Bachelor Thesis

Brexit - The Waiting Game

A qualitative case study about how Swedish forestry firms perceive and respond to the uncertainty regarding Brexit

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Abstract

Brexit is the source of changes in the business environment in Europe. The situation generates uncertainty in which direction the United Kingdom wants to take on the decision of leaving the European Union. The situation is unique, the outcome and impact are unknown. The aim of the thesis is to gain profound knowledge and analyze how Swedish forestry industry firms perceive and respond to the uncertainty of Brexit. The reviewed literature present how uncertain business environments affect firms, the perception of uncertainty and strategy that generates a response to uncertainty. The conceptual framework illustrates the process and the connection between the elements. In order to gain profound knowledge on the subject, a qualitative study with an abductive approach was conducted. The applied research design was a multiple-case study that consisted of six cases.

The analysis discusses the empirical data with a cross-case examination and pattern matching to the literature in order to identify similarities and differences between the cases. The perceived uncertainty is dependent on several elements and the findings display how changes in the business environment impact firms differently depending on the risk management of the firm, market commitment, information, experience and how the market is valued. These factors influence the process behind the response and the resources that are allocated to the process. The thesis contributes both to the theoretical and practical understanding of uncertainty and how to respond to uncertainty.

Keywords

Brexit, Uncertainty, Perceived Uncertainty, Swedish Forestry firms, Risk, Strategy, Response, Actions, Business environment, Changing business environment,
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Terminology & Abbreviations

**Brexit** – United Kingdom leaving the EU

**Customs Union** – The European Union’s free tariffs and trade area

**EU** – European Union

**Forestry Industry** – The industry of producers of paper, mass, pulp, cork, biofuel, plank and construction material.

**GBP** – United Kingdom Pound Sterling

**UK** – United Kingdom

**Uncertainty** – When the future cannot be predicted, an unpredictable environment factors that affect a firm

**Referendum** – A general vote on a single political question and the result determines the decision

**Risk** – Potential negative impact on a firm in the future, when the future is somewhat clear

**SEK** – Swedish Krona, the currency of Sweden
1 Introduction

This chapter will introduce relevant topics and concepts regarding this thesis. The chapter starts with a background of Brexit, international trade, the changing business environment. It further continues to with a problem discussion where a research gap is identified, thereafter, a research question is formulated, and the purpose of this thesis is stated. To conclude the introduction, an outline for the study is presented.

1.1 Background

Friday, June 24th, 2016, former prime minister David Cameron announced that in the referendum the British people had voted to leave the European Union, EU (Evans & Menon, 2017). Whilst some experts and politicians advised the population to vote for continued membership, opponents promoted Britain to leave as the EU did not benefit the United Kingdom, UK, (Evans & Menon, 2017). The exit-date of United Kingdom is still uncertain, as the date has been pushed forward from the 29th of March 2019 to 11th of April 2019. EU agreed on that Brexit will be pushed forward once again, the British parliament now has until the 31st of October 2019 to agree on a withdrawn agreement. If an agreement is reached before that date, the UK will withdraw from the EU earlier. (Barnes, 2019).

International trade imposes several challenges for firms that operate on the international market, these challenges can be uncontrollable environmental changes that forces firms to adapt to the environment that they operate in (Hollensen, 2017). Both domestic and international trade is significantly affected by the state of the political environment, due to decisions that stem from the political environment can create opportunities and threats (Hamilton & Webster, 2018). In the general international environment, there are political barriers that can inhibit firms to operate in different markets (Hollensen, 2017). The political barriers can become a political risk that is a consequence of governmental actions. (Porter, 1980). The political environment affects the economic environment since the governmental actions set the boundaries for how firms can operate on the specific market (Kobrin, 1979; Cherunilam, 2010).

The economy of the UK has during its membership in the European Union seen prosperity and growth (Kierzenkowski, Pain, Rusticelli, & Zwart, 2016). However, the run-up to the referendum to leave the Union has weakened the growth and the continuous debate continued to impact the economy. There have been many speculations on whether the UK will leave the EU and how they will do it. The consequences are varied depending on the negotiation with the EU, generating uncertainty in many aspects (Ottosson, 2018). Furthermore, in context to the political risks and the uncertainty Brexit create, firms are forced to act accordingly to the actions of the government without knowing the eventual
effects the changes in the political environment has on the economic environment (Hollensen, 2017). Ultimately, political uncertainty creates a different economic environment that firms have to acclimate in. For instance, by leaving the EU, the UK will lose access to the single market and the preferential markets of 53 non-EU countries (Kierzenkowski et al., 2016). The loss of access to these markets will lead to higher tariffs of goods and other barriers (Cini & Pérez-Solórzano Borragán, 2016).

The decision to leave the EU is made, yet, the decision on how to leave is still debated. There are multiple possibilities with different consequences. The debate is currently ongoing about whether to opt for a Soft Brexit or a Hard Brexit. The soft Brexit leaves the UK in collaboration with the EU and the purpose of the soft Brexit is to soften the economic impact (The Economist, 2018). There would be less interruption of trade and supply chains and decrease the cost of Brexit. However, the UK would still have to abide by the regulations and rules from the EU but not have any power to influence how they come to be (The Economist, 2018). The hard Brexit is the opposite of the soft Brexit with the aim to avoid EU regulations and tariffs and leaves the UK with the possibility to create their own rules. However, a hard Brexit means that the UK would leave the Single Market and the Customs Union generating disruption in business and high costs (The Economist, 2018). The third option would be to agree on a compromise between a soft- and a hard Brexit. The latest proposal has been rejected but was a compromise (Kuenssberg, 2019). The uncertainty of which direction the UK wants to take in the process of leaving the EU is adding to the complexity of the situation. The uncertainty of the outcome of Brexit makes it hard for firms in all industries to prepare and strategize. As firms must consider investing to prepare for something that might never occur or lose more by not being prepared (Ottosson, 2018).

There are measures a firm can undertake to protect them from political risks such as doing a political risk analysis. Risk management is about collecting information about the surrounding problem to set up a strategy to overcome the barriers (Louisot & Ketcham, 2014). Mintzberg, Ahlstrand and Lampel (1998) claim that business strategy is used to focus efforts, sets directions for firm’s and provide the organization with consistency. By accommodating a business strategy a firm acknowledges the value it provides and what events that could destroy the value (Chapman, 2011). The extent of exposure to uncertainty and risk depends on a firm’s market commitment. Johansson and Vahlne (1977) describe market commitment as including both the number of resources committed and the degree of commitment to a market. The uncertainty of a market can increase as the business environment becomes unstable. By gaining information about a market the uncertainties can be reduced (Johansson & Vahlne, 1977). However, the difficulties lie in when the uncertainty generated by governmental actions, it can have multiple effects and on a firm's business (Kobrin, 1979). McLaughlin (2019) identify Brexit as a major factor in changes to the business environment in Europe. The changes
that come with Brexit create an uncertain and volatile business environment for firms to adapt to (Ottosson, 2018).

1.1.1 Swedish Trade with the United Kingdom
According to Business Sweden (2019) the UK is one of Sweden’s most important trade partner in the world. In 2018 Sweden imported goods and services of a value of 73.6 billion SEK and exported goods and services of a value of 81.8 billion SEK from the UK (Carlgren, 2019b) this adds up to be about 7 percent of the total Swedish trade. It is roughly 1000 Swedish firms established in the UK and the Swedish goods are very appreciated by the UK citizens (Business Sweden, 2019). Hatzigeorgiou & Nixon (2019) describe the impacts of Brexit on the Swedish economy as substantial, by the end of 2020 the loss of income to Sweden can be as high as 18 billion SEK. Additionally, as of higher trade barriers, each exported product from Sweden will have to increase the price by 5 percent which can affect the demand for Swedish goods.

1.2 Problem discussion
Miles and Snow (2003) claim all firms are embedded in a network which influences their organizational behavior, known as the external business environment. The external business environment several elements of the environment (Hamilton & Webster, 2018), all affecting firms in different ways and to a different extent (Miles & Snow, 2003) Cherunilam (2010) highlight the importance of the political environment as it affects the policies and businesses. The political environment includes governmental policies such as trade restrictions, business policies, fiscal policies (Hamilton & Webster, 2018). The changes in the political environment in Europe, enforced by the UK's choice to leave the European Union, has created an uncertainty that firms and governments never seen before (Carrol, 2017). Uncertainty was defined by Frank Knight in 1921 as people's inability to forecast the likelihood of events happening. Moreover, Knight also separated the concept of Uncertainty from Risk, Knight defined risk as a known probability distribution over a set of events (Bloom, 2014). Explaining that risk is when you know the possible outcomes and uncertainty is when the outcome is unknown. As the outcome of Brexit is still unknown and the future is not predictable it creates uncertainty. Bloom (2014) further explains that the concept of uncertainty is vague and it mirrors the possible future of consumers, managers and policymakers. Furthermore, the concept is considered as broad and covers multiple phenomenon’s such as macroeconomic elements as GDP, micro phenomenon’s as the growth rate of firms and non-economic events such as wars (Bloom, 2014). To regard when identifying uncertainties is the person behind the perception, Freely (2005) argue that the personal perception of uncertainty is equally important for a firm as the uncertainty itself. Due to the complexity of the concept, the authors of the thesis explain uncertainty as a combination of the unknown future and the risk involved in international business. When the authors refer to uncertainty, it is connected to the uncertainty generated by Brexit and the possible outcome the event will have.
When analyzing a nation’s economy, Hollensen (2017) describe how an economy can be divided into three activity categories, primary, secondary and tertiary depending on the activity. The primary activity is the foundation of economic growth, example extractive process of raw material. Secondary activities are manufacturing activities and tertiary activities are based on service activities, including transportation (Hollensen, 2017). 70 percent of the Swedish land is covered by forest, approximately 87 billion trees, and 80 percent is in active use within the forestry industry (Forestry Industry, 2019a). The Swedish forestry industry contributes to the economic growth of Sweden as being one of the largest production industries in the country and the third largest exporter in the world (Forestry Industry, 2019b,c) The industry employs over 70 000 people, from the extraction of the raw material to transporting across the country. As the forestry industry operates in all categories Hollensen (2017) mentions, making it valuable for the continuous growth of the Swedish economy as it contributes on all three levels. Additionally, as Sweden has a small domestic market and lots of forests it has become an export-oriented industry that contributes very positively to the Swedish trade balance (Hallsten, Heinsoo, Niklasson & Persson 2019).

As previously mentioned, the political- and economic environment are interconnected (Cherunilam, 2010, Hollensen, 2017). As interpreted the political environment is changing drastically and multiple nations are affected since their economic environment change with Brexit. Undeniably, Brexit has the most impact on the UK itself, but the effect will spill over to other nations (Kierzenkowski et al., 2016). Consequently, Swedish firms active on the UK market will most likely be affected by the UK decision to leave the Union. The Swedish forestry industry has an annual export value of 15,9 billion SEK to the UK and is, therefore, the most important trading partner within that industry (Hallsten et al, 2019). The UK market constitutes about 11 percent of the total export of forestry, concerning the whole industry how Brexit will affect their market position (Hallsten et al, 2019). It is assumed that the Swedish firms that are active in the UK have identified potential risks that they will be exposed to, but how to act in such a situation is not straightforward as the British government has not yet decided on a how they will leave the EU.

The impacts of Brexit can only be speculated upon due to the uniqueness of the situation. The effects are forecasted as mainly negative, leaving firms to decide how to best adapt to the new environment. However, The European Union has faced major issues before when the Euro countries Greece, Portugal and Ireland economies collapsed as a consequence of the financial crisis of 2008 (Bird & Kenton, 2019), but none related to a country leaving the union. The Greek financial crisis began when the nation entered the eurozone in 2001, at first the economy grew, until the Greek government admitted that they have lied about the deficit to be able to join the Eurozone (Amadeo, 2019). The consequences of Greece revealing their real economic situation were that investors and
exporters refused to deal with Greece as they were not sure if the country could pay for their goods. According to SCB statistics (2019), the Swedish forestry export to Greece during the recession declined with approximately 24 percent between 2008 and 2009. Furthermore, there was a noticeable annual decline in exported forestry between the years of 2007 and 2015 (See appendix A). After the market crash in 2008, the question was raised that if Greece should leave the Eurozone and go back to the old currency of Drachma. Some of the predicted consequences of Greece leaving the Eurozone in 2009 were hyperinflation, skyrocket high import costs and increased difficulties with attracting Foreign Direct Investment (Amadeo, 2019). The Greek financial crisis and the discussion of leaving the Eurozone is an issue that is the most comparable to Brexit due to the characteristics of possible and real impacts on the forestry industry. The implication and decrease in exportation during Greek financial crisis peaked the authors interest in how Swedish forestry firms strategize under the uncertainty of Brexit.

As forestry is an important industry for the Swedish economy and the UK is a large market, the industry could be fragile toward change and uncertainty. Hamilton and Webster (2018) argue that sudden events in a globalized world increase the uncertainty in the international business environment, the increase of uncertainty also contributed difficulties in assessing risks of a market. Baker, Bloom and Davis (2016) and Pástor and Veronesi (2013) have identified several connections between uncertainty about government actions and various correlations regarding the negative impact on economic health. Depending on the outcome of the withdrawal agreement, the benefits provided by the single market might not be accessible, ultimately, increasing trade barriers between the UK and EU. A hard Brexit without a negotiated withdrawal agreement would lead to trade barriers according to World Trade Organizations regulations and the most favorable tariffs according to WTO standards of goods are 4.4 percent on average (Selfin, Aylward & Tatarkov 2016). Consequently, the add on tariffs could decrease and obstruct trade between the United Kingdom and Sweden. As mentioned by Hatzigeorgiou & Nixon (2019) the cost of Swedish goods could increase by 5 percent for UK customers, as a consequence of increased prices the demand for Swedish products might decrease. Despite that Sweden is the third largest exporter of forestry in the world, Sweden is still dependent on the UK market as it consists of 11 percent of the total forestry export (Hallsten et.al 2019). Additionally, Kierzenkowski et al. (2016) argue that the British pound will deteriorate from a long-term perspective, a weak pound will increase import costs for the UK. Consequently, an unstable and weak British pound has the potential to disrupt the ongoing international trade between Swedish forestry firms and the UK, as the profitability of the UK market would not be as high as it is today.

The complexity of Brexit illustrated above had led the authors of this paper to examine and discuss the magnitude of effect in the Swedish forestry industry. The choice of industry is motivated by factors such as the size of the industry and the economic activity
that is generated from it. According to Hallsten et al, (2019) the UK is the largest trading partner in the industry and the change in the business environment generate uncertainty that affects both countries. This change in the business environment has led to the curiosity of how Swedish firms manage the uncertainty of Brexit and how the firms within forestry are approaching this predicament. Pástor & Veronesi (2013) examined the effect political uncertainty has on stock prices, their research found that political uncertainty commands risk premium and during a high level of uncertainty the market becomes more volatile. Pástor and Veronesi (2013) and Baker et al (2016) connected uncertainty with economic activity. However, every situation concerning uncertainty is different and have varied aspects that generate uncertainty (Miller, 1993). The importance to regard in uncertain situations is how the uncertainty is perceived by managers, as the response to the uncertainty will be a decision made by the managers (Liesch, Welsh & Buckley, 2011). Van Reenen (2016) and Kierzkowski et al, (2016) both argue that the impacts of Brexit are mostly connected to trade, economy and immigration. The uncertainty related to Brexit and the undoubtful consequences is mainly speculative and is mostly written from the UK perspective (Van Reenen, 2016; Kierzenkowski et al, 2016; Mattill & Staiger, 2018). The combination of factors, uncertainty, Brexit and Swedish forestry, generates a specific, complex and unique situation to be investigated. Additionally, by investigating Swedish forestry firms and how they react to the uncertainty generated by Brexit enables the possibility to identify a research gap, as the forestry industry is mainly researched through an ecological perspective and how to adapt to climate changes (Lindahl, Sténs, Sandström, Johansson, Lindskog, Ranius, Roberge, 2017). Research about Swedish forestry and the adaptation to changes in the business environment is less extensive and can, therefore, be developed further. However, changes in the business environment are previously researched (Duncan, 1972; Cherunilam, 2010; Vecchiato, 2012). This generates our interests to gain a profound understanding of how Swedish forestry firms act during the uncertainties of Brexit and to extend the literature in the matter of handling uncertainties. By understanding uncertainties and how to handle it could help firms entering or reevaluate their market positions to sustain a competitive advantage.

1.3 Research Question

*How do Swedish forest industry firms perceive and respond to the uncertainty generated by Brexit?*

1.4 Purpose

The purpose of this thesis is to acquire profound knowledge and analyze about how Swedish forestry industry firms perceive uncertainty regarding their operations on the UK market generated by Brexit. This thesis will explore and describe how forestry firms respond to uncertainty. Furthermore, this thesis will provide valuable and practical
information that can be beneficial for firms within the forestry industry on an uncertain market. The thesis will contribute to the academic field by describing how uncertainty and how changes in the business environment affect operations on the international arena.

1.5 Delimitations
This study is limited to focus on the effects of Brexit on Swedish firms within forestry that have active trade with the United Kingdom. It will not explore the effects of Brexit on other countries forest industry since the empirical data is collected through Swedish enterprises. Furthermore, the study will exclude how the British importer adapts to the uncertainties of Brexit.

1.6 Outline

- **Introduction**: The Introduction include a background to the subject and relevant concepts. It is followed by a problem discussion which lead up to the research question and purpose of the study.

- **Literature Review**: The literature review will provide the reader with a foundation of the thesis, it consists of a review of existing literature about uncertainties, strategy and responses. It is summarized in a conceptualizing framework to show how the literature is related to each other.

- **Methodology**: The Methodology chapter presents the adopted research approach, method and design. The chapter also provides a discussion of quality and ethical issues in the study.

- **Empirical Findings**: The Empirical Findings are presented in this chapter from the collection of primary data. The presentation will be in correlation with the conceptualizing framework and operationalization.

- **Analysis**: The Analysis chapter will connect the empirical findings with the literature review in order to present a valuable analysis in accordance with the purpose of the study.

- **Conclusion**: The Conclusion will answer the research question. Furthermore, this chapter will present implications and limitations of the thesis and suggestions for future research.

Figure 1: Outline of Thesis – Designed by the Researchers
2 Literature Review

This chapter reviews existing literature of relevant concepts and theories, which is the foundation of this thesis. This chapter presents and reviews theories and literature about uncertainty and how to strategize and respond to an uncertain environment. The literature review contributes to the formulation of the unbiased interview guide. The chapter is concluded through conceptualizing framework to explain the connection between the different theories.

2.1 Business Environment

Cherunilam (2010) claim that the business environment influence firms differently depending on the situation. Roa (2010) explains how the business environment can pose opportunities and threats for firms, he further explains by studying the environment a firm can formulate strategies to stay competitive. The business environment can be divided into two parts, the external and internal environment (Duncan, 1972; Cherunilam, 2010; Roa; 2010). The internal business environment regards what happens inside the organizational borders (Duncan, 1972) and are seen as controllable factors as they can be modified by a firm (Cherunilam, 2010). The external environment regards what happen outside of the borders of an organization (Duncan, 1972; Roa, 2010), these factors are beyond control for firms. Customers, suppliers-, socio-political- and technological components are described as the external business environment by Duncan in 1972. However, in today's literature, it is more commonly known to include aspects of governmental-, legal-, cultural and economic factors (Cherunilam, 2010; Roa; 2010; Hamilton & Webster, 2018).

Cherunilam (2010) describes how a firm can be impacted by the external factors of the host market environment. Furthermore, the authors claim that the political and governmental situation in the host market is of the highest importance as it decides the future of the business environment. Additionally, the political environment is important to regard as it decided the industrial policies, trade policies and fiscal policies (Cherunilam, 2010; Roa; 2010). Agarwal and Ramaswami (1991) describe that all internationalization modes involve resource commitment to a foreign market. Johansson and Vahlne (1977) argue that the level of market commitment affects a firm’s risk perception. The more resources that are integrated into the market, the more market commitment a firm has (Johansson & Vahlne, 1977). Explaining, if firms can redirect the resources easy the market commitment is low.

2.1.1 Uncertainties Effect on the Business Environment

A fundamental objective for any organization operating internationally is to manage the risk associated with that operation. Miller (1992) explains that risk refers to uncertain environmental variables that reduce the predictability of the performance. Uncertainty is according to Miller (1992) environmental and organizational variables that impact corporate performance that generate risk. According to Swamidass & Newell (1987) the
external environment is connected to business strategy and business performance. Furthermore, the performance of a firm is highly affected by the strategy and the strategy is determined by the environment (Swamidass & Newell, 1987). Environmental uncertainty affects the strategy, and Swamidass and Newell (1987) state that flexibility is a way to cope with the uncertainty. Ultimately, the effects of environmental uncertainties can be decreased if a firm is able to be flexible. Liesch et al. (2011) argue that the individual perception of uncertainty and how it is interpreted influence the firms, especially in markets with changing business environments. Freel (2005) argues that what managers perceive to be uncertain in a business environment is more important than the uncertainty itself because if a manager perceives an environment as uncertain, they are more likely to act and take decisions in regard to the perceived uncertainty.

2.2 Risk Maturity Model
Risk management is about collecting information about the surrounding problem to set up a strategy to overcome the barriers (Louisot & Ketcham, 2014). Agarwal and Ramaswami (1991) describe that all internationalization modes involve resource commitment to a foreign market. Johansson and Vahlne (1977) argue that the level of market commitment affects a firm’s risk perception. The more resources that are integrated into the market, the more market commitment a firm has (Ibid). Explaining, if firms can redirect the resources easy the market commitment is low. The uncertainty of a market can increase as the business environment becomes unstable. By gaining information and knowledge of a market the uncertainties can be reduced (Johansson & Vahlne, 1977).

The risk maturity model is a tool for managers to gain an understanding of the process of managing business risks and the implementation of risk strategies (Hillson, 1997; Chapman, 2011; Wieczorek-Kosmala, 2014). The model provides organizations guidance to improve their capabilities to risk management. Hillson (1997) describes the four levels the model consists of as reflecting the sophistication and maturity of the risk management process. By implementing and investing in risk management firms gain added value (Grace, Leverty, Phillips & Shimpi, 2015).

*Level 1 - naive* - describe how a firm has no risk management process and has no structure on how to deal with the uncertainties of the future (Hillson, 1997; Hopkinson, 2010; Chapman, 2011). If senior managers successfully describe a vision of a risk process, plan for the future and include all staff in the process the chances of success and improvement increases. By implementing actions to more awareness of risk a firm could advance to the next level in the model (Hillson 1997). *Level 2 - novice* - explain how a firm has a small group experimenting with risk management. The experimenting group is aware of the benefits of risk management, but the lack of structure makes the process useless (Hillson, 1997; Hopkinson, 2010; Chapman, 2011). The novice level imposes challenges for firms,
for example; lack of knowledge and consistency in performance. However, by implementing a series of actions the awareness of its importance could raise (Hillson 1997). The author suggests that senior managers should send the small group working with risk management and process on courses to extend their knowledge in the field, show off selected projects where the risk management is a key factor and build routines on risk management.

By overcoming the challenges of level two a firm could advance to Level 3 - normalized. Hillson (1997) describe Level three as firms have implemented risk management and risk process in all parts of the organization. However, the process may not function as planned in all parts of the firm. Hillson (1997) highlight some activities a firm could use to boost their risk management process to a Level 4, for example, a firm could ensure the learning process is optimal for the staff and the firm includes risk management in all decisions. By implementing these activities and structures a firm could reach Level 4 - natural. The last level describes firms which have a risk-aware business culture and all parts of the firm are working proactively against risk and uncertainties, use it to gain competitive advantage and to capture opportunities (Hillson; 1997; Hopkinson, 2010; Chapman, 2011). Only a few firms have the capabilities to stay at level four since it is hard for firms to implement a risk-aware culture throughout the firm. To stay at this level, it is important for firms to take advantage of the resources of staying competitive by using uncertainties of the future.

2.3 Uncertainty Perception

Duncan (1972) argue that uncertainty arises when there is a lack of information and when a firm is unable to assign a possible outcome to a decision. Traditional strategy approaches assume that the future environment is predictable, understandable and fairly stable (Courtney, Kirkland & Viguerie, 1997). Furthermore, traditional strategy processes rely on analytic tools to create precise predictions and determine which direction a firm wants to take. According to Henisz and Delios (2004) environmental uncertainty is either having inadequate information about a market or it is arising from instability on the market. Determining the correct strategic approach in highly uncertain business environments are never straightforward. However, Nutt and Wilson (2010) argue that high levels of uncertainty and ambiguity are connected to solutions. Both threats and opportunities exist in highly uncertain business environments. According to Courtney et al (1997) firms that underestimate uncertainty develop strategies that neither defend them against threats or take advantage of opportunities that the uncertainty can create. Kreye (2016) extend Courtney et al’s (1997) statement by arguing that underestimation of uncertainty will lead to great problems for firms. To avoid the mishaps Courtney et al, (1997) created a framework where the level of uncertainty is determined in order to create an appropriate strategy. The framework consists of four levels of uncertainty with a tailored strategy connected to the level of uncertainty.
Conducting international business exposes firms to increased uncertainty since firms operate on a market that is different from the domestic market (Mascarenhas, 1982). Courtney et al (1997) claim that even the most uncertain business environments can provide strategically relevant information. Miles and Snow (2003) continue to describe that the environment can partly be predicted and therefore firms are able to adapt their behavior. Vecchiato (2012) describes that environmental uncertainty is created when managers cannot process and collect all information about the new changed business environment. However, firms that have international operations are dependent on information could facilitate firms to make appropriate decisions (Roa, 2010). The first information that is possible to identify is clear trends such as demographics to determine the potential demand (Courtney et al, 1997). Furthermore, there are unknown factors that are detectable if they are analyzed correctly, such as competitor capacity-expansion plans. Carbonara and Caiszza (2010) explain that perceived uncertainty involves both available and derived information. However, the remaining factors that a firm cannot detect or know are called residual uncertainty and relate to, for example, regulatory debates (Courtney et al, 1997). It is the residual uncertainty that is divided into four levels. However, it is still possible to know something about the residual uncertainty (Courtney et al, 1997).

2.3.1 Four levels of uncertainty

Level 1: A Clear enough future
The first level of uncertainty is when the future is slightly clear and through one forecast a strategy development emerges. The preciseness of the forecast is never exact due to the general business environment always being uncertain to some extent but good enough. This is possible because the residual uncertainty is not relevant enough to affect the strategic decision that is made (Courtney et al, 1997; Carbonara & Caiszza, 2010).

Level 2: Alternate Futures
The second level of uncertainty refers to when the future has one or a few alternative outcomes (Courtney et al, 1997; Carbonara & Caiszza, 2010). Doing an analysis of the outcomes does not allow decision-makers to know which of the outcomes that will occur but presents probabilities that help shape the decision depending on the outcomes. The best strategic approach is determined on which of the outcomes that occur (Courtney et al, 1997).

Level 3: A Range of Future
The third level of uncertainty describes a situation were a range of futures are possible to identify. The range is defined by a limited number of variables that create the continuum and the actual outcome is bound by the range (Courtney et al, 1997; Carbonara & Caiszza, 2010). Compared to level two, where the future is connected to one or few outcomes and
the best strategy is dependent on the outcome, level three uncertainty handles a broad future and the strategy is suited to fit the broad future (Courtney et al, 1997).

**Level 4: True ambiguity**
The fourth level of uncertainty refers to when several dimensions of uncertainty interact to create a truly unpredictable future (Courtney et al, 1997; Carbonara & Caiszza, 2010). Compared to level three uncertainty, there is no range of outcomes and it might even be impossible to identify the variables that affect the future (Courtney et al, 1997). This is described as a rare situation but situations like this exist and are the most difficult situation to make strategic decisions in.

### 2.3.2 Uncertainty categories

By dividing and categorizing uncertainty firms can gain multiple dimensional perspectives on how uncertainty is interconnected and affects firms (Miller, 1992). Miller (1992) divided uncertainty into three categories (1) General environmental uncertainties (2) Industry uncertainties (3) Firm-specific uncertainties. Miller (1993) claim that this is how managers might perceive uncertainty and by assessing the various uncertainties formulate a strategic response. Miller (1992) describes *general environmental uncertainties* as to the general factors that affect the business context across industries. The *Industry uncertainties* refer to the uncertainty on the industry market itself. *Firm-specific uncertainties* refer to uncertainty within the organization (Miller, 1992). Miller (1992) constructed three tables that illustrated each area of uncertainty.

The general environment uncertainty is divided into categories, each highlighted category has several subcategories where the source of uncertainty derives from, by isolating the source of uncertainty it is possible to treat them separately (Miller, 1992; Miller & Waller, 2004). *Political uncertainties* refer to larger changes in the political climate such as change of government or war. *Government policy uncertainty* refers to unstable prerequisites in the business environment such as increased regulations or trade restrictions (Miller, 1992). Furthermore, Limão and Maggie (2015) argue that trade agreements between nations are central to reduce policy uncertainty and increase the predictability of foreign trade. *Macroeconomic uncertainties* refer to the fluctuation in economic activity and prices (Oxelheim & Wihlborg, 1987; Miller, 1992) for example changes in interest rates and exchange rates (Miller, 1992). *Social uncertainties* refer to the actions taken by the population due to discontent, that derives from beliefs, values and attitude they possess. Social uncertainty might be a harbinger of the policy and political uncertainty firms have to face (Miller, 1992). The last division of uncertainty is *Natural uncertainty* and refers to the ecological and environmental phenomenon’s that affect the economic output (Miller, 1992; Miller & Waller, 2003), for example, weather patterns that affect the productivity in agriculture. Miller (1992) claim that each uncertainty can in various extent spillover across borders and affect other countries and the extent of the effects are dependent on the level of international interdependence.
Evidently, countries with significant international activity will if they, for example, change government policy affect the countries they trade with.

The next category of uncertainty is described by Miller (1992) as *industry uncertainty* (Miller, 1992). Another perspective to industry uncertainty is *Market uncertainties* which refer to similar factors, external to the firm, where firms share the uncertainty and have little to no control over it (Beckman, Haunschild and Philips, 2004). Miller (1992) divides the industry uncertainty into three major uncertainties which affect the firm. *Input market uncertainty* refers to the input in production whether there are enough quantities and qualities for the production (Miller, 1992). This type of uncertainty might derive from fluctuations in demand from users or if possibilities to acquiring producer supplies, changes. Uncertainty regarding demand is often connected to the ability to forecast the demand on the market (Gupta & Maranas, 2003). The uncertainty regarding the possibility to access production supplies are often, in an international context, interrelated with the general environment uncertainties, for example, the lack of trade agreements between nations can hinder firms access to supplies (Miller, 1992). Uncertainties within supply and production generate unpredicted activities in the internal operations, increasing the risks in production (Vachon & Hajmohammad, 2016). *Product market uncertainty* refers to unpredictable changes in demand for an industry's output due to various reasons e.g. substitute products or consumer taste (Miller, 1992). However, Boon-itt and Wong (2011) have found a positive effect of the uncertainty regarding demand where firms recognize the importance of having control of their supply chain to ensure flexibility under uncertain environment. Beckman et al, (2004) describe how product market uncertainty is hard to manage by a single firm. However, a firm can respond to this uncertainty but not eliminate it. Miller (1992) adds that governmental policies on imports are unpredictable both in a domestic and foreign context and has a direct impact on the product market uncertainty but can be managed through free trade zones. The last uncertainty connected to the industry is *Competitive uncertainty* which is rather a broad category and refers to the existing rivals firms and potential new entrants in its particular industry (Miller, 1992). Additionally, not being able to predict the availability of goods in the product market. Miller (1992) identifies how new innovation and technology can unsettle the current competitions and coordination among firms. Haunschild and Philips (2004) argue that this kind of uncertainty is only created when the actions of a rival influence the firm to take new actions.

The third category of uncertainty is the firm uncertainties and are firm-specific factors (Miller, 1992). The firm-specific factors are *operating, liability, research and development, credit, and behavioral uncertainties* (Miller, 1992). Beckman et al (2004) argue that firm-uncertainties is unique to each firm and are produced by underlying and internal factors from a firm. Operating uncertainties refers to the operation of the firm and uncertainties connected to various operations (Miller, 1992) e.g the liability for their
products, creating a safe workplace, or output decrease due to machine failure. Additionally, the firm uncertainties are related to research and development uncertainties, and the risk whether the necessary investment to stay competitive will pay off or not (Miller, 1992). Furthermore, it refers to credit uncertainty and behavioral uncertainty.

2.4 Strategy Under Uncertainty

2.4.1 Three models of Strategy
Peng (2000) argue that strategy is unifying that gives directions for organizations, rather than a rule of book, blueprint or instructions. Hill, Jones and Schilling (2015) define strategy as related action firms take to enhance performance, a pattern of decisions Porter (1996) highlight the essence of strategy as firms choosing to differentiate from its competitors. Chaffee (1985) developed three models of strategy; Linear-, Adaptive- and Interpretive strategy. The strategies assume that the organization and the environment are inseparable. Additionally, Chaffee (1985) assumed strategy includes both the action and process of implementing a strategy of a firm. Linear Strategy is when firms use decisions, action or planning to achieve desired goals. The linear strategy assumes that the managers can calculate and has the resources to implement the best alternative of different strategies to maximize profits (Chaffee, 1985; Hart, 1992; Steyn 2004). Chaffee (1985) characterizes Adaptive Strategy as a firm’s ability to continually assess internal and external conditions to match the environment and exploit opportunities. The adaptive strategy has firm reassess their operations to coaligned with the current business environment (Chaffee, 1985; Hart, 1992; Steyn 2004). Chaffe (1985) describe Interpretive Strategy as firms seeking legitimacy for their actions. The interpretive strategy assumes a firm and the environment are interconnected and that the managers of a firm shape the attitude of their employees towards the firm's goal. Chaffee (1985) describes the models as separate strategies but reject that the models are independent on each other, as all three strategies have similarities.

2.4.2 Strategy Postures and Portfolio of actions
Courtney et al, (1997) explain that managers who view the uncertainty they face in a binary way often determines the uncertainty as either level one or level four uncertainty. However, they claim that according to their experience half of the situations that are uncertain, often is level two or level three uncertainty. The remaining uncertain situations are classified as level one with rare occasions as level four (Courtney et al, 1997). Additionally, managers often apply the same analytical tools in all situations, disregarding the type of residual uncertainty they face. Courtney et al, (1997) claim that by identifying each situation differently and having a set of tools to deal with every different situation would facilitate how to handle them. However, before identifying the tools that are appropriate for the strategy there is a decision to be made of the preferred strategy posture.
2.4.2.1 Strategy Postures

The strategy posture determines how one would like to approach an uncertain situation and decides the intent with the strategy (Courtney et al, 1997). The degree of internationalization is connected to the strategic posture of a firm and the strategic posture can reflect how dependent they are on foreign markets (Carpenter & Fredrickson, 2001). There are three different strategy posture a company can choose from Shaping, Adapting and Reserving the right to play (Courtney et al, 1997). Firms that adopt a strategic posture can reduce uncertainty (Gupta & Maranas, 2003).

Shapers decide which direction the industry takes and often creates new structures for the industry, creating new opportunities in the market (Courtney et al, 1997). Adapters take the current structure of the industry and the future evolution as a given and the market offers opportunities which they react to (Courtney et al, 1997). Adapters rather strategize with; where and how to compete by quick responses to the market (Courtney et al, 1997). The third posture is a special form of adapting which refers to making incremental investments that put the company in privileged positions. By doing this the firm can wait for uncertain environments to become more certain and create a strategy accordingly (Courtney et al, 1997). After a firm has decided their intent, they have to fulfill the intent with appropriate actions (Courtney et al, 1997). Courtney et al, (1997) have composed a set of actions or a portfolio of actions that are deemed relevant for implementing a strategy.

2.4.2.2 Portfolio of Actions

Courtney et al, (1997) suggest a specific portfolio of actions that contain the different moves; big bets, options and no-regret moves. Big bets require large investments that result in large payouts in some scenarios and great losses in other scenarios, shaping strategies often involve big bet moves (Courtney et al, 1997). Options refer to mapping out the best-case scenario and the worst-case scenario and balancing them so that there would be large payout on the best outcome and a minimized loss under the worst outcome (Courtney et al, 1997). No regret moves are actions that will pay off no matter the outcome and can refer to many situations, even decisions to not invest in certain markets (Courtney et al, 1997). Firms that adopt a portfolio-based approach to managing risk can reduce inefficiencies between different departments throughout the firm (Farrell & Gallagher, 2015).

There are different levels of uncertainty that can be identified with information and requires certain actions, the actions are dependent on which strategic posture the firm wishes to have (Courtney et al, 1997). The framework composed by (Courtney et al, 1997) suggests that by identifying the uncertainty by viewing the uncertainty as independent and different from each other. Ultimately, being able to make strategic decisions that fit the situation and the firms sought approach. This approach requires that firms actively manage their strategy after the implementation (Courtney et al, 1997).
2.4.3 Responses

Additionally, to the framework of divided uncertainty categories, Miller (1992) suggest a variety of responses depending on the uncertainty firms face. The suggested responses are of two characteristics; Financial Risk Management which suggest an approach that reduces the exposure without inhabiting a change of strategy and Strategic Risk management which requires changes to the strategy (Miller, 1992). The fundamental approach to financial risk management is the buying and selling for financial instruments, for example, forward contracts or future contracts and cover with insurance. This works as a protection from changes in foreign exchange rates and commodity prices by working with fixed pricing (Miller, 1992; Walker, 2013; Wolke, 2017). This approach has mainly risk-reducing properties, however, the strategic responses to uncertainty can mitigate the risk that is generated from it (Miller, 1992).

Miller (1992) claim that there are strategic moves and composed five generic responses; Avoidance, control, cooperation, imitation and flexibility. When a market or product is considered to be uncertain and the risk becomes too great for continued operation, avoidance becomes applicable. Firms that are already active on a market that is deemed too uncertain could disinvest and withdraw their commitment, if a firm is not active on a market that is deemed uncertain, they can decide to not participate (Miller, 1992). According to Turcan (2011), there are several ways a firm can decrease its presence on a market by either completely or partly withdraw from a market. Control refers to actively work to gain power within the industry and the country e.g. taking part in political activities to influence political decisions that would affect the business environment (Miller, 1992). By investigating or lobbying external institutions firms might be able to reduce uncertainty (Hoffmann, Trautmann, Hamprecht, 2009). Additionally (Mascarenhas, 1982) found that by Control, firms were able to cope with uncertainty. Cooperation contributes to reducing uncertainty by multilateral agreements such as alliances or joint ventures (Miller, 1992). Beckman, Haunschild and Philips (2004) argue that corporations can reduce the uncertainties by extending their networks and therefore also increase the knowledge within the firm. Imitation strategy refers to taking after industry rivals and follow the leader to optimize e.g. pricing and product strategies (Miller, 1992). According to Henisz and Delios (2004), imitating other firms can contribute to the mitigation of uncertainty that derives from the political environment and is something that firms usually try to do. The last response to environmental uncertainty is flexibility and refers to product, geographic and operational diversification. Generally, by being flexible firms can seize opportunities (Miller, 1992). Mascarenhas (1982) found that flexibility is a way to cope with and mitigate uncertainties. In order to decrease supply chain uncertainty and reduce the impact economic and political factors have, firms must be adaptive to market dynamics (Tang & Tomlin, 2008).
2.4.4 De-internationalization

Benito and Welch (1997) describe de-internationalization as firm's voluntary or forced actions to reduce or completely withdraw from cross-border activities. The motives for de-internationalization are described as three different perspectives; economic reasons, strategic approaches and internationalization-management perspective (Benito & Welch, 1997; Turcan, 2011). The economic perspective refers to market attractiveness and less demand. These factors do not necessarily lead to withdrawing from a market but for firms to change to an internationalization mode with less market commitment (Benito & Welch, 1997; Turcan, 2011). The second perspective is strategic management and relates to managers prospect for the future. If the future involves volatile and uncertain returns on investments, managers might consider de-invest in a market (Benito & Welch, 1997; Turcan, 2011). Lastly, the perspective concerns managers perception of internationalization as a reversed process and the possibilities to withdraw from a market is low it could be a barrier for internationalization as well (Benito & Welch, 1997; Turcan, 2011).

2.5 Conceptual Framework

The literature review has presented the importance of understanding and not underestimate the uncertainties in the business environment. It has also concluded the importance of acknowledging the differences in uncertainties and their characteristics. Additionally, the literature review has provided an insight into the importance of strategic choices to respond to the uncertainty.

The conceptual framework (figure 2) was constructed to illustrate how these concepts relate to each other and the process behind the response. The uncertainty originates from changes in the business environment (Vecchiato, 2012), the change in this context is Brexit. Brexit generates uncertainty that spills over to the Swedish forestry firms. The firm perceives the uncertainty based on the information the business environment can provide (Duncan, 1972), and how the firms acquire the information. By providing an understanding of the business environment and how it can be affected by external factors clarifies the role of uncertainty for businesses. As highlighted in the green box, the perception is based on how aware firms are of the risk the uncertainty surrounding their operation (Hillson, 1997: Chapman, 2011: Wieczorek-Kosmala, 2014), including the potential outcomes of the uncertain situation (Courtney et al, 1997; Carbonara & Caiszza, 2010). By categorizing the uncertainty, a firm can take more accurate decisions and handle the uncertainty in multiple dimensions (Miller, 1992). After the uncertainty is perceived, a strategy is created to mitigate uncertainty which is based on the perception and the effects. The strategy can have different intentions and set the direction form the firm (Chafee, 1985; Hart, 1992; Steyn 2004). When the strategy is identified, the firms can take actions to mitigate the uncertainty (Courtney et.al, 1997) and create appropriate responses (Miller, 1992). Illustrated in the yellow box, the foundation of the response is
depended on how the firm perceives the uncertainty with the information they have gathered from the business environment. The literature review creates a basic process of how firms can perceive and how they can respond to uncertainty.

Figure 2: Conceptual Framework – Designed by Researchers
3 Methodology

The following chapter explains the methodological process in order to conduct the research. This chapter provides a comprehensive overview of the implementation of approaches, methods, designs of the study. The chapter will provide arguments for why these choices of methods have been made. Additionally, this chapter includes techniques for data collection and analysis of the data. Conclusively, the chapter will discuss the ethical consideration.

3.1 Abductive Approach
All research methodology is about the logic between theory and empirical data (Bryman, 2016; Loseke, 2017), research methodology is used as a way of understanding, interpret and explain the research area (Alvesson & Sköldberg 2018). Loseke (2017) highlight the importance of deciding on what kind of research approach a study should have and is dependent on the extent of the existing literature. Inductive- and deductive research approach is regarded as exclusive in the field (Alvesson & Sköldberg, 2018). However, a third approach is commonly used in social research, an abductive approach (Saunders, Lewis & Thornhill, 2016). This approach is characterized as including both elements from deductive- and inductive approach but is not a mix of these two logics. Alvesson & Sköldberg (2018) further describe the abduction approach as it starts from an empirical basis, like the induction, and use existing literature as a source to find existing correlations as an inspiration for further development. The abductive approach alternates between empirical facts and theory along the research process and are reinterpreted in correlation to each other (Alvesson & Sköldberg, 2018).

This thesis is conducted through an abductive approach since the previous research is not extensive enough to conduct a deductive approach. The inductive approach is not suitable because the purpose of this study is not to build new theories but rather gain knowledge about perceived uncertainties and different responses. Hence, the abduction approach is the most suitable, since this thesis will combine the empirical findings with previous research. By using an abductive approach, it allows the authors to set a theoretical framework to explore and describe the phenomenon and alternate back to theoretical framework during the study and to further develop the concepts.

3.2 Qualitative research
A research method can be explained as a process of collecting necessary data in order to answer the research question (Kumar, 2014). The applied research method should consider the aim and purpose of the study (Denscombe, 2014). If the purpose is to find correlation and quantify the extent of variation in situations, a quantitative method is suitable (Kumar, 2014). However, if the purpose is to explore experiences and describe variations in situations, a qualitative method is preferred (Kumar, 2014). This thesis is carried out through a qualitative research method since the purpose is to explore and describe the uncertainties in the business environment and the effects of Swedish forestry
firms. Qualitative research allows the authors to gain a profound understanding of a phenomenon (Kumar, 2014; Alvesson & Sköldberg, 2018). Furthermore, qualitative method is described as allowing the authors to interpret the respondents or subject in an attempt to understand the natural setting of the subjects and make sense of the world.

The use of a qualitative method in this thesis allows the authors to gain a deeper understanding by collecting data through interaction with the respondents. The primary data in qualitative research is usually collected from spoken or written words (Denscombe, 2014). It is important to regard that the methodology choice can create difficulties in the generalization of the results. As the primary data might not be comprehensive enough to generalize the results to all firms active in the forestry industry. Bryman (2016) also suggests an exploratory approach when there is not much theory about the subject and therefore a qualitative approach is more suitable.

3.3 Research design
The research design provides a guide on how the data is collected (Bryman, 2016; Denscombe, 2014), the purpose of research design is to avoid situations where the empirical data collection does not match the research question (Yin, 2018). This thesis is carried out through a case study design. Denscombe (2014) defines a case study as a way of understanding complex relationships between factors and a social setting. A case study provides an exploratory, in-depth description and analysis of a real-life phenomenon. What characterizes a case studies the most is the delimitation and a narrow focus (Denscombe, 2014). The choice of a case study can be motivated by factors such as this study has a narrow focus of uncertainty and to explore firms behavior in an uncertain situation. Furthermore, the authors would like to explore the relationship between Brexit and how firms handle uncertainties. By maintaining a narrow focus, the insights to the problem could be greater and could have wider implications than just on the specific case (Merriam & Tisdell, 2016), examples could be by understanding a firm’s success or unsucces. Using a case study as a research strategy enables the possibility to use a research question including “why” and “how” (Yin, 2018). As this study has an exploratory nature the possibility to use “how” question to capture the problem. It allows a holistic view of a complex phenomenon such as Brexit in relation to uncertainty. Case studies are a flexible approach to research methodology, meaning it can both be theory building or theory testing as an approach to a research question (Yin, 2018). This further strengthens the choice of research design as the abductive approach alternate between theory and collected empirical data.

3.3.1 Multi Case study
A multiple-case study is when researchers collect data from more than one case (Yin, 2018). Furthermore, multiple cases are usually seen as more robust and compelling as it provides more evidence for the results. Yin (2018) further argue that having more than one case will provide better analysis and benefit the study in terms of replication. The
multiple-case study approach is considered the most suitable for this study, by this approach, it is possible to gain a deeper understanding of how firms perceive and respond to uncertainty. Even if the situation of Brexit is unusual and critical for the firm a single-case study was not considered sufficient to the purpose. As Yin (2018) suggests, to get a better analysis, it is better to have more data. To regard when doing a multi-case study is the selection of cases to the study (Saunders et al, 2012). The choice of cases should be based on the researcher's believes that the cases can provide sufficient data to answer the research question.

3.3.2 Purposive Sampling
Creswell (2005) identifies the two most frequently used techniques for collecting data, probability and non-probability sampling. A non-probability sampling will be applied in this thesis because by choosing a non-probability sampling it gives the authors the ability to choose their respondents (Denscombe, 2014). Furthermore, non-probability sampling is the most favorable in an exploratory study. A known technique for non-probability sampling is the purposive sampling method. The purposive sampling allows the researchers to hand-pick their respondents by their knowledge and relevance in the field of study (Denscombe, 2014). By using purposive sampling, the authors of this thesis can choose their respondents on criterions that will provide the best information to answer the research question. Denscombe, (2014) describe that purposive sampling requires the researchers to have previous knowledge about the specific respondents, as they are selected with a purpose.

The purposive sampling for this thesis is founded on a few key criterions the authors have identified as important to answer the research question. The criterions have two aspects, firm level and representative level. The criterions for the firm to be relevant are:

- The firm must be Swedish
- The firm must be active within the Forestry Industry
- The firm must have some active business with the UK

As the representative should be able to provide valuable information, a criterion has been set up as:

- The firm representative must have knowledge about their current and future business operations in the UK

3.3.3 Cases
Based on the sampling criterions six companies have been selected to contribute to this thesis and will be introduced here. For ethical reasons all firms were offered anonymity, this was appreciated by all firms. However, half of the selected firms decided to be anonymous as they believed they would provide better answers if their firm- or personal name did not appear in the thesis. Full table of the cases can be found in Appendix B.
1. **Company X**
The firm is active in the Pulp sector of the Forestry Industry and the participant is the Sales Director and Head of Customer Supply. The firm export 3 percent to the UK

2. **Company Y**
The firm is active in the Pulp and Paper sector, and the participant is the Chief Financial Officer of the firm. Company Y export less than 5 percent of their turnover to the UK

3. **Arctic Paper**
Arctic paper is active in the paper sector and produces fine paper. The participant Kaj Hansson and he is the HR director of the Swedish branch of the firm. Their sales to the UK represent 10 percent of their total sales volume

4. **Company Z**
Company Z is active in the wood industry within forestry. The participant is the Business Area Controller of the firm. The UK market consists of 40 percent of the sales volume.

5. **Lessebo Bruk**
The firm is active in the paper and mass production of the forestry industry, and the participant is Carina Jensen and her role is the Head of Sales and Marketing. She described the UK market as very important.

6. **VIDA Woods**
VIDA Wood is active in the wood sector of the forestry industry. The participant is Karl Johan Löwenadler and he is the firms Marketing Manager and he explains that the firm has somewhere in between 30-40 percent of their total volume exported to the UK.

### 3.4 Data collection

The information gathered from the environment can describe what data is (Merriam & Tisdell, 2016). The data collected through various research is the information that the environment connected to that research offers (Cooper & Schindler, 2011). Qualitative data refers to data collected from experiences, opinion, feelings and knowledge (Patton, 2015). The qualitative data can be collected through various methods e.g. interviews or observations (Creswell, 2005). Choosing a method that is suitable for the research determines the approach to how the data is collected (Cooper & Schindler, 2011). There is a difference between the data that is used in research, the data collected through, for example, interviews are categorized as *primary data* (Collis & Hussey, 2014). The data that accumulate from textbooks or published articles have been interpreted by its creator and is classified as *secondary data* (Cooper & Schindler, 2011).

#### 3.4.1 Primary data

As touched upon in the previous section, primary data is the researcher’s collection of empirical data concerning the research question. The primary data vary depending on the chosen method (Merriam & Tisdell, 2016). However, primary data in qualitative studies are often collected through interviews Merriam & Tisdell (2016). Interviews often enable researchers to ask questions related and consistent with the aim of the study (Ghauri & Grønhaug, 2010). Interviews are one of the most common methods in qualitative research.
and generate primary data related to the research question, this motivates the authors of this thesis to apply the same approach. Additionally, by conducting interviews it might assist researchers to gather information that is valid and reliable to be used as a base for the analysis (Saunders et al, 2016). The overall perception of the approach to gathering data is seen as a great fit to gain profound knowledge in accordance to the research question and the purpose of this thesis. In order to facilitate our data collection, the authors of this thesis decided to conduct interviews.

3.4.1.1 Semi-structured interviews
Brinkmann and Kvale (2015) highlight the importance of human interaction as a way of understanding and learn from each other. The authors claim that in an interview give researchers an opportunity to ask and listen about the interviewee’s experiences, feelings and attitudes towards the investigates subject. As mentioned previously, this thesis will use semi-structured interviews as the primary data collection technique. The chosen method is motivated with, by conducting interviews with the authors of this thesis use a technique for the collection of data that will provide support to answer the research question of exploratory nature. Additionally, by choosing interviews as our primary data collection, it provides the authors with a possibility to learn and gain an understanding of how firms perceive and respond to the uncertainties of Brexit.

Merriam and Tisdell (2016) describe semi-structured interviews as a mixture of structured- and unstructured interviews. It allows the researchers to ask follow-up questions and it lets the respondent explain their perspective and share the knowledge of the subject. Semi-structured interviews usually follow an interview guide with predetermined questions, but it is seen as a tool to stay on the subject. However, the interview does not have to follow the order of the questions. This enables a natural dialogue between the interviewer and interviewee (Brinkmann & Kvale, 2015; Saunders et al, 2016). By using semi-structured interviews, it allows the authors of this thesis to respond to what the respondent is saying by asking follow-up questions or to clarify their answers. Semi-structured interviews ensure flexibility in the questioning since the interview guide ensures that the interview brings up the necessary topics and questions, to provide reliable and proficient answers. Saunders et al, (2016) describe how semi-structured interviews are preferred when the study is exploratory, explanatory and evaluative. This further strengthens the choice to conduct semi-structured interviews.

Five out of six interviews were conducted over the phone. This is not ideal, because interviews are best conducted face to face (Brinkmann & Kvale, 2015) The choice of using telephone as our tool for interviews are motivated by the ease and were seen as most appropriate way to conduct the interviews, because the interviewees preferred to discuss this matter over the phone rather than videoconference. This does not present a problem for the quality of the data. Furthermore, by letting the respondents choose the
preferred interview setting they could more relaxed and be less disruptive to their daily work routine. However, the case of Lessebo Bruk wanted to contribute to this thesis but had no time to conduct a telephone interview and therefore the questions were sent over to the participant and she could answer the question from the interview guide. This interaction can be more similar to a structured interview as they were sent the interview guide and answered the questions in a more structured way. A structured interview can be compared to an oral survey, where the questions are pre-determined (Merriam & Tisdell, 2016). Additionally, the authors of this thesis had some follow-up questions for the participant at Lessebo Bruk regarding her answers, these questions were also sent by email and answered to gain more knowledge about their work. When conducting the interviews, the authors of this thesis tried to avoid bias and proposing questions to control the answers. These kinds of questions were only used to confirm the respondent’s answers to ensure the interviewer understood the interviewee correctly.

3.4.2 Secondary data
Complimentary to primary data is secondary data, secondary data is, as previously mentioned, data that has been collected and interpreted by others researcher (Cooper & Schindler, 2011). The type of secondary data varies and can range from books and published articles to documents (Ghauri & Grønhaug, 2010). This thesis uses secondary data mainly from published articles and books but also varied online sources. According to Ghauri and Grønhaug (2010), secondary data enables researchers to gather information about a research problem and facilitates an explanation of the research problem. However, secondary data has some detrimental sides as well, the secondary data that is used has often been collected in line with another purpose (Saunders et al, 2009). Furthermore, secondary data can be non-accurate and imply untruthful information (Ghauri & Grønhaug, 2010). Keeping that in mind the authors of this thesis understand the importance of the legitimacy of the sources that are used. Secondary data has been used to support the reasoning behind the research question and the literature that enables an explanation to the question.

3.5 Operationalization
Blumberg, Cooper and Schindler (2011) describe operationalization as a process of transforming concepts to measurable variables that are possible to test. By conducting the literature review the authors gain an understanding of what other scholars know and say about the subject, and this will guide the questions in the interview (Jacob & Furgerson, 2012). By operationalize the key concepts from the literature review, the authors of this thesis gained a better overview of their key concepts and how they are perceived in the academic world. By operationalizing the concepts and transform these into questions will help to answer the research question. The table below shows the logic behind the operationalization, how the concepts relate to the literature and how the questions from the interview guide relate to the different concepts. Furthermore, the authors of this study have included reasoning of why this concept is important for the thesis. Additionally,
questions about general information of the firm are included in the interviews to provide information about the firms and how they operate on the UK market.

<table>
<thead>
<tr>
<th>Concepts</th>
<th>Interview Question</th>
<th>Motivation behind question</th>
<th>Connection to literature</th>
</tr>
</thead>
<tbody>
<tr>
<td>International Business Environment</td>
<td>1-6</td>
<td>To gain information about the firm's current trade with The UK and the role business environment has</td>
<td>Business environment, Uncertainties in the Business Environment</td>
</tr>
<tr>
<td>Perception of Uncertainty</td>
<td>5-8</td>
<td>To gain knowledge of how firms perceived the uncertainty of Brexit and gather information to determine which parts of their operation that is exposed</td>
<td>Risk maturity model, Perception of uncertainty, Uncertainty categories, 4 levels of uncertainty</td>
</tr>
<tr>
<td>Implications of the uncertainty</td>
<td>3-13</td>
<td>How the uncertainty implicates and affects the firm and its operations</td>
<td>Risk maturity model, Perception of uncertainty, Uncertainty categories, 4 levels of uncertainty, de-internationalization, responses</td>
</tr>
<tr>
<td>Strategy and Response</td>
<td>7,8,14-17</td>
<td>To learn how firms asses uncertainty and risk and to understand what the firm wants to achieve with their strategy and if their approach to their operations has changed. To generate an understanding of the general strategy formulation and whether Brexit has required a specific response</td>
<td>Three models of uncertainty, Strategy postures and portfolio of actions, responses, de-internationalization</td>
</tr>
</tbody>
</table>

Table 1: Operationalization table – Designed by the Researchers

3.6 Data Analysis

After the collection of primary data, the next step in the process is to conduct an analysis of the data and findings. Merriam and Tisdell (2016) argue that the goal of data analysis is to make sense of what the data is meaning. Brinkmann and Kvale (2015) suggest that for a good analysis of the primary data, it should be transcribed since it reveals linguistic choices and details relevant to the analysis. Furthermore, the authors argue that by transcribing the interviews, the loss of data will be reduced and therefore the validity and reliability of the research will be higher.

In this thesis, the interviews have been recorded and transcribed sufficiently enough to minimize the loss and misunderstanding as a consequence of not remembering what the interviewee said. Thereafter, the transcripts have been structured and categorized in accordance with the operationalization and the conceptualizing framework. The presentation of empirical findings and analysis will follow the operationalization table. Lastly, when the data had been summarized in categories and presented in empirical findings an analytical tool was applied. Since the study is of exploratory nature it was concluded that the most relevant technique for analysis was pattern matching. Yin (2018)
describe this technique as finding logic and patterns from the empirical findings of the primary data and the secondary data. By using this technique for analysis, it allows the authors of this thesis to explore relations and patterns between the cases and literature in order to answer the research question.

3.6.1 Quality of data
It is important to consider the element of quality while conducting research, by choosing well thought through research design. It is important as it reduces the chances of getting wrongful answers (Saunders et al, 2016). Furthermore, while writing a thesis, it is important to acknowledge the reliability and the validity of the study as these are central to determining the quality of the research.

3.6.1.1 Reliability
Reliability in qualitative research refers to the consistency of the empirical findings, it is usually tested through replication of the results (Brinkmann & Kvale, 2015; Saunders et al, 2016). Other researchers are supposed to follow the same procedures of the study and get the same results (Yin, 2018). Denscombe (2014) explain dependability as a tool to reduce the reliability issues in a qualitative study, dependability refers to the demonstration and reflects the procedures of the study. The purpose of dependability is for other researchers to be able to evaluate the procedure and decisions as a foundation for being able to replicate the study later. The authors of this study applied the dependability tool for this thesis by presenting a comprehensive and detailed description of the methodological choices, collection of primary and secondary data and how it has been analyzed to increase the reliability of the study.

Denscombe (2014) describe how semi-structured interviews can influence the consistency of the interviews and therefore jeopardize the reliability of the study, as questions raised in one interview might not be asked in the next interview. However, the interview guide helped the authors of this paper to ask the same questions and address the same concepts in all six interviews. To increase the reliability of the study the interview guide, (Appendix C), is included for transparency reasons to increase the probability of replication. Yin (2018) further argues that in a multiple-case study the researchers should aim for a replication logic when conducting the research.

However, as half of the participants wanted to be anonymous the reliability of the results can be more questioned. Nevertheless, Saunders et al, (2016) describe how anonymity can enhance the reliability of a study, as the focus shift from who said what to, does this answer the research question. The anonymity in this thesis is not considered to damage the reliability of the results since the participants’ name or company name has no impact on the result and analysis. Anonymity in this study has been appreciated by the participants as the respondents have expressed their concerns about Brexit and the firm's
future more freely than if the firm name has been disclosed. Hence, anonymity has revealed more valuable answers and results in for the study.

3.6.1.2 Validity
The validity is commonly known as the truth, correctness and the strength of a statement (Brinkmann & Kvale 2015). Furthermore, to describe an alteration to the term in social science, in this situation it refers to if the method of choice investigates what it is supposed to investigate. Validation should reflect the full research process from introduction to the conclusion chapter (Brinkmann & Kvale, 2015). To ensure the validity of this thesis the purpose and research question has been taken into consideration in each decision of methodology.

Saunders et al, (2016) describe two techniques on how to overcome problems with validity in qualitative research, triangulation and member validation. By applying the triangulation technique, one can ensure the quality of the data. Triangulation applies multiple independent sources to ensure the data is interpreted the same. Yin (2018) highlight the importance of collecting data from multiple sources to establish a chain of evidence to strengthen the validity of the research. To further ensure the validity of the research, member validation can be applied to ensure assure that the primary data collected from the interviews were interpreted correctly. Member validation is when the empirical data is sent to the participant for validation and verification on what was discussed. In this thesis, triangulation has been used to ensure the interpretation of the primary data. By first analyzing the literature review to gain an understanding of the subject and how it is interpreted, this prepared the authors of this thesis for the primary data collection and analysis. The primary data were compared to each other to ensure no respondent had misinterpreted any questions or that no question was missed. Respondent validation was not conducted as described in the literature. However, at the end of each telephone interview, the researchers repeated the key concepts to control they had understood the respondent correctly. To ensure the quality of the data and not misinterpret the primary data, both of the authors of this thesis have been discussing the findings before it has been analyzed to ensure both are interpreting it the same.

3.7 Ethical considerations
In qualitative studies, ethical thinking should be included throughout the whole process of a study (Brinkmann & Kvale, 2015). Therefore, it is very important that the research follow a code of ethics to ensure no harm can come from the research (Saunders et al, 2016). Brinkmann and Kvale (2015) describe how studies including interviews raise four main fields where ethical guidelines should be considered; informed consent, confidentiality, consequences and the role of the researcher.

By applying informed consent to the interview, a researcher informs the participant about what the study is about, the purpose and possible risk and benefits. Additionally, informed
consent includes the interviewee's consent to participate in the study. In beforehand of the interviews, an email was sent out to the participant with information about the interview, what subjects that would be discussed, where the material would be published. In the email, the researchers also offered anonymity to the participant, as the subject of strategic responses on a market can be classified as a sensitive subject for the firm. By offering anonymity to the participants, researchers will ensure all information that can be identifiable to the specific cases will not be disclosed (Brinkmann & Kvale, 2015).

Further to be considered in a qualitative study is the consequences of the research (Brinkmann & Kvale, 2015). This regard the possibility of harming the participants with the information given in the interviews, this is something Brinkmann and Kvale (2015) describe as a responsibility among researchers to reflect upon before conducting the interviews. By addressing the issue of the potential consequences from the interviews the authors of this paper sent the interview guide in before-hand offered the participants the possibility to not answer questions they perceived to be harmful to them as a person or a firm. Additionally, by offering anonymity, the negative consequences of being a participant of this study are reduced. The researcher's role in a study is very important in ethical issues, it is very important for the interviewer to maintain a professional role and using interviews as a tool to obtain knowledge from others. The role of the researcher is also to take responsibility for the findings, that the results are as accurate as possible and represent the field of study.

3.8 Authors contributions
The authors of this thesis take responsibility of the results and that the primary data has not been altered, for ethical reasons and for the reliability of the study. To ensure that the quality of data both authors of this thesis have been present during the interviews, which made it easier to remind each other if any question was missed. Each part of this thesis has been discussed between the authors to ensure that both interpret the secondary and primary data the same and the methodology choices were the most appropriate. The work has been equally distributed between the authors.
4 Empirical Data

This chapter will present the empirical data that have been collected through the interviews. The data will be presented case by case to give an overview of what each firm has said concerning the concepts mirroring the operationalization and conceptual framework. First, some general information about the firm is presented then International business environment, Perception of uncertainty, implications of uncertainty and strategy and response.

4.1 Company X

General Information
The firm was founded in 1929 and is active in the Pulp industry and the interviewee is the Sales Director and Head of Customer Supply. Company X export about 3 percent of the total turnover to the United Kingdom. However, the UK is still considered to be an important market. The firm has no subsidiary but use affiliated terminals to stock goods and deliver to the customers.

International Business Environment
According to Company X, a business environment that facilitates trade is preferred such as trade agreements. However, the participant explained as a global actor they export to other countries that have similar trade barriers as the UK would have after a Hard Brexit. Additionally, the participant explained that the trade barriers such tariffs would not affect their business directly since the market economy would take care of those costs. However, Company X described that the transactions costs are more important for the firm is if the affiliated costs of trade would raise it could deter the company to continue trade with the UK since it must be a profitable market.

“The UK does not have a lot of wood pulp production on their own, so they are dependent on importing pulp” (Participant X, 2019). The respondent continued to explain that from a competitive standpoint, the loss of a trade agreement does not affect them since it would be the same for everyone who exports pulp to the UK. The respondent continued to describe that “...within our business, we have not experienced any downturn in sales out of the ordinary due to Brexit” (Participant X, 2019)

Perception of Uncertainty
The representative from Company X explained how they monitor Brexit negotiations daily until the recent suspension of the negotiations. The firm has a set taskforce that meets every week and explicitly works with questions regarding Brexit. The task force works with questions surrounding Brexit and can be, for example, to see if the whole firm is in line with their preparations connected to Brexit. The respondent described the situation as: “No one knows anything, but we have a pretty good understanding of what is going on” (Participant X, 2019).
The participant from Company X explained that they have identified two outcomes of Brexit, the generic outcomes hard vs soft. The respondent explained the difference between a hard and a soft Brexit is significant. According to the participant, if a soft Brexit would occur, the business would be expected to run as usual. Compared to the outcome of a hard Brexit which most likely would affect the supply chain. Participant X explained that a hard Brexit creates uncertainties for the firm in an administrative way and it can create disturbance in the supply chain. “The worst case would be that we have too much disturbance which makes us unable to deliver the right product at the right time in the right place” (Participant X, 2019). Participant X further explained that since several suppliers have built up a security stock in the UK it is hard to find transportation for the goods and warehouses which complicates their supply chain. The participant further explained what implication the firms are worried about; “What we are worried about is if we have a hard Brexit at some point, a lot of things that normally work will probably not work as well anymore due to import declarations and the fact that the UK government are probably not fully prepared for the impact this will have on their authorities” (Participant X, 2019)

**Implications of Uncertainty**
The participant explained that the paramount threat is to not be able to deliver products to their customers, which could lead to the customer might have to slow down production or shut down production entirely which is extremely costly for the customer. The respondent further explained that this might not be a financial risk to their company but, presents a strategic risk if they perform worse than their competitors. It would not be favorable in future negotiations if they are the part that fails to deliver as promised during Brexit. The main threat is about losing sales due to underperformance in supplying.

Company X has not identified any opportunity connected to Brexit but depending on the performance during and after Brexit it could benefit them in the long run. However, the participant described this as no real opportunity. The respondent said that by trying to stay ahead, as usual, it could benefit them by giving a competitive advantage by outperforming their competitors. However, this is something Company X always tries to do the participant added. The respondent expressed that Brexit does not affect the current operation in the UK and that they are still motivated to continue on the market even after Brexit. The ambitions for the UK market are the same as before, nothing has changed.

**Strategy and Response**
“The general approach is to be fact-based to minimize risk and uncertainty” (Participant X, 2019). The respondent explained that their general approach to risk and uncertainty is to stay informed and use facts to minimize the risk and not rely on reputations. The respondent adds that for instance when they have financial risk the calculate what the
impact might be. The respondent states that the identified risk associated with Brexit has not changed the firms’ strategy on the UK market.

The representative from Company X further explained that they will have the same approach to their suggested medium-term strategy even after Brexit. Which is to continue to supply their customers and honor their current agreements. The interviewee expresses that; “The strategy will not change until we know what the outcome will be but from what we can see now in the different scenarios we do not see any reason to change strategy just because of the potential outcomes of Brexit and that is a later decision” (Participant X, 2019). The participant explained if the business environment will be changed greatly, they might change the overall strategy and if the firm end up becoming more competitive as a result of Brexit, they would consider expanding their operations in the UK. If the business environment transforms in a negative way, they might have to reduce its supply to the UK.

The participant explained that they have identified risks associated with their supply chain and if a Hard Brexit were to happen, they might have difficulties to continue supplying their customers. To mitigate the risk of failing to supply their customers the firm has prepared physically by building a security stock in the UK. The respondent described that the security stock ensures that at least for a few months they would be able to continue supplying their customers, consequently, still honor their agreements. The participant explained that this approach would have a minor effect even if the outcome of Brexit would be a soft Brexit. Since if business continues as usual, they would just decrease the production for the UK market and deliver fewer products and use the products from the warehouse and later continue production as usual “We will have an excess stock that we will have to slowly burn trough so we will have lower deliveries to the UK for some months... In case of a hard Brexit, we will have very good use of the stock and we will be able to supply before things go back to normal” (Participant X, 2019)

The participant explained that this is the two cases that they have a strategy for and is based on the potential outcomes of Brexit. By building security stock they have had to increase their productions which draws a lot of resources from their supply chain. Additionally, to the physical preparation, the participant explained that; “We have closer collaboration and planning with our customers to mitigate as much as uncertainty as possible” (Participant X, 2019). By having ongoing talks with their customers, they have gathered the necessary information and explained to their customer that Brexit might affect their flexibility. The respondent explained that they have asked their customers to be more precise in their forecast and state that as long as their customers do not deviate from their forecasts, they are able to supply them. The participant explained that Brexit has not caused customers to have a higher understanding of the challenges the supplier has. They expect the same performance regardless of the outcome of Brexit.
"Plan for the worst hope for the best!" (Participant X, 2019)

4.2 Company Y

**General Information**

Company Y first started its business in 1887 and is active in the pulp and paper sector of the forestry industry, the participant is the CFO of the firm. They produce mechanical and chemical pulp and wooden packaging. The firm has two mills in Sweden where they produce pressed trays and the firms also has a small subsidiary in Latvia where they purchase wood that they use in the production of pulp. The UK market consists of less than 5 percent of the turnover.

**International Business Environment**

The participant explained that the view the customers on the UK market as important but the market itself is quite small and that they have not put much effort into Brexit. “It is less than five percent of our turnover, so we are not very exposed to the UK market” (Participant Y, 2019). The participant added that if it does not work out after Brexit, they have possibilities to do other things, as the UK market represents a small part of their turnover. The firm is selling directly from their mills in Sweden to its customers and has no business operations in the UK, except customers. Participant Y explained that facilitators such as trade agreement are important for them from a competitiveness standpoint as they have a global product that is shipped around the world. The respondent expressed; “...If they were to impose import duties on pulp then, of course, we would be hurt by that. But on the other hand, all of the other pulp producers in Europe would face the same situation” (Participant Y, 2019). However, as they are considering themselves a global actor and have experience with duties and tariffs.

The participant from Company Y elaborated on the idea that of a Hard Brexit would occur and deal with the UK would be harder, the firm has no intention to withdraw from the market voluntarily. The respondent continued to explain that it is more up to the customers to decide if they would like to change supplier if they decide that the trade agreement is not favorable enough. Additionally, if the products from Company Y becomes too expensive due to duties, it becomes more of a competitive situation instead.

**Perception of Uncertainty**

The participant from Company Y explained that they do not follow the negotiations between the EU and UK, but rather read the daily press for updates. As the firms believe they will not be affected by Brexit they have no teams handling Brexit to reduce the problematics surrounding Brexit.
Company Y has identified some changes regarding their export to the UK and what needs to be done to ensure continuous trade. The firm has identified an administrative change that needs to be done, as their sales to the UK should be registered as outside-Europe sales instead of intra-EU sales. The firm also identified that they must ensure shipping possibility by having the correct customs declarations documents. Company Y described that a potential slow-down on the border could affect their business in the UK but adds that the firm does not have any stock in the UK, as the firm only export directly to their customer. A potential slow border would only have a marginal effect on their overall business because it represents a small part of their business turn-over. But she identified that Brexit has taken time and resources form everything else to think about.

When the participant was asked about the possible outcomes of Brexit and how it would affect their firm the participant answered that if Brexit does not happen they will continue as usual and if Brexit happens, the firm has identified the possible effects on their business and how to handle it. The participant adds that if they have not prepared enough the firm will be able to manage the arisen problems as the UK market is small.

*Implications of Uncertainty*
The participant described that Brexit has not led to any possible opportunities. The respondent further explained that it is part of their business model to evaluate which markets they should sell to, the profitability of various markets, the company has not done anything extra for this situation on the British market.

“*Strategy change would be too big of a word, but we are less hesitant to start new businesses in the UK with new customers unless there is a reason for it*” (Participant Y, 2019). Company Y is not putting any effort into finding new customers on the UK market to expand its customer portfolio. When the participant elaborated on why that was the case, the respondent described that Brexit was the reason for it and that Brexit is discouraging the attractiveness of UK markets.

*Strategy and Response*
Participant Y explained that the firm has a general approach towards risk but since the firm are exposed to many different risks’ and have not adapted their approach towards Brexit, they rather use different tools and actions to deal with risk and uncertainties. Company Y explained that Brexit has not generated a strategy change for the UK market, but it has definitely discouraged them to look for new customers actively. However, the respondent said: “*We have looked on what is needed for us to continue to ship goods from Sweden to the UK*” (Participant Y, 2019). The participant from company Y explained that by communicating with their main hauler in order to find out what has to be done to continue trade.
As for the administrative uncertainties the firm has prepared by getting the correct VAT-numbers, changed the invoice systems for UK-sales and customs codes. However, most of these are already in place since the firm is already exporting the participant explained. As for exporting goods to the UK, Company Y explained: “The hauler that we are using will have the possibility to do the customs handling for the goods in the UK so that we would not be doing it for our self but the haulers would do that for us” (Participant Y, 2019). The participant continued to describe how the industry run 24-7 and how stocking up for their customers in the UK would not be possible as the firm cannot change production without reducing sales to another country. Which the participant does not feel right about and nothing Company Y would consider. It has resulted in less flexibility for the firm as they are not prepared to do that for their UK customers.

“It is not that difficult for us since we do not have subsidiaries and it is a small part of our business.....We are not 100% sure that this will work but we are reasonably sure that it will work, and we feel if it does not work, we will be able to manage if something happens that we did not foresee” (Participant Y, 2019)

4.3 Arctic Paper

General information
Arctic Paper is the Swedish firm that belongs to a Polish mother company and is part of a larger group of firms and was founded in 1878. The respondent is Kaj Hansson and he is an HR Director at Arctic Paper. The firm has three production facilities in Sweden that produces fine paper, Europe is the main market and the UK constitutes 10% of the total volume. They sell their product through their own sales company located in London.

International Business Environment
“Trade Agreement makes it everything easier for everyone” (Hansson, 2019). Hansson explained that for Arctic Paper as a firm, it is, of course, favorable with a good trade agreement. He continued to describe how a favorable trade agreement eases the process of administrative work and that a firm can secure own systems and contracts for trade, but a trade agreement covers all aspect. Hansson continued to describe how the UK is not only leaving the customs union, which is the aspect that affects Arctic Paper the most, the UK is also leaving the EU’s benefits of the four freedoms which will impact the firm in more ways than only free movement of goods. He explained that for several years the firm has had Swedish personnel at their office in England, which Arctic Paper has used as a chance for the staff to grow into the firm.

Perception of uncertainty
Hansson explained that Arctic Paper has put together a project group to analyze and discuss Brexit. The group consisted of 11 members and Hansson is the chairman of the group and has great insight into the work the group has done. The main task for this group
is to identify potential risk areas and take the necessary precautions to reduce the effects of their business. It was explained that “I have identified several risk areas where preparation needs to be done, foremost it was sales, logistics and administration” (Hansson, 2019).

Hansson explained that the sales are affected by a huge business risk as the firm expose a large part of their turnover on the UK market. The business risk is mainly connected to the pound sterling, GBP, and if the GBP would drop it would create a loss in revenue due to the increased transaction cost. It would take time to find an acceptable, new, price level of their goods to recuperate the loss of revenue, Hansson adds.

Arctic Paper has identified several risks connected to logistics. According to Hansson, the largest risk would be a delay in transport and what problems that would generate. Hansson explained that they ship their products via maritime, however, the full the shipment route is multimode. The later stage of the transport requires trucks and already today it is a shortage of truck and drivers. Arctic Paper has analyzed a scenario when the transport trucks are stopped by the customs which would further contribute to the shortage of available trucks. Additionally, Hansson explained: “This could lead to an increase in transportation costs since we order a truck that would be forced to a standstill, who would pay for that?” (Hansson, 2019).

Hansson further explained that there was uncertainty regarding the administration is connected to a Hard Brexit. The uncertainty was about if their export permits would still work and the increase administration in customs declarations. Hansson explained that they were uncertain if they still would be able to export from all their Swedish productions facilities. They asked questions like; does the firm have the correct VAT numbers in order to export and are our customers still allowed to import from Sweden? Hansson stated that Arctic Paper was uncertain if they had the required resources in place to be able to manage the increase in customs declarations. Additionally, Arctic Paper looked at if they had the correct registration numbers and permits to continue the trade with the UK. Hansson elaborated that this is not uncertainty connected to “know how” in the firm but rather if the company had the right manpower.

**Implications of Uncertainty**
Hansson described how the uncertainty is still there even if Brexit is pushed forward and how Arctic Paper is working on how to encounter the uncertainty as the outcome is still unknown. Hansson explained that with the extended period, is has led the British government to evaluate the situation of how Brexit shall end. He elaborated on the idea that now that Brexit has been pushed forward, everyone will be more prepared, and that the British government will increase resources at the border to handle the goods. Hansson is also of the opinion that the extended period can lead to a better withdraw agreement.
However, Hansson expressed that they have mainly experienced uncertainty but if they could outperform their competitors during Brexit it might benefit them. He believes that it would give Arctic Paper’s customers enhanced confidence in them as a firm and would be appreciated. Hansson continued to describe how this could give them a competitive advantage on the British market if their competitors handle Brexit poorly, as the demand of paper will remain on the British market.

**Strategy and Response**

Hansson explained that Brexit does not generate a new form of a strategic approach to risk and uncertainty, even if Brexit is a new source of uncertainty. Arctic Paper has established policies that involve risk assessments. In Arctic Papers general strategy and risk assessment a continuous trade with the UK is included as it is a very important market for them. As Arctic Papers business model rely on sales of paper and that the Brexit-group had identified that administration as an uncertainty. Hansson explained that the firm had made sure that they had the necessary resources in place as it will be more time consuming to declare the goods. The firm has the knowledge of how it shall be done as they are active in other international markets outside of EU, but it will be more time-consuming Hansson adds.

Hansson further explained that Arctic Paper needed information like VAT-numbers. He elaborated that some customers will need more information from them as a supplier to be able to import their goods, for example, mill details, supply financial details and general financial details. These measures have been demanding and have made Arctic Paper cooperate more with their customers to ensure everything is in order from both parts. Additionally, it was explained; "We only looked at withdrawing for a short period of time. However, it is better to try to mitigate the risk and continue with their customers we have had for many years and not destroy the relationships" (Hansson, 2019). This has led the firm not to look at other markets for business opportunities, but rather look at their current customers and deliver as promised with as little interference as possible in logistics and administration. Hansson explained how the firm tries to find constructive solutions that are favorable for them and the customers. However, if the business risk and the currency would drastically drop the firm would have to re-evaluate the profitability of the market. If the profitability would disappear, it would disappear for all exporters to the UK, their prices would increase together with all other.

4.4 Company Z

**General information**

The participant’s role in the firm is Business Area Controller and Company Z is active within the woods sector of the forestry industry and the firm was founded in 1938. The firm considers the UK market very important as it represents close to 40 percent of the sales volume and is the main market for the firm. Company Z has a wholly owned sales
company in the UK. The UK subsidiary sells Company Z’s products but also import products from other nations and sawmills that Company Z does not produce themselves.

**International Business Environment**
The participant explained that facilitators for trade are very important for Company Z because 80 percent of the sales are exported outside of Sweden. Free trade and good trade agreement are crucial for Company Z’s profitability.

“The customers have most likely built up stock and are more careful because no one knows what is going to happen” (Participant Z, 2019). The firm has noticed that the prices and demand have been rocky lately. The respondent described that market as turbulent at the moment and it is hard to determine how it will turn out. Company Z has been selling surprisingly well according to the forecast. However, the firm sense that their customers are careful and do not want to purchase too large volumes. Additionally, the respondent does not see any risks with raised prices due to duties and taxations of their products as the UK has no domestic production of woods and it will be on the customer's burden to pay. Additionally, this will apply to all firm's active on the UK market until the UK have maintained trade agreements with the countries they want to.

**Perception of uncertainty**
Company Z conducts risk assessments for all their markets, but what differs with Brexit from is the frequency of assessments because it is such an important market. Never have they scanned a market this often for so long time. The respondent gave an example of how the Chinese market is accessed frequently as the Chinese government can implement taxes from nowhere every now and then, but the assessments only go on for short periods of time. However, for Brexit, the assessment has been ongoing since 2016 which have led it to become more structured over time.

Company Z follows the media to keep themselves updated but the firm still feels that there is a large uncertainty of what is going to happen. The participant is one of three people in Company Z that monitor and work with Brexit. The participant cooperates with the firm's Chief Executive Officer- CEO, and the financial officer in the UK. The subject of Brexit is discussed every time at the monthly meetings with the management teams from both the UK and Sweden to ensure they are prepared and if any new possibilities have arisen. In these meetings, there have been discussions about if the sales volume to the UK should be changed or not, as of this moment the firm has decided to not adjust the sales volume as the outcome of Brexit is still unknown.

The respondent described that a Soft Brexit without any import duties would favor the firm the most. The participant explained that what they do to mitigate the risk is to be well informed and are still party in shock that some people still want to continue with
Brexit. The participant further explained how Company Z do not do anything outside of the firm to try to lobby for a Soft Brexit. However, Company Z is believed to be prepared for a Hard Brexit even if the forecast shows one or two rough years ahead of them and the market gets back to usual and become more stable.

The respondent explained until the market is back to normal again the firm might have to adjust how much personnel they have in the UK subsidiary and how large the sales volume should be. The participant continued to describe that the demand for their products are there and will continue to exist in the future. However, the participant has identified a threat that there might be a risk of no one want to build and to import the products, which can generate a negative effect on the demand for a period of time. This is an uncertainty that is hard to foresee and predict how hard this will hit the firm. The respondent explained that this uncertainty is hard to prepare for and therefore the firm will wait and see how it turns out. But the hope is to be able to continue as they do today.

**Implications of Uncertainty**

However, there have been no opportunities the firm have seen regarding Brexit. The participant explained that the ambitions for the British market, in the long run, is the same and hope to be able to continue having the UK as their main market. The respondent explained that the transition period will be hard for the firm, but in the long run, there is no reason to worry.

The participant described how their operations have not been discouraged from Brexit because of the importance of the UK. However, if it would become necessary the firm could re-direct sales to another market even if they do not want to and have seen no indication of that either in a long perspective.

**Strategy and Response**

The participant explained what the firm has done so far since the decision of Brexit was taken. Firstly, the firm did an analysis of the potential consequences and effects Brexit could have on them as a firm. Concrete actions were taken, and Company Z decided to set up a new subsidiary in Ireland because the sales previously went through the UK firm. Now the sales to the Irish market will go directly to Ireland and their subsidiary there. To avoid potential import duties on Irish goods. The participant explained; “*What we foresee is that if it becomes a very Hard Brexit it will be hard to declare the goods before real routines are in place*” (Participant Z, 2019).

The participant further explained that, as of last fall, Company Z has built up stock in the UK, to have a higher preparedness if the supply chain will be troubled. The stock was built to prevent a situation of not being able to supply their customers because of a slower border. However, the participant explained how the firm has done a calculated guess of a
security stock that is considered enough for the situation and continued to describe how keeping too much in stock is not profitable.

The participant explained how the firm has some direct export from Sweden to the UK and how that has worked like; Company Z they ship over the goods to the UK and the customer directly pick up the goods at the port or the terminal. The participant described how these goods never are sold or pass through the UK subsidiary. This way will not be possible after Brexit and therefore Company Z has sold off this particular stock in the UK. Additionally, the respondent explained; “Because if we do not do this, we have to declare each package of wooden goods that are sold, and this will be really expensive for the customers” (Participant Z, 2019). The interviewee clarified this by saying that the direct sales and export from Sweden to the UK will not be possible and that the goods need to go through the British subsidiary in the future. As the firm trade in goods to the UK market and have British staff on site, the firm has the knowledge and competence about the import of goods and customs rules from other nations to the UK. Company Z believes that the firm has the competence and the preparedness if Brexit generates new rules about customs and import. The firm further believes they do not need to educate more staff in this matter as the level of knowledge is relatively high already.

The participant further explained that the firm has done the necessary actions to respond to Brexit and these actions needed to be taken regardless of the outcome. Therefore, the respondent explained that Company Z cannot do much more until the situation is clearer and therefore, they are mostly just waiting now and continue to monitor the negotiations. It is further explained that when the Brexit negotiations are moving forward and an outcome is clearer, a strategy will be implemented but this is first after an outcome of Brexit is presented.

The respondent finalized by explaining that the firm has a backup strategy of to what markets the firm could increase sale volume too if Brexit turns out worse than imagined. The firm has offices on most of the continents and can, therefore, increase sales in other parts of the world. However, their production is very suitable to sell to the UK as the shipping costs are much lower and the profits are higher than other parts of the world, hence the hesitation to decrease sales on the UK market before it is necessary. The decision to decrease sales to the UK will only happen if the market yield before them and it would not be profitable any longer. But the firm has started to take precaution and to establish other contacts and potential customers to scale up their sales to have the possibility if the UK market yields.
4.5 Lessebo Bruk

**General information**
Lessebo Bruk is active in the paper and mass production of the forestry industry and has a long history as it was founded in 1719. They produce different kinds of paper and sell it worldwide but also lend staff to other related tasks. The representative of the firm is Carina Jensen and her role in the firm is Head of Sales and Marketing. As for the UK market, Jensen described it as a very important market, however, she would not like to elaborate on how large it is in percentage.

**International Business Environment**
Jensen described that of course, a favorable trade agreement is important for them as it eases the process of exporting. However, she explained that it most likely the same for all firms. As a direct impact of Brexit Lessebo Bruk have seen less activity on the UK market and have therefore gotten fewer orders.

**Perception of uncertainty**
Jensen described that the firm feels relatively updated on the negotiations of Brexit. They follow the media, Swedish and British, but also, they are in close contacts with their business associated in the UK and well as their shipping firm.

The firm has gotten fewer orders since the Brexit negotiations started from their UK customers and therefore hope that the Brexit negotiations end with a favorable trade agreement. However, the firm sees a hard Brexit as the worst possible outcome, as the effects of trade will be affected the most. Jensen continued to describe how as a firm it is hard to mitigate the uncertainty but what they can do and are doing is preparations and double-checking their internal routines. Additionally, as Brexit has affected their sales on the UK market the firm sees uncertainty if the negotiations and how it will turn out.

**Implications of Uncertainty**
The main threat the firm has identified is the new trade agreement, if it will contain import duties on their products or not and how the transportation and supply chain will work. As the firm is active on a global market, they already have routines for international shipping outside the EU. How it will turn out for the UK market is another even larger uncertainty the firm has identified. Because the sales to the UK have declined the firm has not identified any opportunities with Brexit. In order to sustain their market shares the firm now has increased its activities and keep a closer dialogue with the customers.

**Strategy and Response**
Jensen explained that the firm use credit insurance for all their business transactions to minimize the losses and how this also is applied for their businesses on the UK market. However, as for the decreasing sales, the firm has decided to strategically look at other
market and increase its activities there to regain lost sales volume there instead. The firm has two different approaches to Brexit depending on the outcome. However, Jensen does not want to comment on what these strategies are and what will happen except that the firm is increasing its sales activities in other markets.

4.6 VIDA Wood

General information
VIDA is active in the woods sector of the forestry industry. The participant, Karl-Johan Löwenadler is the Market manager at VIDA Wood. The UK is the single largest market for the firm, where somewhere in between 30-40 percent of the total volume is exported to the UK. VIDA Wood has a sales office and distribution warehouse located in the UK. The firm has about seven staff members in their UK office. As many of VIDA’s customers are large construction companies, VIDA arranges warehouse stocking for them as well.

International Business Environment
Trade agreements are important for VIDA, but it is more important in consideration to competitive advantage. “Of course, if we have to pay duties of five percent we lose a competitive edge... this would be the same for everyone trading with the UK” (Löwenadler, 2019). Löwenadler explained that the UK is leaving the EU and the customs union, it affects all firms in their business and therefore has less effect on them as a firm. Löwenadler further described that the domestic production is not considered a competitor as it is more focused on packaging products and has no real domestic production of woods. The UK is dependent on their products.

The firm has noticed an impact on their business in consideration to Brexit. However, Löwenadler described it is not directly connected to the UK leaving the EU but more connected to that the UK did not come with information on how to leave, the uncertainty and the not knowing has impacted the firm the most. Many customers that the hold goods for became nervous if it would be a no-deal Brexit in March or April and started to stock up if it would become a problem at the border. He continued to explain that the warehouses and harbors became full and in the first quarter of the year which have led to that exporters could not and were not allowed to export goods in the second quarter of 2019, as the customers had full stocks. This has affected their sales negatively in the second quarter, Löwenadler elaborated on the idea that if the uncertainty of the outcome would decrease the British parliament would give more information about the withdrawal agreement the impact would not have been this big.

Perception of uncertainty
Löwenadler explained that the firm does not follow the negotiations every day, but more knowledgeable than the common person. He further explained that since no one knows
anything, the firm has not put much effort to Brexit as the uncertainty is too comprehensive and there would be no point in knowing everything as it changes so often. “As it goes back and forth so many times, it is not worth putting that much effort into Brexit” (Löwenadler 2019). Löwenadler continued to explain, if the UK decides to leave the EU it would not be a catastrophe as the firm sell to many other nations outside of EU. Additionally, Löwenadler described how VIDA traded to the UK before Sweden were a part of the EU and therefore the firm has the knowledge of selling to the UK without the benefits from the EU. The firm tries to mitigate the risk and uncertainty by always trying to stay informed or find information that can benefit the firm, which has been the hard part about Brexit. When a real decision about the withdrawal agreement comes, we will start working more with Brexit, Löwenadler describe.

The firm had a strategy for a Hard Brexit, where the security stock would be transferred to the British subsidiary and use that firm as a customer and intermediary. For a Soft Brexit, the participant described how the transition period would help them prepare for the withdraw. However, the impact for both outcomes would affect them as a firm, but the Hard Brexit would complicate the situation the most. Furthermore, Löwenadler described that he believes that the UK is not ready for Brexit at the border, and “it does not matter if the goods come by boat or truck, it will be the same issue, the UK does not have the manpower at the moment for a hard Brexit.” (Löwenadler, 2019). This would not have had a large effect on the firm as it would only take a few days longer to process the goods.

**Implications of Uncertainty**

In the short-term, the firm has not identified any threats to its operation. However, in the long run, the firm sees a potential threat if the UK economy slows down. A slow UK economy might affect their business, as a result of Brexit. Furthermore, VIDA Woods has not identified any opportunities with Brexit as the firm has for a long time thought to decrease their export to the UK market. Löwenadler described how Brexit mostly have affected the firm negative than positive. Löwenadler further described that their customers were stocking up in their warehouses and VIDA did not notice an increase in sales or production rate. As of Brexit, the UK has not been discouraging for VIDA Löwenadler describe. However, he emphasizes the worries of a bad UK economy and what impacts that might have on their sales. He further described how the ambitions for the market are the same as before.

**Strategy and Response**

Löwenadler described how the firm has not outspoken general risk management strategy but continue on how the firm is constantly worried about the currency risk and have strategies concerning that. The participant continued to describe how they have no strategies towards a political risk and adapt more toward the situation. The respondent
described how the firm has not done much extra for Brexit, except increasing security stock in the UK. Nothing that generated a strategy change. The firm has taken action to the changes in administration by registering a VAT-number for the Swedish firm, VIDA WOOD. Additionally, the firm has looked into if the possibility to have tax-warehouse for the goods even if the goods are in England. He continued to describe how their British customers are quote tired of Brexit and do not want to discuss it. Löwenadler described how the firm will stay competitive even of Brexit happen as it is in geographically close and there is a constant demand for their products.
### 4.7 Summary of Empirical Findings

<table>
<thead>
<tr>
<th>Concept</th>
<th>Company X</th>
<th>Company Y</th>
<th>Arctic Paper</th>
<th>Company Z</th>
<th>Lessebo Bruk</th>
<th>VIDA</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Trade agreements</strong></td>
<td>Very important</td>
<td>Important from a competitive standpoint</td>
<td>Important as it eases the process of administrative work</td>
<td>Very important for the profitability of the firm</td>
<td>Important as it eases the process of export</td>
<td>Important from a competitive standpoint</td>
</tr>
<tr>
<td><strong>Impact of firm</strong></td>
<td>No impact on the firm</td>
<td>No real impact on their firm</td>
<td>Reduce Swedish staff in England office</td>
<td>Demand has been unstable lately</td>
<td>Less activity from their UK customers</td>
<td>The uncertainty of not knowing the future, fewer sales</td>
</tr>
<tr>
<td><strong>Information flow</strong></td>
<td>Weekly meetings and task force</td>
<td>Follow the daily press</td>
<td>Large task force group with regular meetings</td>
<td>Monthly meeting with high executives</td>
<td>Follow UK and Swedish Media</td>
<td>Follow the negotiations and try to find information</td>
</tr>
<tr>
<td><strong>Perceived uncertainty</strong></td>
<td>Supply Chain, Administrative, less flexibility</td>
<td>Administration, transportation, less flexibility</td>
<td>Logistic, Slow- border, administration, sales</td>
<td>Sales, price, demand, Lost sales, the UK-EU negotiations</td>
<td>Sales, logistics, administration, future</td>
<td>Sales, logistics, administration, future</td>
</tr>
<tr>
<td><strong>Threats</strong></td>
<td>Not being able to deliver to their customers, Strategic risk</td>
<td>No new threats, firm always evaluate markets</td>
<td>The extended period, as it can change much now</td>
<td>Sales volume and staff, less demand for their products</td>
<td>Fewer sales, the new trade agreement</td>
<td>A slow UK economy could affect their sales</td>
</tr>
<tr>
<td><strong>Opportunities</strong></td>
<td>No opportunity, but can generate competitive advantage</td>
<td>No opportunities</td>
<td>No opportunity, but can generate competitive advantage</td>
<td>No opportunities</td>
<td>No opportunities</td>
<td>No opportunities</td>
</tr>
<tr>
<td><strong>Discourage</strong></td>
<td>Does not affect their business much</td>
<td>Become less hesitant to new customers, no efforts on the UK market</td>
<td>N/A</td>
<td>Only see a hard transition period, but it does not discourage them</td>
<td>N/A</td>
<td>No, same as before</td>
</tr>
<tr>
<td>Ambitions</td>
<td>Same as before, deliver to the customer</td>
<td>Same as before, delivered to their customers</td>
<td>Continue to trade and sell at the UK market</td>
<td>Same as before, as it is their main market</td>
<td>Stay on the UK market</td>
<td>Stay on the UK market</td>
</tr>
<tr>
<td>---------------------------------</td>
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</tr>
<tr>
<td>General risk approach</td>
<td>Yes, the firm relies on facts to minimize risk</td>
<td>Yes, the firms use different tools to handle risk and uncertainty</td>
<td>The firm has well-established policies towards risk</td>
<td>Yes, the firm makes a risk assessment to each market they are active on</td>
<td>Use credit insurance</td>
<td>Not to political uncertainty but for some areas</td>
</tr>
<tr>
<td>Specific risk approach due to Brexit</td>
<td>No, same as the general risk approach</td>
<td>No, same as the general approach</td>
<td>No, same as the general risk approach</td>
<td>Same risk assessment but more frequent</td>
<td>Same as the general risk approach</td>
<td>No</td>
</tr>
<tr>
<td>Strategy Change</td>
<td>No strategy change, same strategy to the market</td>
<td>No, same as before</td>
<td>No, change as continuous sales are included in a general strategy</td>
<td>Yes, Change their sale channels on the UK market</td>
<td>Yes, the firm look at other markets</td>
<td>No, might have to change some sales channels depending on the outcome</td>
</tr>
<tr>
<td>Outcome strategy</td>
<td>Strategize for a hard Brexit and continue to be active on the UK market</td>
<td>Continue trade as usual and do not treat the customer differently</td>
<td>Strategize for a hard Brexit</td>
<td>Plan for a hard Brexit, the strategy is depending on the outcome</td>
<td>Depending on the outcome</td>
<td>This will be formulated when the outcome is clear</td>
</tr>
<tr>
<td>Actions due to Brexit</td>
<td>Increased communication, Increased production to build security stock in the UK</td>
<td>Changes in invoice system, checked with a trucking firm to handle declaration</td>
<td>Made sure resources were in place to handle the increase administrative work, Increased communication with the customers</td>
<td>Started a new subsidiary in Ireland, Built up security stock, Increased activity on other markets</td>
<td>Increased activity on the UK market, Look at other markets</td>
<td>Built up stock, administrative change</td>
</tr>
</tbody>
</table>

Table 2: Summary of Empirical Data - Designed by the Researchers
5 Analysis

This chapter will provide an analysis of the empirical findings. The empirical findings will be analyzed with help from the literature review, where similarities and differences will be discussed. The outline for the analysis will follow the same structure as the empirical findings; International Business Environment, Perception of Uncertainty, Implications of uncertainty and Action and response

5.1 International Business Environment

Brexit impacts the Swedish forestry firms differently. Company X and Y have seen no real impact but rather potential impacts depending on the future, Arctic Paper might have to reduce their Swedish staff in the UK. Company Z has seen an unstable demand from their customers and Lessebo Bruk has had an impact on their sales. VIDA Woods, however, have identified that the largest impact on their firm is the unknown future. These are some of the impacts the firms have identified and it correlates to what Cherunilam (2010) describe on how the business environment impact firms in different ways, depending on the situation it can either pose as threats or opportunities for firm’s (Roa, 2010). The various impacts can be connected to how committed the firms are to the market, which presents different situations on the UK market for the firms. Depending on how much the UK market represent in turnover is an important aspect that affects the firm’s situation. The market commitment for the firms varies a great deal, from direct export with no market commitment to high commitment with a wholly owned subsidiary. Company X, Company Y and Lessebo Bruk can be described as having low market commitment. Furthermore, Company Y described how they do not believe that Brexit will affect their business much. While, Company Z, VIDA Wood and Arctic Paper all have subsidiaries in the UK and the UK are their main market, and therefore high market commitment. These firms all perceive Brexit to be a threat to their operations and how it might affect their turnovers. This relates to what Johansson and Vahlne (1977) describe of how a firm with high market commitment are more likely to perceive risk and uncertainty, high market commitment equals more resources spent on that market which affect the resources put on risk management positively. On the contrary to this statement, Company X has a low market commitment in the UK but still consider Brexit as something that the firm must respond to, even if the market commitment is lower than other firms. This relates to what Freel (2005) describes that the manager's perception of uncertainty is more important than the uncertainty itself, the managers at Company X might experience an uncertain situation in general and therefore evaluate and respond, even if their market commitment is low.

5.2 Perception of Uncertainty

Brexit has caused a very uncertain situation for the companies since no one knows what the outcome will be. The companies have varied approaches to the situation, not least
when it comes to the accumulation of information regarding the situation and the response to the information. Information is vital in the process to manage risk and uncertainty, in order to create strategies to mitigate the risk and uncertainty firms need to collect information about the problem (Louisot & Ketcham, 2014). Uncertainty arises from situations where it is hard to gather information, in order to analyze an outcome of a decision (Duncan, 1972). Half of the firms excluding VIDA Woods, Company Y and Lessebo Bruk had some type of group or task force that meet on a regular basis to discuss the implications of Brexit. It was prominent in the empirical findings that the firms that had regular discussions regarding Brexit also generated more analyzes surrounding the effects of Brexit. For instance, Arctic Paper, Company X and Company Z gave very developed answers in regard to the areas where Brexit affected them the most, which indicates that they have a more developed risk management within the firm. In contrast to Company Y who state that they do not believe they will be affected and has not taken any steps in implementing any task group and VIDA Wood explained that they will take more precautions to Brexit when they know the outcome. This displays a variety of risk maturity that Hillson (1997) describe in the Risk Maturity Model. The companies that have implemented a group to discuss and analyze the implications of Brexit have higher risk maturity compared to the other firms (Hillson, 1997; Hopkinson, 2010; Chapman, 2011). However, it is not clear that the risk maturity regarding Brexit is consistent throughout the rest of the firm. It is indicated in the empirical findings that the firm's value and gather of information to various extent which also provides evidence that the firms have different risk maturity. Furthermore, it could be understood that firms with more advanced risk management try to gather more information in order to asses the situation. According to Johansson & Vahlne (1977), uncertainty can be reduced by accessing as much information as possible about the situation. How firm perceived uncertainty is based on the information that is available and derived (Courtney et al, 1997; Carbonara & Caiszza, 2010).

As indicated in the empirical findings, the uncertainty the firms perceive vary depending on how they value and gather information. The firms that have invested more resources in order to analyze the situation and gather more information gave more developed answers on how Brexit affect them. This correlates to that more resources are allocated to markets and the firms are more aware of the threats (Johansson & Vahlne, 1977). However, Company X are risk-aware and have low market commitment which further strengthens the arguments from Liesch et al, (2011) that the manager's perception is an important aspect to consider and Freely’s (2005) arguments about individual perception. The companies have from the information they gathered, identified similar outcomes which would be either a hard Brexit or soft Brexit. This suggests that the companies work from the premises of level 2 - Alternative future, which refers to one or few outcomes of the uncertain situation (Courtney et al, 1997; Carbonara & Caiszza, 2010). However, if a soft Brexit would happen there would be a deal between the UK and the EU. This presents
level 3 - a range of futures since the deal could exclude or include other aspects. Courtney et al, (1997) describe level 3 uncertainty as a wide range of futures. The respondents have expressed that they do not know what will happen but they strategize and organize for a hard Brexit which would ensure that they are ready for the worst case scenario. The information the firms cannot gather is which of the outcomes that will occur, and this is identified as residual uncertainty (Courtney et al, 1997). Example the firms knows that Brexit will occur but do not how it will actually manifest and the actual unknown manifestation of the outcome is the source of uncertainty.

The firms have perceived the uncertainty in different ways which have led to them identifying different aspect where their business could be affected. By separating the uncertainty that is generated by Brexit and identifying areas where the firm is affected, it becomes possible to formulate strategic decision to respond to each area that is affected (Miller, 1992; Courtney et.al, 1997). Most firms have identified uncertainty on the administrative part of the businesses, however, the companies have come to that conclusion in different ways and the effects on the firms vary. Company Y has identified an increase in the preparations and administration regarding sales. Arctic Paper describe uncertainty in the administrative part of their business, whether they had enough resources to handle the increased work in that area and whether they had all the permits and information to continue trade with the UK. This indicates that Company Y and Arctic Paper experienced firm-specific uncertainty regarding the administrative part of the firm (Miller, 1992). The differences in the perception of firm-specific uncertainty are unique to each firm and confirm what Beckman et al (2004) argues about the this. Both Arctic Paper and Company X described that they are uncertain if the authorities in England have the right resources to handle the heighten management of documentation at the customs. Which displays general environment uncertainty regarding the governmental policy (Miller, 1992). The uncertainty regarding administrative work stems from general environment uncertainty more specifically policy uncertainty and is the result of the changing business environment such as trade agreements. The uncertainty regarding government policy changes increases trade restrictions and regulations (Miller, 1992) since the Brexit negotiations might prove to generate more restrictions and barriers for the firm. There is a possible change in how much it is required from exporters to continue trading with the UK which has led to uncertainty amongst the firms whether they have the required resources allocated to that area. However, Company Z and VIDA Wood explained that they possess the knowledge and the experience to handle this kind of uncertainty. The firms have various operations on the market which requires different administrative preparations, hence, the situation for the firms are different. The diverse operations lead to diverse impacts. Which corresponds to Cherunilam´s (2010) explanation of how the business environment influences firms differently.
All the firms have expressed uncertainty, in some way, regarding the increased difficulties with customs and borders in the UK. The increase in documentation could lead to a stall at the border which would disrupt the supply chain and delay their shipments. The supply chain would effectively not work as it usually, Arctic Paper and Company X feared that the high pressure on the border and harbors would increase difficulties in accessing transportation, increase costs and several other aspects. The response from the firms varies in order to mitigate the uncertainty regarding the potential increase of controls at customs. Additionally, the firms have increased the resources they allocated for administrative work. This displays that Brexit increased the administrative part of international trade and that it generates uncertainty both internally and externally for the firms. The uncertainty that the effect the firms internally can be described as firm uncertainty more specific as operating uncertainty (Miller, 1992). The external uncertainty can be viewed as general environment uncertainty (Miller, 1992), which generates physical barriers to transport goods. Consequently, some of the firms have identified uncertainty regarding sales. Likewise, this uncertainty manifest in different ways, the participants from Lessebo Bruk, Company Z and VIDA Wood expressed that during the negotiations of Brexit they have seen a decrease in sales. VIDA Wood and Company Z explained that this might be connected with the purchaser building up stock. The consequence of the uncertainty connected to the increased control and the possibility to export goods have led to a decrease in sales for the exporter. The change in sales volume can be described as uncertainty in the product market and refers to that the demand for the product has decreased due to the uncertain situation forcing purchasers to build up stock (Miller, 1992). The uncertain situation of Brexit creates uncertainty for the purchasers who want to ensure that their production can continue as usual and mitigate uncertainty, which is noticed by the Swedish exporters. However, as expressed by most companies they know that their product is highly demanded in the UK since the country lack their own production. They have not identified that their products can be substituted or replaced by other products. This indicates that the demand is still there. The uncertainty has led importers to secure that their production can continue by buying more products, effectively changing approach to how the buy goods by increasing the volume and security stock. VIDA explained that they due to the proximity and geographic locations between the UK and Sweden and the constant demand they can stay competitive and it is profitable to continue trading.

The continued demand for the product the Swedish forestry firms sell is due to the low production the UK have. The UK purchasers saw a potential increased difficulty in acquiring material for their production and this might stem from the uncertainty regarding the trade agreement. This is viewed as a general environment uncertainty and governmental policy changes (Miller, 1992). However, the effect trade agreements have on each firm vary, it is evident that all the firm prefer prerequisites. Furthermore, Company Z and Lessebo Bruk emphasize that it is crucial for their operations and the
profitability of the trade. The firms agree that a favorable trade agreement eases the process of export this connects to the uncertainty the firms experience in the administrative work. Limão and Maggie (2015) argue that a trade agreement can reduce uncertainties of trade and government policies, the potential loss of trade agreements consequently increase uncertainty on the market. The loss of trade agreements can be the factor of why the firms express administrative uncertainty. Several of the firms expressed that changes in the business environment can be seen as a threat to the firm competitiveness on the UK market since the playfield would be the same for every exported including exporters outside of Europe. Hence, creating an uncertain competitive situation. Beckman et al (2004) argue that competitive uncertainty can only arise from action by a rival if exporters outside of the EU can move in on the UK market with better offers. Both, Company X and Company Y described that trade agreement can be favorable from a competitive standpoint, but as global actors, the firms have knowledge about how to handle international trade without trade agreements. However, most firms brought up the potential loss of trade agreement with the UK, the loss will affect all EU firms the same and therefore a competitive uncertainty will not be possible in the EU. However, the situation invites competitors outside of the EU to become more competitive if a hard Brexit becomes reality. As the UK will stand outside the customs union the main threat for the Swedish firm on the UK market could be the North American firms.

As previously mentioned, VIDA Wood and Company X are not as dependent on trade agreements and argue that they have experience in trading without such agreements. expressed that if the trade agreements are the same for every competitor it would not hurt them to not have a trade agreement. This comparison displays that even if every firm are exposed to diminished prerequisites and heightened barriers it affects their operations differently. This can be explained with various reasons, Company X and VIDA Woods explained that they have what they believe is necessary experience in situations similar to Brexit such as trading with countries that do not have trade agreements and experience in the trade with the UK before Swedish membership in the EU.

The firms have individually experienced the uncertainty differently and this is prominent in the analysis. They have perceived and described general environment uncertainties, industry uncertainties and firm-specific uncertainties (Miller, 1992). The participant firms have approached the situation in different ways and analyzed the risks associated with their operations differently. The change of business environment has a varied effect on the firms and some are more dependent on favorable prerequisites the business environment than others. The changes in the business environment are less deterrent for firms which possess experience in international trade. However, there is common distress with the difficulty to predict the precise future of Brexit and the environment which the firms have to adapt to. Due to the product itself and the lack of production of such products in the UK the firms have not experienced any doubts in decreasing demand.
However, the UK importers have taken action in order to secure that their production continues as usual. This has led to that some of the firms have experienced a decrease in sales. The geographical location the domestic production of the goods work in favor for the competitiveness of the Swedish export and have generates a strong belief that as long as the trade continues to be profitable, they can with some adjustments still trade when the dust settles.

5.3 Implications of Uncertainty

The future has become less predictable as the outcome of Brexit is yet unknown, this is what Miller (1992) describes as an uncertain environment. The participating companies have identified various implications to their business due to Brexit. The uncertainty mainly implicates the supply chain and the promise to deliver goods to the customers. The uncertainty regarding the supply chain is a commonality for several of the firms but it implicates various aspects of the firms. Company X explained that the paramount threat they face is failing to deliver to their customers which would disrupt the core of the company. The consequences of failing to deliver could force their customers to slow down or shut down production. Company X explained that this is not a financial risk for them but a strategic risk, performing worse than the competitors could cost them the market shares they possess on the UK market. Company X has perceived uncertainties in the supply chain that ultimately can lead to a sale loss. Arctic paper has perceived similar effects but have divided the uncertainty into different categories and assessed the areas individually. The difference is highlighted in their assessment where Company X described uncertainty in the supply chain and Arctic paper describe uncertainty in different parts of the supply chain. However, Arctic Paper expressed concerns regarding additional cost due to the disruption in the supply chain. If the increase in barriers would turn the UK market into a nonprofitable market. However, the ultimate consequence is similar in the sense that the companies fear they might not be able to deliver products as promised and potentially lose sales. This implies that the firms have perceived an uncertainty from the business environment which affects the supply chain and ultimately their revenue, it also recognizes how uncertainty can be perceived in different ways (Liesch et al, 2011) and the importance of dividing the uncertainty in order to respond better (Miller, 1992). Company Y sees the uncertainty in a more lenient way seems to not express any distress about the situation they are presented to. However, the firms admit that it has taken more efforts and resources to assess the situation but the threats to the supply chain they have identified are not as unforgiving and they believe if they are not prepared enough, they can still manage. The difference between the firms is the way they conduct business in the UK and further indicates that market commitment affects the implications and the way firms asses uncertainty.

All the firms aspire to continue to trade with the UK if the trade continues to be profitable. VIDA Woods, Company Z and Lessebo Bruk have seen irregularities regarding sales.
Company Z expressed uncertainty in the possibility to continue selling the same amount of volume as they have done before. Furthermore, the uncertainty surrounding Brexit led to importers in the UK to build up stock and are therefore right now not in need to purchase as frequently as before which has affected the sales volume of company Z. The uncertainty regarding the input market refers to whether there are enough quantity and quality of materials for production on the market (Miller, 1992). It can be assumed that the decrease in sales is the result of the UK producers being uncertain if they can access enough quantity of raw material in order to keep up the production. Miller (1992) connects input uncertainty with uncertainty regarding the general environment such as trade agreements. There is a possibility that accessing material for production might become more difficult when the UK leaves the EU, the UK producers have opted to secure a certain amount of material in order to ensure that they can still produce goods. Brexit has generated uncertainty regarding the ability to access material for production for the UK producers which has spilled over to the Swedish exporter. This has indicated that Company Z might have to adjust the production rate and sales rate that are directed to the UK, which has led to uncertainty regarding the amount of personnel that works on the UK market. WIDA Wood has also seen a decrease in sales to the UK market and explained that due to every producer being uncertain they have built up a larger stock of material.

Lessebo Bruk explains that the main threat to their operations in the UK is the trade agreements that will manifest after the exit. The firm has expressed that the sales already have decreased and continued trade to the UK would be heavily dependent on the outcome of negotiations. The reason for the decreased sales can be connected to input market uncertainty the purchaser has tried to mitigate. Lessebo Bruk indicates that they have concluded that Brexit might force them to leave the UK market. This can be interpreted as the UK market has become less attractive and that the future returns from investment uncertain and withdrawal would be an option (Benito & Welch, 1997; Turcan, 2011). Company Y described that it is not up to them to leave, but rather their customers that decide that. If the customers believe the Swedish products will become too expensive due to duties and taxations, it is up to the customer to change suppliers. This correlates with what Duncan (1972) described how customers can affect the uncertainty, as the customers are in control of the demand. Further what Benito and Welsh (1997) argue that leaving a market can depend on the decrease in demand from customers. In relation to what Gupta and Maranas (2003) and Miller (1992) argue about demand uncertainty, none of these firms gave indications that the demand for their products will disappear on the UK market after Brexit. This shows that none of the four firms have identified a demand uncertainty due to Brexit. However, none of the firms gave indications on leaving the UK market voluntary if Hard Brexit becomes reality. These firms describe how the UK domestic production of raw material is very limited and therefore they see a continuous demand for their products. This explains why the firms trade with the UK in the first place.
and why they want to continue. The firms are aware of the demand for their product and since the demand is high there are profits to be made. The only indications of not continue trading with the UK is profitability. All the firms have expressed that their ambitions are to continue trade if the trade continues to be profitable and the surrounding cost does not become too high.

5.4 Action and Response
All the firms expressed that they have a general risk and uncertainty assessment for all their markets. None of the firms indicated that they have changed their approach to risk and uncertainty even if Brexit is a new source of uncertainty that has been ongoing for some time. However, Company Z described how the assessment of the UK market occurred more frequently compared to other markets. It can also be argued that the firms with Brexit task forces take this uncertainty more seriously as it can potentially have a large impact on their firms. However, neither of these firms expressed a clear change in risk assessments. Even if the approach to risk and uncertainty assessment has not changed due to Brexit, there is some evidence that Brexit has generated changes in the strategy.

Mintzberg et al (1998) claim that a business strategy provides a firm with consistency by focusing on efforts and setting directions. Furthermore, the business strategy facilitates a firm’s acknowledgment of the value they create and provide. Additionally, the business strategy lets firms recognize events that could destroy the value (Chapman, 2011). In order to protect the value firms create, they must respond to the uncertain business environment. In order to respond, they have to formulate a business strategy and take actions to mitigate uncertainty (Swamidass & Newell, 1987). The uncertainty regarding Brexit and the potential change in the business environment have affected the firm's strategy and differently. It is implied that two of the firms, Lessebo Bruk and Company Z have in some ways changed their strategy. Lessebo Bruk has started to look at other markets to secure more sales since the sales to the UK market have decreased. Company Z has changed its sales channel to the UK market in order to continue to sell goods at the same price as before. The other three firms have not expressed any strategy change but rather taken actions in order to fulfill their current strategy. However, all firms have stated that they have the same ambitions as before the referendum. What the firms have described is comparable to both the linear- and the adaptive strategy, the linear strategy refers to when a company use decisions, action or planning to achieve a goal (Chafee, 1985; Hart, 1992; Steyn 2004). The adaptive strategy includes a reassessment of their operations to ensure that the firm is in line with the current business environment by a continuously assess the internal and external conditions (Chafee, 1985; Hart, 1992; Steyn 2004). The adaptive strategy is more prominent in the firms that have in some way changed their business operation to match the changes in the business environment.
The firms have, as discussed previously, seen two outcomes for the future scenarios, either hard or a soft Brexit, an alternative future according to (Courtney et al, 1997) Company X, Y, Z and Arctic Paper have planned and taken action in accordance with the hard Brexit, to prepare them for the worst outcome. Their actions can be compared with the strategy posture adapter, meaning they act on a current business environment to be prepared when the scenario change on the market (Courtney et al 1997). VIDA Wood and Arctic Paper have expressed that they are waiting to see what actually happen before they take actions on the UK market. This is more similar to strategy posture reserving the right to play. This approach includes the element of minor investments and waiting for a more certain environment to take actions (Cortney et al, 1997). However, as the firms who are adapters have taken actions to the changes due to Brexit, have also expressed that now they are waiting to see the outcome to be able to finalize their preparations for the withdrawal of the UK. As neither of the firms indicates on wanting to be shapers on the UK market and set directions for the industry, the firm's actions have therefore not been big bets, which Cortney et al (1997) describe as large investments that might lead to if the outcome is not in line with the investments. Furthermore, all the firms have expressed that they have not seen any opportunity to arise due to Brexit. Firms that have a high risk-aware business culture can use it to gain competitive advantage and capture opportunities (Hillson, 1997). Evidently, the firms have not identified any opportunity in the changing business environment which can explain why neither of the firms is shapers on the market and invest in big bets. This indicates that the risk maturity of the firms is not fully developed. However, it important to emphasize that Arctic Paper and Company X describe that if they handle Brexit better than their competitors it can benefit them in the future. This implies that these firms have identified a way to gain competitive advantage through Brexit by gaining trust and reputation but does not consider it as an opportunity.

As evident in the empirical finding, all the firms have expressed uncertainty regarding issues of the customs at the UK border. The firms fear that this can potentially implicate their role as a supplier and affect the supply chain. The concerns included duties, time delay, access to transportation, full harbors, increased costs, and if the UK has sufficient resources to handle the increased documentation. These factors are the result of the changing prerequisites in the business environment due to uncertainty regarding governmental policy (Miller, 1992). They have responded differently, Company Z changed its sales channels in order to avoid the cost of exports which indicates a strategy change for the UK market. In contrast to Arctic Paper that has identified similar uncertainty and decided to wait for an outcome before they act.

The firms have indicated that they identified work from the premises of alternative futures, one or a few outcomes for the future (Courtney et al, 1997; Carbonara & Caiszza, 2010). This is further strengthened by the way the firms strategize for the future. It is
implied that the firms take actions that will pay off no matter on the outcome. For example, company Z decided to build up stock that will sooner or later be sold. In the worst case, hard Brexit, they would still be able to supply their customers and in the best case, soft Brexit, they would have to adjust their production and sell the excess stock first. This is something Company X and VIDA Wood also have done in order to honor their agreements with their customers and to mitigate the uncertainty regarding the supply chain. This can be compared to No regret moves, which refers to an action that is profitable and safe regardless of the outcome (Courtney et al, 1997). By building stock in the UK the firms ensure more flexibility during uncertainty for a period of time. This relates to what Tang and Tomlin (2008) describe, firms have to be flexible and adapt to market dynamics to reduce supply chain uncertainty and reduce the impact political factors have on the firm. The action of the firms has taken are similar to each other which demonstrate some indications that the firms imitate each other. Miller (1992) and Henisz and Delios (2004) describe that imitation is a way to mitigate uncertainty in the business environment and refers to competitors that take the same or similar action. In contrast to Company Y who expressed that they would not try to be more flexible in order to respond to Brexit since the way they operate would not allow them to build up stock without damaging other markets. This is also the case for Arctic Paper they have not taken any decision to build up stock even if they identified uncertainty in their supply chain.

Lessebo Bruk is the only firm that expressed their concern and prospect to be forced to leave the UK market due to implications that already are prominent, such as the loss in sales and the potential loss of a beneficial trade agreement. They have started to look at other markets as the uncertainty of the future returns are jeopardized by Brexit, this emphasizes a strategy change since the original idea was to continue exporting to the UK. This can be compared to what Benito & Welsh (1997) describe as strategic management of de-internationalization and what Miller (1992) describes as avoidance. The other firms have expressed that if the trade becomes non-profitable, they would consider to de-invest and look at other markets, however, they do not believe that will be necessary.

In order to mitigate the uncertainty in the administration, the firms have expressed that initiated closer cooperation with their customers and increased the communication. The reason for this was to ensure what was needed by them as a supplier in order to continue exporting as usual. Beckman et al (2004) argue that firms reduce uncertainty by gaining more knowledge from their network. The communication between the Swedish forestry firms and the UK customers was mainly about administrative necessities but also regarding the possibility for the Swedish firms to be flexible. For instance, Company X explained that they would be able to meet their customers demand as long as they were able to stay on the forecast. Company Y explained that they have more communication with their holier to ensure that they can take care of customs declarations. Arctic Paper has increased communication to secure that they are allowed to export goods from
Sweden to the UK and that their customers are allowed to import. Brexit generated uncertainty regarding the administrative part of the trade between the countries. This led the Swedish firms to increase communication in order to ensure everything is done correctly which imply that they have gained more control over their supply chains.
6 Conclusion

This chapter will draw conclusions from the analysis in order to answer the research question. The theoretical and practical implication will further be discussed and limitations to the study will be reflected upon. The chapter will be finalized with suggestions for further research.

6.1 Answering the research question

Changing business environments can create uncertainty, in this case, Brexit is the source for the uncertainty and the reason the business environment changes. The outcome and how the business environment will be changed is unclear due to the lack of information to a certain outcome, this generates uncertainty for firms active in the UK market. The Swedish forestry industry is important for the Swedish economic growth, they are also highly operative on the UK market as it is the most important trading partner. This indicates that the Swedish forestry industry firms must have recognized the uncertainty which generated the research question:

*How do Swedish forest industry firms perceive and respond to the uncertainty generated by Brexit?*

In order to answer the question of how firms respond to uncertainty, it is important to understand how uncertainty is perceived. The perceived uncertainty is what generates the response to the uncertain situation. The firms have perceived the uncertainty differently, they have perceived and described, General environment uncertainty, Industry uncertainty and Firm-specific uncertainty, from Miller (1992) framework of categories of uncertainties. The source for the uncertainty is Brexit and changes to the UK market that affect their operations in different ways. The most prominent uncertainty regards the supply chain, administrative resources and future sales due to changes in the prerequisites for trade. There are differences between how firms have viewed these categories of uncertainty and the difference is how the uncertainty affects their business operations. Furthermore, the research provides evidence that the identification of potential outcomes and the manager plays an important part in the perception. It also indicated that the effects of the uncertainty and how Swedish forestry firms perceive it, is dependent on information and how it is processed. The analysis shows how information can help firms reduce and contribute to a response in an uncertain situation. Firms that allocated resources to task forces perceived uncertainty in more areas of the business and could present a more detailed analysis of how they could be affected, these firms are more risk aware. The firms have categorized and divided the uncertainty in order to assess them separately and create specific responses for the specific area that is affected. These firms also have a higher market commitment or clarified that they highly value the market. Additionally, there is evidence that suggests that the experience in international trade and the type of operations the firms have on the uncertain market affects the way uncertainty is perceived. Firms with less market commitment have only experienced requirements to
change the administrative side of their business operations and do not believe that Brexit will affect their business in other ways. On the contrary, firms with high market commitment have identified several areas, including the administrative part, where Brexit can affect their firm. The commonality in the uncertainty is whether they are able to supply their customer as the supply-chain can be disrupted and potentially affect the firm’s sales. Additionally, due to changes in the prerequisites such as a potential new trade agreement, the firms are uncertain on how that will affect their supply chain rather than concerns about trade barriers. The demand for the products the firms export ensures them that as long as they can supply as usual, without disruption, they will be able to continue their operations. Therefore, how Swedish forestry firms perceive the uncertainty generated by Brexit is dependent on how the firm value the market, the resources they commit in order to collect information, their international experience and the internal risk management in the firm.

Furthermore, Brexit has mainly forced the firms to recognize the areas of the business that require a change in order to continue trade as planned. The firms have only seen a negative impact on the operations and their original strategy. However, two of the firms described that the challenge could be beneficial if they handle Brexit better than competitors, however, this is not the reason they respond. The responses to Brexit are not motivated by capturing new business opportunities, rather continue exporting and honoring their current agreements. This suggests that not all uncertain business environment generate opportunity or that the Swedish forestry firms are not able to identify opportunities on the market. It is clear that none of the firms aspire to leave the UK market due to Brexit, however, there are some indications that if the sales and the cost surrounding the sales are negatively affected by Brexit the firms would be forced to withdraw from the market. None of the firms have taken the strategic decision to leave the market before the outcome is clear and if they can see concrete effects. The firms have decided to endure and protect their operations during an uncertain time.

To be able to honor the current business agreement the firms have either changed their strategies for the UK market or only responded to the uncertainties they have identified. The main motivator for their response was to continue exporting to the UK when they leave the EU, the responses were either some change to the strategy or actions in order to continue the original strategy. The original strategy determinate the response, the firms that have taken actions have a set strategy and use actions to achieve the goal, and firms that changed parts of their strategy are more adaptive to the business environment. The responses were based on the assumption of a hard Brexit, the worst-case scenario. If the worst-case scenario did not happen the actions would have minor effects on the business operations and only for a short period of time. It is clear that the firms have only taken necessary precautions in order to mitigate the uncertainties in any of the outcomes, they played it safe. Furthermore, in order to create a response, the firms have increased
communications, prepared physically with warehouses on the UK market and analyzed internal processes and resource. It is not possible to conclude that the firms have imitated each other but the ultimate responses are similar. However, the process behind the responses is different. The firms have not created entirely new strategies to continue or develop their operation on the UK market. They are waiting for more information that can reveal the outcome and a business environment that is more certain.

6.2 Theoretical Implication
The uniqueness of Brexit and uncertainty it generates together with the Swedish forestry industry is an understudied field. The current research about Brexit mainly comprehends the political and economic implications rather than taking a firm perspective. This made it possible to identify a research gap. The subject is not only understudied but also very relevant since Brexit is still ongoing. The focus on the Swedish forestry industry was motivated by the importance of the industry to the overall economic contribution of the Swedish economy. This thesis contributes to a better understanding of how Swedish forestry industry firms perceive and respond to uncertainty. The specific subject contributes to the understanding about which factors that are important for firms when they asses an uncertain business environment in connection to Brexit. The thesis also highlights the importance of categorizing uncertainties in order to better respond to achieve the intentions for the market.

Furthermore, the thesis contributes to the understanding of the relation between the elements that create the process in order to respond to uncertainty. The process behind the response consists of the elements Perceived of the uncertainty that leads to the internal assessment in order to formulate a strategy to take actions and respond to the uncertainty. However, the findings highlighted the individual assessment and implications on the firms, which was the foundation for the response and not only the perception of uncertainty generates a response but rather how the perceived uncertainty affect the firm itself and their operations. Therefore, the authors of this thesis revised and updated the conceptual framework by adding another element that is important to regard in future studies, see figure 5. The added element, displayed in red, clarifies the importance of internal assessment of the uncertainty that is perceived, which generate responses only related to the specific firm and their future strategy.
6.3 Practical Implications and Recommendations

The conclusion creates the premises that in order to mitigate uncertainty created by Brexit, firms have to gain knowledge by collecting information and process it in correlation to how it affects them. The way Brexit affects firms is determined by the type of operation and how valuable the market is considered to be. Hence the implications are not the same for everyone. The approach to the situation has not changed the way the firm manages uncertainty and risk. The firms use a similar approach to Brexit as other sources of uncertainty. However, it is concluded that firms with high-risk awareness and developed risk management can gain more knowledge of how Brexit will affect them. Therefore, we recommend that firms should implement a risk-aware culture to be able to seize opportunities and manage uncertainties, as it would be beneficial for the firms.

Furthermore, this thesis contributes to the Swedish forestry industry and how they can approach Brexit in order to continue their operation on the UK market. The findings can be used as a tool in order to compare their actions with other firms and for managers to understand the process of behind the responses. The thesis can contribute and be applied to other similar industries that export to the UK and how they can approach the uncertainty of Brexit. Furthermore, the findings can contribute to other sources of uncertainty since the findings prove that Brexit did not warrant a different approach to risk and uncertainty management.

6.4 Societal Contributions

The thesis can also contribute to the understanding of how societal unrest can influence the international business environment and eventually how the international environment affects the domestic market by adapting to the new changes. The harbinger of Brexit is
the social unrest which led to governmental response to which affects industries that the domestic market is dependent on and how it ultimately can create consequences for the society.

The thesis contributes to an understanding of when firms are active on a market with political uncertainty and how it effects firms differently and how firms also respond in a different matter depending on how the uncertainty is perceived. The thesis highlights the importance of differences in the perception of a situation and how that can influence strategic decisions.

6.5 Limitation and Suggestions for future research
Several limitations were confronted by the authors during the composition of the thesis. Firstly, by limiting the sampling size to only six companies might affect the generalization of the findings to be applicable to the whole industry. Secondly, the criterions for the participating firms were that they were a part of the forestry industry and did not consider the goods they produce further obscure the generalization of the results. Thirdly, the research did not take the importer on the UK market in consideration when conducting this thesis. The perspective could generate a more accurate understanding of the implications and responses.

The limitations of the thesis are the motivation to the suggested further research. This thesis contributes to the previously unstudied area about how Swedish forestry firms perceive and respond to the uncertainties of Brexit. However, due to our limitations, future research is suggested to contribute to the field of study.

- *Investigate specific branches within the Swedish Forestry industry and how they perceive and respond to the uncertainty.* This would contribute to the understanding of the uncertainty and responses on a micro level and if it depends on the goods the firms sell rather than the industry perspective.

- *Investigate if there is a connection between the importer and exporter regarding the uncertainty that Brexit generates.* This can contribute to understanding how the changes in the business environment affect the actors on each end.

- Conduct a similar research with a quantitative approach that enables possibilities to generalize by using a larger number of cases or multiple industries. This would further contribute to the result of this thesis and find more similarities and differences
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**Journals**


**Websites**


Appendices

Appendix A – Swedish export of Forestry during the Greek financial crisis

Swedish export of forestry during and after the Greek financial crisis

<table>
<thead>
<tr>
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<th></th>
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<th></th>
</tr>
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<tbody>
<tr>
<td>Tree and Cork</td>
<td>321819</td>
<td>239977</td>
<td>173257</td>
<td>170619</td>
<td>127245</td>
<td>89098</td>
<td>82858</td>
<td>76191</td>
<td>83009</td>
<td>87143</td>
<td>88916</td>
<td>118857</td>
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<td>80244</td>
<td>83460</td>
<td>8045</td>
<td>68204</td>
<td>76144</td>
<td>105389</td>
<td>72249</td>
<td>10894</td>
<td>44373</td>
<td>30133</td>
<td>16926</td>
<td>29978</td>
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<td>Goods of tree or cork</td>
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<td>27385</td>
<td>24936</td>
<td>13779</td>
<td>8806</td>
<td>6178</td>
<td>3732</td>
<td>3535</td>
<td>3669</td>
<td>6799</td>
<td>12731</td>
<td>13812</td>
</tr>
<tr>
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<td>400871</td>
<td>624576</td>
<td>500443</td>
<td>517129</td>
<td>573497</td>
<td>393481</td>
<td>389409</td>
<td>351120</td>
<td>347547</td>
<td>502584</td>
<td>477992</td>
<td>473369</td>
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<tr>
<td>Total value</td>
<td>822917</td>
<td>975398</td>
<td>736681</td>
<td>769731</td>
<td>785692</td>
<td>594146</td>
<td>548248</td>
<td>441740</td>
<td>478598</td>
<td>626659</td>
<td>596565</td>
<td>636016</td>
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<tr>
<td>Change from previous year</td>
<td>119%</td>
<td>76%</td>
<td>104%</td>
<td>102%</td>
<td>76%</td>
<td>92%</td>
<td>81%</td>
<td>108%</td>
<td>76%</td>
<td>105%</td>
<td>94%</td>
<td></td>
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</table>
### Appendix B - Interview Chart

<table>
<thead>
<tr>
<th>Name of the firm</th>
<th>Branch of industry</th>
<th>Interviewees role in the firm</th>
<th>Date</th>
<th>Type of Interview</th>
<th>Duration</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Company X</strong></td>
<td>Pulp</td>
<td>Sales Director and Head of customer supply</td>
<td>April 30(^{th}) 2019</td>
<td>Telephone</td>
<td>45 minutes</td>
</tr>
<tr>
<td><strong>Company Y</strong></td>
<td>Fine Paper</td>
<td>Chief financial officer, CFO</td>
<td>May 6(^{th}) 2019</td>
<td>Telephone</td>
<td>30 minutes</td>
</tr>
<tr>
<td><strong>Artic Paper</strong></td>
<td>Fine paper</td>
<td>HR-Manager &amp; Head of Brexit taskforce</td>
<td>April 30(^{th}) 2019</td>
<td>Telephone</td>
<td>45 minutes</td>
</tr>
<tr>
<td><strong>Company Z</strong></td>
<td>Woods</td>
<td>Business area controller</td>
<td>May 3(^{rd}) 2019</td>
<td>Telephone</td>
<td>35 minutes</td>
</tr>
<tr>
<td><strong>Lessebo Paper</strong></td>
<td>Paper and Mass</td>
<td>Head of Sales and Marketing</td>
<td>May 2(^{nd}) 2019</td>
<td>e-mail</td>
<td>x</td>
</tr>
<tr>
<td><strong>VIDA Wood</strong></td>
<td>Woods</td>
<td>Marketing Manager</td>
<td>May 8(^{th}) 2019</td>
<td>Telephone</td>
<td>45 min</td>
</tr>
</tbody>
</table>
Appendix C - Interview Guide

General information
Company name:
Name of the Interviewee and position:
Industry branch:
Would you like to be anonymous?
Can you briefly describe the firm?

1. How large is the UK market at your firm?
   - A rough percentage is preferred,
   - Is it an important market for the firm?
2. What kind of business operations do you have in the UK?
   - To gain an understanding of how their business work

International Business Environment
3. How important are favorable trade agreements for your firm?
   - For example, the EU-single market,
   - Does trade agreement affect where in the world the firm export too?
4. Have you recognized any changes in the business environment due to Brexit?
   - For example, changes in demand, decrease in sales

Perception of uncertainty
5. How actively are you monitoring the negotiation between UK and EU?
   - For example, weekly, monthly?
   - To gain an understanding on how they work with information about Brexit
6. How would you describe your knowledge about Brexit?
   - To ensure we are interviewing a participant who can contribute to our study
7. Have you identified one or several outcomes for the firm’s current operations due to Brexit?
   - Example, hard, soft or medium Brexit outcome
   - Is there a clear favorable outcome for your firm?
   - Which outcome of Brexit would affect you the most? Positively or negatively
8. Do you work to mitigate the uncertainty surrounding Brexit?
   - If yes, in what way?

Implications of the uncertainty
9. Has the uncertainty regarding Brexit affected your current operations in UK?
   - If yes, what have you noticed?
   - If no, why do you think that is?
10. Have you identifies potential threats to your future operations in the UK?
    - For example: Less demand, duties, taxes
11. Have you identified any opportunities directly connected to Brexit?
• For example; have you gained any bargain power or identified new markets?
12. Does Brexit discourage your current operations in the UK?
• If yes, why?
13. Have your ambitions on the UK market changed due to Brexit?
• If yes, how?

Actions/responses
14. Does the firm have a general approach to risk and uncertainty?
• If yes, can you elaborate on what you do?
• Is this applied on Brexit too?
15. Does the uncertainty of Brexit generate a strategy change for the British market?
• If yes, what was that decision based on?
• If no, what is that based on?
16. Do you have one or several strategy approach to the different outcomes of Brexit?
• For example, Soft vs Hard Brexit
• What would change from your current strategy?
17. How do you implement the strategy?
• Have you experienced similar situations before?