



# GÖTEBORGS UNIVERSITET

## HANDELSHÖGSKOLAN

*The Motives behind Internationalization for Swedish Small and Medium  
Enterprises Within the Cleantech Industry*

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Authors: Joanna Haraldsson - 970406  
Andreas Törnblom - 960408  
Tutor: Richard Nakamura

## ***ABSTRACT***

For the last decades, environmental threats have been more present than ever before. This has resulted in a worldwide discussion on how environmental degradation can be prevented. Some science believes cleantech is a possible solution to reverse the negative emission trend, combined with political legislation. But the way from development to commercialization is both a lengthy and costly process. In addition, the difficulty of selling the product and developing a market presence, based on different global motivational factors, emerges, the questions are how to choose the right strategy. The purpose of this thesis will therefore be to investigate how Swedish SMEs within the cleantech industry identify different motives which affect their internationalization. The thesis will be conducted through a qualitative case study where semi-structured interviews are used. Interviews will be based on company representatives from companies relevant to the delimitations in the research question.

It can be concluded that the primary motives for the companies that participated are primarily expansion and increased profit as the driving forces. However, the most prominent finding in the thesis is that it is not the number of motives crucial in deciding a company's internationalization. Instead, the essential factor is how well a company succeeds in overcoming, what is according to the companies, viewed as perceived difficulties. Concluded as capital shortage or lack of international experience, which was perceived as significant challenges to overcome to succeed in their internationalization.

## ***KEYWORDS***

*cleantech, internationalization, small-medium enterprises (SMEs), motives, difficulties, the environmental movement*

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Sincerely,

.....

Joanna Haraldsson

.....

Andreas Törnblom

*Gothenburg, 3 June 2021*

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# 1. INTRODUCTION

## 1.1 BACKGROUND

In the last three decades, the development of globalization in the world economy has been expanded, and this shift has impacted business behavior. The transformation in the degree of interconnection in the world economy contributes to the new geographies' creations of distribution and consumption (Dicken, 2015). Economic globalization is foreseeable movement from the domestic sphere to the foreign or international direction. It substantially affects the company's expanding conduct and can provide firms with opportunities and essential markets to reach supplementary consumers for further economic growth (Audretsh, 2003). As a result of globalization, it has become more accessible and more common for small to medium-sized enterprises (SMEs) to expand their business abroad, configured in different amounts as export to more significant foreign investments. SMEs include enterprises with less than 250 employees or have an annual turnover that does not exceed 50 million euros (EU kommissionen, 2003). Globalization has correspondingly influenced the growth possibilities of SMEs. The technological progress combined with less regulated trade policies between nations increases the internationalization movements (Hilmersson & Johansson, 2015).

Today's globalization, however, is primarily based on fossil fuels, which creates a greenhouse effect. For many years, the environmental threat has been one of the most discussed subjects, which scientists see as one of the most pressing issues for humankind. The people living on this planet need to make significant changes to avoid disastrous future scenarios (Cunningham & Cunningham, 2018). As argued, climate changes postures threats to people across the globe as the median global temperature is increasing, which results from decades with humans who constantly search for ways to improve their quality of life, often through ways that affect our surrounding environment (ibid). The unprecedented appeal of climate change requires pervading climate action on different international arena levels. The emergence of new, more environmentally approachable technologies is needed to slow down the climate changes and innovative technologies to counter the effects. This transfer towards green technologies is partly an outcome since the

world economy aims to become less dependent on fossil fuels and is taking place in most sectors (Cunningham & Cunningham, 2018). Green technology has been used for several decades, but the industry's popularity has increased and further driven the development in recent years. Due to the growing concerns about global warming, climate changes, and depletion of natural resources, green technology is being studied and implemented rapidly to reduce human damage. As a result, it has become more common for both companies and governments to start investing in greener technology. Green technology is currently undergoing rapid development and will play an essential role in shifting to a more sustainable civilization. It aims to protect and conserve the environment by producing products that reduce carbon dioxide emissions and pollutants (ibid). Greentech or its more scientific definition cleantech is a term which has recently gained more and more public debate, primarily in discussions regarding our environmental challenges. Dikeman (2018) explains the term as an expression that has emerged as an "umbrella term" under which several different forms of environmentally friendly investments are included. The included sectors range from clean energy to sustainable products, in which everything aims to reduce the negative impact on our planet (Dikeman, 2018).

As global warming is a scientifically proven fact, it has several global actions to prevent climate change from being executed. In 2015 all United Nations (UN) member states adopted the 2030 agenda for sustainable development by creating 17 sustainable development goals (SDGs). They distinguish that supporting economic growth needs to be combined with climate change management and preserving the ocean and nature. To reach these goals, a structural change is required to produce energy and products, which leads to the creation of new types of environment-friendly companies (UN, 2021). The European Union has also taken its own initiatives in the same direction to prevent climate change from aggravating by establishing the European Union's 2030 sustainability agenda for Europe to reach a more circular economy (Europaparlamentet, 2021) . The EU is also actively funding climate action by managing an €864 million project to support developing and innovative ways to counter climate issues (European Commission, 2021). Moving toward a more circular economy is one of the EU's main priorities, which may create new business opportunities and stimulate innovation to reach those sustainable goals. A transformation where decreased dependence on fossil fuel is required and instead strives towards a more circular society where global companies and governments need to invent new solutions and regulations to improve the current and future situation (Pihl, 2014).

## 1.2 PROBLEM DISCUSSION

The internationalization process is a complex and challenging process that requires specific knowledge. As the world is changing and the market demands new productions and solutions, new industries are emerging. When a company wants to internationalize its business, there are several difficulties they may encounter. Cultural differences, political regulation, and diverse economic strains can increase the risk of expansion. The traditional models often describe internationalizing in a risk-reducing approach and as an incremental process. Many small or medium-sized Swedish companies already operate in the international market. These smaller companies may find it more challenging to internationalize than the larger corporations due to limited resources, limiting their ability to expand to the foreign market. SMEs often have to consider financing with the opportunity to increase their growth abroad by reaching broader purchasing power (Hilmersson & Johansson, 2015).

Clean technology is expected to be the next boom industry, although smaller businesses often find the barriers to bringing green tech innovation to the international market very high. As with the most revolutionized industries, states are trying to find the most suitable policy and incentives to support those successful innovations from their local companies and benefit the domestic economies. Small companies often face challenges entering new markets (Behnen & Waldbaum, 2011). In a developing industry like cleantech there are a few opponents who are postures as barriers to entry. One of the problems green technology innovators may encounter is the requirements of high capitalization. Venture capital is often fundamental to sustaining the development, although venture capitalists may avoid green tech that will not pay off for many years. Companies within the green technology industry, especially SMEs, are often dependent on different regulations and support from the state, affecting their internationalization processes (ibid).

During the last decades the motives for firms entering foreign countries have shifted as the business environment has been changing. As the globalization paths for new possibilities and expands the market opportunity, companies' motivation for expanding their business worldwide. The motivation for internationalization is often not distinguished as unilateral and generally contains several factors. Company's motives are a significant part of the strategy for going abroad, the organizational behavior and the structure of the firm need to be



affiliated to the affected motives (Grunig & Morschett, 2012). Traditional mentioned international business theories such as the Uppsala model identify motives for internationalization as a reaction of profit creation (Johanson & Vahlne, 2009). Barney (2014) instead describes how firms' unique qualifications can act as motives for expanding abroad.

The cleantech industry is a new business sector and has proceeded due to the global environmental movement, which aims to slow down global warming and reduce climate change (Cunningham & Cunningham, 2018). Because of the fact that the industry is growing fast, the available research is limited. There is already previous research regarding motives for the internationalization of MNC, and the reasons for small and medium enterprises have been investigated to some extent. However, some limitations exist in this specific research area for SMEs since the most established research primarily concerns multinational corporations. Sweden is a country with many SMEs active within the cleantech sector (Almi, 2021), but still, there is relatively limited and underdeveloped research regarding their specific internationalization process. Furthermore, as governments and businesses worldwide increasingly need to switch to more sustainability options to the prevailing climate situation, the demand for cleantech innovations globally will surge, making it highly relevant and of interest to examine the motives and influencing factors for internationalization in this sector.

### 1.3 PURPOSE

The purpose of this thesis is to determine various driving forces for Swedish SMEs within the Cleantech industry when expanding their business abroad. An analysis is made with sustenance from international business theory and literature, combined in a conceptual model, by examining topical company's and experts' perceptions from interviews. Thus, the thesis will provide valuable transparency regarding some Swedish SMEs motives for internationalization and contributing with various approaches in this specific research area.

### 1.4 RESEARCH QUESTION

*What motives do Swedish SMEs in the cleantech Industry have for internationalization?*

## 1.5 DELIMITATIONS

The thesis will originate from selected firms operating in the cleantech sector who are active internationally or have plans for international expansion and are within the classification of SMEs in terms of size. This delimitation is however with one exception, as one additional interview will be done with an expert in the field for supplementary knowledge. The thesis will further focus only on companies that are listed on a Swedish trading platform. Moreover, the research will take a clear focus on motives for international expansion and will not immerse in the whole theory of international development. Hence, will internationalization processes and strategies, or other important factors that appear during the research, originate from the firm's internationalization motives.

## 1.6 OUTLINE

### ***Introduction***

In the introduction will the relevant information be presented for the reader's ability to understand the study. The chapter begins with a background presentation to introduce the specific topic and generate interest, followed by the problem discussion, aiming to give relevance to the research question. Last, are the delimitations deliberated to describe the factors that may limit the study's outcome and an outline to enlighten the structure of the paper.

### ***Literature Review & Theoretical Framework***

The chapter will give a presentation of the various literature within the subject. Lastly, a conceptual model will be presented to display the implications of interest and the interconnection from the theoretical framework.

### ***Methodology***

In the chapter of methodology will the methodological choices used to conduct the study be further explained, and arguments for why they were considered appropriate and how it is subsequent to the purpose of the study.

### ***Empirical Data***

The chapter of empirical data will reproduce the findings gathered from the interviews presented in the discerned themes to provide value and essential information regarding the topic.

### ***Analysis***

The following chapter will account for an analysis of the thesis. The analysis will be found from empirical data in relation to the selected literature and the conceptual model. A presentation of the comparisons between findings from the data and theoretical framework will also be presented.

### ***Conclusion***

The final chapter will contain a discussion and conclusion to finalize an answer to the research question. It will also comprise implications and suggestions for future research based on this thesis outcome.

## **2. THEORETICAL FRAMEWORK**

*In this chapter, the paper's relevant theories and models will be presented to be used later on to analyze- the empirical data and attempt to answer the research question. The theories describe in different ways how corporations expand their business internationally and will then use to discern what are the motives behind it. Finally, based on theories and previous research, a conceptual analysis model will be established to display how the different sources shed light on various aspects of motives.*

### **2.1 THE INTERNATIONALIZATION PROCESS**

According to the Uppsala model, companies should gradually expand their businesses internationally by selecting information and understanding the domestic market. Companies establish their business geographically and culturally near countries or areas to move further away when sufficient knowledge has been collected. One difficulty a multinational corporation encounters when expanding their business abroad is the lack of knowledge regarding the external market and the specific operations, which is considered to have inhibitory effects on the internationalization process (Johanson & Vahlne, 1977). Johanson and Vahlne (2009) argue that market commitment and knowledge influence a company's risk and opportunity conception, which further describes the prosperity of international expansion.

This model, which explains the internationalization process, has since it was created in 1977 further been developed several times due to the evolution of multi-business enterprises has laid the foundation for new assumptions. However, different significant nuances from the various versions of the model can be considered as of interest. Nevertheless, the extended

model has the same general structure and content. Figure 1 claims a division between the *state aspects* and the *change aspects*, which further contains every two main components. The change variables are vital elements of the model since this is where the action occurs and consists of *commitment processes* and *knowledge development processes*. In the model, the state variables consist of *capability* and *commitments/ performance*, resulting from the change variables. But the state variables can also affect the change variables (Johanson & Vahlne, 2017).

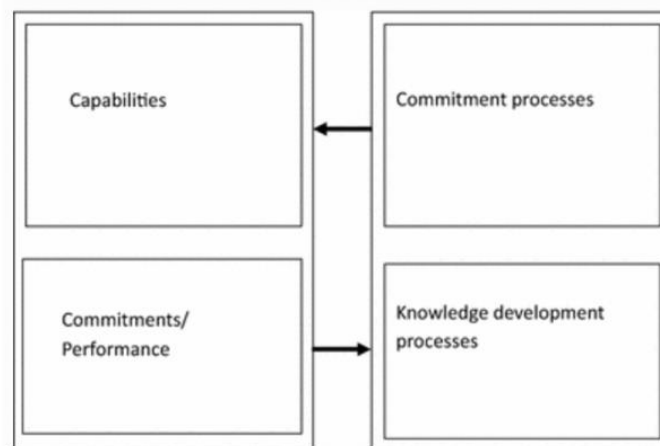


Figure 1: The Uppsala Model 2017 (Johanson & Vahlne, 2017, p.1092).

The commitment processes in Figure 1 above describes the intermittent decisions process regarding committing or not committing resources. For example, when deciding to reconfigure resources, it is not just the capabilities affected; the resource position of the company and any network partner is also affected, and subsequently, the firm's performance. The second change aspect, knowledge development processes, describes learning, creating, and trust-building, which is constantly changing and altering the state aspects. These change aspects influence each other circuitously by impacting the state variables, leading to additional change. Finally, a capability reproduces the ability to use a resource for a particular purpose (Johanson & Vahlne, 2017). According to Johanson and Vahlne (2017), there are two types of capabilities: operational and dynamic.

The updated version is supposed to be more applicable to various stages of internationalization, from the early beginning to extended globalization. By including functions that institute the company's reservoir of firm-specific advantages (FSA) as a

component of the state variables, the model can be applied to the evolution of the internationalization of a firm. Including capability-creating processes in the more recent model can explain what makes internationalization possible, like different forms of privileged access to FSA and the reasons for internationalization- efficient governance and economies of scale (Johanson & Vahlne, 2017). According to the Uppsala model is the core motive for internationalization profit to reach revenue goals. Firms want to expand their business abroad into new markets to achieve these aims (Johanson & Vahlne, 2009).

## 2.2 REGIONAL AND GLOBAL COMPETITIVENESS

Rugman et.al (2012) adopts a multiple perspective approach to find conceptualization international competitiveness. A firm's international competitiveness occurs between the linkages of firm-specific advantages (FSA) and country-specific advantages (CSA). The global activity of a firm is a complex phenomenon. The FSAs can be described as the specific company's unique proprietary capabilities and indicate firm-level factors that assign comparative advantages. Further, they can be described as internal strengths, such as specific competes or technology. At the same time, the CSAs can be further explained as individual factors for each country like natural resource management, the quantity of labor force, and cultural factors. Strengths that can result from the competitive environment (ibid).

When managers progress strategies to a unique international strategic space, they must take both CSAs and FSAs into account. To do that is of high relevance to be acquainted with the strengths and weaknesses of the company—Rugman's combine the two-dimension FSA and CSA in a matrix for firms to examine various issues (Rugman, 2006). The matrix can further be used to clarify the optimal organization form for a company's international operations.

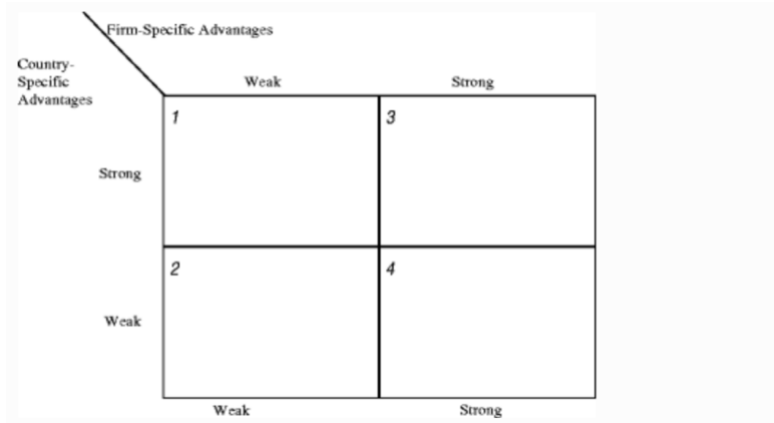


Figure 2: The CSA and FSA matrix (Rugman et al., 2012, p. 221).

The matrix above in Figure 2 depicts those mentioned dimensions as relatively weak or strong. If the firm's FSA is considered as strong and the CSA as weak, the focus within the international strategy will be exploiting the firm's resources without really affecting the location, reflecting the characteristics of a potential host country is not the decisive factor. Companies with stronger FSA, often have distinctive and proprietary characteristics, which can be described as entry barriers where it prevents rivals from obtaining specific advantages. Suppose the CSA is instead measured as strong and the FSA as weak. In that case, the matrix argues that the country's comparative advantages will lead to exports since the competitiveness of the MNC depends on resources in their home country. When both the specific advantages are seen as strong, the company has the incentives to operate outside the national borders where the firm's unique capabilities need to be combined with specific assets of the host country (Rugman, 2006).

### 2.3 GAINING AND SUSTAINING COMPETITIVE ADVANTAGE

All businesses regardless of their size have an active strategy or maybe several strategies, covering different operational areas of that specific business. Regarding a company's international expansion, it is crucial to have a well-planned strategy of how to proceed. More specifically, the strategy is the theory of how a company successfully can operate and develop itself within which it is operating (Barney, 2014).

In the early preparatory work, a firm needs to decide and define its motive from which it will make strategic choices. Strategic choices are often made through extensive analyzes, both internal and external. The analysis results in that the company can make strategic choices in both a short- and long-term perspective in order to acquire competitive advantages and how to keep these. When a firm conducts an external analysis, the main purpose is to identify both threats and opportunities while the internal analysis focuses on identifying organizational strengths (Barney, 2014).

There are numerous ways of which a company can identify drivers for which later can turn into firm specific advantages. One widely known model is the SWOT- analysis made by the American professor Michael E Porter. Where the S and W focuses on external environmental factors which can either strengthen the firm's market position or act as a weakness. O and T are instead factors that aim to identify the company's internal Opportunities and threats (Barney, 2014).

Once those factors have been identified, it's up to the company concerned to decide how to use them in order to establish themselves in the global market. For example, a company might have a world unique product which is protected by patent or other types of protection, in addition the specific market in which the company is active is characterized by high barriers of entry. The companies can in those situations leverage on what is seen as environmental threats by many actors, in their advantage, in order to gain a global market leading advantage. Another important driver for international expansion is what is called the first mover (Barney, 2014).

A First mover means that a firm invented a product or services which did not previously exist. This creates an opportunity to be a market leader in which a major expansion is required in order to satisfy the newly created need for the product. A risk of being a first mover is on the other hand is the high amount of uncertainty which is often linked to the company. Financial problems can occur since there is an inherent difficulty to attract investors as well as customers to a new untested technology, since no one knows if it is a concept that will work on an industry scale (Barney, 2014).

Barney (2014) argues that political regulation is a factor that needs to be evaluated in all international decisions, since it is one of the most important factors due its high uncertainty

and tendency to be a very dynamic process. It is a factor that could jeopardize the entire internationalization (ibid). Furthermore, the government plays an important role in a firm's opportunity to establish themselves in the domestic but also in the international market since the government can limit the speed of establishment due control over policies and regulations. However, these are factors that also can act as drivers for the specific company. This is because a company has unique qualifications which are favored by the government and therefore receives a strategic advantage (Barney, 2014).

According to Barneys (2014) theory it suggests it is of great importance that every company makes several analyses both external and internal, to identify factors that might affect the company, since this thesis main research question is to investigate companies' motivations for internationalization, this theoretical framework could contribute to important aspects.

## 2.4 CONCEPTUAL MODEL

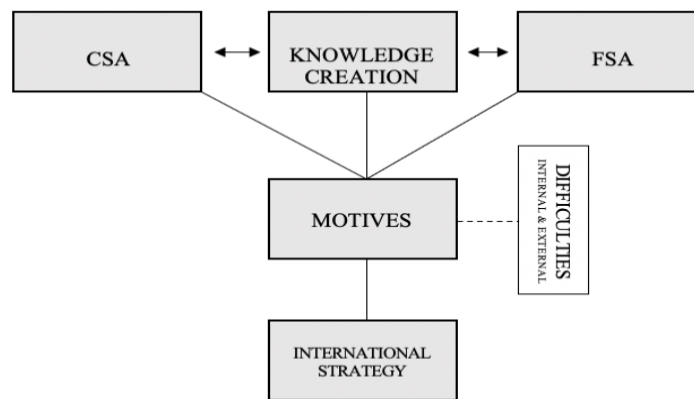


Figure 3: Conceptual model, based on the theoretical framework developed by the authors.

From the previously presented theories, we conceptualized a theoretical analysis framework to highlight how they are interconnected and illuminate the motives behind internationalization. As the Uppsala model claims that the processes are cyclical and the outcome from current creates the basis for future proceeding, can a conclusion be drawn for what lays the foundations for motives, and more precisely, what those motives may be by combining the knowledge creation with the other variables origin from CSA and FSA in the analytical model. Johansson and Vahlne (2017) argue that the different variables affect each other and create knowledge, leading to the progression of the firm's internationalization. This



process of knowledge creation can also define the emergence of the motives for expanding abroad distinguished (ibid).

Based on firm-specific advantages, and the country-specific advantages of both the home country and the host country of the internationalization, it creates different motives for expanding abroad (Rugman, 2012). CSA of the home country gives firms particular prerequisites for global competitiveness, motivating them to expand internationally. However, in this conceptual model to explain motives for internationalization, the CSA of the host country is considered as most essential. On the other hand, the various FSA of a company creates motives for internationalization based on the unique character traits of the firm. The advantages give rise to different reasons since they separately have other benefits for going abroad (ibid).

Difficulties a firm encounter when internationalizing, can both have limitary effects simultaneously as it can create new motives. The difficulties can further be seen as internal and external (Barney, 2014). Internal difficulties could be an absence of the necessary knowledge. According to Johanson and Vahlne (1977), a lack of knowledge regarding a specific market is an impediment effect for expanding abroad and can complicate internationalization. Still, at the same time, it may give reason to establish oneself in another market. Furthermore, Barney (2014) describes the external difficulties of government regulation and how they could also be perceived as motives.

The motives further lay the ground for the international strategy. Companies make these strategic tradeoffs all the time, to maintain and create new comparative advantages. Because, identifying motives and capitalizing on these is a very important part of creating advantages over its competitors. To have comparative advantages and clear motives is a must to succeed in implementing a successful internationalization (Barney, 2014).

### 3. METHODOLOGY

*This chapter will present the thesis method to conduct the intended study and explain the reason behind adoptions and how the research has been implemented. The chosen method*

*will further be defined to simplify and exemplify how specific choices were made and how to implement a successful study. To conclude the chapter, a discussion is held regarding the quality of the research and ethical aspects of this thesis to account for the quality of the study.*

### 3.1 RESEARCH APPROACH

This thesis investigates which specific motives a Swedish SME within the cleantech sector has for going abroad and highlights and identifies influential factors the industry faces when thinking of a global expansion. The research approach aims to explicate how the study relates to theory, and the main approaches are termed deductive and inductive (Bell et al., 2019).

A deductive approach might be the typical way in which theory and research are linked together. The procedure aims to create and test a hypothesis based on a self-created strategy. The purpose of the strategy and hypotheses is to be made with an already existing theory as a foundation. On the other hand, the deduction is lacking where the criticism means that there is a strict need for theory testing and proving the hypothesis, and there is a major uncertainty to decide which theory to be tested (Bell et al., 2019).

The inductive approach, also known as inductive reasoning, starts with observations with no theoretical underpinning from the beginning. Instead, the theory is implemented at a later stage to respond to the findings in the observation. The method aims to, through extensive observations, create enough conclusions to be able to explain patterns. Criticism against the inductive method has been that it fails to guarantee that a certain amount of empirical data will necessarily enable a theory-building (Bell et al., 2019)

Both approaches can further be mixed to create a third approach. The abductive approach further aims to clarify the linkage between the theoretical framework and the empirical data found in the research. An abductive method is used to make logical interpretations and enable theoretical understandings of the world. This approach is formed as a way to complement the deductive and inductive approaches where they lack to explain certain events; the thesis has therefore been using elements from both deductive and inductive approaches (Bell et al., 2019).

The abductive approach is frequently used when modifying existing theoretical frameworks and is often preferred when the subject is extensively researched and when there exist opportunities to continue the research in new contexts (Bell et al., 2019). Since the thesis is based on both existing theory and interpretations, an abductive approach has been selected as most appropriate. There is a lot of research in the field of internationalization. Still, there are some limitations for the research regarding motives behind it, especially for the motives behind internationalization for SMEs within cleantech. To make a study that is correctly constructed, fragments of both approaches have been used and where they are not sufficient, they have been supplemented.

### 3.2 QUALITATIVE APPROACH

Since the purpose of this thesis is to investigate internal characteristics and processes of Swedish SMEs within the cleantech industry, a qualitative approach would be best suited for the research. This is because what is perceived as a motive of expansion may vary significantly within a specific industry as well within the specific company, which enables several different answers and interpretations from different individuals. Something that later will be analyzed through a qualitative approach in the paper (Bell et al., 2019). Bell et al. (2019) names that qualitative approach as the main focus is on words rather than numbers, where the method seeks understanding in terms of that context in which the research is conducted. Furthermore, the collected data aims to symbolize a nuanced interpretation of the investigated topic rather than being able to quantify collected data and make general conclusions over a general group of people to which a theory has been tested. These attributes further advocate the use of a qualitative approach rather than a quantitative approach (ibid).

### 3.3 RESEARCH DESIGN

The research design defines how developed and nuanced the research question can be answered (Patel & Davidson, 2011). A case study is a type of research design, commonly used within business research to examine business in a broader organizational and societal context. Other research strategies like surveys, are generally more suited for quantitative analysis. However, case studies can benefit from a more in-depth understanding of specific cases and increase the knowledge of a precise phenomenon in various contexts. It can also be used when reconnoitering an already well-studied fact in new and different perspectives (Lind, 2019).

The case study can be conducted both as a single or as multiple. Since the thesis aims to evaluate motives in a new context for a specific industry, a multiple case study was deliberated as most suitable (Lind, 2019). Moreover, the data from several cases can often stipulate a better answer to the research question since it provides a more nuanced and versatile overall picture (Yin, 2012).

Further, can the research design be considered as both exploratory and explanatory. Exploratory studies are often characterized by presenting the difficulties within the chosen research area at the beginning of the research and often most likely to gather data in more in-depth interviews. The explanatory studies focus on why and how a phenomenon happens and how different variables affect each other (Saunders et al., 2012). Since this study aims to explain motives for internationalization within an industry with limited research and further describe how they are interconnected, can this thesis be considered both exploratory and explanatory.

### 3.4 SAMPLING METHOD AND RESEARCH SELECTION

The sampling method is vital when managing a research, since it's often difficult to gather data from the whole population within the framework of the study. There are different sampling methods; the main techniques are probability and non-probability samplings (Saunders et al., 2012). Since the multiple case study is not statistically generalizable, the chosen companies contribute to the aim of the thesis and enable an answer to the selected research question. However, when the researchers conduct research that obliges generalizability, the probability sampling method is most often used (ibid). Therefore, when conducting this thesis, a non-probability approach was exploited. The aim was to create specific knowledge within the research subject and not statical general information of all Swedish SMEs within the cleantech industry due to the limited target group since not the whole population could be elected. Therefore, the selection of interview was limited to proficiency knowledge about the specific and can thus not be seen as a generalization for the wider population (Bell et al., 2019). Further, the information collection was through a

generic purposive sampling where the researcher relies on their judgments when choosing suitable participants for the study (Bell et al., 2019).

Since the main focus was to investigate the global expansion for domestic SMEs within the cleantech sector, four firms were selected within the industry. The companies are all listed on the Swedish stock market and classified as cleantech firms since they all aim to reduce the negative impact on the environment (Dikeman, 2018). Furthermore, companies with different orientations within cleantech were chosen to get a broader perspective. The companies selected all had the SME characteristics, namely a maximum of 250 employees and 50 million euros in turnover (EU, 2003). The company representatives that were chosen for the interview were due to their senior position within the company and their extensive knowledge about the industry. For further nuance and expertise, Business Sweden has been interviewed. They were reflected appropriately as they are considered strategically vital and improve the research area's general understanding. Below in Figure 4, the different chosen respondents are further indicated.

Respondent	Company	Respondent position	Interview platform	Language of the interview	Length
1	A	CEO	Microsoft Teams	Swedish	38 min
2	A	Sales Manager	Zoom	Swedish	42 min
3	B	CEO	Zoom	Swedish	29 min
4	B	CFO	Microsoft Teams	Swedish	45 min
5	B	Business Developer	Zoom	Swedish	43 min
6	C	CEO	Microsoft Teams	Swedish	25 min
7	D	CEO	Microsoft Teams	Swedish	27 min
8	Business Sweden	Head of leap	Zoom	Swedish	33 min

Figure 4, table over the conducted interviews and respondents.

### 3.5 DATA COLLECTION

To answer the research question, the thesis-specific data must be analyzed, and the type of data that needs to be collected is determined from the research design. Different types of data can be collected from a wide range of sources and through different approaches. The various ways of collecting the data are divided into primary and secondary data (Patel & Davidson, 2011). To gather the essential empirical data in this thesis, both procedures of data collection

were used. An interview is a type of primary data and can be conducted in various ways (ibid).

### 3.5.1 PRIMARY AND SECONDARY DATA

Primary data is information collected by the researcher explicitly for the research, which can be gathered, for instance, from interviews and observations. The primary data comes directly from the source of information, while the secondary data is collected from sources that have already been documented by other authors (Patel & Davidson, 2011).

By using interviews for gathering primary data, one can capture a specific person's view of a particular matter which is frequently used in various qualitative studies. Interviews can be conducted in several different forms, with varying quantities of respondents and interviewers, both through physical presence and digitally at a longer distance. There are both benefits of conducting interviews physically and digitally. The former option makes it easier to create trust between the parties, while the latter one simplifies access to more potential interviewees (Patel & Davidson, 2011). The majority of the data in this study consists of primary data collected from interviews, but a certain part has also been supplemented from the various firms' respective annual reports.

### 3.5.2 INTERVIEW METHODS

Interview sessions were conducted to gather as much valuable information as possible and find various motives behind the international expansion. Interviews could be structured in multiple ways. A structured interview contained a stricter structure where the interview follows the prearranged material and questions thoroughly. When the interview instead comprehends a more flexible design, one called a semi-structured interview; there is acceptance for freer answers and space for follow-up questions based on exciting aspects which are highlighted during the discussions. A semi-structured interview is suitable as it creates the opportunity to combine the flexibility and the structured form. The structured format is needed to integrate the theoretical aspects and the relevant concepts (Patel & Davidsson, 2011). According to Patel & Davidsson (2011), a semi-structured interview could be advantageous as it combines the ability to stay within specific topics and give the possibilities to some extent adopt the construction of the interview (Patel & Davidsson, 2011). The purpose of a flexible technique was to identify and highlight characteristics from the interviewed person; it was also used to gain a unique insight into how the interviewed

person perceived the question investigated (Patel & Davidsson, 2011). Therefore, the interviews for this study were conducted with a semi-structured approach, hopefully contributing nuanced and essential information to answer the research question and allow the respondent to respond with a personal opinion and detailed answers. The main topics in the interviews and the questions can be found in appendix 1.

Since the paper took a qualitative approach, a majority of the information was collected through personal interviews with persons with relevant knowledge regarding the subject chosen. However, to retrieve as much relevant information as possible, the interview structure did contain limited standardization. This structure enabled the interviewees to address the issues, respond in a way that seemed suitable, and create several individual interviews (Patel & Davidsson, 2011).

This method did also give the respondent the possibility to control in which direction the interview was underway, to control which information that was given (Eriksson & Kovalainen, 2016). The thesis was, however, designed with a few headline questions, so the discussion was kept within the main subject yet gave the possibility to address, for the thesis, new perspectives. The questions used can be seen in Appendix 1, and the respondents had access to the question document in advance. They were informed about the main topics for the interview so that they could be aware of the essential aspects and felt more secure with what they were expected to respond to. Due to Covid-19 were all interviews conducted digitally. The one-hours scheduled interviews were either on Zoom or Microsoft Teams.

### 3.5.3 TRANSCRIPTION OF INTERVIEWS

All interviews have been judiciously transcribed shortly after each interview to secure as much information from the interview as possible to have the possibility to rehearse the interview several times. An essential aspect of qualitative interviews is not only what the respondents say but also how it is said (Bell et al., 2019). As an interviewer, it is crucial to give the respondent complete focus during the session, which could be compromised during an interview if one were to transcribe everything during the session (ibid). Therefore, all transcriptions were performed afterward.

## 3.6 RESEARCH QUALITY

### 3.6.1 RELIABILITY

Dependability is an aspect that was important when the the results in this thesis were conducted, due to its format as a qualitative approach; consequently, reliability was desired (Bryman & Bell, 2013). Reliability describes the trustworthiness of the research and how it would react to accidental events. In a thesis where semi-structured interviews were used in the majority of this thesis, reliability was further related to the observers and interviewer's ability to conduct notes from the observations (Patel & Davidson, 2011). A way to ensure further reliability was to have two observers present when the information was collected. Additional methods of which reliability was secured in this paper were through the following: All interviews were carried out verbally and recorded to gain the possibility to review the interviews several times. All interviews were also conducted from the same question structure.

### 3.6.2 VALIDITY

Since a qualitative interview structure was used, the term validity will cover the entire study process. The validity process can be attributed to the data collected, but it must also be attributed to the whole working process. The term was used to ensure the scientist's ability to collect relevant empirical data to make a credible interpretation of the situation of the subject being investigated (Patel & Davidson, 2011). A phenomenon that is often used in this context is triangulation. Triangulation is when the author tries to validate the information that emerges during interviews with other sources of information, sources like observations or documents. Triangulation is an effective way of collecting a phenomenon's data and investigating how this is presented in different contexts to determine the credibility of the primary source (Patel & Davidson, 2011). Triangulation has in this thesis been used as a way to ensure that what was being said during the interviews corresponded to reality. The facts have been verified through annual reports and other media available at the time.

## 3.7 ETHICAL ASPECTS

To ensure that the study maintained a high ethical standard throughout the entire project, the research has continuously followed the ethical research guideline presented by Vetenskapsrådet (2002). Ethical aspects considered extra important are reliability, honesty, respect, and responsibility for all publicized information (ibid). It is of great importance to



preserve the respondent's integrity and inform the participant regarding the purpose of the thesis (ibid). In this thesis, has the respondents' responses been handled with respect and caution, as most interviewees are anonymous, is it of great importance to be trustworthy and maintain their integrity. The data collected from the interviews will only be used explicitly for this research and have no unauthorized insight (ibid). In accordance with Vetenskapsrådet (2002) recommendations for ethical research, all recorded data from the interviews have been deleted as soon as possible after the necessary information was extracted, in order to protect those interviewed and maintain their anonymity

### 3.8 REFLECTION AND CRITICISM OF THE SOURCES

#### 3.8.1 ANALYSIS OF THE INTERVIEW DATA

When using a qualitative approach in research, the volume of the data conducted is often excessive. Using qualitative methods compared with quantitative methods is the significant difference in the type of collected data. The quantitative process focuses on considerable numbers and evidence, as the qualitative processes tend to focus on comprehending and exploring findings in the data. Furthermore, since a qualitative approach was chosen as most suitable for the thesis, it has been essential to code it and find themes in the large amount of collected data. Using the thematic analysis model, have the analysis process proceed from findings patterns (Saunders et al., 2012). Since the analysis model agrees with the enlightenment of the collected data by exploiting it with theories (ibid), it was considered relevant for conducting this thesis. The data in this thesis has been depicted in themes, which has laid the foundation for finding conclusions as the data is more manageable and more accessible to distinguished results.

Further, the data was analyzed in categories based on the findings from the theoretical framework to highlight aspects of motives to answer the research question. However, Flick (2018) argues that it sometimes can be challenging to identify themes, and therefore it can occur that some factors are unspotted. Although, the prospect to recognize a theme surges as with the occurrence of the occasion (ibid). Both authors were present at all interviews to maximize the ability to identify the most significant themes in the collected data. After the interviews, both authors discussed and transcribed the data to ensure that nothing was misunderstood or left out.

### 3.8.2 CRITICAL ASPECTS OF OUR METHOD CHOICE

This section will process criticism regarding the chosen method of this thesis. Criticism can be directed for using a qualitative approach as it can be considered subjective (Bryman & Bell, 2013). The data needs clarifications to be beneficial in answering the thesis research question. Data collected through this approach can also be considered hard to replicate and generalize (ibid). Although, instead of establishing a generalizable conclusion, deeper understandings were considered more interesting when conducting this thesis. However, the interpretation of the collected data can be criticized as it can be influenced by the author's views of the subject and, therefore, affect the thesis's outcome.

Another possible reason for criticism could be using the Swedish language through the interviews since the paper was conducted in English. To minimize the risk of losing important information during the translation phase, every interview was carefully and thoroughly translated close to the time of the interview. Although the interviews were chosen to be conducted in Swedish, as all respondents had Swedish as their native language, which allowed them to express themselves more freely.

### 3.8.3 SOURCE CRITICISM

The aim of this thesis was never to generalize answers for all Swedish SMEs within the cleantech industry. Although, it can be argued that a more significant number of participating companies could contribute to provide the report with more credibility and make the thesis conclusion more trustworthy. Since all the case companies in the thesis are listed, it can affect the disclosure of certain information as it may affect the stock exchange. Furthermore, the respondent's willingness to speak may lead to the source not always fully reflecting the reality. Another potential critique of the sources is that various numbers of respondents from each company were chosen for the interview. However, based on the fact that the companies have different degrees of internationalization, it was not considered relevant to conduct the same number of interviews. Also, the varied length from the various semi-structured interviews can affect the quality of the data. Though, it is challenging to keep all interviews the same length when using this type of interview method since respondents may have various willingness to expound to different extent.

## 4. EMPIRICAL DATA

*The following chapter will contain a presentation of the thesis' empirical findings. This chapter will moreover give a short explanation of the companies which are participating in this paper. Since all participating companies, except the interview with the expert in the field, have been anonymized to protect them from unintentional effects due to their involvement. This section will reproduce the most important themes of the interviews, which will later be used in the analysis and conclusion.*

### 4.1 COMPANY INTRODUCTION

**Company A** is a Swedish cleantech company whose main area of work is within the automotive industry. They work to offer recycled products to tier-one companies in the industry at a global level. Further, the company aims to include other significant industries as their regular customers, as the demand for their products increases on a worldwide scale. The company was founded in the early 2000 century in Sweden and is protected by three patents. About 20 employees are currently working there, and the company is listed on the Swedish trading platform. Two persons with strategically important positions within the company regarding their internationalization were chosen as respondents, the CEO and Sales Manager were interviewed separately.

**Company B** is a company actively working within the energy sector, which has seen itself as a global company from the early days of business. With the help of its unique technology, this Swedish cleantech company aims to change the way the energy industry has historically looked, hoping to reach a more sustainable society. The company was created at the beginning of the 2010s decade and has now attracted interest from all over the world and, according to their financial report 2019 employed 12 persons and had various external consultant services. From this company, important strategic persons like the CEO, CFO, and business developer have been interviewed for this thesis.

**Company C** is a Swedish cleantech company whose primary business area is within the food industry and was founded at the beginning of the 2010s decade as an economic organization but was later converted to an AB and later introduced to the Swedish trading platform. The initial business idea was to change the whole food industry to a more circular

alternative. A more sustainable alternative way of producing food than the way food is produced today. Unlike the other companies, company C sees itself as a company with an extensive domestic market but is also evident in pointing out its huge possibility on a global scale since shortage of food or opportunities for improvement is available in several places. The company currently employs 19 people, and it was the CEO who was interviewed for the paper.

**Company D** is an innovative technology company within the chemical industry. The company has a clear sustainability profile since its business plan is to reuse specific chemical components and reintroduce them to the industry as a product with similar properties and quality as the virgin chemical composition has. Due to a closed cycle, a circular economy is created and therefore contributes to sustainable development and economic growth. With a long-term goal to be a world-leading chemical company, they have an ongoing project to build a strong world brand internationally. The company also works to reach out to domestic customers. The company currently has 13 employees, and the CEO was the most strategically vital person to interview for this paper.

### **Business Sweden**

Anders Bohman is currently employed at Business Sweden, where he works as Head of LEAP accelerator whose primary purpose is to prepare Swedish companies for an international expansion. Bohman was interviewed as an expert on the field investigated and to bring expert knowledge about the general internationalization process, which all Swedish companies at some stage are affected by. He will contribute to a broad understanding of how Business Sweden, which is a company partly owned by the government, and as in this paper will represent the institutional side of the industry. Bohman will also explain how Business Sweden works to assist and help Swedish firms in their international expansion.

## **4.2 GOVERNMENT**

The institutional interference in a company's global expansion and its means for the actual level of success for a specific company has many discussion areas. However, it seems that government decisions have a significant impact on how easily a company can expand, at least according to those persons and companies that were interviewed for this paper. Some companies emphasize the importance of legislation while others consider connection through, for example, Business Sweden and Exporrådet to be the most important factors.

Company B's CEO emphasizes the importance of getting to know every country and their government to decide the level of protectionism. This was an essential part of their strategy in choosing potential new markets since this would determine which type of presence they were forced to have, to be able to compete successfully in this market. The CEO continued to say that doing this type of geopolitical movement could open very favorable doors. Both the Sales Manager and CEO of company A pointed out how state directives and legal decisions could create an enormous motive for their type of business. Since they see themselves as first movers, with a technical solution and business model, which they are the only ones on the market to have at this moment.

According to company A, government regulations can on their own create colossal market demand and a motivation to establish a presence in this country, for example when a government implements directives that require firms to have a certain amount of reused materials in their products or implement specific end of life management. This is something which the CEO of company C agrees with. Still, since their company's business model is quite different and involves food production, their biggest drivers are countries where government regulations allow them to operate their unique technique. They also point out how critical the infrastructure is. This since their factories require a lot of electricity and roads so their product can be distributed. So, the government's willingness to invest in their surrounding infrastructure was also a significant motivator for a possible expansion to a specific country. The Business developer at company B emphasizes the importance of finding suitable places around the globe to manufacture their products. Due to the reason that they wanted to produce the products close to the intended market to remain a green profile during the whole supply chain

If a company expands its evaluation of political rules, it will also notice differences in cultural attributes, which uniquely characterizes the nation. The difference could be detected in the way of doing business or the willingness to invest in cleantech. This was something that both the CEOs from company D and B pointed out as a factor that had a more significant impact on business processes than they previously thought. To overcome those cultural differences, they both emphasize how important institutional actors are. Bohman tried to address this problem and described how Business Sweden, as an institutional actor, continuously works together with its partners in the relevant markets. But also, one of their

main tasks is to help the Swedish firms to understand local laws and regulations and how they also connect them with local expertise to maximize the business opportunity. According to Bohman, they usually use a specific business index that measures the easiness of doing business in a particular country. From those parameters, they try to adapt and learn to succeed. They also have foreign offices where they have their personnel to understand the foreign market throughout.

### 4.3 CAPITAL

To implement an international market expansion, the company must be willing to spend both money and time to succeed, but finding enough capital turned out to be a struggle for these SMEs. As they, in many cases, missed a proof of concept or a lack of paying customers, thanks to the market's skepticism against new products. All the companies' representatives emphasized the enormous hinder shortage in capital creates and how it slows down the internationalization phase for the companies in their expansion.

Bohman thinks that the historical difficulty of attracting venture capital or other forms of money has changed radically in the last years, and especially for SMEs with a product within the cleantech industry. He further pointed out that founding was the only sector in which Business Sweden did not provide as many services as might be requested from the expanding companies and said that it might be a sector which they could expand their business within in the future if there were a great need for that help.

That there would be more money out there than ever before was something that both CFO from company B and the Sales manager from Company A pointed out. However, the problem for them and their company was finding someone willing to invest in their technology without charging unreasonably high interest. The sales manager gave some examples where risk capital investors required interest would delay company A payback time by 300-400 %, something they can't let happen. Both CEOs from companies D and C also mentioned lack of capital as a major problem for their international expansion. Since none of their companies made any profits, they struggled to attract capital. They both mentioned that they could bring in some money through new issues thanks to their presence on a trading platform. However, it is essential to limit the amount of cash brought from the shareholders since this will lose confidence in the company. This was something that all interviewed CEOs agreed on, that new issues are something that should not be abused to raise money.

Company A sales manager also pointed out the extreme difficulty which comes with their product. Since they see themselves as the first mover, a company with a unique product challenges all previous formalities within their industry. A problem with that is that they don't have a clear proof of concept before showing their investors. He continues by saying that since their expansion and business models require several million euros, they need to find something they called an offtake agreement with a customer. The agreement ensures that all output from their business is already sold before it is even produced. This would minimize the inherent risk of losing money for any venture- or risk capitalist.

Almost everyone sees a correlation between their products and difficulties attracting capital which costs a reasonable amount of money. The typical answers are pretty similar to the one that company A sales manager gave. The risk of investing in a never-before-seen technique is the most significant difficulty connected to the company's internationalization.

#### 4.4 GLOBAL ENVIRONMENTAL MOVEMENT

As earlier mentioned, several measures and goals at a high political level have been established to counteract and slow down global warming (UN, 2021). Different aspects have been given on whether the worldwide environmental goals have motivated the chosen cleantech to internationalize from the interviews. However, a clear connection regarding the perception of the increased interest in environmentally friendly solutions worldwide was shown from the interviews. According to the CEO of company C, global environmental goals increased the global player's incentive to purchase and invest in more sustainable products. The CEO of company A continues in the same direction and narrates that the movement "has put sustainability issues on the map, which increases the number of customers". Both the Business Developer of company B and the CEO of company D argue that the environmental movement has increased the opportunities for cleantech companies. The Business Developer of company B continues by describing how the new environmental directives open up the domestic and the international market for their sustainable product as the general opinion is changing.

Company A Sales Manager agrees to some extent with the information above but considers that the driving forces for change must be implemented in the large global corporation to further increase the motives for smaller Swedish companies to expand internationally.

However, the international environmental goals may be seen to affect the perception of continued growth but at the same time reduce emissions of large companies, which increases the demand for clean technology. The CEO of company B also considers the international environmental goals to significantly affect the increased amount of capital in the green sector, creating new types of jobs and openings.

All interviewed CEOs agreed that the global environmental movement contributes to a desire to change, which creates momentum at the worldwide market, contributing to creating motives beyond the home country's borders. Bohman also further mentioned that different climate actions do not directly motivate Swedish SMEs within the cleantech to internationalize but create indirect motives. In recent years, the amount of available capital has been increasing due to increased willingness to invest in cleantech companies and increased demand from multinational corporations to capitalize from cleantech companies to reduce their environmental impact.

#### 4.5 MARKET SITUATION

All those interviewed agreed that to grow internationally, almost all small companies need at least one or several strategic partners to succeed in their international expansion.

According to both the CEO and the Sales Manager at company A, a strategic partnership was an extremely important event for their company. They manage to agree with a type of cooperation agreement with one of the biggest end consumers within their industry. A contract that resulted in, according to the CEO, a massive seal of approval and sent a clear signal to the rest of the market that one of the biggest manufacturers chose to both invest in the company and sign a long-term agreement. An agreement like this did also reduce company A financial risk substantially. But apart from all the financial and seal of approval this large company contributed to, they also told us about the extreme competence Business Sweden and Exportrådet hold in specific markets. Something which has given them contacts with governments and influential persons. Contacts that could take years to create on your own.



Company D also pointed out the importance of their partners since their business model was based around selling their products through their strategic partner. At a later stage, they grow internationally by following this leading partner to their new markets. The CEO at company C did also underline the importance of strategic partnership at the foreign market, partly because they don't aim to distribute and sell all their produced food by themselves, they want to sell them to a major distributor or retailer, and therefore is the network a crucial part in an international success

As Bohman from Business Sweden pointed out, their most significant competitive advantage is, without doubt, their massive network of contacts worldwide, which they can share with project partners. He further explains that the Business Sweden concept varies depending on the channel strategy the project company is striving for.

#### 4.6 MARKET SPECIFIC FACTORS

All interviews could specify factors from both the Swedish market and foreign markets, which provide unique motives for internationalization. Since companies demand various factors for establishing themselves on a specific market, different reasons can be seen. Bohman describes how they work with companies to identify market-specific factors and to identify strategic imported markets. First, in consultation with the company, parameters are developed to identify potential markets. Then the essential data from different markets is applied to the parameters.

Company B expresses, based on the fact that their product requires certain types of environmental factors and natural resources, for which there are some limitations in Sweden, they need to establish themselves on other foreign markets. The business developer of company B further describes that the Swedish market hasn't requested this type of product and invention, which has resulted in them early mainly putting energy in the global market towards other countries. Legislation and slow processes have made the establishment in Sweden more difficult and the resistance to go from the more traditional alternatives to the more innovative ones. Plans on establishing a pilot facility in a nearby country are in motion, where several employees in the company have work experience, which results in an extensive network of contacts that they can collaborate with. Company B also mentions that well-

developed industry and infrastructure as drivers for internationalization since it lays the foundation for local subcontractors.

The CEO of company C also mentioned natural resources, more precisely the lack of a specific one in the country, to be a motive to reach a particular market. There are also other factors that the product requires, such as a well-developed electricity network and that the domestic electricity costs are not too high. As for company B, consider company C also that the product they offer will saturate the minor Swedish market. According to the CEO of company C “the best-case scenario in the Swedish domestic market is not enough to meet their growth goals, it is required that the company goes beyond the border”. So that the home market can be considered as saturated, stated all the interviewees as a factor at the Swedish market for their specific company strives for going abroad. The CEO of Company A gave some other descriptions of particular market elements of the potential markets. Factors such as trade restrictions, transport opportunities, and access to process technical technology were mentioned. Due to the company using a specific raw material, there is a need to obtain it from the market for a successful and feasible establishment.

All those interviewed cases have an essential function and driving force to expand abroad when it needs to happen differ though. Both companies C and D mentioned that it is of great importance to be able to prove that you have a commercially sustainable product at the home market, to then be able to go abroad and succeed.

#### 4.7 LEARNING PROCESS

All the interviewed respondents, regardless of the senior position, agreed on one thing: the learning process is a crucial factor in their internationalization.

The CEO of company D emphasized the importance of cultural differences. The CEO meant that there is a significant difference between our neighboring countries. He further developed his sayings by explaining how it could be seen as a difference during its negotiations. According to the CEO, personnel within the company, who had previous expertise in the country, often had easier to understand the negotiations. Moreover, which was also emphasized by the CEO at company B, the cultural difference has a massive impact on the way business is made. The CEO gave several personal experiences where business negotiations could have ended in a lousy atmosphere only because of cultural appearance

differences. From his point of view, as a manufacturing country, Sweden is one of the world-leading countries. But he believes that we underestimate the importance of cultural differences.

Both CEOs of company B and company D further explained that their company, with their international ambitions, must acknowledge the difference in the different markets to which they want to expand. Therefore, to learn how the market works and adapt accordingly.

Another essential aspect, according to the CEO of company C, is to grow under controlled conditions, something which would be reflected in their expansion plan. The CEO further explained that a crucial aspect is controlling their expansion and learning as they grow. It would be a very deplorable situation if they choose to carry out an aggressive international expansion, which later resulted in high costs. A cost which the company might not be able to pay. Therefore, due to limited international experience and limited financial resources, the CEO of company C argued incremental internationalization is the right way in which the global expansion should be carried out. Since when expanding to a new market once at a time, the company will have the possibility to evaluate each market and then learn and develop its technique to cope with the next market in a better way.

Company A works just like company C with their international learning process. It also means a slow and well-thought-out strategy, but the CEO said that much of the preparation was done within the company using a unique technique developed by the company itself. The CEO explained it by resembling several different gates, which are placed in strategic phases. These so-called gates will work as an endpoint for a particular stage of a project. For example, it might examine a potential new market, product, or customers. The CEO further said that these gates would enable the company to analyze and evaluate each step, go back and change the way they work if they are not satisfied, or learn anything new along the way. According to the CEO, one more thing that helps company A is the many senior employees within both the staff and the board. This creates a unique possibility to include and mix several years of international experience, different industries, and contacts to create a learning process that is well prepared for challenges.

The senior competence within the company is comparative advantages which both the business developer from company B and the CEO from company D consider to be one of the

most critical aspects of the learning process. Since they can both benefit from mistakes or successes made by themselves in their previous work experience and, thanks to this, save the company costly mistakes while accelerating the company's internationalization.

Another aspect of the learning process, a general supposition from all the interviewees, was the need for gradual learning. The Sales manager described this as something they have to apply to their learning process and internationalization because of the simple reason that they are trying to create a product/service that doesn't exist at the moment. They are trying to sell a product/service that no one has ever sold before, and therefore they need to learn everything by themselves, which creates a need for step-by-step learning. They need to listen to the change in government regulations and current legislation and adapt and learn after. Due to the dynamic industry, they operate within, and with a product that no one has sold before, this learning is crucial for the business's survival. This kind of statement was mentioned by all companies since all of them have a unique product that is either a completely new invention or a radical change in an already existing product.

## 5. ANALYSIS

*This chapter will contain the analysis part of this thesis. This section will be based on previous findings from the earlier part of the paper, sections such as empirical findings from qualitative research and the theoretical framework will form the basis of this section. The analysis will be based on the theoretical model which was presented in chapter 2.4 (Figure 3). All factors in the model will be analyzed separately to identify unique properties within the different groups of variables that might influence the final motives and strategies for a company's expansion plans. The analysis section which has its findings in the empirical section will finally form the foundation for the conclusion.*

### 5.1 COUNTRY SPECIFIC ADVANTAGE

Rugman (2006) pointed out the importance of choosing a market to expand to whose territorial and national characteristics enable the company to acquire comparative advantages over any possible competitors. By country-specific advantages, Rugman (2006) considers the availability of natural resources, infrastructure, natural conditions, and government regulations to be among the most critical factors when a firm evaluates the attractiveness of a

potential market. These properties, as mentioned above, were factors that had an evident influence on the companies that were interviewed for this thesis. Since both company A and company D worked within the chemical industry and offered a service whose primary business model is within the circular economy, they both explained that their company is dependent on the industry's waste. As they also create an input commodity to the chemical industry, the proximity to these types of business is of great importance when choosing a new market they wish to enter. But there is not only the proximity to the supply chain that has a crucial role for the companies' interview.

All of the interviewed companies, in similarity with Barney's (2014), argued for the importance of political governance in a specific country and how vital it is to evaluate this aspect to decide if the market is interested or not. He further described that political regulations should be taken into consideration in every decision regarding internationalization since regulations can affect the whole expansion phase and that government policies and legislation could act both as a barrier and a motivator deepening of activity. The political governance was of great importance for company B in their strategic roadmap since their firm considers it to be next to impossible to establish a presence in a country or region where they do not receive the necessary support from the government in terms of favorable regulations. Additional CSA that was of great importance was the natural conditions because company B's business model requires certain natural conditions to have a good function. Since the company C business model included food production, the CEO explained that it was crucial to choose a market where its products complied with applicable regulations. So, the interviewed companies agreed to Barney's (2014) theory, as they attach great importance to state attributes when evaluating so-called CSA to find motives that simplify a feasible strategy.

The original Uppsala model suggested that a firm tends to establish a presence on a market close to the company's home market (Johanson & Vahlne, 1977). Still, today the theory has some credibility in its way of explaining market selection. Two of the case companies did start their internationalization on the Scandinavian market, and another company in the survey considered the Scandinavian market to be the next natural step as an expansion became relevant for them. The CEO from company C emphasizes the importance of understanding the market to which they wish to expand and further describes their growth to a neighboring country since both their senior employees and strategically important partners

have extensive knowledge about the market. The CFO from company B explained similar reasons as company C for choosing their first market, the comprehensive knowledge about that market they wanted to operate within, to understand the environment and the market that the company wishes to operate within is according (Johanson & Vahlne, 1977) a crucial factor regarding its success.

As a result of the interviews conducted, one can see that some theoretical ideas are the foundation when modern Cleantech SMEs are planning their international expansion. The theoretical aspects from Barney (2014), Johanson and Vahlne (2017), and Rugmans (2006) can be attributed to how the company representatives evaluate country-specific advantages.

## 5.2 KNOWLEDGE CREATION

Johanson and Vahlne (2017) describe the internationalization process as a circular relationship where the cycles of the various events and the collected experience constitute the commitment for the next phase of internationalization. The dynamic in the Uppsala model can in some ways be found in this thesis, primarily in the internationalization of the companies. The companies described in different ways the internationalization process, how it was planned and later implemented. Since the companies were at different stages in the process of going abroad, the answers differed slightly. For example, Company C defined their premeditated process as a dynamic one where the expansion is planned to one specific market at the time. Then they evaluate the learnings, which affects prospective decisions regarding the reconfigure of resources. An element that the Uppsala model can explain as an interaction between the change and state variables (Johanson & Vahlne, 2017). Company D also submitted that they used incremental learning. According to them, SMEs must have an internal learning culture and analyze the gathered knowledge to be able to grow internationally in a dynamic environment. Johanson and Vahlne (2017) explained the learning processes evident to the change variables, which further influence the state variable. As the firm takes advantage of the new information and may additionally affect company Ds capabilities. In some similarity with company D, the CEO of company A emphasized the importance of their utilization of new knowledge as they established themselves in a new market, since they are working in an extremely dynamic process.

As the theoretical analysis model of this thesis is predetermined, there is a dynamic connection between a company's firm-specific advantages and the process of knowledge creation. The vigorous internationalization processes of the firm where variables affect each

other in various ways, something that all companies mentioned that the function is constantly evaluated, and they use the selected vital information (Johanson & Vahlne, 2017).

The Uppsala model suggests that a firm progressively expands its business internationally and sees the process as a knowledge-creating progression (Johanson & Vahlne, 1977). Based on the information gathered from the four companies in this study, various aspects of acquaintance gathering could be found. According to the interviews, they all had different types of associations with multiple actors, both nationally and internationally, which is an integral part of gathering knowledge and information prior to the internationalization of the business. The majority of the companies mentioned external actors like Business Sweden as an essential part to reduce barriers through their expertise of foreign markets and the mediation of important contacts. Also, other players, like major multinational corporations or smaller domestic players in local markets, have been specified to create opportunities through their knowledge regarding different aspects of the establishment abroad.

It could further be explained as both specific or more generally knowledge creation. Bohman from Business Sweden explained that they support Swedish SMEs when there is a desire to internationalize, and these companies can, through them, receive different types of expertise. For example, find strategic partners and obtain specific market information, which simplifies the creation of the necessary knowledge for firms, which aligns with Rugman's (2012) country-specific advantages and the Uppsala model (2017). When using actors like Business Sweden or like Exportrådet as company D did, companies can find suitable markets with country-specific advantages for their type of business and products. Furthermore, they can use the information when making decisions regarding allocating the firms' resources (Johanson & Vahlne, 2017).

### 5.3 FIRM SPECIFIC ADVANTAGE

In the updated version of the Uppsala model, Johanson and Vahlne (2009) point out that an underlying factor for a company, when expanding abroad, is the desire to create more profit and grow the business, which is something that was identified as a motive by all those companies that were interviewed for this thesis. Several of the country representatives simply said without an international expansion, their company would not survive in the long run. So, they needed to establish a presence in the international arena. This can be seen as a consequence of the Swedish market being too small for them, something which is in

accordance with Johanson and Vahlne's (2009) approach to profit creation. Both representatives from companies A and B said that the Swedish market capacity simply is too small. They also noted that the firm's product is scarce, and to capitalize on the company's unique product and thus gain comparative advantages, they had to move beyond the Swedish border. The CEOs from companies C and D shared similar thoughts. They also acknowledged that they saw great opportunities to take significant market shares globally within the field of their business they're active within. However, the companies have always seen themselves as international players. They believe that their products have a role to play on the global market, since their products can replace many alternatives which today have a negative environmental impact.

According to Rugman (1981), firm-specific advantages are a fundamental attribute for a company to create when establishing themselves as a competitive player in the long run, and thus be able to conduct a successful business internationally. This was also something that was reflected in the way the respondent answered during the interviews. Since all of the companies that were part of this paper are working within cleantech, it was natural that all firms wanted to create a differentiated product from the ones already existing within their fields of business. The CFO at company B emphasized why they needed to establish their unique product by saying that most of their current competitors use fossil fuels or other environmentally hazardous methods to create energy. In addition, launching a product that never had been seen before makes a uniqueness, which Rugman (1981) would argue as a firm-specific advantage.

Barney (2014) saw entry barriers can be a possible advantage for a firm when expanding abroad. The companies in question possess the unique product and therefore are seen as a first-mover, those barriers could benefit the companies. The high barriers could prevent other companies from entering a specific market. Since it would result in increased costs and administrative difficulties occur (Barney, 2014). All respondents did mention the problems concerning establishing themselves in a newly invented market segment, which was also reflected in the numbers of direct competitors since they often are very few. Both companies A and B saw their company as somewhat unique, with no identical competitor in the market



right now. The companies consider it as a considerable advantage, if they were to reach the long-awaited breakthrough, they would be given a chance to carry out a virtually unhindered expansion globally. But in accordance with Rugman (1981), the companies did also mention how these comparative advantages could take a turn for the worse since they would also carry all development costs and costs related to the permit process by themselves. Because of the simple reason that they are the only ones in their field of business.

Among the companies interviewed for this thesis, there was a clear motivation among all participants to establish themselves as a global competitor in the near future. As previously mentioned, the way they intended to reach their goals differed substantially among the respondents, but one thing that everyone agreed on: they would need both a long- and short-term plan. According to Barney (2014), a well-crafted plan is a significant part of a company's strategy to acquire comparative advantages. Barney (2014) also argued that a company could gain comparative advantages in several different ways, but in many cases, the relative benefits are identified through external analysis and internal analysis.

Barney (2014) mentioned the importance of various advanced methods when companies perform various types of analyses for their business. The companies did answer in accordance with the theoretical framework. They emphasized the importance of continuously conducting different kinds of analyses, which can later be used to find incentives that strengthen certain decisions or help the companies avoid costly mistakes. The CEOs of both companies C and D indicated that a weakness for their companies was the availability of capital, which makes their expansion significantly slower. Even if they could identify a market with needs for their products, they simply can't rush anything. Lack of capital was something that company A and B also had major problems with. There is a lot of available capital in the market. Still, there are extensive difficulties attracting the right investor without being forced to sell out their company or pay a high premium. Another vital part of creating a viable strategy is to identify the strength the company possesses. Something that was emphasized among all companies. Another strength that all companies mention was that patents protected their products and that their products were very complex, resulting in their products being very difficult to copy. That a product is hard to imitate will create a possibility for the companies

to capitalize on their uniqueness to gain a comparative advantage, which is also in line with the foundation of Barney's (2014) theory. So, it seems that a company's various strengths and weaknesses contribute to a very important part of their overall strategies regarding implementing a successful expansion, which aligns with the thesis theoretical framework.

#### 5.4 PERCEIVED DIFFICULTIES

As the conceptual model shows, three factors have been considered to influence a company's motives and further the international strategy. As previously mentioned, factors that have been identified are country-specific advantages, Firm-specific advantages, and knowledge creation, where the latter factor is constantly influenced by the other two. But as a company evaluates different factors when deciding to go abroad, are there always difficulties connected to those factors. Factors which a company must overcome to succeed in its expansion. Barney (2014) believes that different forms of difficulties can be avoided through extensive analyses of their surroundings.

All companies interviewed for this thesis recognized several different difficulties that they had a struggle with. Something that resulted in them being forced to allocate essential resources to solve those problems. All the representatives from company B consider the natural condition and political regulations to be those CSA factors responsible for causing the most difficulties. This is because company B's business is dependent on political permission. The primary causes were primarily explained by the complex nature of the permission process, which sometimes required the company to apply for permission at three different government agencies, each of them taking years to mediate a verdict. Similar thoughts were shared by company A, whose representatives indicated that it is always extremely tough to get permits when operating in a new business segment. The sales manager also emphasized the difficulties of finding suitable customers who dare to invest a large amount of money, in a technique that has never existed before. The government regulations and an untested technique can be difficulties that can be extremely tough to overcome is something that is mentioned by Barney (2014) as a critical factor for survival.

A company's firm-specific advantages (Rugman, 1981) can both lay the ground for motives for internationalization and create firm-specific difficulties that affect the motives and internationalization strategy. As the four case companies, all contain strong, unique character

traits and offer a product or service that requires a comprehensive amount of capital. Therefore, the firm-specific advantages can create motives for expanding abroad since the unique product may be needed at specific various markets. However, there are also difficulties of their uniqueness as it can be perceived as complex to get investors or buyers for a new solution. During the interviews conducted, there existed a common problem amongst all companies: the need for capital and all subsequent problems caused by lack of capital. The CEO of company C further explained that they have genuine faith in their business idea, but when it concerns an untested technique, it is complicated to attract capital. Moreover, even if they succeed in attracting capital, they might have to pay very high interest rates.

In line with Barney's (2014), being alone in a market can cause severe delays concerning the expansion since no one knows if the products can carry their own cost at an industrial scale. Representatives from Company A explained it as there is a risk of ending up in a dilemma. Therefore, to be able to sell their products, they would simply need to sell their products before they are even manufactured because they need to retain money to finance the expansion. But not being able to provide proof of concept for a potential buyer gets many buyers to wait due to the many uncertainties regarding the feasibility.

A significant part of Johanson and Vahlne's (2017) theory is about knowledge creation and the process surrounding and influencing the process where uncertainty within the companies has emerged. There are always inherent difficulties that can be attributed to a theoretical framework as well as in this thesis. The core of Johanson and Vahlne (2017) is to reduce the uncertainty by increasing the knowledge within the team that is performing the expansion, but that can be easier said than done. It was clear that all participating companies saw the lack of international connection as a perceived difficulty, as the process to retain key persons abroad is an extremely time-consuming activity and sometimes expensive. The fact that almost all companies had very limited or no foreign activity did also cause problems in gaining the necessary knowledge, something that is a foundation in theory mentioned above. The CEO of company A also mentioned the difficulties of being the first mover in the industry since they have to learn new things and try to adapt the company's strategies to a very dynamic market, a market that constantly changes. The changes can often be attributed to new regulations or changes in market demand. Furthermore, all other companies did

recognize themselves to be in similar situations both regarding lack of knowledge and competence concerning an extensive network or adaptation to a dynamic industry.

There is no doubt that there are several perceived difficulties for companies within these Swedish SMEs in the cleantech industry. Difficulties that need to be taken care of to succeed. But it can also be conducted that for each obstacle on the way, a new possibility emerges. A possibility that provides the companies with important information. The knowledge that will be added to the long- and short-term strategy results from a mix of motivations and perceived difficulties.

## 5.5 MOTIVES

As described in the analytical model, the theories do not always explain the motives directly, but seeing from different angles' connections can be distinguished, suggesting motives for internationalization. The specified variables of firm-specific advantage, knowledge creation and country-specific advantage can be found in various ways of being motives for firms, both individual and integrated.

The theory argues that firms often strive for internationalization for continued profit and achieve continuous growth (Johanson & Vahlne, 2009), which has proven to permeate the thesis companies' desire to go abroad. These cleantech firms offer a unique, and in varying degrees revolutionized product with high-tech properties, which Rugman (1981) would explain as a high degree of firm-specific advantage. In the findings of this thesis, a connection was proved between the companies and the uniqueness of the firm, which are motives for going abroad. The motives were based on both FSA, as there is a demand for the unique product in the international market. At the same time, there is a high global demand for more sustainable inventions and how the company's distinctiveness leads to varying degrees of perceived saturation and demand in the Swedish domestic market. Moreover, it must be considered that the companies interviewed in this study are all multi-million facilities or inventions so that the domestic market is experienced as saturated may originate from the companies in some way or other selling industrial products, which makes internationalization a natural step to achieve growth and a motive for going abroad.

Rugman (1981) adopts that a firm's international competitiveness depends on both FSA and CSA in interaction with each other, further explaining motives for internationalization. This is supported by the findings in this study as the firm's uniqueness combined with certain country factors creates motives. For example, some countries have specific regulations to facilitate certain green innovations, as company A stated. Or that some country has specific and various promotional resources which are considered as promoting or needed by the firm to perform their business. This can be seen as motives, for expanding outside the country's borders seems favorable.

That there has been a positive increase, due to global environmental movement, in many countries' governments in promoting different types of eco-friendly solutions, was supported by all the thesis companies. The influence of environmental policies on countries' governments is in line with Rugman's (1981) country-specific advantages as it creates beneficial factors for cleantech companies, since most companies reported that the demand in several markets has increased over the last years. From the interviews, a connection can be seen where companies in different ways see different countries and their policies as motives for internationalization and thus create an advantage.

The findings in this thesis showed in different ways how knowledge creation could create motives for internationalization but not as distinct as what the motives further are. This is intrinsically in line with the theoretical analysis model, as theory suggests knowledge creation as the emergence of future proceedings (Johanson & Vahlne, 2017). The study's firms utilized different sets of actors and networks when planning or conducting internationalization. They all also attach great importance to taking advantage of lessons learned along the establishment process to constantly develop their internationalization process. However, the evidence gathered from these companies demonstrates that motives not explicitly are being part of a network or collecting knowledge.

### *International strategy*

The next phase for the company is to concretize all its motives, motives identified by various factors. These motives will help the company to implement its international strategy. Thus, a company will implement both a long- and short-term approach to growing safely in the global market.

## 5.6 LIMITATIONS OF THE STUDY

It is of great importance to consider different aspects that may influence or limit the research in any way. Covid-19 is one object that has affected various factors in this thesis. Since it limited the opportunities to conduct interviews physically, which may have contributed to less detailed and nuanced analysis and conclusion. Due to the number of companies and respondents, the findings in this thesis cannot be representative for the whole industry. Although the research results from the different respondents have to some extent been distinguished from each other, have certain similarities and connections been discernible. These findings can be seen as significant as they provide an insight into the research area and depicts different aspects of motives for some Swedish SMEs within the cleantech sector.

## 6. CONCLUSION

*In this final chapter conclusion and suggestions will be discussed as well will suggestions for further research on the field be presented. This final chapter also aims to, in contrast with the analyzes whose purpose is to discover patterns, identify and compare differences and similarities among the companies, to make a final deduction.*

### 6.1 ANSWER TO THE RESEARCH QUESTION

*This thesis has been conducted to answering the following research question: What motives do Swedish SMEs in the cleantech industry have for internationalization.*

As an answer to the research question, it can be concluded that there are several various motives for Swedish SMEs to expand their business abroad. However, the primary motives are determined to be increased profit and the pursuit of growth potential. Furthermore, as the Swedish market is considered to reach saturation for these companies' businesses before achieving the desired growth, there are motives for leaving the domestic market. Several additional motives proved to influence internationalization. Though, the internal ranking of these motives differed from the primary motives that all respondents saw as the most significant. The uniqueness of the product, government regulations, the firm's demand for specific resources, the global request for more sustainable innovations, and limited competition were factors that created some motives or causes for the companies' search abroad. Although, the primary motives can permeate the latter ones, as they are an essential

factor for all motives discovered. Another perception from the thesis is that the motives seem to affect each other to a much greater extent than previously thought. This can be because the companies often emphasized several different motives as the most prominent influential force, rather than individual isolated motives.

Some of these motives are more associated with the cleantech industry than others. Some countries promoted and demanded specific environmentally friendly solutions due to the increasing global endeavor for sustainability, which provided beneficial regulations and an increased demand, which is a more industry-specific motive for the Swedish SMEs in the cleantech sector. An additional motive that was more specifically linked is how the uniqueness of the product created saturation in the domestic market, as the cleantech companies' innovative properties had difficulties growing in the relatively small Swedish market.

Something that emerged in the thesis was that a certain number of motives did not determine the companies' internationalization. As all the companies had a solid aspiration to expand abroad but experienced many difficulties in succeeding, which was reflected in the origin of the motives. Instead, this thesis showed that the vital component is the company's ability to overcome all perceived difficulties as it affects their motives. Moreover, capital requirements and lack of international knowledge are two problems that needed to be addressed to succeed. However, difficulties and motives have a complex correlation. The difficulties can have an inhibitory effect on a firm's internationalization simultaneously as it can found a motive. Thus, the key to internationalization was to manage the difficulties.

So, this thesis concludes that there are several motives for Swedish SMEs to internationalize, both based more precisely on the difficulties experienced in the specific sector and on more universal aspects as they strive for higher profit and contained growth.

## 6.2 THEORETICAL IMPLICATION

Since the cleantech industry and the surrounding theory are relatively new, compared to other research areas, it becomes an inevitable consequence that the field of study is pretty underdeveloped. It should be mentioned that extensive research has been performed on most of the factors used in this thesis, but separately or in other industries. Therefore, the

perception is that the overall research on the subject, primarily how they affect each other within the cleantech sector, is relatively underdeveloped.

The primary findings in the thesis suggest that there are several motivations and several perceived difficulties influencing a company's internationalization. Based on the created conceptual model, which was primarily used as a combination of already established theories, the overall content of the model reflects the reality of the companies interviewed. However, the perceived difficulties had a significantly more significant impact on the company's strategy than previously thought. It has therefore been unambiguous to revise the conceptual model. Instead of what was previously considered to be a factor evaluated later in the process, difficulties will be viewed as an essential factor to evaluate right at the beginning as it affects the origin of the motives for internationalization, shown in Figure 5 below.

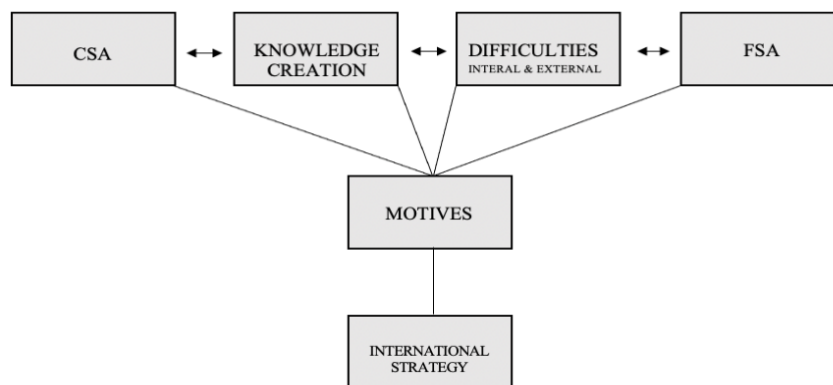


Figure 5: Updated conceptual model, based on the theoretical framework developed by the authors.

### 6.3 PRACTICAL IMPLICATIONS AND RECOMMENDATIONS

The empirical findings support the importance of investigating various aspects of internationalization for Swedish SMEs within the cleantech sector. All companies had several motives and strong driving forces for internationalization. However, the implication of the motives and the basis for them was greatly affected by experienced difficulties. It can be concluded as there are many difficulties in the internationalization of Swedish SMEs within the cleantech sector which affect the companies' determination to go abroad. To maximize the opportunities when expanding abroad, the companies need to identify their difficulties and try to overcome them while maximizing their motives. By sharing this study's outcome and learnings during the process, this research can be applicable for Swedish SMEs in the



cleantech sector to find ways to utilize their possibilities when internationalizing. Therefore, the recommendation for these firms is to gain knowledge to minimize their specific difficulties for an international expansion. They can do so by cautiously making use of their own international experiences or acquiring acquaintances from external parties like international networks. Companies like Business Sweden can present companies with immersed competence and essential contacts, which can be advantageous for these companies at the beginning of their internationalization.

#### 6.4 SUGGESTION FOR FUTURE RESEARCH

As the research in the Swedish cleantech industry and internationalization for companies active within that industry is very limited, several areas could be considered as interesting, in which future research could be done, hence expanding the knowledge within the cleantech industry. However, some suggestions will be provided below, which would contribute to future understanding and conclusions, and to complement this thesis outcome.

*(1) Investigate the relation between the internationalization process and access to capital cleantech firms globally.*

Since all of the companies interviewed for this thesis acknowledge access to capital as a vital barrier for internationalization, a difficulty they felt could jeopardize the entire survival of the company. Therefore, it would be interesting to investigate if other cleantech firms established in other countries see the availability of capital as a problem and how they overcome the difficulties.

*(2) What motives for internationalization do Nordic and European SMEs within the cleantech industry have?*

Since this thesis only focused on Swedish cleantech firms, which gave many interesting aspects, it would be interesting to expand the research area abroad. It would be interesting and necessary to investigate whether the motives and perceived difficulties are similar in Sweden's neighboring countries. By doing this, similarities and difficulties could be concluded. As a possible result, countries, and firms can learn from each other at an international level.

*(3) How have multinational corporations within the cleantech sector succeed in their internationalization process?*

By investigating MNC, as they already succeeded in expanding and growing their business abroad, essential aspects and events could be analyzed. Their success and strategies could be used as a guide for SMEs in the same sector around the globe to help them manage difficulties and achieve success in their field of business.

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## APPENDIX

### APPENDIX A - interview guide for the case companies

#### *Introduction questions:*

- Can you describe your role within the company?
- Do you identify the company as a cleantech company?

#### *General questions:*

- What does the competitive situation look like for the company?
- Can you gain anything from that difference?
- Which are the major barriers regarding your international expansion?
- Are there any specific factors that make a certain market interesting? (national or institutional)
- How do you identify a strategically important market?
- Are your products protected by any patent?
- Is that something that creates an extra incentive to internationalize?
- Are there any certain institutional actors (globally or national) which facilitate your expansion?
- Are governmental regulations something that affects your expansion significantly?

- What do you identify as especially important motives in a country to enable an expansion to that market?
- Is a good relationship with global partners an important factor that creates certain additional motives?

***Question regarding motives:***

- Which are the main motives for your internationalization?
- Is there any internal ranking between them?
- Have the motives changed anything during the years you have been in business?
- Do you consider the knowledge that you have gathered over the years has affected your internationalization?
- Do you think that identified motives have a significant effect on the choice of the market?
- Is your internationalization dependent on money from institutional organizations?
- Do you believe that your industry needs more money, as a way to create motives?
- Do you believe that the global environmental goals have created additional motives for your internationalization?
- Is there a momentum due to the environmental movement, which did not exist before?
- Do you use gradually learning when you are planning your expansion?
- Is your product dependent on local adaption and thereby successive expansion?

- How do you collect information about a specific country?
- How important is the learning process during internationalization?
- Do you consider your company as a global company?
- Is a certain level of infrastructure seen as a motive for your company?

***Concluding question:***

- Do you have anything else you wish to add?

**APPENDIX B - interview guide Business Sweden**

- Can you describe your role within the company?
- In which way do you support cleantech in their internationalization?
- Are you looking for interesting companies, or do they have to look for you?
- What are the primary services companies want from you?
- Which are the perceived motives for cleantech and their internationalization?
- Do you think that the global environmental goals have affected those cleantech companies willing to internationalize?

- Is there any difference between cleantech SMEs and non-cleantech SMEs in their internationalization?
  
- Is a strategically important partner an important factor for success?
  
- How do you identify a strategically important market?
  
- Which are the perceived difficulties by SMEs within the cleantech industry?
  
- Is collaboration with the international government in other countries an important part of your daily work?
  
- Capital requirements and governmental regulations were something that was emphasized as a significant difficulty by the participating companies, how can you help them with that?
  
- Is there anything you would like to add?