turn, digitalization has been defined to be a paradox situation, where companies are investing in digitalization and are struggling to earn the expected revenue growth (Gebauer, Fleisch, Lamprecht & Wortmann, 2020).

For its own part, digitalisation provides a framework for successful change. It challenges us to question existing practices and create them again, to make them work better and more flexibly. The growing demands of the business world through productivity and competitiveness make digitization a guarantee. Digitization speeds up interaction between businesses and customers and streamlines the user experience. Thus, the end result can be better and more cost-effective products. Digitization can be an important tool and in particular its impact is now seen in the time of COVID-19. With digitalisation, companies have the opportunity to streamline and improve their processes and access to information through electronic systems (Meijer, 2013).

### **3.2 Research method**

Quantitative and qualitative are the two methods that are used in the data collection and analysis. These two methods differ from each other as the quantitative creates or uses numerical data while the qualitative method benefits of the non-numerical data.



The empirical part of this study performed the data through qualitative since the data was mainly collected through cooperative learning workshops and interview, which needs to have conversation, observation and face-to-face or through virtual meetings. (Eriksson & Kovalainen, 2016; Saunders et al., 2019).

Qualitative method in a research seeks to answer questions such as “what is it about”. When the phenomenon under study is unknown, qualitative analysis is called into question. This means that no explanations exist to describe the phenomenon. Therefore, the researcher wants to understand this phenomenon, and this is also the case in this paper. This thesis focuses on a few observation units but does not allow for generalization, it only concerns the target company or a company competing in the industry. The purpose of qualitative research is to identify the phenomenon, to explain the composition of the phenomenon, the factors, and the relationships between them (Kananen, 2014, p. 25). The role of the author is to act as an external observer and observe what similarities can be found through both theory and empiricism. Nevertheless, since this study utilizes both theory and practice itself and their interaction, it can be stated that this study follows the perspective of the case study. The purpose is to understand and mix different studies, and the researcher himself acts as an external observer. (Kananen, 2014, pp. 32–34).

Because the results of the research are the author’s interpretation of practices and process steps, and the goal of the study is to provide a new process model for SME’s internationalization process, the broader research philosophy of this dissertation is interpretation. As mentioned earlier, the objective of qualitative research is to try to understand the phenomenon, to explain the composition of the phenomenon, the factors, and the relationships between them (Kananen, 2014, p. 25).

On the basis of supervisor from project, the data will be collected from qualitative research literature. The qualitative method will help to explore casual connections with real-life situations, and it help better to understand the phenomenon behind the

different models as you can interview different persons and have open interviews. Open and semi-structured interviews are utilized in research questions. (Yin, 2009).

### **3.3 Data collection**

When choosing qualitative as for the method for this assignment, it can help more likely to obtain a considered response and provide better access to views, explanations, understandings and opinions. In addition, when analysing the decision-making process, it is best understood through decision makers' individual experience. Primary and secondary data are two types of qualitative analysis data that were used in this study. Primary data does not exist beforehand as it is collected through interviews or observation. Therefore, primary data for in this research was gathered through 4 workshops as well as open and semi-structured interview. (Eriksson & Kovalainen, 2016; Saunders et al., 2019; Yin, 2009).

The secondary data, on the other hand, is the material which has collected by some other people. Thus, secondary data in this research has collected through previous, already realized interviews and workshops, which will be transcript by the author. Additionally, previous studies and information from the case company and the industry provided more detailed data. (Eriksson & Kovalainen, 2016; Saunders et al., 2019; Yin, 2009).

Deduction, induction, and abduction are the three different scientific approaches for developing a theory. Deduction is a form of reasoning that progresses from the abstract to the specific. To put it another way, this type of reasoning relies heavily on hypothesis as a primary source of evidence, with theories established being tested through empirical testing. Induction, on the other hand, starts with empirical analysis and moves from facts to generalizations in order to construct theory. Abduction is a hybrid of these two methods, stating that conclusions can only be made when the guiding theory is active in the observation process. Using a model based on current literature, data is collected in this study to identify popular themes and patterns. As an outcome, this study employs an

abduction approach. The case study includes abduction, which suggests both theory and experience are interacting. (Kananen, 2014).

In this work, it is essential to use theory as a basis, but it has been further developed with the help of findings from empirical research. This also allows the research to be continued either in a different field or in the same field with a different competitor. (Eriksson & Kovalainen, 2016, pp. 22–24; Saunders et al., 2016, pp. 144–149).

As being part of the project, the workshops dates were given and in each workshop the aim was to through co-learning discuss about different topics in each workshop. The case study was ready-made because it was intended to be done directly for only one and one client. With the company involved in the project, they have been contacted as early as spring 2020 before this study itself began. Thus, background information has already been collected at the beginning, but has also been supplemented as the project progresses.

During the thesis, the project had a total of 4 collaborative learning workshops, on the core of which the data of this study have also been spelled out and analysed. Each of the workshops has been recorded and delivered to those involved in the project in order for the spelling to be successful. In addition to the workshops, the author and a representative of the company arranged one separate, virtual meeting where supplementary, semi-structured questions related to the topic were asked. The meeting also presented a working version of the results and model found, and the aim was also to go through and make the desired changes together with the client. After this, the responses to the last interview were also processed before the last return to the client. This is because the aim of the study was to carry out development work, in other words where together and in stages the desired result is completed.

Before the presentation of the first working version and the holding of the video conference, the client was provided with the themes on the basis of which the questions will

be drafted. The interview body itself or specific questions were not provided beforehand, as the aim was to get as free and complementary answers as possible to the topics. There was 1,5 hours had been set aside for the meeting and the total time went with the presentation and discussions. The dates and lengths of each workshops and interview from primary data is presented in the **Table 3**:

**Table 3.** The structure of the primary data: co-learning workshops and interview.

Workshop	Date	Location/place of the workshop	Length of the meeting
1.	2.10.2020	Physical presence in the co-companies office	3 hours, 24 minutes
2.	29.10.2020	Teams meeting	2 hours, 25 minutes
3.	18.11.2020	Teams meeting	1 hour, 21 minutes
4.	2.12.2020	Teams meeting	1 hour, 43 minutes
5.	10.12.2020	Teams meeting & semi-structured interview with the client	1 hour, 44 minutes
<b>Total</b>			<b>10 h 37 min</b>

### 3.4 Data analysis

The data for this research will be collected in order to recognize common trends and themes using an established literature-based model. As a result, this study will take an abductive approach. The aim of the study is to find an answer to the research questions. The theoretical framework serves in-depth of analysis of literature as the basis for the study, but empirical research can further develop the research. Modified theory also offers a good opportunity for further research and development in the same field. In

addition, the study will take an interpretative approach. (Eriksson & Kovalainen, 2016; Saunders et al., 2016).

The data analysis process is divided into two phases. In the first phase, the one-case analysis is followed by a within-case analysis. According to Eisenhardt (1989), the aim of utilizing a within-case analysis is to define and analyse each case as a separate entity. As an outcome, those who participated in the case will have a thorough understanding of their strategic practices as they relate to the internationalization process. Cross-case analysis is following the within-case analysis as it is conducted in order to identify common practices among the cases (Eisenhardt, 1989). Qualitative data processing is essential for both analysis and synthesis. The analysis classifies and breaks down the data, while the synthesis aims to present the phenomenon under review in a new light by providing an overall image. (Hirsjärvi & Hurme, 2008, 143; Kananen, 2014).

A typical approach that depends on a certain hypothesis or model is theory-based research. The thesis typically outlines the study's key principles and explains the model on which the analysis is based. To put it simply, the phenomenon under examination is already identified by something known. In this case, the research is guided by a ready-made frame of reference created on the basis of previous information. Often, such an analysis is intended to test previous knowledge in a new context. The categories to which the data are related have been created in the theoretical part of the study. The material is analysed according to the categories. (Tuomi & Sarajärvi, 2018).

### **3.5 Validity and reliability**

To guarantee the reliability of the study, it is very essential to evaluate the review of the reliability and validity of this paper. Reliability concerns about the study measures reproducibility, meaning of there is a change to give non-measurable results. In terms of validity, it means the capability of the research to measure exactly what is intended to measure and is the data accurate. (Hirsjärvi et al., 2007, p. 226; Saunders et al., 2016, pp. 202–210).

It is possible to assess the responsibility of a study by reliability and validity. The goal of a study is to avoid making errors, so assessing the reliability of the analysis is critical. The reliability of a study tests the stability and repetitiveness of the study, and the final results should be the same when analysis is replicated. In addition to reliability, validity is used to assess both the importance of the topic examined and the appropriateness of the instruments used. (Hirsjärvi et al., 2007, pp. 231).

Reliability in qualitative research is not solely dependent on the exact replicability of procedures and outcomes relative to quantitative research. In qualitative study, a margin of variability is tolerated in the findings, because consistency is the essence of reliability. (Leung, 2015, pp. 324). It is possible to replicate the exact same study due to a choice of qualitative semi-structured interview, but due the single case study, the end result will differ depending on the case company and the interviewee. Therefore, if the analysis is replicated, it is not possible to achieve precisely the same findings because the results of the interview depend heavily on the case company and the interviewee's perspective. Although the replicability of a study is not the only way to assess qualitative analysis, the author would not consider this to reduce the reliability of this study, as the premise of this case study was to obtain outcomes for a selected company and not to generalize answers to a broader context.

Validity implies the analysis method's capacity to calculate precisely what it is supposed to measure. In an interview study, validity is determined mainly by how effective the interview questions are and whether the questions can provide a solution to the research issue. (Heikkilä, 2008, pp. 186). During the interview there was a possibility to explain what we meant by the questions if the interviewee was unsure. Therefore, the possibility of misunderstanding a question is reduced, which increases the validity of the research.

In order to demonstrate that the author has made accurate clarifications and this research is valid, a within-case analysis was sent back to the interviewee to read before the conclusions. The use of instructive questions increased the validity during the workshops and in interview. However, the results are not generalizable to other industries, as the model has been created by the criteria of the specific industry. (Saunders et al., 2016, pp. 202–401; Silverman, 2001, pp. 232–236).

## **4 Findings**

In this section, there will be discussion of the findings from both primary and secondary data (workshops and interviews) and literature reviews. Additionally, there will be discussion about key findings of the industrial review and explanations which might affect to conclusions.

The first phase of the chapter starts by examining the market in which the case firm operates in order to achieve a better insight of the current state of the industry. The major industry factors are presented, which are outlined in a table of the major industry requirements for each continent. As previously stated, the aim is to examine the case in detail in order to determine how procedures or methods were used and what could be useful in the synthesis of the internationalization model. Thus, case analysis is an excellent method for evaluating a case. The second phase is focusing on modeling the internationalization and the content of each process stage.

Theoretically, the understanding of decision-makers of the value of various forms of information on the global market can be influenced by a mixture of factors, including the sector they serve, the particular markets they perceive, and the type of transactions they will desire when entering chosen markets (Carlisle, 1996; Harrell & Kiefer, 1981; Hodgson & Uytterhoeven, 1962; Stobaugh, 1969; Wood & Robertson, 2000). Therefore, it is relevant to study what are the values that are relevant both for the company, as well as for the clients. There is needed to first analyse the industry in general, then discuss about the technological perspective as well as the current figures and volumes of the sales.

### **4.1 Forestry industry**

Forest ecosystems are a major element of the global biodiversity and play a vital role in the global carbon cycle (Asikainen et al., 2005; Asikainen, et al., 2009; Barredo et al., 2012; Butler & Leatherberry, 2004; Pan et al., 2011; FOREST EUROPE, 2015; FAO, 2020b; FAO & UNEP, 2020). It has been stated that forests are one of the most important



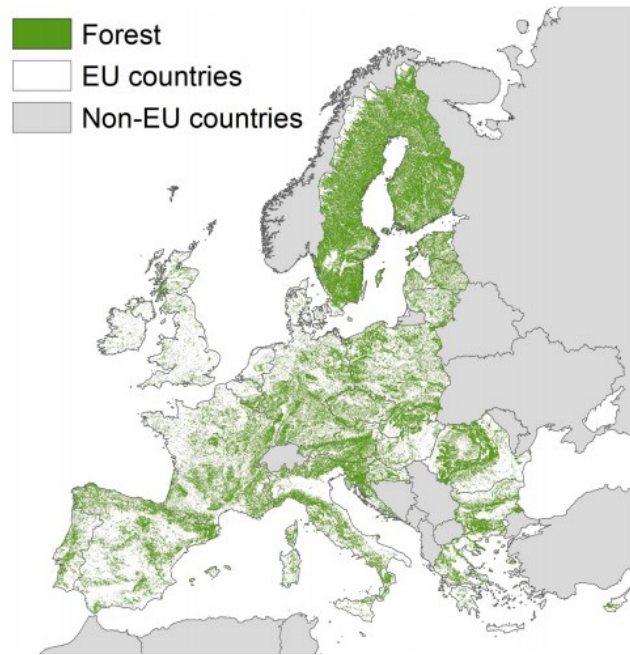
renewable resources in Europe and offer many benefits to society (FOREST EUROPE, 2015; FAO & UNEP, 2020). European forest is fighting for climate change, protecting soils, maintaining water resources or protecting biological diversity (FOREST EUROPE, 2015; FAO & UNEP, 2020). The estimated annual sequestration of forest biomass carbon reached 719 million tonnes in the European zone and 414 million tonnes in the EU-28 between 2005 and 2015. This is equal to about 9% of the net greenhouse gas emissions of the European zone and the EU-28 (FOREST EUROPE, 2015). Therefore, it can also be argued that the forest industry is a key importer of welfare in Finland. The sector generates more than 20 percent of Finland's goods export revenues and employs, especially in the provinces. Forests are playing additionally a really important role in alleviating climate change as they can catch and store large amounts of carbon (FOREST EUROPE 2015; FAO & UNEP, 2020). Additionally, the future use of forests will be affected by many global trends and developments in global market. These are such as climate change, loss of biodiversity, digitalization, rapid population growth, urbanization, and the loss of natural resources. (Häyrinen, 2019; IPCC 2018; Retief et al. 2016).

When the company is considering where in the world they could expand, it is essential first to analyse which areas are more attractive. There are different kind of numbers and facts about area, which should take consider before the process itself begins, for example when looking at opportunities (FAO, 2020a, 2020b). It can be stated that forest management practices differ significantly from country to country, which is reflected in the needs of harvester users. Therefore, it is essential to study what are the customer's different practices and methods that they use in other countries in order to find the best possible markets for the case company. Each method is not suitable for every market, and therefore, by analysing the current situation in the industry within different areas, there is possible to reach the best strategy for entering into a new market.

According to the latest study by Food and Agriculture Organization, FAO (2020b), the area of naturally renewable forests between the years 1990 and 2020 has reduced by 301 million hectares, while planted forest has increased by 123 million hectares

worldwide over the same period. Between 2010 to 2020, the second largest growth of the planted forest area has occurred in North and Central America, but the largest growth has appeared in Asia. Most of the world's forest areas (4.06 billion ha) are in Russia (815 million ha), Brazil (497 million ha), Canada (347 million ha) and the United States (310 million ha). Additionally, when finding how much from the country's land area are primary forest, the largest primary forests account for 49% of the country's land area in South America. In second comes 43 % in North and Central America, then 38 % in Africa and 27% in Europe if Russia is included. **Figure 9** indicates how forest coverage in EU countries varies completely from country to country. The Nordic countries (excluding Norway) and Central and Southern Europe in particular stand out from the map in a clear green colour. (Barredo et al., 2012; FAO 2001; FAO, 2020a; 2020b).

When it comes to the EU and its forests, it currently consists of 28 countries with a combined area of 4.3 million km<sup>2</sup> and forests covering around 140 million ha (Orsi et al., 2020). Northern Europe is the most forested region in Europe, while South-East Europe is the least forested region (FOREST EUROPE, 2015). This claim is also supported by **Figure 9**, which signifies that unfragmented forest fields are mostly focused on Central Northern countries, as well as mountain ranges (Orsi et al., 2020). Based on these, it can be stated that the most profitable idea is to focus on those areas where a lot of forest is best found, as well as areas that are unsuitable for large machines and therefore, the best for the case company's products. Additionally, it is relevant to know that around 80% of the Europe's forest area is available for wood supply, which justifies that there will be demand now and even in the future. (FAO, 2020a, 2020b; FAO & UNEP, 2020; FOREST EUROPE, 2015 ; Orsi et al., 2020).



**Figure 9.** The EU forest cover as per classes 311, 312 and 313 of the 2012 CORINE land cover (Orsi et al., 2020; FAO 2001).

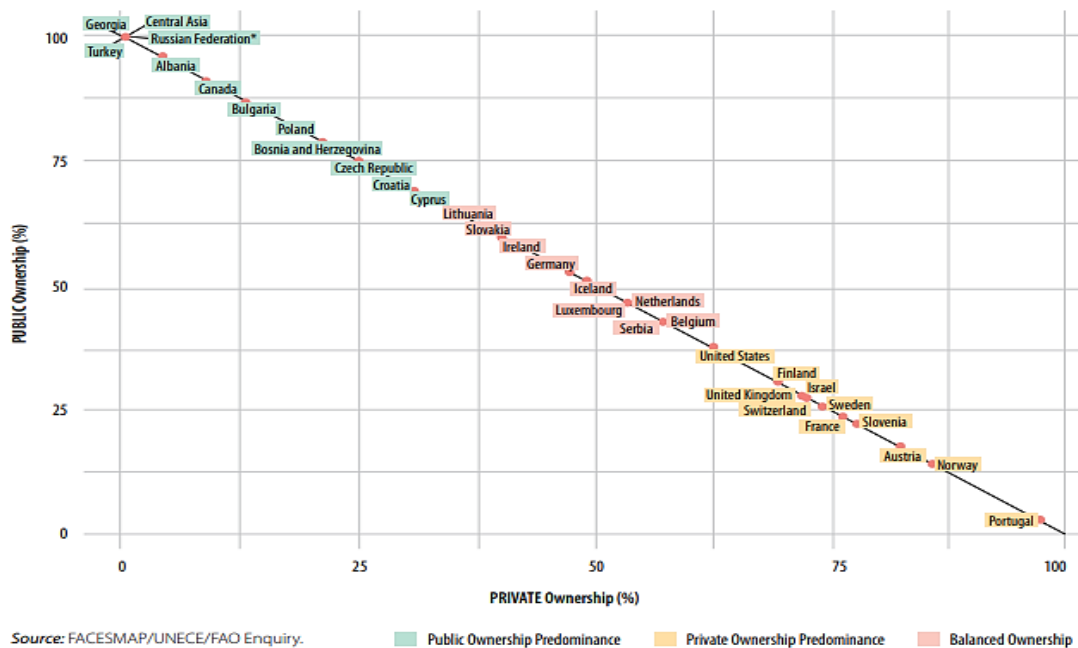
At the global level, forests are owned and controlled in variations of private and public ownerships but not equally in every country (FAO & UNEP, 2020). Still, since 1990 the number of private forest holdings has increased by approximately 18 % (FOREST EUROPE, 2015; Lawrence et al., 2020). This supported also by Forest Europe (2015), which claims that *“non-industrial private forest owners control more than half of the total forest area in certain countries”*. Forests are maintained and owned all over the world as a combination of public and private ownership. According to Weiss and others (2019), over the last two decades social and financial transition are one the reasons that has expanded the variety of forest ownership. It has been studied that non-industrial private forest owners, or also known NIPF, manage 70 % of the annual growth of the stand and 60 % forest land of the country (Butler & Leatherberry, 2004; Karppinen et al., 2020; Luke, 2016; Van Herzele & Van Gossum, 2009). Even though there can be found countries with high share of private ownership, but the priorities and services of the forest owners have brought differences (Häyrinen, 2019).

Due to historical differences, there are differences in forest ownership and management, as well as in forest management attitudes and structures across a world. Additionally, each country or region regulates independently and follows its own strategy. It has found that the variability of decision-making freedom among European forest owners necessitates an examination of how foreign and EU policies are applied and how they impact privately owned forests (Nichiforel et al., 2018). This means that national legislative provisions can have a significant impact on the effectiveness of higher-level policies (Häyrinen, 2019). In addition, in order to be able to develop the industry each country has their own rules and habits for their forest management. Based on the findings, Finland is a pioneer and reports a lot more things than other countries. Due to differences in the legal and reporting methods of companies, it is also difficult to study the development and functioning of the industry. Nevertheless, some trends such as aging, urbanization, fragmentation of forest holdings and a reduced need for forestry incomes can be seen in every region, especially in Europe (Häyrinen, 2019; Schmithüsen & Hirsch, 2010; Živojinović et al., 2015). This in turn affects supply if there are not enough people to take care of the forests and also own them. (Butler & Leatherberry, 2004; FOREST EUROPE, 2015; Häyrinen, 2019; Karppinen, 1998; Keskitalo et al., 2017; Nichiforel et al., 2018; Wiersum et al., 2005).

It can be assumed that it is easier for private forest owners to procure wood than for public sector owners. Because private forest owners own smaller amounts of forest, the number of customers is higher than compared to countries where states own most of the forests. On the other hand, private owners with small hectares are not potential new customers because large mechanical investments are not fully relevant as for those with larger hectares. (Hujala et al., 2019).

The **Figure 10** shows how much more public or private ownership of forests is in different countries and according to which it ranks (the more you go right and down, the more private and vice versa). Based on this figure and data from FAO (UNECE & FAO, 2020a, 2020b), 73 % of the world's forests are publicly owned and 22 % are privately owned.

Most private forest owners can be found in yellow, such as Finland, Austria and France. As mentioned before, it can be claimed that these countries which has most of the highest private ownership, may be the most suitable for small forestry machines regarding the sales. The bargain opportunity is easier where the forest is mostly owned by private persons and there might be more demand for small machines as areas of the forests are not that big as comparing if most of the forest is public owned.

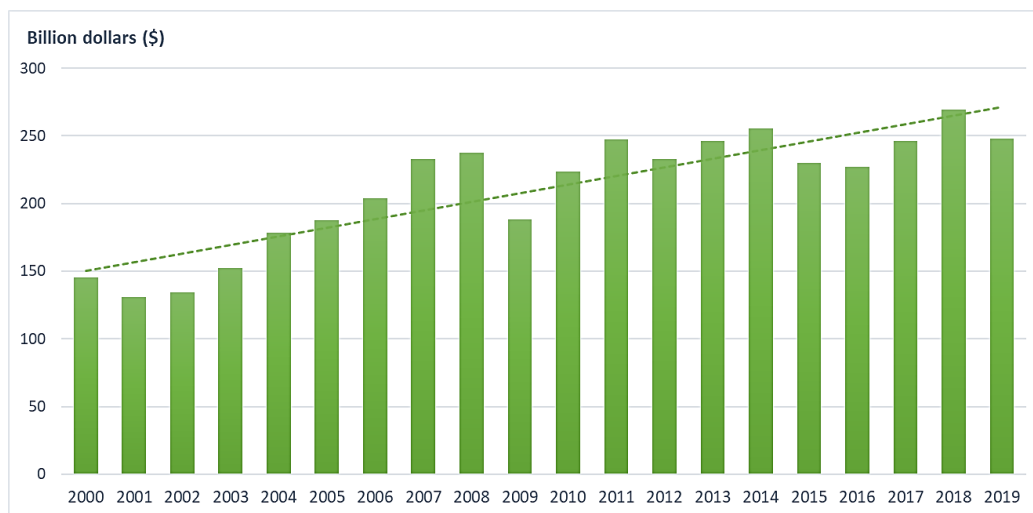


**Figure 10.** Percentage of forest area under public and private forest ownership by country (UNECE & FAO, 2020a).

In Canada and Poland, for example, there is mainly public forest ownership, which means that there is more competition and not so many individuals can influence investment. However, the opportunity can also be difficult with private owners if they do not have large forest plots, they have the opportunity to buy thinning or logging outsourced, or if they do not have enough experience in the sector, making large investments in machinery might be unattractive. In addition, the opportunities can be found in countries such as Germany, Belgium and Slovakia, where the ownership is quite balanced.

*“One trend that has been followed at least a lot in Sweden is how much the forester makes deliveries. The trend is quite clear in Finland as well, which means less and less forest owners themselves produce. In principle, forest owners do not want or do not have time, or the forest ownership is such that it is forced to buy the service. When they used to have a lot more interest in doing it myself.”*

When looking the **Figure 11** and the trend curve, it can be assumed that the demand for forest industry goods is increasing in the global market (FAO, 2020a; Zheng et al., 2014). Therefore, wood raw material will also be increasingly needed in the future for the needs of the forest industry. Forests will continue to be felled, which may indicate an increase in demand for forest industry machinery.



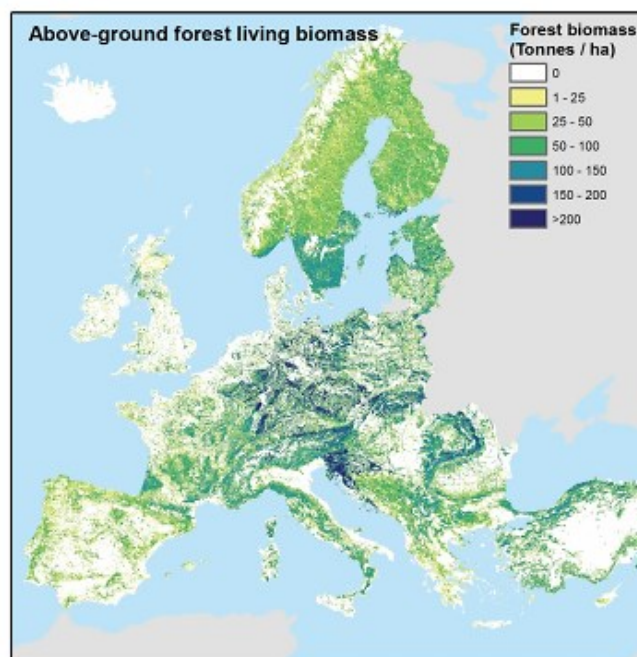
**Figure 11.** Export values of forest products in the world in USD from 2000 to 2019 (FAO, 2020a; Zhang et al., 2014).

To keep our forests in a good shape, we need to take care of them. According to FOREST EUROPE (2015), that by doing research, educating and training people are vital for the success of the forest sector. During the workshops, one of the themes consider the sustainable forestry. The forest industry is easily thought of as just a paper or pulp industry, because their visibility in the media is greatest. In fact, the forest industry has been able to change direction and replace the clearly reduced paper production with other products. The use of bioenergy might be the trend of this industry or even rapidly increase in the future. (Metsäteollisuus, 2020).

*In Finland, too, one reality is that the use of peat is down and fast, so you could imagine that the use of bioenergy will increase and for us it should be a positive thing. Similar countries are Ireland, which is really close to Finland, it has huge peatlands. But it is not known whether the debate is on the same level as here or whether to stop using peat.”*

To look at the statistics statistically, the wood trade in Finland is efficient because the forest industry trades more than 100,000 wood annually with private forest owners. For example, cumulatively up to week 38, more than EUR 18 million worth of wood has been purchased in Finland from private forests, which indicates its extensive trade. This industry has a future because it is not just made up of newspapers and copy paper. The products of the forest industry are present in the everyday life of our Finns when we drive with biodiesel, live in wooden houses, and use other different paper products every day. (Metsäteollisuus, 2020).

The **Figure 12** on below presents the volumes of forest biomass at the central level in European. Forest biomass is one of the most critical sources of renewable energy (EUR-Lex, 203). According to Orsi and others (2020), the share of forest biomass is planned to be more than 40% of the 2020 renewable energy target, which means that in the very near future the amount of wood needed for energy use will be equal to the current total production (EC, 2013). Nevertheless, according to report by European Commission (2018), a one-size-fits-all solution for the prosperity of the sector would not be feasible and sustainable mobilization of biomass and timber supplies to the sector must be addressed by various strategies in different regions. This can be underlined by the example of woods, as about 78 % of the land area in Finland is covered by trees, compared to less than 9 % in the Netherlands. But forest ownership also differs greatly in Europe, as over 80 % of the forest area in Poland is state-owned, while only 3 % are public forests in Portugal and 97 % are private and community forests. (FAO, 2020a, 2020b ; Hetemäki & Hurmekoski, 2016 ; Statistics Poland, 2018).



**Figure 12.** Map of above ground forest living biomass at 1 km grid size. Map implemented using IPCC TIER 1 methodology and adjusted with data from FAO's FRA (Barredo et al., 2012).

In Europe, the largest stocks have been in Sweden, Finland, Germany, France and Poland (range 700-1650 harvesting chains by country if productivity is 35,000 m<sup>3</sup> / year). At the global level, the largest machinery is in the United States, Canada, Russia, Brazil and China (2750-11,800 harvest chains with a productivity of 35,000 m<sup>3</sup> / year). Based on these numbers, Asikainen and others (2005) created a vision for 2020 that the theoretical need for wood harvesting would be unrestricted and that the realistic need for machinery with mountain and hardwood restrictions would be maintained at the current felling volumes. In the same study, they discussed about the top countries with the best average net incomes in the period 2010-2020. It demonstrates how certain countries will certainly make a profit in the future and are seen as developing and potentially making a profit. Based on the study, the most top 5 countries with the best average net incomes (0,9 – 0,93 %) are China, Australia, India, Chile and Vietnam (Asikainen et al, 2005). Based on FAO (2020), there is possibility to compare the demand and supply of roundwood in years 2015 to 2019 (**Appendix 2**). The figures from the table in the appendix reveal how the demand and supply of industrial wood have increased in recent years by region.



What can be observed from the table is that the change in volume in supply and demand in each region has decreased between 2018 and 2019. But looking at the figures between 2015 and 2019, the change is actually rising in all regions. The biggest change in demand has taken place in the EECCA region, where demand has grown by almost 15%. The smallest change has taken place in Europe and North America, but these areas are still the most productive due to their vast forest areas. These findings are also supported by the discussions in the workshops, which highlighted the attractiveness of certain areas. According to the case company, during the workshops they informed that:

*“Well, right now, Sweden is number one. Austria ranks second, Norway, Canada, Finland wedge to 2-3 levels. 80 % is exporting and Sweden is by far the largest. A good local business should be found (in Germany).”*

*“Sweden's success is due to the fact that we have one person who buys the product as standard and who buys 30-40 machines a year. A small company that makes such ATV-type equipment that is simple on which our harvester comes on. There are other similar opportunities in Sweden, one in Estonia and one in Estonia. They are pretty important of course. The downside to them is that we have to sell pretty cheaply. The amounts are levelling. A few start-up companies trying to develop similar small machines [are in Finland]. Unfortunately, these have found other alternatives, they have gone to different solutions - similar small machines. The machine of those sizes has grown.”*

These indicates that internationality or inexperience are not a problem, it drives the company's sales, but the goal is to get expansion and sales growth. Finland is also a safe place for experiment and take the risks when you are familiar with culture and language, as well as legal provisions and others and the location is close. In other hand, close by countries such as Sweden can be seen with low-risk opportunity and good opportunities regarding of the competitiveness, in which shows that they should continue in Sweden. Despite the experience, the company itself has also noticed some important markets in which they have not yet invested, such as Germany. In particular, these potential markets should and should be analysed, and the field of competition should be considered, such as whether there are many different players in the country and how easily it would be possible to enter that market from the point of view of entry mode. However, as the aim was to develop general model of internationalization, there will be not deeper level

presentation of most suitable areas in this paper, but these has been presenting for the case company in their own version.

*“There are small machines in Sweden. The market in Finland is really small. Finland is a country of little big machines. There are more large farms in Sweden and there are many more in Sweden that you want to do yourself. And when you look at the pricing themselves, you realize that they do not want to be a commodity. You can get more of a stand-up trade than if you do it yourself. It drives away a lot, although thinning should be done here.”*

An important observation about the case company's competitive strength is that they have experience of internationality and distinctiveness from their competitors. As research and interviews have shown, the sale of a product is affected by the kind of wood material in the country, for example what can be harvested, and what the competitive field is like. The product portfolio of case in its current form is best suited for countries and environments where large, competing machines cannot fit and are inefficient. This is best suited especially for the use of private foresters, but of course also for contractors.

It is also a good idea to consider other levels when selling a product, for example, whether the product could be leased or licensed, to states, which can then rent machines to local foresters. In this case, it would be important to consider the functionality and maintenance of the product, such as possible defects, installation problems, or commissioning difficulties that can be easily resolved without contacting a potentially domestic company. This would increase the company's efficiency if the maintenance and service could also be made to operate in other markets and would not overburden the domestic company and leave them time for other tasks. However, it has been found that shared machines acquire, and usage has gone when people want to use the machines just when it suits them.

*“We have talk about leasing — What our equipment has been made for thinning, there are huge quantities of it in Finland. If you have even a little time, then in principle it is the only profitable way to treat thinning. Not at all if you want to make a profit from harvesting. If it is necessary to thin out, and if it is poorly*

*maintained bottom, and far and rocky, then it is laborious to handle with large machines. There will be a loss."*

Regarding the case company and delimitation, we are going to examine only the harvesting site of the forestry industry, as the products of the companies only focus on those. Therefore, it is relevant to already define what does the harvesting mean and what includes in it. When defining harvester or harvesting, it can be said that it means logging that consists of mechanical or manual work. In mechanical logging, trees are felled, pruned and cut by a harvester, also called a multi-purpose machine, motor and harvester. It is a forest machine used by one person that lacks felling, pruning, cutting to the desired extent in the forest, and another to measure the volume of trunk trunks. The harvester sorts the cut trunks by timber species into the forest. As for the research, it is going to be a study about different markets and harvesting methods that they use, and it is going to emphasize a within-analysis and compare those findings to find most suitable markets that fits perfectly for case company and their products. (Forest.fi, 2020).

According to previous research by Uusitalo (2013), different machine types and values of harvesters can be found such as small thinning harvesters, thinning harvesters, general purpose machines and final harvesters. Based on this, it can be claimed that there are 4 main types of machines whose weight and usability can also be assessed. Small thinning harvesters usually weigh from 8 to 12 tonnes, thinning harvesters 15 to 18 tonnes, general-purpose machines weigh 20 tonnes and final harvesters are the biggest, 20 to 24 tonnes. (Asikainen et al., 2009; Daniels et al, 2011; Uusitalo, 2003).

These values also help the case company to better assess in which category their own machines can be classified, and it also helps to interpret their weight and suitability for a particular terrain. The heaviest machines are not suitable for soft and awkward terrain, so if there are small machines in the company, they have a competitive advantage in those countries. During the workshops it was interesting to find that thinning usually does not produce logs, it produces more pulpwood. This effects also into production, and as there are relevant to see if some countries are specifying for example, only in

pulpwood and thereby, brings opportunity to a new market. (Asikainen et al., 2009; Daniels et al, 2011; Uusitalo, 2003).

The number of forest machines has been steadily increasing in recent years and continuous development is still expected, as the **Table 4** presents. The record year for forest machines was 2007-2008, after which the situation that began with the American banking crisis also affected this industry, and the number of machines sold fell by about 78%. Additionally, the value of the global forest machine market was estimated at 9.2 billion (USD) in 2019 (FAO, 2020a, 2020b; UNECE & FAO; 2020a, 2020b). The situation has levelled off and in 2018, harvesters were sold the most than ever before. COVID-19 has also affected the registration of forest machines, but it is hoped that history will not repeat itself as in 2009 as demand for forest machines has been high in recent years. The most common harvester models by region in Europe show that the most popular models in 2015 have changed a lot by region, but clearly in the north certain models are more popular than in the south. (Metsätrens, 2015, 2018, 2019; Viitamäki et al., 2015).

**Table 4.** Registrations of forest machines in Finland in 2007-2009 and 2017-2018 (adapted by Metsätrens, 2015, 2018, 2019; Viitamäki et al., 2015).

Year:	Number of harvesters:	Number of forwarders:	Total:
2007	274	268	542
2008	289	327	616
2009	<i>n/a</i>	<i>n/a</i>	138
2016	<i>n/a</i>	<i>n/a</i>	498
2017	<i>n/a</i>	<i>n/a</i>	501
2018	300	227	527

*n / a = Exact number not available, integer only*

According to a study by Asikainen and others (2005), it is possible to classify European countries on the possibilities of their mountain sections and logging. The study explained that most of the logging in other countries, such as Finland, can be mechanized, but Austria, for example, has a very high proportion of mountains, which means less mechanization. Most of the mechanical share of timber harvesting is possible in countries

where the share of mountains is less than 10%. In these countries there is 95 % possibility to use mechanicals. Countries that have less than 10 % mountains from their land area in EU are for example Sweden, Finland, Poland, Estonia, Lithuania, Belgium, Hungary, Denmark, Netherlands and Luxemburg. The other group has more than 10 % but less than 30-40 % mountains from the land area, is available to do mechanical loggings approximately 80-90 %. Germany, France, Great-Britain, Ireland, Portugal and Czech Republic are the examples of this group.

Some countries, such as Greece and Slovenia, would not be that suitable for mechanical loggings because the mountains account for 75% of the land area and thus mechanical logging is possible only about 20 %. Thus, these countries would not be the most suitable target countries for the case firm, as the aim is to discover the most suitable countries for forestry machinery. (Asikainen et al., 2005; Butler & Leatherberry, 2004).

According to Furukawa and others (2015), they have done previous research in which they examined about the countries with the highest harvest index (FHI) for industrial raw wood exports. This study shows both largest exporting and importing countries of industrial raw wood by income group, based on World Bank calculations of gross national income per capita in USD from 2004. The same findings regarding of the exporting from their study can be found from **the Table 5**.

The highest rankings according to FHI are Canada, Russia, Finland and Sweden, which also confirm that there is demand in these countries in the forest industry. The list also includes some exotic countries such as Indonesia and South Africa, which are also seen to have potential. These countries therefore clearly have the potential for deforestation and also where there is demand for machinery. According to Eurostat (2020), the compound annual growth rate (CAGR) of the share of forest area in the period 2015-2018 has been 0,6 % per year. This shows that researchers see a demand for forest machines in the industry and that there is no need to reduce their production. (Furukawa et al., 2015; Geringer et al., 2000).

**Table 5.** List of countries with largest forest harvest index (FHI) of export and import of industrial roundwood (Furukawa et al., 2015).

Exports of industrial raw wood	Country	Group of income*	FHI (ha yr <sup>-1</sup> )
Placement			
1	Canada	High	1,890,423
2	Russia	Upper middle	842,709
3	Finland	High	506,912
4	Sweden	High	449,796
5	United of States	High	445,795
6	Indonesia	Lower middle	227,5
7	Australia	High	224,192
8	Portugal	High	143,545
9	Brazil	Lower middle	132,235
10	South-Africa	Upper middle	121,117

Current research also shows that, as a current trend, interest in nature and forests due to climate change has also increased the interest of ordinary consumers to buy their own forest. It should be noted, however, that with the outbreak of Covid-19, the forest industry has suffered severely, which has also affected the forest machine market. Even in 2019, total consumption of primary forest products in the UNECE region decreased in all general categories, as the industrial raw wood decreased 3.4%; sawn timber -0.9%; wood-based panels -1.5%; and -3.5% paper and cardboard (FAO, 2020; UNECE & FAO; 2020a, 2020b). Quarantines imposed in the first half of 2020 have forced some downstream processors to close temporarily, which has had a downward effect on demand for machinery. Nevertheless, the sector is optimistic and sees growth opportunities as the pandemic stabilizes. (FAO, 2020; Manninen, 2018; UNECE & FAO, 2020a; 2020b).

Among the industrial analysis, there are some models and tools that help to find out what specific factors are relevant when considering different markets than the local one.

Additionally, in order to analyse the external environments that affects to decision choice of which target county should be choose, PESTEL-analysis can help to identify those factors. As mentioned before, PESTEL is a tool used in business, which utilized in examining and acknowledging different trends in the company's external environment. In selecting the target markets to which the company expands its export activities, the company can use PESTEL analysis to aid in market mapping preparation. The PESTEL analysis maps the desired macro environment and factors affecting it. The abbreviation PESTEL comes from the words political (political), economic, sociocultural, technological, ecological and legal. The PESTEL analysis should be done on a country-by-country basis, as many of the factors in the macro-environment are country-specific. The get better understand of how the global forestry does look like, the **Table 6** illustrates the key findings and analyses. (Vahvaselkä 2009, pp. 67-68).

**Table 6.** PESTEL analysis of the global forestry for the case company (adapted by UNECE & FAO, 2020a; 2020b; Saha Konttori, 2019; WWF, 2020).

Political	Economical	Social	Technological	Environmental	Legal
<ul style="list-style-type: none"> <li>- Lack of forest regulation consistency.</li> <li>- Political instabilities and unsecured barriers.</li> <li>- Industrial safety regulations.</li> <li>- Trade regulations and tariffs.</li> </ul>	<ul style="list-style-type: none"> <li>- Comparative advantages of host country and forest industry sector in the particular country.</li> <li>- Exchange rates and stability of currency.</li> <li>- Product manufacturing cost e.g., labour.</li> <li>- Trends affecting to demand (changes in plastic products, population growth &amp; increased awareness of environment.</li> </ul>	<ul style="list-style-type: none"> <li>- Motivation and goals different for private forest owners vs. state-owned forests.</li> <li>- Demographics and changes in generations (heritage or own purchase of forest)</li> <li>- Increased interest of sustainability and climate change</li> </ul>	<ul style="list-style-type: none"> <li>- Maintenance of equipment and availability and easiness.</li> <li>- Product efficiency.</li> <li>- Services and support elements to achieve customer satisfaction.</li> <li>- Lack of know-how (new technologies and tools for sustainable forest management).</li> </ul>	<ul style="list-style-type: none"> <li>- Climate change has an effect on forestry, changing the conditions and opportunities to harvest.</li> <li>- Deforestation must be controlled (forests are disappearing at a rapid rate under logging, pastures and agriculture.</li> </ul>	<ul style="list-style-type: none"> <li>- Data and production protection.</li> <li>- Possible changes in legal system with entrepreneurs and farmers.</li> <li>- Own climate and forest policy in different countries.</li> </ul>

The PESTEL analysis is combined with internal drivers and external microenvironmental factors will help classified the opportunities and threats that might be in different countries. It has found that forest laws are EU country specific, even though an EU Forest Strategy was introduced in 2013 (EUR-Lex, 2013; Miečinskienė, Stasytytė & Kazlauskaitė, 2014). With the outbreak of COVID-19, the forest industry has suffered severely, which has also affected the forest machine market. Quarantines imposed in the first half of 2020 have forced some downstream processors to close temporarily, which has affected the forest machine market. From the environmental perspective, the focus of the forest industry in 2019 was on climate change and the circular economy in Europe and this trend will be continued. The EU's has created Green Deal-program, which will have effects on the industry in the future. With the program, EU intends to protect 30% of land and seas from biodiversity by 2030, and therefore it will affect logging and forest



machine production. This program was something that our case company's representative saw it can bring some difficulties to diversity of forest and demand of forestry machines. The interviewee mentioned the same situation that *"Europe wants 30% protection of forests, and it will be a pretty big blow to the Finnish economy if this happens"*. This will have an impact to industries and might effect on the demand of industrial roundwood. (FAO, 2020b; UNECE & FAO, 2020).

The interviewee claimed that it might decrease the demand for the new machines and therefore, will be more difficult to find suitable customers. However, the renewable forest industry is seen as an opportunity when the focus will be more on the development of a bioeconomy and forest planting. This will still give need for using forestry machines. Other threats that can be analysed includes climate change, insect pests (especially in Europe), and deforestation.

From the technological perspective, it can be seen that digitalization, automation and its development will help add new dimensions in the coming years by making the task easy, productive, efficient, and achieving the desired result in a short time. Therefore, the industrial development with automation will not only give risks, but opportunities for new possible innovations and solutions. Regarding the technical factors, the efficient use of forest machines and the sufficiency of professionals in the field can be seen both threats as well opportunities for the future. From legal point of view, there are few things that effect on the decision such as EU Forest Strategy, Forestry in rural development, forests and biodiversity.

## **4.2 Model of internationalization**

When planning for internationalization or new markets, it would be a good thought to consider developing strategies that support sales growth without compromising the management of existing orders and the quality of customer service provided. It is also very important to ensure that the current structure of the company is able to cope with

the growing demand for both products and services (IPCC, 2018). Especially it is relevant to monitor existing resources and production are in order before expanding.

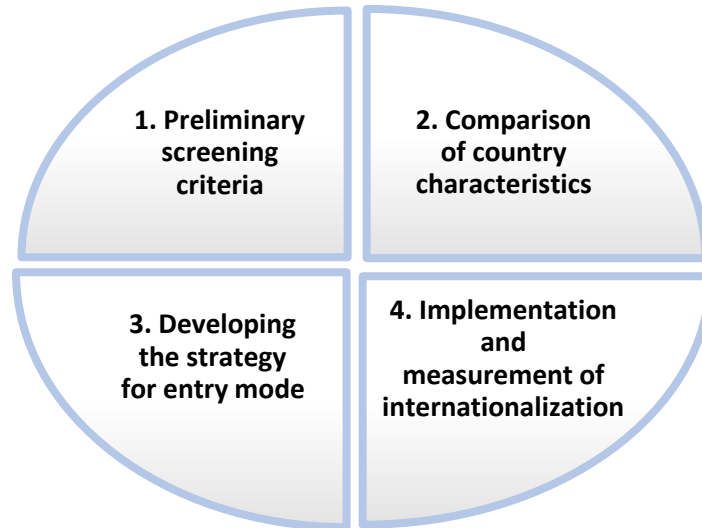
The idea of the internationalization model of research is to act as a general level framework for case company. In other words, the concept is to show how effectively the process of internationalization can be examined when expanding the industry. The model has sought to increase *capabilities* and *performance* from the company's perspective, which helps to look at one's own operations and how they could be made more efficient.

Each enterprise may use different approach or combination of few approaches to reach international market. Nevertheless, there can be found two things that are vital when trying into international markets. The first one is to choose the correct strategy for your own company. Not all the approaches or models are suitable in your company's industry and therefore, it might need to adapt previous models as presented before. The second is to select the ideal timing to jump into international market. For an example, if you are entering into foreign market before you have done enough analysis of the foreign country, it might be too risky, and you will lose more money. As well if you are too scared to take any risks and waiting for the right moment, it might be that you competitor has already entered and take the significant market share from the industry before you have done it. Therefore, it is important for SME's to choose wisely and the correct timing for going into another markets.

As well as the internal preparation, the use of external knowledge and concrete getting to know your target market will improve your chances of success when doing the internationalization. Additionally, getting to know the market and its competitors provides an opportunity to create new ones that promote internationalization cooperative relations.

Getting to know the market and its players, for example between trade fairs provides an opportunity to create new cooperative relations that can be conducive to

internationalization (Palomäki et al., 2017). The process model has been identified and divided into four main part into **Figure 13**:



**Figure 13.** The main parts to analyse for model of the internationalization process.

Next on, there will be discussion based on theoretical framework combined with empirical findings from interview and workshops, in order to find key elements for the model. The end result is adapted by updated Uppsala-model (Johanson & Vahlne, 2017) and Albaum and Duerr (2011) models. The traditional Uppsala model as a path feels too slow as it emphasizes learning through self-making. Striving to become an international player requires more financial resources as well as experience of internationalization in the form of human resources. Therefore, in conducting this study, Uppsala's redesigned model was best suited for generic showing, which precisely emphasizes the possibilities as well as the performance. The traditional U-model as a path feels too slow as it emphasizes learning through self-making. Striving to become an international player requires more financial resources as well as experience of internationalization in the form of human resources. Therefore, in conducting this study, Uppsala's redesigned model was best suited for generic modelling, which precisely emphasizes the possibilities as well as the performance.

#### 4.2.1 Preliminary screening criteria

When we discussed the products in the workshop, it became clear that the operation of the company's own product is based on the so-called alternating with scrolling and heart rate. This type of approach is ideal for cutting and pruning different types of wood, which are done with small machines. The advantage of small machines is that it does not break the ground or destroy the forest, like larger machines.

When looking at the market, roll feeding is generally preferred in Finland because there are long trees and low branches in the forests that are easy to cut. Most Asian tree species are not fully adaptable, but it has been found that areas with the most coniferous and deciduous trees are the most popular and desirable. Areas with eucalyptus have been seen as an opportunity and potential, although its functionality with the device has not been tested. The company has noticed that there is more Finnish type wood in Chile than in the American countries, which means that it is definitely one possible market area, and the level of competition and manufacturers is not as high as here in the domestic direction.

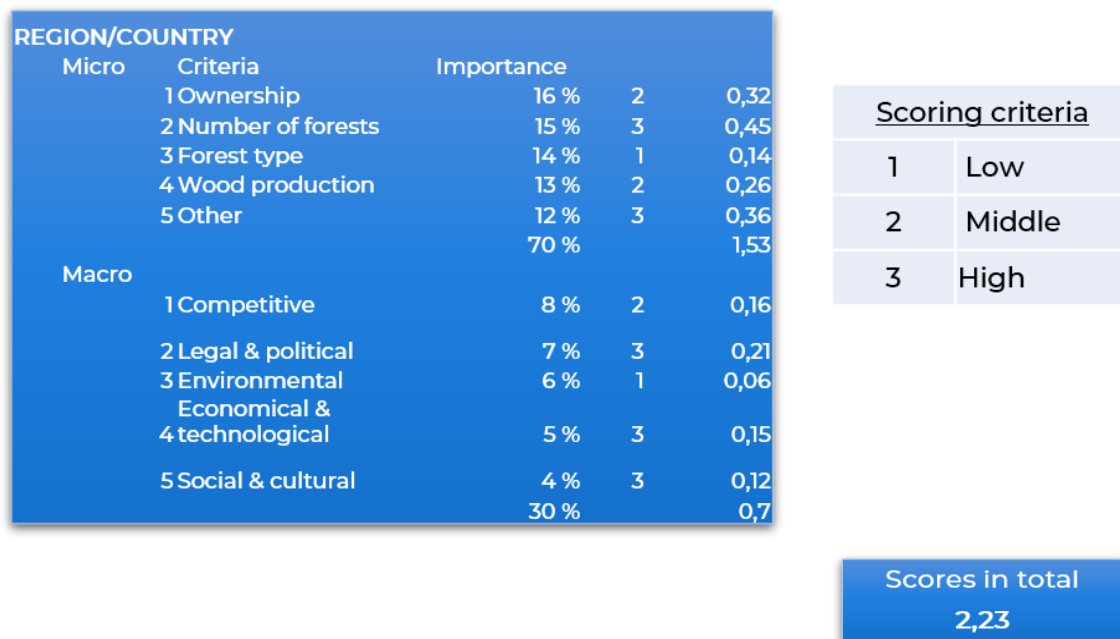
In this dimension, it is relevant to start with internal factors such as resources, capabilities and current situation with the market in the specific country. Usually, it starts with looking on different countries, as we have done in this study and trying to present main criteria's that effects on the decision-making of the country. Then, moving to choose of the country, the market needs to be analysed, as well as the current competitor situation and risks. If there is not seemed to be any high risks, the next move is to go into other part, concepting the possibilities. Therefore, in this stage of process the idea is to evaluate the internal and external capabilities that might affect both in positive and in negative way. After that, the performance needs to be analysed, such as effectiveness of previous export strategies, current personal networks, how cost-effective own machines and services are at this moment. Then we can move into next stage when we have analysed the current and potential situation with the company.

#### 4.2.2 Comparison of country characteristics

This chapter will present the structure for the country comparison, which was one of the main objectives of this research. The idea of a country comparison compiled from surveys is to observe the main criteria that affect internationalization and the choice of target country from the perspective of your company's industry. A few sections of the model have been hidden so that the confidential findings of the study remain known only to the case company. The country comparison itself has been illustrated with the help of PESTEL and with the help of the main criteria given by the company's representative and revealed in the workshop.

There are two main levels of the model: *the micro-level* and *the macro level criteria*. The main criteria's have been formed with the workshops and the client, which seem to select and analyse a suitable target country. The macro-level criteria, on the other hand, have been taken using PESTEL. They have not been taken into account on a country- or region-specific basis but apply to each region and must be analysed by the customer when the micro-level criteria are used first. In other words, the emphasis is on micro-level factors, which should be scored according to how you prioritize a particular criterion.

Criteria scoring can be performed according to the **Figure 14**, where each region/country looks at both micro and macro criteria. Each criterion has its own weight and score, which is agreed with the customer or self-definable. The total score makes it possible to better assess which regions or countries are recommended for possible enlargement. Once the micro-level criteria have been scored, the next step is to move forward to the macro level, and the client itself has to analyse in more depth each country's own influencing factors.



**Figure 14.** Scoring criteria for region or country.

When looking at micro-level criteria, it is good to start from left to right. Based on the study, the five main criteria in this area were selected: *ownership, estimated total forest area or number of forests, forest type, industrial raw wood production, and other relevant country-specific data*. This criteria's needs to be explored through different areas, which has been divided into two main areas: Europe and America. According to the interviewer, Asia, Russia and Africa are not currently the most attractive areas for the case company so there was a clear desire to select these areas out of this study. Because of this, research has mainly focused on the European and American regions.

The country comparison table has been adapted by three previous studies: Albaum and Duerr (2011), Johansson & Vahvaselkä (2010) and Zhang and others (2014). The comparison table is illustrated on the basis of a literature review as well as empirical research so that the most suitable influencing factors for the industry are found, and what the case company could use in the future when comparing statistics from different countries. A summary of comparison of countries are presented in the **Appendix 3**.

### 4.2.3 Developing the strategy for entry mode

As mentioned earlier, choosing the right path in internationalization is to understand to include it from the beginning part into the overall strategic development. Furthermore, it should be based on the capabilities and resources of the company in order to be able to face the opportunities and challenges that arise from the environment. In general, SMEs choose to export directly or indirectly or consider hiring an agent. If the company has the closest relations with a new country or, for example, a partner would be more interested in expanding, it is possible to consider other forms of export. This is also influenced by the company's resources, i.e., whether they can afford to set up a subsidiary, for example. When a customer mentions that there are not very many similar competing products in the global market (about 4), it is only a matter of time before the first to make a decisive move and increase their market share.

After a country-by-country comparison, the company should look, based on past experience and resources, for ways to spread to other countries. The customer also mentioned the lack of resources, which explains that they do not have enough workforce for production. This immediately indicates that either domestic production should be increased, the number of employees should be increased, and the sale of products supported, or the formation of another company abroad should be considered. The problem in this case could only be that the domestic company has a big responsibility for functionality, which means that it also requires more time and resources from them to train people properly and can be sure that the work is done according to the company vision.

In this stage, the capabilities should be analysed with both internal and external factors. Performance can be focusing on for example, product strategy, mode-of-entry selection, competition strategy, benchmarking competitions, and how satisfied are the current customers/co-companies/agents and asking through surveys.

#### 4.2.4 Implementation and measurement of internationalization

The last part of the process model consists of implementation and measurement. In this section, the company should look at the outrageous results and analyse its potential once the decision to internationalize has been made.

In order to start the process as efficiently as possible, the company should create a strategy for the entire internationalization process. Each selected country should choose the most appropriate form of operation and create its own strategy for marketing. In this section, the company is able to take advantage of previous models presented, such as the 4P model. It can help you initially form an idea of where you want to go.

One of the most important contributions that digitization and technology can also offer today is the exploitation of data. Today, it is possible to get different data out of many different machines and modes of operation. For example, getting data out of product performance or customer satisfaction will help them understand the scope and develop products or services. Performance can be viewed in this section in many different ways. An example of this is productivity during one fiscal year. Other opportunities include analysing marketing strategies, adding resources to profitable operations / countries to create a competitive advantage over competitors, or discussing whether there are sufficient resources and time to market a company in each country.

As for the conclusion, there are wide studies of the internationalization process and models, and therefore one correct answer is not available to discover. In addition, it can be stated that the practises and processes are quite similar in SMEs or in MNEs, but the steps and phases differ with in each industry. Comparing the countries and finding similarities or criteria's is also quite difficult and therefore, it was relevant to highlight the main criteria based on the interviewee and the industrial analysis. Nevertheless, it was interesting to realize how you can summarize the main stages and factors that affects mostly in each industry and what are the specific ones from the industry. **Figure 15** will give an overview of the case analysis and discovered factors:



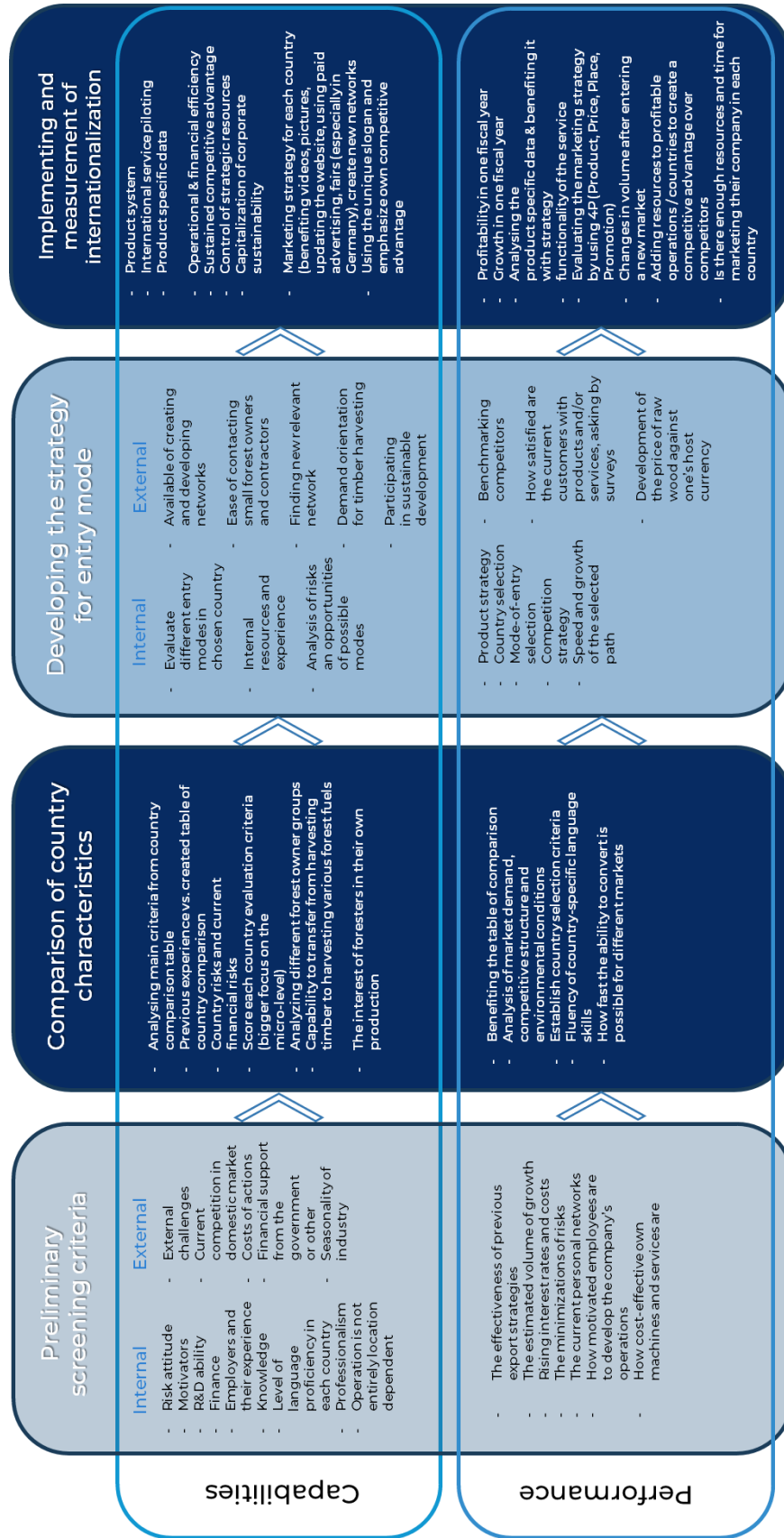


Figure 15. The process model of internationalization in forestry industry.

## 5 Conclusions

In this paper, the major findings have presented and synthesized for the model of internationalization process in the forest industry. The author has focused on articles that aim to give theoretical ground strategic recommendations to a case company. It has been shown that SMEs are not able to follow literally old-fashioned models of internationalization, as everyone has to find their own path, and this varies from industry to industry as well as country to country. On the other hand, based on the literature and empirical research, it can be confirmed that small companies are usually known to go into global markets with direct exports, but there are also opportunities for other entry modes.

As a result, previous research findings may appear to be more or less fragmented and, to some extent, even contradictory. Based on the weaknesses identified in previous research, the author has introduced a new process model that focuses on SMEs with little or no experience of internationalization. This framework can demonstrate that there are significant impacts on both the researcher and the target company to develop strategies and drive business growth.

Based on the interview and founded theory, networking, stakeholders, and, today, digitalization are clearly emphasized in internationalization. These all have an impact, especially when it comes to small businesses that do not have the resources to set up a subsidiary overseas or do licensing. It is very important to find contacts and build networks in your industry that can help with internationalization. The target company already has experience with this, which will even help them in future foreign strategies.

Although, the case company has found that it is not worthwhile to go to those markets that are not profitable, there is a need to update the industry analysis up to date. This is because global changes nowadays such as climate change and industrial change can change situations quickly. A small firm with little or no resources for continuous analysis will benefit from the country-by-country benchmarking study conducted in this study.

They will be able to continue to use the base in the future, updating only the country-specific, in other words micro-level or macro-level points required for the present.

As mentioned before, the aim of this research is to define an approach that facilitates the identification of country-specific forest management practices and thus supports the identification of different customer groups and their needs. Thus, creating a model of internationalization can help the case company identify the most suitable or interesting markets and how to start the process with them. The aim was to find answers for *what are the aspects and stages of internationalization when considering entering a new market?* Additionally, the aim was to realize *how to compare different markets and competitors in a given industry?* And lastly, *how to be able to look at the international market?*

The thesis began by illustrating definition of what does internationalization in general means. The internationalization process and conclusions for practices and entry modes were also discussed. After that, the generated internationalization process model was illustrated based on models by Albaum & Duerr (2011) as well as Vahlne and Johanson (2017). The model consists of two different phases, that help to understand different factors and indicators that can be interpreted during the process. Then, in order to provide an overall view of the sector and appropriate countries, the most important statistics and key results from the industry were presented. The model of internationalization was adopted based on the literature review because it provided the required solution for the research and contributed both industrial findings and theoretical structure. The model was created to be suitable specifically for the case company and it includes four main parts: Preliminary screening criteria, Comparison of country characteristics, Developing the strategy for entry mode and Implementation and measurement of internationalization.

## **5.1 Theoretical contributions**

This study broadens the field of internationalization research from the perspective of SMEs in particular, as previous models and studies have mainly focused on large

companies. In addition, no similar studies have been conducted for SMEs in this industry. The research has thus opened up a perspective on how it is possible to model the activities of SMEs as well as the industry itself, noting that there is a lot of potential around the world.

The aim of the study was to establish a model in accordance including the wishes, as it clearly describes the process of internationalization of the target company through modelling. This model can also be used in other industries, of course by modifying country-specific information. This study also provides a good basis for further research.

Based on the research question, there can be identified four key dimensions of an SME in the stages of the internationalization process in the industry. These include preliminary screening criteria, comparison of country characteristics, developing the strategy for entry mode and Implementation and measurement of internationalization.

It could be said that there is no one-size-fits-all model for how the internationalization process evolves. The steps and factors are company-specific, making them difficult to access when tested at the generic level. Even though, it was interesting to note that this model can be modified into a simplistic version and certain factors affect everyone regardless of the size of the business. It should also be noted that regardless of the size of the company, it is relevant to make a process plan before implementation.

The most important additional note is the country-by-country comparison, which provided a breakdown of micro-and macro-level factors. In the country comparison model, the micro-level criteria are hidden from this paper but have been delivered to the case company. Those criteria's included the main themes that were the most critical factors in the industry. It included ownership of forest land, estimated total forest area/number of forests, tree species, or forest type. These criteria were divided into main regions, Europe, America, Russian Federation, Asia, Africa, and Australia, and Oceania. The case

company informed the main countries, and these countries were included in the final version of the comparison.

In addition to country comparison, criteria scoring was presented in the findings, where each region or country needs to have a look at both micro and macro criteria. Each criterion has its own weight and score, which is self-definable. This created criterion scoring model was a request from the case company's contact person during the interview, as they said that they do not have experience of the comparison of different countries and needed an example for it. This model will help to evaluate and score the countries or regions that are suitable for the case company.

It was great to note that the study was able to find out the conditions under which different countries operate from the perspective of the forest industry. In addition, it was also interesting to analyse what types of different countries are and how different countries work. The study revealed clear differences between regions and countries, which could not be presented very easily, and the model had to be applied effectively.

In order to survive rapidly changing business environment, internationalization is an opportunity to develop the company's growth or even necessary to keep the company alive. Digitalization, such as internet, free trade and large global corporations have a huge impact now and in the future in the daily business life, especially for SMEs. The mission of the company is to produce value to its owners, and in order to secure growth and earnings, the company must expand its area of operation and seek new markets outside its home country.

## **5.2 Managerial implication**

This thesis and its findings provide concrete related concepts to the management of SMEs. It provides insights into how management should view the process of internationalization and how it could be initiated. It is possible to use the created model of internal negotiations when starting the internationalization process. These figures do not provide

straight answers to which countries should choose as such but should be adapted to the current situation. As an example, criteria scoring table can be used, where a company must decide on weighting values for certain influencing factors. This depends entirely on which factors focus on the particular company in question. The most important thing is that the process is planned and thought through in a more efficient way before the last stage of the process is started.

The case company's desire for the future is to develop the service business and its opportunities in the international market. Collaborative learning workshops are effective in that those involved in the project get to consider even very small situations together how to develop activities. It is great to see how collaborative learning can illustrate things that have not come to mind before. These co-learning workshops are recommended to use in the future among both internal and external shareholders.

According to the analysis, it can purely state that without developing a strategy of internationalization, it can only create costs and losses for a company. Every country is different and works differently. Additionally, taking into account forests, each country has its own laws and management methods for them, as well as its own possible obligations with regard to forest management. Therefore, in order to avoid challenges and obstacles, it is good to anticipate and plan effectively. The company needs to compare different countries and find the most suitable criteria. In particular, those countries where there is a clear requirement for managing more the forests and more private forest owners than public ownership are the best options. This is because state-owned forest areas can be difficult to access, and competition is fierce. Particularly for SME, it is better to focus on smaller competitions and find the most suitable networks and companies for themselves. Therefore, the recommendation is that SMEs would not compete with the largest players for the same entirely but would consider the same areas but with smaller players. It would also make particular use of those countries where the share of private forest ownership is high-level.

It is also recommended to consider how to arouse interest in those clients who own forest but no knowledge or experience of forest management. In that case, it could be profitable either to develop one's own services so that one can effectively assist remotely when needed or by concluding agreements with local actors. In this way, services could be created with them, thus helping machine users faster and more efficiently. Although the urbanization of the population is being emphasized in many countries, forests are not going to be vanished in total and, in the future, sustainability and recycling will be increasingly emphasized. This is also a good theme or topic to raise in the company's marketing and/or daily work.

### **5.3 Limitations and suggestions**

Based on the outlined responses, this study indicates a potential direction for further research. First, the modern version of the internationalization process could be studied further and develop the current models and theories to be more suitable in a current business environment. In addition, the process of SMEs internationalization could be studied more through multi-case research, where there are focusing on multiple companies, their differences, and similarities of the process. This could help the start-ups to develop their strategic plan when they are doing the benchmarking.

Second, it would be interesting to continue the research by analysing how the process itself is realized and completed, whether the steps are really possible and in line with the created process model. Another aspect that is interesting is to compare different companies from the same industry and consider their differences. Utilizing cross-case analysis can provide more comparison and information, and perhaps find consistent approaches more easily. The fourth option would be to utilize or experiment with this model in a different industry. The country comparison of this study is limited to this industry only, but its framework can also serve as a basis for another industry.

Based on the limitations of this thesis, a few clear observations can be found. First, this study focuses exclusively on describing the internationalization model of one case firm

in a single industry, which can be a completely clear limitation. It excludes certain industries as well as potential competitors.

Since the theoretical part of the study is so broad, a micro-level analysis was difficult. As a result, the study only offers a comprehensive overview of the topic in the framework of the relevant industry. Furthermore, this research only offers an overview of the relevant internationalization phase steps and is not intended to be used as a reference for everyone. It only describes the existing entry modes and steps in internationalization; hence, the methods do not necessarily represent so-called best practices.

This research was limited by the fact that the project had only 4 separate workshops lasting a total of more than 8 hours. If this project could have been maintained, it could be to increase the number of workshops to 8 levels, for example, in order to have more material to analyse. Due to the project schedule, only 4 workshops were organized, which also limits the primary material itself. Therefore, a separate interview was also conducted in the study for the target company, which brought additional and more in-depth answers to the empirical section itself.

In addition, the limiting factor is the number of interviews. When there was only one person from the case company, it gives a narrow view of the company's activities and topic. In the future, it would be interesting to compare this study with another person from the company, or with the competitor from the same industry, or a completely different industry, and how their processes differ from each other.



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## Appendixes

### Appendix 1. Qualitative interview questions

#### **Background information (collected before the interview):**

- Case company:
- Target countries:
- Interviewer's position in the company:
- Size of company:
- How long the company has been operating:

#### **Preliminary screening criteria's**

- Could you tell with your own words what is the current state with the internationalization? How did you begin with the internationalization?
- How do you see your own competitiveness in the industry in Finland or in the global industry?
- What do you want transformation to do / which ones do not work / which ones do you want to do?
- What capabilities have you been faced during internationalization / operating in another country?
- Could you tell what kind of processes and resources you have been using when internationalizing?
- What different tools do you have when analysing the potential markets?
- Could you identify in your current business the needed developments?

#### **Country Comparison**

- What criteria's have you considered when comparing different countries in the past?
- Have you found clear differences, in what ways have the possibilities also changed?
- Are there any observations about tree types in different countries that are not working for you?
- How have you analysed your performance, have you had any metrics or tools to help you?

**Comparison of country characteristics**

- What kind of entry mode/level of internationalization you have been used before?
- How do you evaluate the potential target country?
- What kind of different practises you have been used before choosing the target country?
- Have you analysed before entering into new market or what analyses do you use when evaluating other countries?
- Could you identify in your current business the needed developments?
- Have you identified what products or services gives you potential competitive advantage?
- How did you choose the target countries; what aspects have effect into your consideration?

**Developing the strategy for entry mode**

- Who has been decided which entry mode to use in which country?
- How familiar you are with the different levels of internationalization and how they work?
- Have you used co-operation and/or networking? Has been working?
- What performance indicators you have been used before?

**Implementation and measurement of internationalization**

- Could you tell how do you have started the process of internationalization before (after the target country has been selected)?
- How have you been measuring your performance before?
- Have you noticed what tools / processes / practises has worked in another countries?
- What are the hopes for the future?
- Do you follow the performance of your co-operation with agents in other countries? How often?

**Appendix 2. The demand and supply of industrial roundwood in 2015-2019 (Source: FAO, 2020a, 2020b)**

<b>DEMAND FOR INDUSTRIAL RAW WOOD</b>									
AREA	thousands	2015	2016	2017	2018	2019	Change 2018-2019 (volume/weight)	Change-% (2018-2019)	Change-% (2015-2019)
Europe	m <sup>3</sup>	401,548	410,042	409,358	441,652	424,913	-16,739	-3,8 %	5,8 %
EECCA	m <sup>3</sup>	185,471	194,721	198,419	226,348	213,170	-13,178	-5,8 %	14,9 %
North- America	m <sup>3</sup>	494,222	516,384	513,35	534,285	522,862	-11,423	-2,1 %	5,8 %
<b>ECE total area</b>	<b>m<sup>3</sup></b>	<b>1081,241</b>	<b>1121,148</b>	<b>1121,127</b>	<b>1202,286</b>	<b>1160,944</b>	<b>-41,342</b>	<b>-3,4 %</b>	<b>7,4 %</b>
<b>SUPPLY OF INDUSTRIAL RAW WOOD</b>									
AREA	thousands	2015	2016	2017	2018	2019	Change 2018-2019 (volume/weight)	Change-% (2018-2019)	Change-% (2015-2019)
Europe	m <sup>3</sup>	388906	397009	401457	432783	427834	-4949	-1,1 %	10,0 %
EECCA	m <sup>3</sup>	210286	219313	219362	245174	228897	-16277	-6,6 %	8,9 %
North- America	m <sup>3</sup>	506036	529170	527505	548139	531696	-16443	-3,0 %	5,1 %
<b>ECE total area</b>	<b>m<sup>3</sup></b>	<b>1105228</b>	<b>1145492</b>	<b>1148324</b>	<b>1226096</b>	<b>1188427</b>	<b>-37669</b>	<b>-3,1 %</b>	<b>7,5 %</b>



### Appendix 3. Country comparison in the forestry industry and their main criteria from the perspective of internationalization

		MAIN CRITERIA				
COUNTRY		Competition factors	Legitimation, taxation & political factors	Environmental factors	Economical & technological factors	Social factors
EUROPE	Northern-Europe	Local / Exporters Increasing competition, large companies Developing the product or service concept > getting competitive advantage	Support from governments and associations (e.g., EU, National & World Resources Institutes) Lack of forest regulation consistency Political instabilities and unsecured barrier	Climate change influences in forestry, changing the conditions and opportunities to harvest (heavy rains of a warm autumn are detrimental to forest machine operators) Climate and forest policy in each country	Comparative advantages of host country and forest industry sector in the country Exchange rates and stability of currency Product manufacturing cost e.g., labor	Motivation and goals different for private forest owners vs. state-owned forests Demographics and changes in generations (heritage or own purchase of forest)
	Middle-Europe	Limited customer base (remember to reach your specific target group)	Industrial safety regulations Trade regulations and tariffs Data and production protection	Deforestation and forest degradation - forests are disappearing at a rapid rate under logging, pastures and agriculture, rate of deforestation estimated at 10 million hectares per year (between 2015-2020) (FAO & WWF, 2020)	Trends affecting to demand (changes in plastic products, population growth & increased awareness of environment)	Increased interest of sustainability and climate change
	Ireland	Trends in competition: decrease amount of forest machine industry companies, but bigger companies has increased their amounts of register machines as registration of forest machines has increase 18% from 2015 to 2017 (MesaTrans, 2015, 2017)	Possible changes in legal system with entrepreneurs and farmers Own climate and forest policy in different countries	Agricultural expansion the main driver of forest biodiversity	Maintenance of equipment and availability and easiness Product efficiency	Ownership of natural resources >> ownership of natural resources
	France			Using of usable fuel oil in the machines gives a credit from the customers	Services and support elements to achieve customer satisfaction	
	Poland			Afforestation is a trendy in Ireland, Poland, UK, Norway and Latvia (CEPF 2015)	Lack of know-how (new technologies and tools for sustainable forest management) >> high capital and operating costs and long learning time for machine users	
	Germany					
AMERICAS	Southern-Europe	Estimated total forest area / number of forests	Tree species / forest type	Industrial roundwood production	Other relevant country information	
	Spain					
	Portugal					
	North & Central America					
	South - America					
	Brazil					
	Chile					