



# Sustainability risk management in supply chains

A case study of Finnish companies

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Abstract for Master's thesis

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<p>Abstract:</p> <p>Sustainability has become an important topic of today's business environment. Stakeholders are more aware of the sustainability phenomenon and thus require companies to comply with their sustainability requirements. At the same time importance of supply chains has increased and competition between companies has switched rather to competition between supply chains. Supply chains are longer and the number of actors has increased which has made sustainability management more complex in supply chains. There is a vast number of sustainability risks in today's supply chains that can harm companies. Negative reports, loss of reputation, and losing competitive advantages are negative impacts that can be a result of realized sustainability risks in a supply chain. A company is often considered as sustainable as its supply chain. Therefore, companies are required to manage sustainability risks in their supply chains. In this thesis, a sustainability risk management framework is presented. In addition, various management tools are discussed to obtain a holistic view of how sustainability risks can be managed in supply chains.</p> <p>This thesis discusses how Finnish companies manage sustainability risks in supply chains. The three case companies which are Kesko, UPM, and Neste have been chosen from the 2020 Global 100 ranking and thus represent some of the most sustainable companies in the world. The case companies are analyzed with help of a framework that is presented in previous literature. The analyzed data consists of companies' reports and other information from their websites. In addition, reports from NGOs are utilized to obtain an objective perspective of the phenomenon. The NGO reports demonstrate that the case companies have had sustainability issues in their supply chains which is a prove of how difficult it is to manage sustainability risks, especially in long supply chains.</p> <p>The main result of the empirical study is that the case companies have clear frameworks to manage sustainability-related risks in supply chains. The companies utilize similar steps that include the framework that is presented in the literature review. In addition, they have similar tools to manage sustainability risks such as code of conduct, certificates, and supplier development. However, even the case companies have clear operations in sustainability risks management, they have to further develop their processes. Sustainability risk management in supply chains is a constant loop where new risks might occur. Therefore, companies are required to monitor their processes and try to find ways how to improve practices.</p>	
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## Table of content

1.Introduction .....	1
1.1 Problem area.....	1
1.2 Purpose and research questions.....	3
1.3 Limitations.....	4
1.4 Method .....	4
1.5 Disposition .....	5
1.6 Definitions and key concepts.....	6
1.7 Chapter summary.....	6
2.Literature review.....	8
2.1 Characteristics of sustainable supply chain management.....	8
2.2 Supply chain risks.....	12
2.3 Sustainable supply chain risks.....	13
2.4Chapter summary .....	19
3.Sustainability Risk Management.....	20
3.1Risk identification.....	21
3.2Risk assessment and analysis.....	22
3.3Risk treatment .....	24
3.4 Risk monitoring and control.....	35
3.5Chapter summary .....	36
4.Method .....	38
4.1 Choice of research method.....	38
4.2 The chosen case companies.....	39
4.3 Data collection .....	40
4.4 Data analysis .....	41
4.5 Reliability and validity of the research.....	42
4.6 Chapter summary.....	44

5.The case companies .....	45
5.1 Kesko .....	45
5.1.1 Risk identification.....	46
5.1.3 Risk treatment.....	49
5.1.4 Risk monitoring and control.....	53
5.1.5 A different outlook of sustainable performance .....	54
5.2 UPM .....	56
5.2.1 Risk identification.....	57
5.2.2 Risk assessment and analysis.....	58
5.2.3 Risk treatment.....	59
5.2.4 Risk monitoring and control.....	62
5.3 Neste .....	64
5.3.1 Risk identification.....	66
5.3.2 Risk assessment and analysis.....	66
5.3.3 Risk treatment.....	67
5.3.4 Risk monitoring and control.....	72
5.3.5 A different outlook of sustainable performance .....	73
5.4 Chapter summary.....	75
6.Results.....	76
6.1 Risk identification.....	76
6.2 Risk assessment and analysis.....	78
6.3 Risk treatment.....	79
6.4 Risk monitoring .....	79
6.5 Misconducts .....	80
6.6 Chapter summary.....	80
7.Discussion .....	82
7.1 Risk identification.....	82
7.2 Risk assessment and analysis.....	83

7.3 Risk treatment.....	83
7.3.1 Code of conducts .....	84
7.3.2 Certificates .....	85
7.3.3 Supplier evaluation and selection.....	86
7.3.4 Supplier development and collaboration .....	87
7.4.5 Closer to the suppliers .....	89
7.5 Risk monitoring and control.....	90
7.6 Critique towards sustainability listing.....	91
7.7 Chapter summary .....	91
8. Conclusion.....	93
8.1 Research questions .....	94
8.1 Limitations and future research.....	96
8.2 Chapter summary .....	97
9. Summary in Swedish .....	99
9.1 Introduktion .....	99
9.2 Litteraturöversikt .....	100
9.3 Hållbarhetsriskhantering.....	101
9.4 Empiri .....	104
9.5 Resultat .....	105
9.6 Diskussion .....	106
9.7 Slutsats.....	107
10. References .....	111

# 1.Introduction

## 1.1 Problem area

Company evaluation criteria have expanded from the traditional measurements, such as balance sheets and income statements to sustainability, which has gained increasing attention and affected companies' overall presentation. Its impact extends to companies' core functions, in addition to which the companies' various stakeholders, such as suppliers, are evaluated. This, in turn affects the purchasing company evaluation. Concurrently, the responsibility of companies has extended from organizational boundaries to cover broader relationships in supply chains. (Shafiq et al., 2017) Environmental, social, and economic sustainability issues are among the major challenges organizations face today. These three dimensions form the sustainability pillars (Xu et al., 2019).

Supply chains cause various risks for companies from the sustainability point of view. According to Multaharju (2016), many of the environmental and social sustainability risks are caused by upstream suppliers. Therefore, managing sustainability risks in supply chains have an important role in the entire sustainability management of a firm and understanding and managing sustainability risks in supply chains are necessary for companies. Avoiding negative reports, loss of reputation, and therefore losing competitive advantage are among the objectives of implementing sustainable actions in supply chain management (Freise & Seuring, 2015). Other risks can relate to violations in labor conditions, greenhouse gas emissions, and corruption in supply chains (Altura et al., 2019).

Sustainability risks in supply chains can damage companies in various ways. Protection of corporate reputation is seen as one of the strongest drivers for implementing and maintaining sustainable supply chain management practices. Negative media attention and boycotts can harm corporate reputation and impact company revenues negatively. (Hoejmose et al., 2014) Supply chain interruption, legal and financial costs, as well as penalties can be results of boycotts (Giannakis & Papadopoulos, 2016). Pressure and expectations towards companies steer sustainable supply chain management. External pressure is seen as the major actor of risk

awareness in supply chain management. Regulatory bodies highlight the importance of environmental aspects, whereas the social aspect is emphasized by the stakeholders. (Foerstl et al., 2010)

Supply chain sustainability risk management is a combination of three actions: supply chain management, sustainability management, and risk management. Managing sustainability-related risks in supply chains aims to impact all three sustainability categories of a company. (Valinejad & Rahmani, 2018)

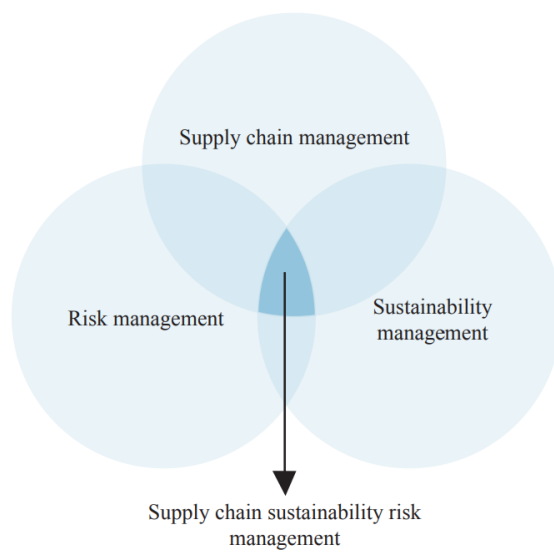


Figure 1. Supply chain sustainability risk management (Valinejad & Rahmani, 2018).

## 1.2 Purpose and research questions

Awareness of sustainability among various stakeholders has increased and will continue to do so in the future. Shareholders' attitudes toward sustainability can have a significant effect on the operation of a company.

Supply chains have a significant impact on the sustainability level of a company, and it is difficult or even impossible for a company to be sustainable if its supply chains have limitations in sustainability. Due to the importance of supply chains, the risks they pose for companies may be significant. If a supply chain risk is realized, the stakeholders' reactions can have far-reaching negative consequences and therefore, companies have begun to emphasize sustainability risk management in their supply chains.

This thesis aims to obtain a holistic view of how Finnish companies manage sustainability-related risk in their supply chains and how they are prepared for the future. To obtain a comprehensive view of sustainable supply chain management in the chosen companies, the thesis examines the subject from three perspectives. One of the research questions is theoretical, two empirical and the last question is normative.

*Theoretical: Which kinds of risks are there in sustainable supply chain management?*

*Empirical: Which kinds of challenges are there to manage sustainability risks?*

*Are there differences between industries in how sustainability risks are managed?*

*Normative: How can companies improve their sustainability risk management in supply chains?*



### 1.3 Limitations

This study examines Finnish public companies that are among the 100 most sustainable companies in the world, according to Corporate Knight's 2020 list. The case companies were chosen on the basis of their success in sustainability operations. This enables obtaining a broad image of how advanced and generally sustainable recognized companies implement sustainability practices and thus, manage sustainability risks in their supply chains. The chosen case companies are Finnish but have international activities and therefore the results can be expected to be valid internationally. The discussion is mainly related to the companies' operations in 2019. However, activities of previous years will also be taken into account, such as challenges in sustainability management in supply chains.

Two out of three sustainability dimensions are taken into account: environmental and social. Economical dimension is not considered. According to UNDP (UNDP, sustainable procurement), sustainable procurement can be defined as a procurement that has lowest environmental impact and most positive social results. Since this definition emphasizes only environmental and social dimensions, this master's thesis focuses on these two dimensions only.

### 1.4 Method

The empirical part of this study is a qualitative case study where the case companies will be examined. The case companies operate in various business sectors. The chosen method and the diversity of business sectors enable the generalization of the results. The empirical research are based primarily on companies' data which is supplemented with data from various NGOs. This enables a more holistic view about sustainability risk management and misconducts are taken into account.

## 1.5 Disposition

The thesis is divided into six chapters. In the first chapter, the master's thesis is introduced. A general overview of the thesis is presented, the aim of the thesis and research questions are discussed. In addition, chosen methods are briefly introduced and key concepts are defined.

The second and third chapters comprise the literature review. The second chapter discusses sustainable supply chain management and various risks in supply chains. Both ordinary and sustainable supply chain risks are described in the chapter. In the third chapter, the framework of the master thesis is introduced. Sustainability risk management is discussed more specifically. Thereafter, a sustainability risk management framework is introduced, which is the core of the empirical phase of the thesis.

The method phase is discussed in the fourth chapter. The chosen method is introduced and justified and the analysis phases are also described.

The fifth chapter consists of the empirical analysis of the case companies. The analysis is based on the sustainability risk management framework which is discussed in the third chapter. The case companies are examined individually, and at the end of the chapter, the analysis is concluded.

The conclusion of the master thesis is the last chapter. The research questions are answered and future research is suggested.

## 1.6 Definitions and key concepts

Sustainable development: “Development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (Brundtland 1987, 37).

Supply chain: Is a combination of product life-cycle processes that consist of various flows such as physical, information, financial. The aim is to fulfill end-user requirements with a product or a service. (Ayers & Odegaard, 2017)

Sustainable supply chain management: “Strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes for improving the long-term economic performance of the individual company and its supply chains” (Carter & Rogers 2008, 368).

Risk management: This is a combination of preparing to face various risks (pre-risk-management phase) and to face their consequences (post-risk-management phase) (Valinejad & Rahmani, 2018).

## 1.7 Chapter summary

Importance of sustainability has increased in today’s business. This has affected companies’ supply chains and thus supply chain management. Different sustainability dimensions can cause risks for companies and their supply chains. Risks can have vast consequences from negative reports to loss of reputation. Therefore, companies focus on sustainability risk management in their supply chain operations. Supply chain sustainability risk management combines three different dimensions: supply chain management, sustainability management and risk management. This enables to manage sustainability-related risks in supply chains. The aim of the master’s thesis is to obtain a holistic view of how Finnish companies manage sustainability risks in their supply chains. The empirical study is a qualitative case study where three case companies will be examined. To obtain an extensive view about phenomenon there are four research questions. One is theoretical, two are empirical and the last one is normative. Theoretical question is: “*Which kinds of risks are there in sustainable*

*supply chain management*”, empirical questions are: “*Which kinds of challenges are there to manage sustainability risks*” and “*Are there differences between industries in how sustainability risks are managed?*”, normative question is: “*How can companies improve their sustainability risk management in supply chains?*”.

## 2.Literature review

The literature review will discuss previous research on sustainable supply chain management, supply chain risks, and sustainable supply chain risks. Thereafter, a framework for managing supply chain risks will be introduced, and different sustainability risk management tools will be discussed.

### 2.1 Characteristics of sustainable supply chain management

General opinion today is that companies are fully responsible for their product and services, even though these would be out of their direct control most of their lifetimes (Savitz 2013). Supply chain management provides a great opportunity to put the strategic goals of sustainability into practice. Sustainable supply chain management is seen as the frontline of sustainability in business. (Meixell & Luoma 2015)

Supply chain management can be described as the design and management of flows that consist of products, information, and funds. Flows go through networks, including production and delivery of final products to the end-users. (Wood, 2014) According to Lambert (2008), supply chain management encompasses key business processes from original suppliers to the end customer. The value created for customers and other stakeholders thus passes through an entire supply chain.

Supply chains consist of different stakeholders from multi-tier suppliers to customers, who are often situated in different locations. Efficiency, timeliness, and stability are important business performance measurements in supply chain management, but these are supplemented with sustainable performance (Xu et al., 2019). Sustainable supply chain management is a broader definition of supply chain management. All three sustainability dimensions are considered. Carter and Rogers (2008) define sustainable supply chain management as: “Strategic, transparent integration and achievement of an organization’s social, environmental, and economic goals in the systemic coordination of key inter-organizational business processes for improving the long-term economic performance of the individual company and its supply chains”.

All three sustainability dimensions are considered in decision-making. The aim is to analyze processes and minimize the possible negative impacts. Labor rights, chemicals in products, CO<sub>2</sub>, or the water footprint of a product are examples of issues that might arise or be influenced at any point of a supply chain and by any of the actors. (Kogg & Mont, 2012) Hence, companies should pay attention to all phases of a supply chain where sustainability risks can be reduced. Increased transparency requirements of the supply chain and source of end products are some of the factors that affect brand and image value, as well as reputation risk.

Social dimensions of supply chain management focus on the utilization and management of labor from the suppliers' side, whether for raw materials, goods, or services. Poverty wages and dangerous labor conditions are common factors that interest global supply chain managers when supply chains are planned. (Wood, 2014)

The environmental dimension in supply chains considers energy savings, reducing pollution and waste, and ensuring the health and safety of consumers (Lintukangas et al., 2015). A company's capability to act in an environmentally sustainable way can be measured by how well it manages environmental aspects, for example by pollution controls and prevention, management systems for the environment, environmental competencies, and improvement measures. (Winter & Lasch, 2016). Environmental problems, such as pollution and discharge of waste, have a high probability of causing a risk to the brand and hence undermine a firm's reputation. Therefore, companies focus more on environmentally friendly products and the requirements at all manufacturing stages in all industries are becoming stricter. (Lintukangas et al., 2016)

The various factors that influence companies' sustainable supply chain management can be divided into two parts: internal and external. The internal factors include top management vision, customer demand, and suppliers' initiatives, whereas external factors consist of regulatory requirements, stakeholder actions, and the nature of the business, as well as competitors. (Ageron et al., 2012) Hollo et al., (2012) mention the importance of customers' preferences for sustainability in supply chain management. Understanding the customers' expectations towards sustainability objectives can be used in the strategic orientation of a firm. Sustainability practices as part of strategic orientation may lead to a more comprehensive sustainable supplier co-operation that

can improve sustainability actions even more. However, sustainable supply chain management challenges companies. According to Giunperot et al., (2012), organizations have difficulties balancing the need to satisfy stakeholders' short-term profit goals against sustainability goals in the long term. Hence, organizations should focus on understanding the expectations of their most important stakeholders and then satisfy their needs. This enables them to avoid and allay risks in their sustainable supply chains.

Sustainable supply chain management consists of different aspects and can be done in various ways. There are differences between companies and industries. Different sustainability dimensions are emphasized depending on the industry (Juetner et al., 2020). Hallikas et al., (2002) allege that protecting reputation in some industries is more substantiated than in some others. The Chemical, pharmaceutical, oil, and gas industries focus on environmental issues (Rebs et al, 2018). According to Winter and Lasch (2016), in the fashion and clothing industry, social criteria are more commonly used compared to environmental criteria. In addition, they state that environmental and social issues are seen as more significant in the food industry compared to the engineering industry. Stekelorum et al., (2020) claim that the transportation industry is more interested in environmental dimensions because it is one of the most significant contributors to carbon emissions. The social dimension is in its infancy and hence is not as developed in sustainable supply chain management.

Companies should analyze which of the sustainability dimensions they can affect the most and make decisions based on these analyzes. It has been found that firms in B2C pay more attention to sustainability than in B2B market. Even though B2C companies would have a closer review for sustainable supply chain management the networks of supply chains affect also B2B companies. In order for a supply chain to be sustainable, all the actors need to implement sustainable practices. Consumer expectations and demands are passed on to B2C firms who further pass these down the supply chain to B2B firms. (Hoejmose et al., 2014) Communication between partners is key because it facilitates to have partners on the same level. Understanding the expectations of stakeholders helps companies fulfill their requirements but communicating about sustainable supply chain management towards stakeholders enables stakeholders to have a better understanding of why certain actions have been implemented.

Sustainability supply chain management challenges all companies regardless of size and resources. Every year there is announced Top 25 supply chains in the world by Gartner. The list is based on various supply chain practice parameters. Companies such as Apple Inc. and Unilever are two companies that consistently top the charts in the list. Despite their practice in the supply chain and success in the Top 25 list, both companies face challenges related to sustainability issues in their supply chains. iPhone factories have been at the center of attention for riots and suicides at their supplier factories. Unilever has received bad publicity because their suppliers have released toxic mercury into human settlements. (Gouda and Saranga, 2018) These examples show that even though organizations obtain credit from supply chain actions and are seen as forerunners in sustainable supply chain management, it is difficult to avoid all the challenges that might occur in a supply chain.

Lack of information is seen as one of the challenges that affect sustainable supply chain management. It is difficult to obtain sufficient information from all stages in a supply chain. For instance, following the cotton back from stores to the farms is almost impossible (O'Rourke, 2014). When information is deficient, there is a greater chance of various risks that can damage the company. Therefore, sustainable supply chain management is a challenging task, but it is required to ensure that production has been done in a way that will satisfy the key stakeholders. Besides, it is important to follow the process in companies and further develop practices for a more sustainable way.

Sustainability practices in supply chain management have been focusing more on environmental aspects than social and economic ones. The social aspect has received less attention due to the difficulties in its assessment. It has been challenging to discover suitable approaches to assess social-related actors in supply chains. (D'eusanio et al., 2019) Companies struggle to define, realize, and plan social issues. It is difficult to realize the competitive benefits that this might have for companies. (Klassen & Vereecke, 2012) The importance of different sustainability dimensions' risks differ from others'. Social-related risks are seen as "slightly lesser risks" than economic or environmental. However, social and environmental risks are seen more frequently in the media. (Giannakis & Papadopoulos, 2016) Therefore sustainable supply chain management can be used as a tool for managing risks.



According to Olson (2014), there are two types of risks in supply chains: operational risks and disruptions. Customer demand, supply, and cost consist of operational risks whereas various disasters such as floods and hurricanes, terrorist attacks and wars, currency reevaluations, and strikes. Risks can be divided into ordinary and sustainability-related risks, both of these should be taken into account in supply chain risk management. Supply chain disruptions trigger ordinary supply chain risks. The disruptions can hinder the flow of goods, financial resources, and services. The difference between the ordinary and sustainability-related risks is that stakeholder reactions arise from sustainability-related risks. Organizations should focus equally on both triggering mechanisms. If only ordinary risks are focused on, there is a high risk that sustainability issues are not noticed or are underestimated. (Hofmann et al., 2014)

## 2.2 Supply chain risks

Irregular and unpredicted events can have negative effects on supply chains. When organizations consider supply chain risk-management programs, responding to irregular events should be included in the processes. Drake, 2012) Supply chain risk can be defined as “the possibility of unpredictable events resulting in negative consequences for the firm under investigation in a supply chain” (Hajmohammad & Vachon, 2016). Zsidisin (2003) defines supply risk as “the probability of an incident associated with inbound supply from individual supplier failures or the supply market occurring, in which its outcomes result in the inability of the purchasing firm to meet customer demand or cause threats to customer life and safety”. Faisal (2009) classifies risks in supply chains into two parts: risks arising from the supply chain network and external risks to it.

While globalization enables companies to obtain benefits from the markets, it also poses problems for companies. Thun and Hoening (2011) state that globalization is seen as the biggest driver for supply chain risks. When there is an increased number of actors in a supply chain, companies have less power to control the whole chain. Globalization has increased the length and complexity of supply chains, which has been identified as one of the major challenges for supply chains. Because of the complexity of supply chains, risks can be multidimensional, making it difficult to

prepare for them. However, often reward and risk go hand in hand. Although minimizing different risks is important in supply chain management, companies need to be prepared to take some level of risk.

There is a plethora of different supply chain risks companies face. According to Christopher et al., (2011) global sourcing risks can be divided into four different categories: Supply risk, such as supply disruptions and reliability risks; environmental and sustainability risk, such as fluctuation in interest rates and carbon emissions in the supply chain; process and control risk, such as inefficiency in supply teams; and demand risk, e.g. variations in demand and uncertainty in the market.

There are multiple supply chain risk sources, therefore supply chain risk management can be implemented in various ways. Thun & Hoenig (2011) state that supply chain risk management consists of two instruments, preventive and reactive. Cause-related measurements are preventive instruments. Preventive instruments enable the reduction of the likelihood of risk occurrence. Whereas reactive instruments aim to mitigate the negative impact of risks that have realized. It is necessary to have both kinds of instruments in risk management, since not all of the risks can be prevented but mitigation is possible

### 2.3 Sustainable supply chain risks

Hofmann et al., (2014) define a sustainability-related risk as “a condition or potentially occurring event that may provoke harmful stakeholder reactions”. Giannakis and Papadopoulos (2016) define sustainability-related supply chain risk as “a sustainability risk within a focal firm’s supply chain”. Sustainability-related risks in supply chains have also been defined as increased vulnerability in a chain due to the negative impacts of sourcing on economic, social, and environmental sustainability (Christopher et al., 2011). Sustainability-related risks differ from the traditional risks in that they might trigger severe stakeholder reactions that may affect the firm negatively without causing supply disruptions. Therefore, considering sustainability-related risks aims to deal with the negative effects on the stakeholders. Alluding to Xu et al., (2019) environmental risks are easier to manage by a company’s actions whereas social risks are more difficult as social factors are seen as exogenous. Social risks

depend largely on local socioeconomics conditions. Therefore, society and governance have a large impact.

According to Busse (2016) supply chain sustainability risks can cause not only financial costs that are actual monetary costs but also opportunity costs where lost revenues cause unrealized profits. For instance, environmental risks in supply chains can be related to violations of laws and regulations that can lead to financial losses resulting from fines (Valinejad & Rahmani, 2018). Boycotts which can occur due to loss of reputation are common, and customers can cancel their orders because of the issues. Sustainability issues in a supply chain might undermine companies by lowering the value of the brand, decreasing sales, and thus affecting shareholders' profit. (Lintukangas et al., 2016) Supplier sustainability risks are associated with a reduction of 1,00 percent in shareholder value (Kim et al., 2019). Sustainability risks can disrupt supply chains. Examples such as demonstrations and roadblocks can be results of a sustainability risk that can lead to financial losses. (Hajmohammad & Vachon, 2016) Previous examples show that sustainability-related risks in supply chains can affect companies comprehensively and can have unpredictable outcomes.

Hofman et al., (2014) categorize sustainability-related risks into three different aspects. Social issues include working conditions and compensation. Child labor is seen as one of the most pressing social risks due to its severity and the difficulty to detect it (Giannakis & Papadopoulos, 2016). Ecological issues include input-related and production output-related aspects. Input-related aspects are such as energy consumption and utilization of resources whereas emissions and recycling are among production output-related aspects. Giannakis and Papadopoulos (2016) highlight natural disasters, greenhouse gas emissions, and pollution as the most important sustainability risk factors. The third issue is the so-called ethical business conduct. Corruption and business connections can be linked among them.

Sustainability related risks in the supply chain differ from traditional risks, such as disruption from the specific materializing mechanism point of view. Disruption in a supply chain might hinder the flow of goods, financial resources, or services whereas supply chain risks related to sustainability issues are triggered by stakeholder reactions. (Hofmann et al., 2014) According to Valinejad and Rahmani, (2018)

sustainability-related supply chain risks that focus on the social and environmental aspects can be risks that organizations have not considered but can damage the social image, lucrativeness, competitiveness, and sustainability in supply chains in the long run. Some risks related to supply chains can be operational-related and sustainability-related at the same time. For instance, a chemical accident happens at a manufacturing plant, it might affect the distribution of the chemical and at the same time provoke stakeholder reactions. (Hofmann et al., 2014)

Sustainability-related risks in supply chains do not only consist of reputational losses or stakeholder pressure. These risks may also affect the operational side of the buying company. For instance, a buying company might face an unexpected shortage of critical materials if its supplier has to shut down because of an accident. (Vachon & Klassen, 2006) Christopher et al., (2011) claim that besides reputation effects, environmental issues might increase the costs of a company. Hallikas et al., (2020) insist that sustainable purchases mitigate operational supply chain risks that occur due to disruptions. Sustainable purchasing practices allay risks such as product availability, delayed orders, and supplier bankruptcy. Hence implementing sustainable supply chain management practices enable not only managing the buyer company's reputation but to avoid operational damages.

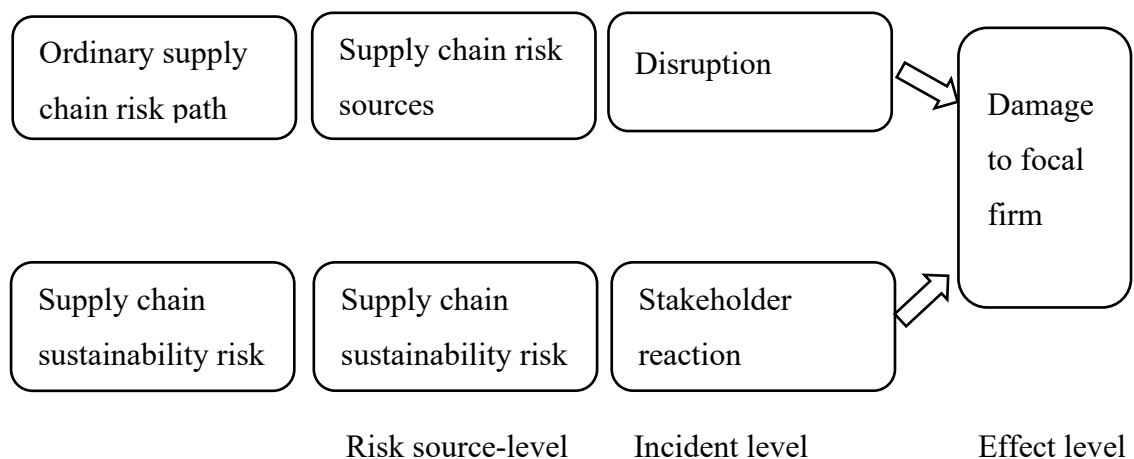


Figure 2. Ordinary and supply chain sustainability risks (Hoffman et al., 2014).

Risks can be divided into two parts: internal and external. External risks are risks that are out of firms' control and internal risks can be defined as the risks related to the management of the supply chain. When planning external risk management, plans should focus on reducing the size of the negative impact. Risk mitigation strategies among internal risks should focus on identifying the core of the risks and preventing the risk from realizing by deriving control or coordinating mechanisms. (Kouvelis et al., 2011) Giannakis and Papadopoulos (2016) state that internal (endogenous) risks are more important compared to external (exogenous) risks because internal risks occur due to the actions or inactions of a company or its suppliers.

External risks are often more unpredictable and thus more difficult to manage compared to internal risks. Not all of the risks can be managed and thus companies should be able to prioritize what are the most critical risk and how these challenges can be managed. It is more useful to concentrate on risks that are more probable and prepare to face these challenges. Even though there is a large number of different aspects of sustainability companies do not pay attention to all of them. For instance, in the fashion industry internal social aspect is significantly more important compared to the external social aspect. It is suggested that the reason why internal social aspects are seen as more important compared to the external aspects, is that external aspects go beyond the legal minimum, and in addition, it is more difficult to gather information from the external aspects. Regardless, environmental and social sustainability aspects are vital in the supplier evaluation process. Criteria such as no child labor, health and safety practices, and the existence of a wastewater treatment system must be fulfilled by a supplier to have a contract. (Winter & Lasch, 2015).

Environmental	
Endogenous	Exogenous
<ul style="list-style-type: none"> <li>• Environmental accidents</li> <li>• Pollution</li> <li>• Non-compliance with sustainability risk</li> <li>• Energy consumption</li> <li>• Excessive or unnecessary packaging</li> <li>• Product waste</li> </ul>	<ul style="list-style-type: none"> <li>• Natural disaster</li> <li>• Water scarcity</li> <li>• Heatwaves, droughts</li> </ul>

Environmental related sustainability risks in supply chains.

Social	
Endogenous	Exogenous
<ul style="list-style-type: none"> <li>• Excessive working time, work-life imbalance</li> <li>• Unfair wages</li> <li>• Child labor / forced labor</li> <li>• Discrimination</li> <li>• Healthy and safe working environment</li> <li>• Exploitative hiring policies</li> <li>• Unethical treatment of animals</li> </ul>	<ul style="list-style-type: none"> <li>• Pandemic</li> <li>• Social instability</li> <li>• Demographic</li> </ul>

Figure 3. Social related sustainability risks in supply chains (Giannakis and Papadopoulus, 2016).

Identifying different sustainability-related risks at the suppliers' end, evaluating them, and elaborating suppliers' capabilities in sustainability practices are examples of how organizations can ensure that suppliers follow sustainable practices. The practices aim to help increase awareness and enhance sustainability practices at the suppliers' end. (Gouda and Saranga, 2018) According to Hojmosse et al., (2014) the whole organization and supply network entirely needs to adopt sustainable supply chain management practices to mitigate reputational risks. Customers are more aware when "greenwashing" is easier to reveal. The negative impact will follow greenwashing which is why organizations should turn responsible supply chain management into concrete actions. "Greenwashing" is easier to prevent, if risks are viewed comprehensively.

There are various methods to manage sustainability risks in supply chains. Hajmohammed and Vachon (2016) determine four separate strategies in sustainability risk management strategies: risk avoidance, monitoring risk mitigation, collaboration-based risk mitigation, and risk acceptance. Risk avoidance aims to drive the risk event probability to zero. It can be done by removing the source of the risk. Hofmann et al., (2014) framework for managing sustainability-related risks in the supply chain consists of four different functions: stakeholder involvement, a translator, supplier management, and stakeholder management. The functions supplement the traditional supply chain risk management. With the help of the framework, companies can integrate stakeholder management into risk management. This can be done by convening stakeholders' expectations to the supply side. Stakeholder involvement entails identifying the most important stakeholders for the specific business environment. Stakeholder involvement provides companies stakeholders' preferences, perspectives, and criteria on potentially critical issues related to their supply chains. Processing the stakeholder expectations can be done with the translator function. After expectations are known these are explicated into assessment criteria. Seuring and Freise (2015) state that pressure and incentives from stakeholders are the main drivers in managing risks related to environmental and social issues. In addition, legitimacy is seen as one of the objectives. Legitimate to operate is earned when a company arranges activities with the goals and values of the society. The social license must be earned from the important stakeholders. (Willard, 2012) The third function, supplier management, communicates the redefined expectations down to the suppliers. Supplier management can be found from ordinary supply risk management practices and is the only one in this framework. Suppliers need to follow the criteria that focal companies expect from them or stakeholders might react negatively. Supplier management includes following the suppliers' process in compliance with the criteria. Therefore, regular audits, quality checks, and participation in compliance initiatives are an important part of supplier management. The last function in this framework, stakeholder management, enables companies to display their efforts and interact with their stakeholders. Stakeholder management provides companies opportunities to consider particular sustainability-related risks in supply chains with suitable management activities and planning an outlook for managing these risks in the future.

Sustainability-related risks have a significant impact on supply operations in a company but besides, they affect the overall presentation of a company. Therefore, managing sustainability risks improves their overall presentation and avoid financial losses that can be caused by different circumstances that have been discussed in this section.

## 2.4Chapter summary

Companies are seen fully responsible for their products and service, even these would be out of their direct control most of their lifetimes. Therefore, supply chain management and especially sustainable supply chain management is a great opportunity to sustainability into practice. Supply chains are complex entities since there is a vast number of various actors involved which are often situated in different locations. In the ordinary supply chain management efficiency, timeliness, and stability are seen as important performance measurements. However, when sustainability dimension is taken into account, there is an increased number of factors companies should consider. For instance, labor rights and CO<sub>2</sub> emissions should be considered when supply chains are managed in a sustainable way. If the sustainability dimensions are not taken into account, companies have a high probability of causing a risk to the brand and thus undermine a firm's reputation.

Supply chains face various risks. These irregular and unpredicted events can have negative impact on supply chain. A supply chain risk is defined as “the possibility of unpredictable events resulting in negative consequences for the firm under investigation in a supply chain”. Sustainability-related supply chain risk is an increased vulnerability in a chain due to the negative impacts of sourcing on economic, social, and environmental sustainability. The difference between an ordinary supply chain risk and sustainability related supply chain risk is that sustainability related risks might trigger severe several stakeholder reactions that may affect the firm negatively without causing supply disruptions. Sustainability related risks aim to deal with negative effects on the stakeholders. Sustainability risks affect on supply operations but in addition, they affect the overall presentation of a company. When sustainability risks are managed, companies have better possibilities to improve overall presentation and avoid financial losses that stakeholder reactions might cause.



### 3.Sustainability Risk Management

Giannakis and Papadopoulus (2016) have made a framework for managing risks related to sustainability in supply chains. The framework consists of five stages: risk identification, risk assessment, risk analysis, risk treatment and, risk monitoring, and control. Management of sustainability risks is crucial because it is impossible to avoid all of the risks. Planning risk management processes provide companies mature decision-making processes to face unexpected events that cause unexpected damage to companies. One of the keys to mitigation is to identify the possible losses that might occur from unexpected damages. A war-gaming approach can be used when companies speculate losses. The approach facilitates understanding what kind of plans can be used in damaging scenarios. (Manuj and Mentzer, 2008)

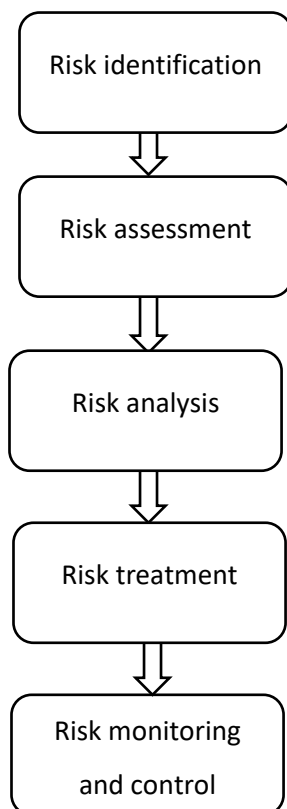


Figure 4. Risk management framework (Giannakis and Papadopoulus, 2016)

### 3.1 Risk identification

Risk identification is the first phase of the framework. Different risks can be clustered into a group when risks are identified. After risks are grouped it is easier to allocate what kind of supply chain management processes are relevant to each risk. (Rangel et al., 2014) The aim of identifying the risks is to have a profile of each of the risks which have been noticed. Juettner et al. (2020), highlight that identifying and assessing all potentially damaging practices should be the priority of supply chain management. Profiling consists of elements of the specific risk, is it atomistic or holistic, quantitative, and/or qualitative, will it affect domestic and/or global operations (Manuj & Menzer, 2008). An especially challenging task for companies with complex supply chains is assessing the most vulnerable operations to major sources of uncertainty. However, it should be seen as a crucial task in risk management. (Drake, 2012)

Organizations have different weights on different sustainability dimensions. For instance, environmental issues are taken care of more closely if the environmental risks are more relevant to a company's business. (Xu et al., 2019) Due to limited resources and capabilities it is important to focus on the relevant topics, and Lemke et al., (2013) highlight the importance of risk prioritization. Prioritization determines which of the risks need immediate attention and which are not as urgent.

Understanding the greatest sustainability-related issues for stakeholders is one of the first steps in sustainable supply chain management (Maignan et al., 2002) Therefore, stakeholder involvement should be considered as one of the tools. Assessment of key stakeholders is an important activity and should be implemented before identifying or assessing any risks in supply chains. Different stakeholders perceive different sustainability issues as relevant. Some stakeholders might have specific sustainability interests and therefore emphasize the importance of them (NGOs), some are more interested in the narrower supply chain (unions) and some of them are interested in special investigative skills and knowledge (media). Hence, identifying the most important stakeholders, and trying to satisfy their expectations is an important task for companies when managing sustainability dimensions in supply chains. (Busse et al., 2017)

### 3.2 Risk assessment and analysis

After risks are identified, companies assess the risks to determine the most critical risks for the supply chain. The aim is to recognize the greatest risks in a supply chain, enabling companies to pay more attention to these. Rangel et al., (2014) suggest categorizing the identified risks to cover the different risks in a structured and systematic way. Categorizing, assessing and evaluating the identified risks also enables companies to acknowledge how risks affect companies. Assessment and evaluation can be implemented by using different criteria such as potential losses, probability, impact/consequences, and worst case scenario. (Manuj & Menzer, 2008) Torres-Ruiz and Ravindran (2018) have a framework for assessing sustainability risks in supply chains. Three factors are assessed: hazard, vulnerability, and risk management. Determining a hazard potential is divided into two main parts: Impact and Occurrence. The level of hazardousness is known when the impact and occurrence of specific supply segments are taken into consideration. A hazard can impact an organization's reputation, access to capital, supply security, regulation, and efficiency and productivity. These might have consequences in the short, medium, or long-term. Risk assessment facilitates the prioritizing of risks (Petersen & Lemke, 2015). Foerstl et al., (2010) emphasize the importance of risk assessment in sustainability risk management since without an effective assessment process, there is only a limited chance to find sustainability issues that can result in potential financial losses.

Foerstl et al., (2010) survey analyzed companies in the chemical industry. According to the survey, most of the companies used four different indicators when assessing risk.: (1) physical properties of the supplier product, (2) the related production process, this includes how labor is used or involved chemical substances, (3) where the supplier is located, (4) how the supplier has performed earlier. All of these indicators are used to assess what kind of risks the supplier might cause and how these risks might affect the focal company. Four- or five-point scale ratings are used to reflect the probability of occurrence for each supplier relationship.

When assessing risks, it is useful to look whether there are positive correlations between two risk factors. This enables the treatment of multiple risks at the same time. Environmental and economic-related factors and social and economic-related factors appear to have a positive correlation, whereas social and environmental do not. For

instance, child labor is correlated with bribery and financial crises. (Giannakis and Papadopoulus, 2016) Also Freise and Seuring (2015) state that win-win situations can be found from environmental and economic dimensions of sustainability. Risk assessment should be a comprehensive analysis of possible risks and what can be done to mitigate these risks. In particular, if there is a lack of resources, managing more than one risk at the same time can have a substantial positive impact on the overall performance of a company.

There are various methods of risk assessment that can be implemented. Waitrose Ltd, a supermarket brand in the UK, has determined a process for supplier risk assessment. New suppliers are required to complete a self-assessment inquiry and analysis relating to a pre-defined weighted analysis of areas of vulnerability. High-risk organizations are required to go through an independent ethical review for responsible sourcing. Often, if non-compliance is found in reviews, the question is whether the issues are significant and will suppliers implement corrective actions on these issues. An important point in Waitrose Ltd's process is that initial non-compliance does not lead to de-listing, rather a program of corrective measures. (Spence and Bourlakis, 2009)

Various factors impact the risks that have been identified. Vulnerability assessment enables companies to explore the exposures to a serious disturbance in the supply chain. The framework centers on the three sustainability dimensions at the country and supplier level. Environmental and social sustainability issues at the supplier level consist of climate change, human rights, and labor practice, resource use, and human health and safety. Country risks include political and economic, logistics, climate change, trust, and human rights and labor practice. (Torres-Ruiz & Ravindran, 2018) According to Reinerth et al., (2019) country risk assessment facilitates understanding the country-specific supply chain sustainability risks, which enables focusing on area-specific risks. Expanding their view enables companies to have a comprehensive understanding of vulnerabilities in supply chains. Therefore, taking suppliers' country risks into account enables companies to manage sustainability risks in their supply chains.

Besides reinforcing sustainability practices, risk assessment can positively impact other performance aspects. Risk assessment facilitates to avoid possible disruptions that can be results of environmental or social compliance issues. For instance, environmental accidents can cause delays that affect supplier productivity. Thus, profound risk assessment facilitates companies to save costs. (Miemczyk & Luzzini, 2019) Hallikas et al, (2002) highlight that root causes and potential consequences of all the risks should be analyzed after risks have been assessed. When root causes are known, there are better possibilities to manage the risks and through it affect consequences.

### 3.3 Risk treatment

Risk treatment in risk management is about reducing or eliminating risk factors. After risks are identified, assessed, and analyzed, companies have to acknowledge what are the potential impacts if the risks realize. Risk management strategies aim to reduce the probability of losses with risk events (Manuj & Mentezer, 2008). Supply chain risk management has a significant impact on supply chain sustainability. Risk management enables to impact all three sustainability dimensions in supply chains. (Govindan et al., 2014) Multaharju et al., (2016) highlight different tools to mitigate supplier sustainability-related risks. Monitoring, audits, collaboration, certificates related to the environmental and social dimension, sustainability reporting, self-assessment, Code of conduct in the contract, different measurements of sustainability aspects, investments in sustainability practices, sanctions for non-compliance, and assessment and selection of sub-supplier are among the different tools discussed. Giannakis and Papadopoulos (2016) suggest that six different strategies are used (avoid, mitigate, prevent, cooperate, insure, retain). Prevention and mitigating are the most common strategies when managing sustainability-related risks. Supplier sustainability risk management aims to ensure that applicable laws are complied with, and sustainability issues are improved through the entire supply chain. These actions will, besides reducing buying firms' financial and reputational risks, increase the attractiveness of the buying company for sustainability-related customers and financial markets. (Foerstl et al., 2010)

The decision to use each method depends on various factors. For instance, chosen management tools depend on whether the focal company tries to achieve minimum standards of sustainability in their supply chains or whether the objective is to be a frontrunner in sustainability performance. (Kogg& Mont, 2012) Besides, buyer-supplier relationships impact the decision. According to Hajmohammad & Vachon (2016), selected strategies depended on the dependence regime of the specific buyer-supplier relationship. This is because the dependence affects the buyer's power of implementing the chosen strategy. When a buyer company has dominance or in interdependence situations, supplier sustainability risks can be mitigated through monitoring and collaboration-based strategies. The actions depend on how likely the risks are to occur. When the risk is low, monitoring-based actions are more likely to be used, whereas when the risk is higher, collaboration is a better solution.

The chosen risk management tools are tailored to different suppliers. For instance, a self-declaration can be used by non-critical suppliers where the suppliers sign to signify compliance with the required standards. Whereas critical suppliers are required to answer a sustainability-related practice questionnaire where they disclose how different issues are dealt with in practice. Further treatment depends on self-assessment. If there is any doubt of sustainability, an audit is required. If the supplier is highly critical, audits are done immediately. (Foerstl et al.2010) Lemke et al., (2013) point out that when choosing different methods to manage risk, focal companies should consider whether the methods work with their suppliers. Relationships between the partners affect also the management style, as mentioned earlier.

Gimenez and Sierra (2012) suggest combining different methods if it is deemed necessary or beneficial. Their research suggests that companies should pursue supplier assessment and collaboration together. When suppliers' performance is evaluated first, it is easier to provide specifications for improvement and training. Besides, audits have the same kind of effects as supplier assessment. Audits have a significant impact also after the supplier evaluation. Auditing helps companies understand whether there are possibilities to improve the supplier's performance. This enables them to work directly with their suppliers and improve their social sustainability performance. (Sancha et al., 2015) Collaboration with suppliers enables companies to achieve improvements in environmental performance. (Gimenez & Sierra, 2012) Huq and Stevenson (2018)

suggest that buyer companies may use a combination of carrot and stick when managing sustainable supply chains. Sustainability levels of suppliers have been improved through penalties for violations against requirements, and rigorous audits are seen as sticks. Building beneficial and trusting relationships with suppliers, rewarding the best suppliers, taking part in implementation costs, and making long-term deals with suppliers are ways how successful suppliers can be rewarded.

### *3.3.1 Code of Conduct*

A Code of conduct is a document that is part of a contract between a buyer company and its supplier. It enables the communication of sustainability goals clearly to suppliers (Cole & Aitken, 2019). Often the first-tier supplier is required to comply with the code of conduct but should ask its suppliers to follow the same. Hence, a code of conduct is used to ensure a secure supply chain. Code of conduct is used to ensure that suppliers perform in line with sustainability strategies (Wu & Pagell, 2011). Standards of responsibility, the applicable stakeholders, how actions are implemented, and monitoring mechanism are included in code of conducts. (Zakaria et al., 2012) Vandenberg et al., (2007) define the code of conducts as a formal statement consisting of ethical principles that govern the companies' mode of operations. According to them, a code of conduct enables the promotion of labor standards and improves productivity. In addition, improving the company's reputation, attracting investors, and obtaining skillful and motivated employees are among the benefits.

According to Pullman and Sauter (2012), a company's code of conduct is dominated by standards that are salient for a particular company. If vulnerable resources are used in manufacturing and supply chain processes, environmental topics dominate the code of conduct, whereas social sustainable standards are more important in the code of conduct if labor is used in the developing countries. Hence, it is important to identify the key issues that might occur in a supply chain so that companies can focus on the most relevant issues.

One challenge with the code of conduct is that ethical standards and legal requirements differ between countries. Hence defining which standards should be followed within the agreement has an important role: whether the local law puts basis to the contract

or requirements go beyond the local law. Even though there would not be any violations against laws and regulations, a company's stakeholders can react strongly because the code of conduct is only limited by law. (Zakaria et al., 2012) Code of conducts do not, however, guarantee that suppliers comply with the code of conducts after contracts are signed (Egels-Zandén & Lindholm, 2015; Reinhert et al., 2019) Therefore, the code of conduct is not trouble-free.

### *3.3.2 Certificates*

Certifications in specific industries or multi-industry certifications are used as indirect mechanisms to prove that suppliers meet sustainability standards (Koberg & Longoni, 2019, Fan & Stevenson, 2018; Miemczyk & Luzzini, 2019). Suppliers invest to obtain certifications such as ISO 14001. With certifications, companies can signal buyers that sustainability issues are considered and there is a low level of sustainability risks. . ISO 14001 is the most widespread environmental management system: over 360,000 ISO 14001 certificates are used globally (NQA). Another often used certificate is ISO26000 which focuses on meeting specific social standards (Miemczyk & Luzzini, 2019).

Certifications are widely used and mentioned but are not without issues. Even though there would be a badge or sustainability certification this does not mean that the whole multi-tier supply chain is explored. Multaharju et al., (2017) survey found that even when the buyer companies had certifications, they or their logistics suppliers do not require certificates from their sub-contractors. This might become a problem later if a supply chain is examined more carefully and it is revealed that the supply chain is not as sustainable as the logo or certification disclose (Hannibal & Kauppi, 2019). Hence, supply chains should be explored more closely, not just the first tier but further down the chain. Knowing the entire supply chain will help companies to prevent various risks such as losing reputation. At the same time, the focal firm has a huge responsibility to tell consumers how far along the assessing process is implemented, whether only the first-tier supplier is assessed or there is access to the sustainability information of the entire supply chain. There is a significant difference between knowing that the primary supplier is implementing sustainably and knowing that the entire supply chain is sustainable. Identification of every partner in a supply chain is



difficult, especially in complex products, such as cars and electronic devices. (Schöggl et al., 2016) The importance of certifications is especially high in buyer-supplier relationships that are not close. It can help suppliers obtain new deals with buyers. (Fan & Stevenson,2018) In addition, certifications inform external parties that specific sustainability concerns have been taken into account and the information that is shared is reliable.

### *3.3.3. Supplier evaluation and selection*

Supplier evaluation has a significant impact on a company's performance. Taking environmental and social aspects into consideration, not only enables avoiding reputation loss, but also creates a competitive advantage (Winter & Lasch, 2015) Evaluation and selection are case-specific but there are certain actors that companies pay attention to. Zimmer et al., (2015) state the ten most common sustainability criteria. Environmental criteria include environmental management system, resource consumption, ecodesign, recycling, controlling ecological impacts, waste, energy consumption, reuse, air emission, and environmental code of conduct. Social criteria consist of involvement of stakeholders, staff training, social management commitment, health and safety, stakeholder relations, social code of conduct, donations for sustainable projects, the rights of stakeholders, safety practices, and the annual number of accidents. Winter and Lasch (2016) introduce a different list of criteria. Social criteria include no child or forced labor, no discrimination, no disciplinary and security practice, freedom of association, wage and, health and safety practices. Use of environmentally friendly material and, carbon and hazardous substance management are included in environmental criteria. It is useful for focal companies to identify the most important factors for them to select suppliers efficiently. Foerstl et al., (2010) suggest that companies should focus primarily on sustainability risks when assessing their suppliers. The earlier the suppliers are assessed by sustainability criteria, the more likely they are to manage sustainability risks in their supply chains. This enables focal companies to allocate scarce resources more effectively. Eventually, when the process in one dimension is done properly, there is pressure to expand to other dimensions., It is also easier for companies to implement the expansion as there is already one utilitarian process that can be used.

Sustainability criteria	
Environmental	Social
<ul style="list-style-type: none"> <li>• Environmental management system</li> <li>• Resource consumption,</li> <li>• Waste ware</li> <li>• Energy consumption</li> <li>• Air emission</li> <li>• Environmental code of conduct</li> <li>• Use of environmentally friendly material</li> <li>• Carbon and hazardous substance management</li> </ul>	<ul style="list-style-type: none"> <li>• Involvement of stakeholders</li> <li>• Staff training</li> <li>• Health and safety</li> <li>• Social code of conduct</li> <li>• The annual number of accidents</li> <li>• No child labor or forced labor</li> <li>• No discrimination</li> <li>• No disciplinary and security practice</li> <li>• Freedom of association</li> <li>• Working hours</li> <li>• Employment compensation</li> <li>• Healthy and safety practices</li> </ul>

Figure 5. A list of various criteria used in supplier selection.

According to Foerstl et al., (2010) assessing the suppliers is one of the key operations in sustainable risk management for supply chains. There are only a certain amount of resources and that forces companies to focus on selected aspects of sustainability. Suppliers who are assessed as high risk, get high priority treatment in sustainability risk management.

Supplier assessment enables companies to evaluate a supplier's performance and reduce the risks of suppliers' illegal and/or unethical actions (Gimenez & Sierra, 2012). Different methods can be used when assessing suppliers. One option is that buying companies can assess their suppliers directly. However, it is demanding and dependent on time and human resources. Direct assessing is possible to implement for first-tier companies but further tiers are significantly more difficult, as it requires considerable knowledge and direct contact with all members of a supply chain. Assessing directly poses huge challenges for companies especially in complex supply chains. (Schöggl et al., 2016) Another alternative in assessing the supply chain is to use independent third party assessors. Impartial information is more likely obtained then. The help of NGOs (non-governmental organizations) can be useful when assessing suppliers. NGOs can have a different perspective for various sustainability aspects which enables them to have a more comprehensive outlook over challenges in a supply chain. Using NGOs located in countries of suppliers enables obtaining a more comprehensive picture of a supplier, since NGOs have a deeper knowledge of

conditions and specifics in cultural aspects. (Kogg & Mont, 2012) Cultural distance between partners in a supply chain can be one of the major barriers to implementing supply chains in an efficient way (Grimm et al., 2014). Hence, NGOs can be useful when companies have suppliers in cultural regions other than they are used to working in. However, buyer companies should be careful with who their third-party assessors are. There have been instances where a third-party assessor has influenced sourcing decisions by marketing actively a particular brand. (Hannibal & Kauppi, 2019) According to Torres-Ruiz & Ravindran (2018) especially when talking about tactical items (non-critical or routine), it is sufficient to use third-party organizations in monitoring suppliers. This is due to the aim of minimizing the resources spent on these items. They add only little value or items, and their suppliers are better known. Third-party auditors can be used in assessing the process when suppliers appear to have real issues and more intense inspections are required (Adesanya et al., 2020). In addition, when using third-party assessors, buyer companies can use their practices when exploring sustainability in their supply chains. Suppliers can be asked to self-assess sustainability-related risks (Foerstl et al., 2010). One alternative is to request the suppliers to share sustainability-related information such as energy use or material content of a product. At the same time, suppliers have to pass the same request to their suppliers. This procedure is called a Casadic assessment.

When dealing with new suppliers, they are also asked to answer the self-assessment questionnaire. Sustainability related standards are seen as gate-keepers and if violations occur, the selection processes comes to an end. If the supplier meets the requirements, audits will follow. Audits are used to ascertain that the supply base will only have compliant suppliers. (Foerstl et al., 2010)

Trust is seen as an important factor in the supplier selection process. Buying firms associate supplier trust with striving for mutually beneficial goals for both parties and linked to non-economic criteria. Trust between partners will also decrease the number of audits and inspections. Resources can be saved when audits are not done as often due to lack of trust between the partners. (Cole & Aitken, 2019) These saved resources can for instance be allocated to relationship improvement which has a significant impact on the partners. (Vachon & Klassen, 2006) Trust between partners facilitates further collaboration between partners. Cole & Aitken (2019) highlight four different

criteria that improve sustainable supplier development: Trust, transparency, engagement, and knowledge development. Transparency enhances trust between partners. When companies are transparent to each other, trust between partners increases, and sharing sensitive information is more likely, which further facilitates co-operation. The engagement factor consists of four different factors: collaboration, commitment, communication, and cooperation. The engagement of suppliers is required to obtain the most out of the development process. Knowledge development aims to create a long-term relationship with partners where sustainability performance can be improved.

Trust between a buying firm and its supplier can facilitate to have a greater impact on sub-suppliers. Trust could enable suppliers to be more proactive in supporting initiatives between a buying firm and its sub-suppliers. Suppliers might fear that buying firms could bypass them and directly from sub-suppliers if there is a lack of trust between a buying firm and its supplier. Therefore, building trustful relationships could help to manage sub-suppliers. (Grinn et al., 2013) In addition to relationships, contract-specified factors have an impact on sustainability levels in supply chains. If supplier contracts are short-term and the buying firm is ordering limited orders. Then there is a diminished influence on suppliers and limited possibilities to monitor working conditions and sustainability issues at the site. (Locke et al., 2016)

#### *3.3.4 Supplier development and collaboration*

Collaboration with suppliers is seen as one of the risk-mitigating tools in sustainable supply chain management (Ageron et al., 2012). Developing relationships enables minimizing risks through the whole supplier relationship lifecycle (Hardy 2017; Tidy et al., 2016). Reputational risk management is a strong driver for supplier development when considering sustainable issues (Cole & Aitken, 2019). Huq and Stevens (2018) highlight the importance of supplier development when improving the implementation of sustainability at the supplier's side. The best possible outcomes are achieved when all different levels from the suppliers' side are educated about sustainability standards and actions. Owners need to be educated about sustainability standards and when workers are educated through training, they become aware of the compliance issues.

Supplier development contributes directly to suppliers' environmental capabilities which reflect the level of environmental sustainability of products and services. This will enhance environmental reputation and performance. (Gimenez & Sierra, 2013) Improvements in working conditions and compliance from the suppliers' side will improve the reputation of the buying firm (Sancha et al., 2016). Sustainability co-operation with suppliers has a positive impact on green and social practices. Co-operation has a direct impact on performance in environmental aspects such a cost reduction and operational performance. (Holloos et al., 2012)

Training suppliers' personnel has a direct and critical role in improving environmental performance at the suppliers' side. When the suppliers' environmental abilities are improved, companies can obtain more sustainable products or services. (Gimenez & Sierra, 2012) The development process enables improvement of the suppliers' capability of handling social issues. Improvement can be done by providing training, technology, and technical assistance. Better management of social issues in addition to transparency and mutual understanding of the importance of social requirements in the supply chain management are positive outcomes that can be reached through supplier development. (Subramaniam et al., 2019) When buying firms invest in direct and indirect supplier development strategies, suppliers' financial performance and their communities are improved. These improvements will have direct impacts on the suppliers' social and societal performance. Better financial flows enable suppliers to pay attention to other basic amenities, such as healthcare and access to better education. (Yawar & Seuring, 2018)

According to Adesanya et al., (2020) sustainable supplier development processes are triggered by performance evaluation results. Development processes are expensive and they are mainly applied to a limited number of suppliers that are often strategically important core suppliers. The development consists often of mentoring and coaching, not imposing actual training processes. When talking about collaboration both of the partners must be seen as equal and should be able to express their views. Waitrose Ltd focuses on understanding the perspective of the suppliers. Feedback is gathered about what kind of opportunities there are and how the relationship with Waitrose Ltd could be improved. (Spence and Bourlakis, 2009) Shared vision, systems, resources, and actions facilitate collaboration between a focal firm and its suppliers (Ageron et

al.,2012). Therefore, assessing suppliers has an important role in supplier development processes. Knowledge of suppliers' capabilities facilitates the allocation of scarce resources effectively to the right places. When collaboration processes are planned, focal companies should have knowledge whether their suppliers have the resources to implement the development processes. The lack of resources is especially a challenge with smaller suppliers. (Juetnner et al., 2020) In addition to recognizing partners' resources, Vachon and Klassen (2006) highlight the importance of understanding each other's capabilities and priorities. Lack of knowledge on the social sustainability requirements is seen as one of the issues in implementing sustainability by suppliers' side. Even though suppliers are provided with financial support, it will be difficult for them to be sustainable if expectations are not known. (Subramaniam et al., 2019) This emphasizes the importance of communication between the partners. According to Jiang (2009), buying firms from developed countries should focus on the fairness of contracts with suppliers from developing countries. Unfair rewards and unrealistic lead times are examples of why some of the suppliers do not meet all sustainability objectives. Hence buying firms should treat suppliers fairly to obtain sustainable products or services. A sustainable buyer should see itself as a part of the issue and try to fix the problem together with the supplier. The aim is to find suppliers where the power balance is well distributed and both parties can benefit from the collaboration. (Hardy, 2017)

Besides solving sustainability issues in a supply chain, other positive outcomes can be obtained through development processes. Competitive advantage can be reached by developing relationships with the supplier. Purchasing function has become strategically important which has led to a situation where buyers choose closer cooperation with selected suppliers (Moeller et al., 2006). Collaboration enables exchange of knowledge between partners which might have a positive impact on suppliers' capability to meet the requirements of sustainability standards. This is especially beneficial when suppliers have limited resources. (Subramaniam et al., 2019) Supplier development practices have a direct and positive impact on operational performance. Motivation among employees increased productivity, and quality outcomes are greater in more socially sustainable firms. (Cole & Aitken, 2019)

Collaboration can be expanded to NGOs. With help of NGOs, companies can increase predictability and responsiveness. NGOs may offer information that can be used in sustainable supply chain management. As discussed earlier, NGOs might help in assessing supplier risks, audit cycles, and contents. Adapting NGOs' information enables buyer companies to implement sustainability risk management processes earlier, more rigorously, and more astutely than their competitors. (Foerstl et al., 2010) NGOs can be useful when suppliers are assessed since NGOs might have the ability to see sustainability issues from different perspectives compared to a focal firm. For instance, Apple and the Fair Labor Association (FLA) built up a partnership where Apple agreed to follow the FLA's workplace code of conduct in their entire supply chain. (Gouda and Saranga, 2018) Collaboration can also occur with competitors and other actors. For instance, buying companies can put collective pressure on their suppliers. After an accident at Rana Plaza in Bangladesh where 1129 people were killed when a couple of factories collapsed, a large number of Western companies started to collaborate to avoid similar disasters in the future. Two different groups were established where companies shared audits publicly, which put pressure on the suppliers. Buying companies collaborated with global and local trade unions that were supported by NGOs. The groups used similar standards in audits. In addition, one of the groups shared the costs of improvements. The importance of collaboration between partners increases when suppliers are in countries where corruption and bribery are common. Collective actions can replace governmental regulations effectively if laws and regulations are not followed. (Huq & Stevenson, 2018) Companies have a wide range of different actors that they can work with. Various actors provide a different kind of support to implement sustainable supply chain management. Collaboration requires resources, but with the help of it, risks can be minimized more effectively.

In cases when a buyer company has no other choice but to contract a supplier, Kogg and Mont (2012) suggest that direct inter-organizational management that includes both collaboration and, threats of sanctions or positive incentives should be considered. For instance, when there are no better suppliers or products available, or the focal company has difficulties in compliance with the standards.

According to Hollos et al., (2012) a buyer company can gain the most out of supplier co-operation if its own sustainable manners improve at the same time as the suppliers'.

This highlights the importance of extending the developing practices to all partners from suppliers to buying firms as well.

### 3.4 Risk monitoring and control

Suppliers' assessing operations continue after the contracts have been made. Different survey tools, annual self-assessments, and on-site reviews are common practices when assessing suppliers. Buyer companies often revisit suppliers based on the suppliers' rating. When suppliers receive a high score, audits are implemented rarely whereas low scoring suppliers are audited more frequently. After audits, suppliers are given feedback and improvement guidelines for the future. (Adesanya et al., 2020) When audits are implemented by buyer companies, they can claim that their supplier requirements are chained down to possible sub-contractors. (Multaharju et al., 2017)

According to Foerstl et al., (2010) survey, if suppliers do not follow the sustainability criteria, focal firms emphasize their preference to keep their relationship with established suppliers rather than terminating the contacts. If the violations are not serious, focal firms prefer to allow suppliers to improve their actions within a pre-defined time frame. After improvement is implemented, suppliers will be re-audited. If violations continue, the next step would be to discontinue the relationships between the focal firm and its supplier. Supplier development is seen as a responsive and resource-effective activity which is key in minimizing sustainability-related risks. Supplier monitoring and control facilitates finding sustainability misconducts and therefore avoiding or mitigating sustainability risks and their effects.

When suppliers are assessed, it is easier to identify specific points that need to be improved later. It proves that the whole process is a cycle and to achieve the best possible results from supply chain management, focal companies need to improve their supply chains constantly. Both of the partners, buyer companies and their suppliers, can learn during their partnership and develop processes for a more sustainable way. Besides, novel risks that require attention may present themselves, which makes it vital that the management process is constant.



### 3.5 Chapter summary

First sustainable supply chain management was introduced. Sustainable supply chain management is a broader definition of supply chain management. In sustainable supply chain management, the three sustainability dimensions are taken into account when supply chains are managed. Sustainability's negative impacts are tried to be minimized. Today's supply chains are long and complex which challenge companies' possibilities to manage sustainability issues in their supply chains. Especially, social and environmental concerns are taken into account when supply chains are managed sustainably. Various labor challenges, such as child and forced labor are emphasized from the social sustainability point of view. Environmental sustainability considers reducing pollution and waste, and energy savings in supply chains. Importance of sustainable supply chain management has increased, hence companies are considered fully responsible of their products and services even when these would spend most of their lifetimes outside of their direct control. Companies obtain internal and external pressure to meet certain sustainability levels in their operations. Therefore, sustainable supply chain management not only has an important part in companies' supply chain management but also in their overall presentation.

Differences between ordinary and sustainability risks are discussed in the literature part. Supply chain management enables to obtain benefits, such as increased efficiency and cost savings but in addition there are risks which can harm companies. Ordinary supply chain risks are unpredictable events that can have negative consequences to a supply chain and its members. Outcomes of supply chain risks are inability to meet customer demand or even cause threats to customer life and safety. Today's business environment has affected supply chains. Globalization and increased competition have lengthened supply chains which have affected complexity of supply chains. Therefore, companies have increasingly paid attention to managing supply chain risks. In addition to ordinary supply chain risks, sustainability supply chain risks have become more vital. Those are risks that have potential to provoke harmful stakeholder reactions and thus harm businesses. Ordinary supply chain risks can cause supply disruptions whereas sustainability risks negatively affect stakeholders' opinions.

In the third chapter, a sustainability risk management model is presented. Sustainability risk management in supply chains requires comprehensive activities. The model is a five-phase framework on which the empirical analysis is based. The phases are: risk identification, risk assessment, risk analysis, risk treatment, risk monitoring, and control. Risk identification aims to find factors that can harm companies' supply chains. However, identifying all of the risks is challenging since companies face a vast number of various challenges. It is impossible to identify all of them. Risk assessment is the second phase of the model. The identified risks are assessed to determine the most critical risks. Risk assessment enables companies to focus on the most critical risks and through this, the risks can be better managed. Risk analysis is an essential part of the framework. In the fourth phase of the model, various treatment operations are discussed. There are a vast number of treatment factors that facilitate to manage sustainability risks in supply chain management. For instance, code of conducts, certificates, supplier evaluation and selection, and supplier development and collaboration are among the most used methods. With help of these tools, companies have better possibilities to manage sustainability risks and through it minimize negative impacts these could cause. The last phase of the model is risk monitoring and control. The risk management process is constant therefore, companies are required to develop and monitor the development of the risk environment. Usage of the model is a constant process where the various areas are reviewed at regular intervals.

## 4.Method

The empirical part of this master thesis is a qualitative case study where three Finnish companies will be researched.

### 4.1 Choice of research method

Qualitative and quantitative research answer different types of questions. In qualitative research, the purpose is to describe real life and to explore the subject comprehensively (Hirsijärvi et al., 2007). Tuomi & Sarajärvi (2018), state that qualitative research enables a good description of the phenomenon. According to Kananen (2017), qualitative research aims to obtain an answer to a question: “What is the phenomenon about?”. Qualitative research refers to practice rather than a logical concept (Koskinen et al., 2005). On the other hand, in quantitative research, the information is reviewed numerically, and the questions asked can be, for example, “how much” and “how often”. Vilkkä (2007) Besides, according to Kananen (2017), qualitative research examines mainly processes, which in turn is difficult in quantitative research. Nonetheless, qualitative and quantitative research are complementary rather than competing approaches. For instance, qualitative research can be used as a preliminary test for quantitative tests. (Hirsijärvi et al., 2007)

Sustainable risk management in supply chains is a process where various phases are considered closely. It is a process that companies follow consistently to make it work effectively. The master thesis aims to understand how sustainability risks are managed in supply chains. To obtain results, the case companies’ processes are examined. Therefore, qualitative research is more suitable for this master thesis compared to quantitative.

A case study is a study where one or at most a few cases are selected for close scrutiny. Usually, the focus is on either the company or a specific process of the company. Case studies are among the most common qualitative methods of business economics research. (Koskinen et al., 2005) Anttila (1996) state that, case studies give a well-organized view of the researched subject. Nonetheless, case studies are typically narrow, and thus are not generalizable. On the other hand, there has not been a

completely exhaustive answer, as according to Metsämuuronen (2008) case studies allow generalization.

According to Metsämuuronen (2008), almost all qualitative studies are case studies. Differences in qualitative data acquisition strategies are evident in what is the subject of the research and how the information is acquired. In a case study, the number of cases is often small - from one or up to a few cases that are chosen for a specific purpose. This enables to collect a relatively large amount of information from each case. A case study is rather a research approach, where the core is how the data is collected and analyzed. Comparative and experimental studies are often used in case studies. (Koskinen et al., 2005)

This master thesis is a comparative case study. In a comparative case study two or more cases are systematically compared (Kaarbo & Beasley, 1999). Typically, in a comparative study, the material is compiled from existing material after a phenomenon has already occurred (Anttila, 1996). To be able to compare sustainability risk management in supply chains, three Finnish case companies were chosen. The comparative perspective emerges when the case companies operate in different industries, allowing them to find similarities and differences between industries. According to Koskinen et al., (2005), if a case study covers only one case company, it allows a limited number of conclusions. Besides, if only one case company is researched, the choice of the case company should be carefully justified on theoretical or empirical grounds (Koskinen et al., 2005). Case studies can answer to questions “how” and “why” and in cases where the researcher has little or no control over events (Yin, 2003).

#### 4.2 The chosen case companies

The case companies have been chosen from the 2020 Global 100 ranking that lists the 100 most sustainable companies in the world. When the case companies operate in different industries, it enables to make certain generalizations. Besides, according to Koskinen et al., (2005), a benefit with case studies is that the researcher is forced to understand the companies comprehensively in a fairly realistic described environment. Also, Metsämuuronen (2008) states that case studies are often based on functionality

and the results can be applied in practice. The results of this master thesis can be utilized both by the case companies and other actors who are interested in improving sustainability operations in their supply chain management.

A benefit of case studies is that they can be targeted and precise. The interest of the researcher in the matter is emphasized and irrelevant things are left in the background. (Koskinen et al., 2015) This master thesis focuses on Finnish companies that are recognized as sustainable by Corporate Knights. The case companies are chosen based on their sustainability performance which enables obtaining information on how successful companies have managed to operate sustainability management in their supply chains. A feature of the case is that data is collected from small unrelated case companies (Hirsijärvi, et al., 2007). Case studies enable testing of established concepts and theories (Koskinen et al., 2015). It facilitates to compare companies' actions to theory. Besides, the aim of case studies is the description of phenomena (Hirsijärvi et al., 2017). When the case companies are chosen based on their sustainability performance, it is possible to compare best practices with theory. Therefore, the theoretical part is compared to the empirical analyses which enables to obtain a description of the phenomenon.

#### 4.3 Data collection

The analysis of the empirical part is based on secondary documentation of the case companies. According to Saunders et al., (2009), case studies are often based on secondary data. Qualitative research has led to the proliferation of many methods of data collection that seek to understand actors through self-produced texts (Hirsijärvi et al., 2007). In this master thesis, the analyzed data consists of case companies' data from annual reports from 2019 and additional information from their websites when needed to deepen knowledge. Annual reports were chosen since there is a formal structure, which facilitates the acquisition of information. Annual reports inform extensively about the company's performance. Besides annual reports, companies' websites are utilized to obtain more detailed information on the various aspects that are mentioned narrowly in annual reports. Nonetheless, usage of secondary documentation is not entirely problem-free. When secondary documentation is utilized, it must be viewed critically. (Hirsijärvi et al., 2007; Kananen, 2017; Saaranen-

Kauppinen and Puusniekka, 2006) Companies' reports can be subjective which makes it more difficult to obtain objective results. Therefore, the empirical part will consider different perspectives compared to the case companies' material. The data about sustainability violations in their supply chains is collected from various sources to broaden the perspective of the researched subject. In two cases additional data is collected from Finnwatch, which is a non-governmental organization that studies the global impact of business. Information from Friends of the Earth is utilized to obtain a more comprehensive perspective of one of the case companies.

Another method option could have been interviews where representatives of the case companies would have been met. Interviews are the most common methods in qualitative research (Kananen, 2017). Interviews enable obtaining comprehensive results and are flexible. The interviewee answers the questions, and the interviewer can continue with more specific questions. Interviews aim to obtain as much information as possible. However, the weakness in interviews is time and money. (Tuomi & Sarajärvi, 2018) Besides, Saaranen-Kauppinen and Puusniekka (2006) suggest the usage of secondary material in research when the researcher has little experience of research and thus can focus on analyzing the data instead of collecting it. According to Hirsijärvi et al., (2007), interviews can contain many sources of errors. Therefore, to avoid errors and have accurate data, the usage of secondary data is justified.

#### 4.4 Data analysis

To begin the data analysis, the material was read through to get an overview of what the annual reports contain. During the process, the information was searched one company at a time following the five-step sustainability risk management framework. This enabled a consistent process. During the data analysis process, the case companies' activities were compared to previous research. After companies' materials were analyzed, the NGO's materials were used to broaden the view. The summary consists of the similarities and differences in the operation of companies. Empirical results are based on this process.

In qualitative research, there is a vast amount of information that provides challenges and at the same time makes research more interesting. The researcher is not likely to be able to utilize all of the data that has been collected and it is also not necessary to do so. (Hirsijärvi et al., 2007) Therefore, the process started with a quick reading of the annual reports. This enabled obtaining a more general view of how sustainability operations are implemented in the case companies. After a general view of the case companies, their sustainability performance was studied more closely. This provided a more comprehensive picture of companies' actions. A general overlook of the annual reports and additional data enabled us to focus on the most important things.

#### 4.5 Reliability and validity of the research

Reliability and validity are essential parts of research. Both of the terms mean credibility but reliability means the reproducibility of the measurement results (Metsämuuronen, 2008). According to Hirsijärvi et al., (2007) reliability and validity have received different interpretations in qualitative research. Therefore, in qualitative research, it is essential to inform what has been done and how the results have been achieved in the study. An important question is whether the explanation is reliable. According to Koskinen et al., (2005), if the findings are reproducible, it can be stated that the phenomenon is real and the proposed interpretation can be accepted. Nonetheless, reliability is a strict requirement, especially in social science. For instance, if case companies are observed, the companies will change over the years, at which point the results will also change. (Koskinen, 2005) Changes in companies' performance are probable and thus cannot affect the reliability of the study. In this study, the data that is utilized is acquired from public companies and non-governmental organizations. Especially, the data from the reports can be considered valid. Annual reports are among generally used data sources in business research and analyses. The case companies Neste, UPM and Kesko, were selected based on their success on 2020 Global 100 ranking which is a generally recognized sustainability ranking. The case companies will be presented in the empirical chapter. Informing about the sustainability failures in case companies' supply chains increases the reliability and objectivity of the study.

According to Kananen (2015), there are several reliability criteria to review the reliability of qualitative research. Evaluability and previous research are among the reliability criteria. In this master thesis the data that is utilized comes mainly from public companies. Besides, previous research is used to compare whether the case companies implement sustainability risk management in their supply chains properly. Hirsijärvi et al., (2007) consider that the reliability of the study increases when the researcher gives an accurate account of the conduct of the research. Koskinen et al., (2005) emphasize the importance of disclosing how the observations have been produced. In the data analysis part, the process is explained in detail.

Ethics is seen as an important part of research. According to Eriksson and Kovalainen (2008), data collection in a research has a vital part of research ethics, especially in qualitative business research. Therefore, it is described precisely from which sources data has been collected in order to consider the ethical aspect of the research. Research can harm companies and therefore, it is important to be transparent about the data collection process. In case studies, damage can be based on what competitors or the public sector react to when results of the research are available (Koskinen et al,2005). The utilized data is public, the case companies' competitors or public sector can use the same data. Therefore, chances for ethical problems are low in this master thesis. There are additional requirements for research ethics. Plagiarism is strictly prohibited, including plagiarism of others and your own text. The results must be viewed critically and must not be forged or whitewashed. The method of reporting must be explained precisely. (Hirsijärvi et al., 2007) The previous requirements have been introduced in this chapter to demonstrate the ethics of the research.



#### 4.6 Chapter summary

The aim of the master's thesis is to answer to a phenomenon: "How Finnish companies manage sustainability risks in their supply chain". Therefore, it is a qualitative research. The master thesis aims to understand how sustainability risks are managed in supply chains. To obtain results, the case companies' processes are examined. Therefore, qualitative research is more suitable for this master thesis compared to quantitative. This is a comparative case study since three Finnish companies and their sustainability risk management actions in supply chains are discovered. This enables to obtain a comprehensive view if there are some similarities or differences between the companies. The case companies are Kesko, Neste and UPM. These companies were chosen since they were among the Corporate Knights global 100 ranking in 2020. The utilized data was collected from the companies' own sources. In addition, external partners' information was utilized in order to obtain a comprehensive outlook of failures as well. Companies' own reports can be subjective which makes it more difficult to obtain objective results. Therefore, the empirical part will consider different perspectives compared to the case companies' material. Therefore, data from Finnwatch and Maan ystävät was utilized.

## 5.The case companies

In this chapter, the chosen case companies will be introduced and discussed from the sustainability risk management framework point of view. The case companies are discussed one at a time which enables a consistent review of the process.

### 5.1 Kesko

Kesko is a Finnish retail store company, which operations are divided into three sections: grocery trade, home improvement, and specialty goods trade, car, and machinery trade. 2000 stores are engaged in chain operations in eight different countries. According to the 2020 Global 100 ranking, Kesko is the 99<sup>th</sup> sustainable company. Sustainability governs their mission hence the slogan is: “We will create sustainability welfare to all of our stakeholders and entire society” (Kesko Code of Conduct).

Sustainable supply chain management is a combination of various tasks, including supply chain management, sustainability management, and risk management. All three dimensions are widely considered at Kesko. Risk management at Kesko is a systematic process, where the aim is to identify, assess, manage, and control risks. Risk management is part of supply chain management, which is implemented in collaboration with K-retailers, suppliers, and service providers. (Kesko Kesko-Konsernin Riskiehallintapolitiikan tiivistelmä) Risks are assessed constantly and risk evaluation is published quarterly. Sustainable operations and image management are mentioned among the risks Kesko faces. Sustainable supply chain management is one of the options to manage the risk. Possible failures to implement sustainability would cause negative publicity and therefore cause operational and financial damage to Kesko. Kesko’s corporate responsibility activities faces various challenges, including communication of sustainability principles to suppliers and through it ensuring the sustainability of the supply chains. (Kesko Annual Report 2019) Sustainable purchasing is one of the key operations of Kesko’s corporate responsibility. (Kesko Principles and Practice of Socially Responsible Trading)

The influence of stakeholders has impacted sustainability considerations at Kesko. Conscious consumption has become more popular which is reflected in customers' choices: customers are more interested in sustainable products. Shareholders' interest in sustainability has increased to an increasing extent, which has affected Kesko's operations. Therefore, stakeholder engagement is highly valued at Kesko and the aim is to respond to the preferences of stakeholders. (Kesko Annual Report 2019) External pressure is among the reasons why Kesko pays great attention to sustainability in its operations.

To be able to fulfill the expectations stakeholders have, Kesko is required to develop its operations. Therefore, Kesko has emphasized improving sustainability practices. One of the examples is increased transparency. For instance, the names and addresses of Kesko's brand manufacturers in the apparel, shoe, and bag industries are published. It is mentioned in the principles and practices of socially responsible trading, that customers expect product traceability and socially acceptable manufacturing practices. Confirming the idea that companies should listen to the most important stakeholders and implement their actions related to their expectations. Developing processes with suppliers is mentioned as one of the tools. Especially this practice is implemented with suppliers that have a long-term relationship with the company. (Kesko Principles and Practice of Socially Responsible Trading)

#### 5.1.1 Risk identification

Kesko's supply chains face a vast number of different risks. Hence, sustainability risks identification and categorizing have pivotal importance in Kesko's operations. Human rights violations, environmental damage, financial losses, loss of stakeholder confidence, and complicating accountability and credibility are considered sustainability-related risks in supply chains. The outcomes can be caused by a deviation of supply chain management. Failing in product safety management and supply chain quality assurance can lead to financial losses, loss of customer confidence, or in the worst case, endangering the health of customers. (Kesko Annual Report 2019) Consequently, sustainability issues have a considerable focus when supply chains are reviewed.

Special consideration is on supply chains' social sustainability and human rights. These are mentioned as one of the core risks Kesko faces. The environmental sustainability risks are also taken into account. (Kesko Annual Report 2019) Human rights have special attention in social sustainability. Rights of freedom of association and collective bargaining, discrimination and child labor, and occupational health and safety are focused on when social sustainability is considered. (Kesko Principles and Practice of Socially Responsible Trading) Environmental risks are divided into three aspects: transaction, physical, and climate impact. The transaction phase encompasses increased law and regulations requirements that affect the operational level. Physical risks include an increase in extreme weather events that affect product availability and cause disruptions in logistics and the store network. The climate impact consists of the life cycle impact of products and services for sale on climate change, and climate emissions from energy solutions and energy consumption. (Kesko Annual Report 2019) The previous examples prove that Kesko has focused on identifying the most appropriate risks.

Even though risks pose enormous threats, Kesko sees opportunities in their risks. If sustainability risk management is implemented properly, Kesko can benefit from the sustainability work. For instance, collaboration with supply chain partners can increase transparency and at the same time promote responsibility in the supply chain. This can affect stakeholder confidence positively. (Kesko Annual Report 2019) Kesko has increased their transparency in supply chains where origins of their Pirkka and K-Menu tuna, Pirkka Fair Trade roses, and Prf Timber wood are disclosed. (Kesko jäljillä). Besides, Kesko has asked its customers which products they would like to hear about next. Coffee and bananas emerged, and there was a desire to hear more from factory and farm workers. (Hovi, 2020) Therefore, sustainability risk management in supply chains is seen as an important part of supply chain management and the overall presentation of Kesko.

### *5.1.2 Risk assessment and analysis*

Kesko purchases products and services across the world. There are certain more conventional risks in different countries. Therefore, assessing countries and country-specific risks include to risk management processes. When assessing risk countries, Kesko uses Amfori's risk country categorizing. (Kesko Annual Report 2019) Amfori is a leading global business association, enabling open and sustainable trade. Over 2400 retailers, brands, importers, brands, and associations from more than 40 countries are brought together. (Amfori) Amfori's risk country categorizing is based on World Bank's published Worldwide Governance indicators. The overall purchases from risk countries in 2019 were 104 million euros which are 1,1% of all Kesko's purchases during the year. These numbers consist of direct purchases to Finland. Kesko emphasizes the social sustainability dimension when purchases are implemented from risk countries where the risks of human rights violations are greatest. Special consideration of human rights issues is given to Asia and Africa. (Kesko Annual Report 2019)

Some risks are analyzed more carefully. For instance, water risk is among one of the environmental risks Kesko has a considerable focus on. Water risk has been highlighted since the most significant effects of our water consumption arise through marketable products. These consist of water scarcity or pollution-affected areas. Hence, Kesko focuses on various certifications in fruits and vegetable procurement. In 2019, Kesko launched a program aiming to assess water risks in Pirkka's mini plum supply chain. Another example of Kesko's water risk assessment was in 2018, where the focus was on avocados. Avocado cultivation needs a vast amount of water. Therefore, it is seen as a water risk. The avocado risk assessment project consisted of analyzing all the producers which supplied avocados to Kesko. The assessment was implemented with help of WWF's water risk tool. The project permitted Kesko to analyze its suppliers and identify the riskiest suppliers. In the end, Kesko terminated procurement from Petroca, Chile which was the most problematic area. Besides, during 2019 risk assessments were implemented for 904 of the main ingredients of the food products in Pirkka and K-menu portfolios. (Kesko Annual Report 2019) Assessment of products and their origins is constant. Processes are developed to obtain the most accurate information about the products.

An important part of sustainable risk management at Kesko is the procurement policy. The policy is designed to guide the procurement of products, containing raw materials identified as critical for social and environmental sustainability. There are policies about cotton, cocoa, plastic, packaging materials, soy, protection of animals, fish and seafood, palm oil, wood and paper, and GMOs. Prioritizing these themes as important, prove that Kesko has identified which of their products are especially risky, and have made special focus principles when buying these materials.

The previous examples demonstrate that Kesko pays special attention to risk countries and conventional risks there. In addition, certain individual risks are considered more closely. A good example is the water risk. These are results of risk assessment where risks and their consequences are assessed more closely.

### 5.1.3 Risk treatment

Sustainable risk management consists of a wide range of various operations. The sustainable development policies are developed, audits are implemented, sustainability development with suppliers, and cooperation with international organizations is used when the aim is to improve sustainability in their supply chain. Besides, the character of Kesko's business facilitates in managing and minimizing sustainability risks in their supply chains. A considerable part of Kesko's purchases are procured from Finland or near Finland which facilitates sustainable supply chain management. Kesko utilizes a wide range of tools to ensure a more effective sustainability risk management.

#### 5.1.3.1 Code of Conduct

The code of conduct has a vital role in Kesko's operations and is required from Kesko's partners, including suppliers. The aim behind the code of conduct is that all actors that are involved in Kesko's operations would follow the same instructions. The code of conduct requires sub-suppliers to follow the same requirements as suppliers. Human rights have a special focus on the code of conduct. The code of conduct mentions the importance of brand image and reputation of Kesko. The aim is to protect both of these by following the requirements. (Kesko Code of Conduct). Laws and regulations are at the core of the code of conduct and set the minimum requirements (K code of conduct).

The code of conduct requires Kesko's suppliers to commit to minimizing their negative impact on the environment. Besides, suppliers are required to develop their processes constantly to further reduce their environmental impact in the future. The social aspect requires suppliers to respect human rights. All internationally recognized human rights must be obeyed. Kesko does not accept child or forced labor use or any other human rights violations in supply chains. The code of conduct requires suppliers to follow and anticipate changes in societies and legislation. When suppliers are up to date, there is less chance of sustainability violations. (Kesko Code of Conduct)

#### *5.1.3.2 Certificates*

Kesko's procurement operations have a significant focus on various certificates. The goals have been established to become more sustainable and with the help of various certificates, Kesko has better possibilities to achieve the goals. By the end of 2025, the aim of Kesko is that 100% of their wood and paper products to be of sustainable origin. Products are either FSC or PEFC certificated or from renewable materials. Kesko has committed to improving sustainability in the usage of cotton. By the end of 2024, the objective is to procure more sustainable cotton for its brands. More sustainable cotton encompasses certified organic cotton, recycled cotton, Better Cotton Initiative, and FairTrade cotton. Better Cotton Initiative (BCI) is an organization aiming to improve cotton manufacturing to have better results for producers, improve sustainability in the producing process, and improve possibilities in the future. As a partner of BCI, Kesko has committed to developing cotton production globally. (Kesko Annual Report 2019)

Besides wood products and clothes, Kesko highlights also other industries where certificates have a considerable impact, one of them is the fishing industry. At Kesko's stores, MSC and ASC certified suppliers are favored when procuring fish and seafood. MSC certificate is granted for products that are supplied from wild fish and shellfish products from certified, responsible companies. ASC is granted for companies that show that fish farming is implemented in a socially and environmentally sustainable manner. In 2019, five K-Supermarkets' fish counters were granted MSC and ASC certificates. The aim was to increase the number in 2020. Two hundred of Kesko's grocery retail sales in the selection had MSC certificate and 30 were certified by ASC (Kesko Annual Report 2019) Although previous numbers have been disclosed, there is no information about the total number of fish products that are sold. Therefore, it is

difficult to make an overall assessment of what percentage of products are certified. However, there have been improvements compared to previous years. In 2017, 178 products had an MSC certificate. (Kesko Annual Report 2017) Certificates are an important part to ensure that water risk is taken into account. To mitigate water risks, certificates are used when fruits and vegetables are procured overseas. All of Kesko's brands' imported fruit and vegetables are GlobalGAP certified. The certifications guarantee that the production of fruits and vegetables follows the requirements of good use of water. (Kesko Annual Report 2019)

#### *5.1.3.3 Supplier evaluation and selection*

Kesko requires that its suppliers obey the principles of Kesko's Code of Conduct and Amfori BCI's Code of Conducts. In addition, certificates have pivotal importance in supplier evaluation. (Kesko Annual Report 2019) Legislation and regulation are also an important part of supplier evaluation and selection. Kesko requires suppliers to follow the international labor standards, applicable national laws and regulations, and other requirements. Kesko has suppliers around the world, thus suppliers' national legislation can be significantly different compared to the Finnish legislation. To ensure that the criteria are met, independent audits are implemented. (Kesko Principles and Practice of Socially Responsible Trading)

Other criteria also affect the evaluation and selection process. The aim of purchase operations at Kesko is to do a long-term, systematic collaboration with suppliers to guarantee quality. In the longer-term, Kesko favors suppliers that accept Kesko's values and principles and is willing to follow these instructions (Kesko Tavarantoimittajat). When supplier relations are longer-lasting, Kesko has better possibilities to engage with its supplier and thus improve sustainability operations.

#### *5.1.3.4 Supplier development and collaboration*

The importance of supplier development is highlighted at Kesko. Supplier development practices are implemented around the world with different suppliers. Supplier development processes are either implemented individually with suppliers or another option is that Kesko is part of a bigger arrangement with other organizations. For instance, Kesko is part of a procurement cooperation, ICA Global Sourcing (IGS). In 2019, Kesko and IGS implemented sustainability training for suppliers in India -



four suppliers were educated. The training aimed to inform about requirements of social sustainability, quality of products, and safety. In addition, education focused on improving audits at factories. Two shoe manufacturers and one building services supplier were educated in China. (Kesko Annual Report 2019)

Cooperation with several organizations seems to get considerable attention in Kesko's operations. In 2019, Kesko and an organization, the Center of Child Rights and Corporate Social Responsibility (CCR CSR)), opened a summer kindergarten for employees at a construction site lamp factory in China. The kindergarten enabled employees to have their children near them instead of living farther apart. 85% of the children would have been separated from their parents without kindergarten. Kesko is also a part of the Bangladesh Accord agreement, where the aim is to improve electrical, fire, and construction safety at garment factories in Bangladesh through audits, education, and improvements. Kesko's brand, my-wear, is required to be part of the Accord-process and in 2019 six my-wear manufacturers were part of the agreement. (Kesko Annual Report 2019) Kesko has collaborated in many different fields. Collaboration is implemented by taking social aspects into account but also developing suppliers' capabilities and informing them about the requirements.

To be able to introduce and require sustainability practices from suppliers, employees need to understand the principles of sustainability. Therefore, Kesko has emphasized training its employees about sustainability practices. Education includes various sustainable development procurement guidelines such as high-risk land procurement certification process, education on the code of conducts, and audits systems. In 2019, Kesko held five trainings for their employees. (Kesko Annual Report 2019) This is part of sustainability risk management in supply chains. When their employees have a clear knowledge of sustainability requirements and practices in supply chains, suppliers can be informed clearly and effectively.

Previous examples show that supplier development can be implemented in various ways. When considering sustainability, the focus can be on a number of different approaches. The kindergarten example implicates that Kesko aims is to have a comprehensive focus on supplier sustainability. Besides, it can be noticed that a large share of developing processes are implemented in collaboration with another actor.

When developing processes are done with other actors, there can be better possibilities to contribute to supplier development.

#### *5.1.3.5 Closer to the suppliers*

Kesko has a strong emphasis on local production and their aim is to support products that are produced close to consumers. 81% of all purchases come from Finland and the overall monetary amount is 5,9 billion euros (Kesko Annual Report 2019). When Kesko is purchasing a vast amount of their purchases from Finland, it is easier to reduce risks in supply chains. For instance, the carbon footprint is smaller when the transportation of goods is shorter.

Kesko has launched different concepts that are intended to increase the importance of local producers and develop collaboration with local producers. One of the concepts is called “Local food dates”. The idea behind this concept is to bring Kesko’s tradespeople and local producers together so that they know and understand each other better. Another concept “Thank you for the producer”. With this concept, Kesko and producers aim to increase appreciation of Finnish food. Consumers pay a slightly higher price for products, but this enables Kesko to pay their producers more. (Kesko Annual Report 2019)

#### *5.1.4 Risk monitoring and control*

Audits have significant importance in Kesko’s supply chains. Audits are especially important when procuring from risk countries that are introduced in Amfori’s risk country classification. BSCI -auditing enables auditing especially suppliers from the risk countries. Besides, other audits are acceptable, if the criteria correspond to the level of the Amfori BSCI audit and the audit has been performed by an independent party. Kesko requires that all their suppliers from risk countries have auditing processes. In 2019, 180 Kesko’s suppliers’ factories and plantations were fully Amfori BSCI audited. In addition, an Amfori BSCI follow-up audit was carried out at 172 of the suppliers’ factories or farms. Complying with working time regulations, the factory management practice and worker protection matters were the most common deficiencies found during audits. At the end of 2019, Kesko’s suppliers had implemented 733 social sustainability audits. (Kesko Annual Report 2019)

An independent auditing body is preferred at Kesko. Usage of an independent auditing body enables to obtain the most reliable and cost-efficient way to ensure that sustainability requirements are obeyed. (Kesko Principles and Practice of Socially Responsible Trading)

Monitors and controls are implemented at regular intervals. Amfori's BSCI operating model consists of full audits every two years. Suppliers are audited according to the audit protocol. If a supplier does not meet the requirements, a follow-up audit is arranged within 12 months. Suppliers are required to implement corrective measures that are then assessed during the follow-up audit. As shown, the aim of Kesko is not to terminate cooperation with suppliers if misconducts are found. The aim is rather to help suppliers to improve their practice to meet the requirements. Although, if agreements of corrective actions are difficult to arrange with suppliers, cooperation must be terminated. In 2019, Kesko terminated cooperation with nine factories since agreements were not met. (Kesko Annual Report 2019)

With audits, Kesko ensures that sustainability practices are followed during the partnerships. Monitoring and controlling sustainability requirements facilitates addressing grievances early enough before sustainability risks realize. If violations against sustainability requirements are noticed, Kesko prefers to improve suppliers' actions instead of terminating contracts. When contract terminations are avoided, buying companies avoid transaction costs that are the results of new contracts. These can be expensive, therefore developing collaboration may be a better solution from a financial point of view.

#### 5.1.5 A different outlook of sustainable performance

Kesko has gained negative publicity from various sustainability violations in its supply chains. The most infamous instances have consisted of misconducts in social sustainability. For example, there have been problems with pineapple juice and tuna fish manufacturing in South East Asia.

In 2013, Finnwatch disclosed that Kesko's pineapple juice was manufactured in questionable circumstances. Natural Fruit factory, located in Thailand, was accused of illegally low wages and employees were forced to work overtime five to ten hours a

day. A large number of the employees were victims of human trafficking, and also child labor was used. The factory management was accused of confiscating the workers' passports and work permits. The employees were prevented from changing jobs. (Finnwatch, Ananasmehujen taustalla pakkotyövoimaa) The example demonstrates that sustainability issues are wide-ranging in some parts of the world and human rights violations can be severe.

The Finnwatch disclosure also accused a tuna fish manufacturer, Thai Union Manufacturing, of violations against social sustainability. Wages were insufficient for living, there were deficiencies with written employment contracts and occupational safety had shortcomings. Although both of the examples indicated misconduct against social sustainability requirements, Finnwatch recommended sustainable supplier development instead of termination of the contracts. According to Finnwatch, termination of the contracts would not improve the conditions. Therefore, it is better to collaborate with suppliers to improve sustainability practices. (Finnwatch, Ananasmehujen taustalla pakkotyövoimaa)

Kesko has made substantial improvements considering manufacturers in Thailand. In 2015, a project by Plan was launched where Kesko supported the initiative. The project enabled 60 children to attend school. Before the project, underaged children helped partners to fish, process fish, and at home. The project enabled children to have better possibilities for the future. (Kesko Cooperation between Kesko and Plan helps children of migrant families to school in Thailand)

In 2018, Finnwatch published a new report of Thai Union factories. According to the report, Kesko had a significant impact on improving working conditions and social sustainability levels. Legal social security for workers had improved, recruitment fees were decreased, democratic workers' committees were allowed and social dialogue between workers and management had increased. Previous infamous disclosures have had a broader impact since Kesko has begun to improve sustainability performance also in other areas. Violations in Thai working conditions have also led to several corporate responsibility projects in other high-risk countries. (Finnwatch, Työolot paranivat Thaimassa)

As Finnwatch suggested, if sustainability violations are measured, companies should implement improvement processes instead of terminating purchasing contracts with suppliers. Kesko examples indicate the efficiency of improvement actions. Improvement actions with suppliers have comprehensive impacts on sustainability issues. If contracts are terminated immediately after misconducts are noticed, suppliers' misconducts could continue with other buying companies. Besides, Kesko was able to continue contracts and thereby avoid expensive transaction costs.

## 5.2 UPM

UPM is a Finnish forest industry company aiming to create sustainable fossil-free alternatives for various purposes in the bio-economy. Sustainability is at the core of UPM's processes. The vision is to be among the pioneers in bioforestry industry by offering an alternative to fossil economy solutions. UPM is a global actor that has operations around the world. As a global actor, UPM has a vast amount of suppliers - 24,000 suppliers are used globally. In addition, 18,000 private forest owners sell their products to UPM. (UPM Annual report 2019) A large supplier portfolio challenges UPM's sustainable supply chain management. Because of the large number of suppliers, there is an increased probability for various risks, including sustainability risks. Therefore, social and environmental sustainability have a major part of supply chain management in addition to the financial aspect of sustainability (UPM Annual Report 2019).

UPM has manufacturing operations in 12 countries around the world and on six continents. There are employees in 46 different countries. (UPM Annual Report 2019) Therefore, UPM has a wide range of influence and can be closely involved with different actors, including suppliers.

Major sourcing categories consist of fiber, chemicals, other raw materials, indirect purchases, logistics, and energy. Hence, there are a vast number of suppliers in the supply chain and purchases encompass various items. Therefore, UPM has developed a platform to standardize and simplify sourcing processes. Supply chain operations such as demand planning, tendering, contracting, and purchase transactions are facilitated with the platform. The aim is to improve effectiveness and transparency in

supply chains, and improve suppliers' integration into business processes. (UPM Annual Report 2019) With these operations, UPM can manage sustainability better in its supply chains and thus mitigate sustainability risks.

Risk management is one of the strategic objectives of UPM. To be able to reach the objective, UPM has developed its processes. In 2019, the Code of conduct was revised and the staff was trained in sustainability practices. Also counterparty risk management has gotten more attention. The objective in 2020 is to educate UPM's suppliers and third- party members of the Code of Conducts. Certificates and audits are among the different methods of how sustainability risks are managed. (UPM Annual Report 2019) A wide range of different management methods proves that sustainability risks in supply chains are considered as potential and severe risks for the company. Furthermore, the wide portfolio of different methods indicates that risks are analyzed before deciding which of the methods should be used. Proper sustainable supply chain management facilitates risk management processes and competitive advantage can be increased through it. (UPM Annual Report 2019)

#### 5.2.1 Risk identification

UPM has defined a vast number of various risks. The risks are defined according to description, risk impact, management, and opportunities. Supply chain and third- party reputation risks are mentioned as some of them. Risks consist of environmental and social risks. Environmental risks include leakages or emissions as a result of a malfunction or human error. Social risks include events where physical injuries to people are possible. Both of these can affect UPM's image negatively. (UPM Annual Report 2019)

Risk identification is implemented through various methods. The engagement of stakeholders has a vital role in UPM processes when risks are identified and discussed. UPM has developed an analysis called "Materiality analysis" to facilitate risk identification. The analysis involves knowledge of different sustainability issues that have a direct or indirect influence on the ability to create, maintain, or acquire sustainable value for UPM, stakeholders, or society. (UPM Annual Report 2019) The materiality analysis indicates that UPM takes a broader consideration of sustainability issues and is willing to discuss with stakeholders what they emphasize as key tasks.

The analysis is carried out annually and different stakeholder groups are interviewed to get a broader view of sustainability concerns. Besides, UPM utilizes a web-based survey that is filled anonymously by its stakeholders. When results are received, a third-party actor will analyze results and deliver the analysis to UPM. The analysis classifies the sustainability dimensions to four different issues. In social dimensions, special attention is paid to child and forced labor, diversity, employee engagement, and health and safety. Environmental dimension consists of circular economy and resource efficiency, climate change, product stewardship, and responsible forest management and biodiversity. (UPM Annual Report 2019) The UPM's materiality analysis demonstrates that stakeholders' concerns are considered and their view has an important role in the sustainability process. When different important sustainability topics are known, it is easier to fulfill the expectations.

#### 5.2.2 Risk assessment and analysis

Supplier risk assessment includes to supply chain management process. Risk can have multiple and severe consequences - damage to the reputation can lead to loss of business and competitive position, and besides damage the value of the company. Previous examples are for the most part results of reputation risks. (UPM Annual Report 2019) Therefore, risk management has a considerable impact on UPM's operations. Sustainable supply chain management aims to manage UPM's reputation and thus it has considerable importance in UPM's operations. Therefore, UPM assesses and analyzes the identified risks to obtain appropriate treatment options.

Risk assessment has an important role in UPM's operations. UPM faces a vast number of different risks, therefore the most severe and probable must be known. Environmental pollution, occupational health, and safety, working conditions, protection of children, and forced labor are the key issues on which UPM focuses. In addition to specific risks, some other factors are assessed in more detail. For instance, counterparty risk is carefully considered in the risk assessment. UPM has developed its processes to facilitate counterparty risk management. UPM has launched a project in 2019, enabling UPM to manage counterparty risks in different countries and continents. The aim is to know the partners to make procurement more sustainable. (UPM Annual Report 2019) Assessing counterparty risks facilitates the identification

of the most severe and likely risks for UPM and thus find the most suitable options to manage the risks.

In addition to counterparty risks, some of the industries are assessed more closely. For instance, UPM has set specific requirements for pulp suppliers. They have special requirements for environmental performance, social sustainability, forestry, wood procurement, and reporting. UPM highlights the importance of collecting and analyzing information on pulp and chemical suppliers. There is a particular focus on supplier risk management for suppliers in these areas (UPM Annual Report 2019) Focusing on specific industries indicates that UPM highlights the importance of certain industries. When pulp and chemical suppliers obtain more specific requirements, it indicates that risks are more likely to occur in these industries and therefore special requirements are set.

### 5.2.3 Risk treatment

UPM has presented a list of different methods that are used to manage sustainability risk in the supply chain. The core of the methods consists of the UPM Code of Conduct, the UPM Supplier, and Third Party Code, audits, and certificates. (UPM Annual Report 2019) Besides, supplier development processes are used as one of the options, hence, these supplier development practices at UPM will be introduced. Suppliers are analyzed and the results of analyzes will be the core of the supplier development process (UPM Annual Report 2019). Even though supplier development is not mentioned among operations that manage supply chain risks, it can be seen that supplier development and collaboration are used to ensure sustainability practices among suppliers.

#### 5.2.3.1 Code of Conduct

Code of conduct is among the tools for how risks are managed in supply chain management. The UPM Code of Conduct sets the minimum requirements for UPM's partners. The minimum requirements consist of all applicable laws and regulations (UPM Code of Conduct). The requirements must be met also by the sub-suppliers, suppliers are required to promote the same requirements further down in the supply



chains. The idea is that the Code of Conduct would impact the whole supply chain. (UPM Annual Report 2019)

Child labor is emphasized in UPM's code of conduct. For instance, there are two alternatives to using underage at work. Suppliers either follow the instructions of the International labor organization (ILO) where the minimum age for working is 15, or local laws. The option chosen should be based on which one is higher. (UPM Code of Conduct) This proves that the code of conduct is a combination of different instructions that can be from an organization and laws and regulations.

UPM has launched a practical guide for suppliers. The guide aims to inform suppliers about the requirements in the code of conduct and therefore facilitate them to fulfill the expectations. The different requirements of the code of conducts have been introduced in the guide which is supplemented with examples of how suppliers can implement practices at their practices. (UPM Practical guide)

However, the code of conduct is not the only way to manage risks. Different industries are required to fulfill additional requirements in addition to the minimum. All of the wood, pulp, and recovered paper suppliers are evaluated continuously in different sustainability dimensions. Raw material suppliers are evaluated by different certifications and standards. (UPM Annual Report 2019).

UPM has an aim to develop its practices, including utilizing the code of conduct. The objective for 2030 is to have 100% of the value of purchases from suppliers that have accepted the Supplier and Third Party Code. (UPM Annual Report 2019) This is an example of how UPM is constantly striving to improve its operations to be more sustainable and thus mitigate sustainability risks in supply chains.

#### *5.2.3.2 Certificates*

Certificates are included in the risk management options. Usage of certificates facilitates to pursue the sustainability requirements. (UPM Annual Report 2019) There are various certificates used at UPMs operations, some consider the social aspect and some the environmental aspect. Therefore, it is important to select the most suitable certificates to fulfill the requirements.

Wood supplied to UPM is covered by third-party-verified, FSC and PEFC certificates. In addition to the certificates, UPM affirms that EU Timber Regulation, the US Lacey Act, and other regional requirements are observed by the wood suppliers to the mills. (UPM Annual Report 2019)

Related to certificates, supplied wood is required to be traceable. Traceability ensures the sustainability of the procured wood, encompassing environmental and social aspects. (UPM Annual Report 2019)

#### *5.2.3.3 Supplier evaluation and selection*

The UPM Supplier and Third Party Code set the minimum requirements for suppliers. Certificates provide a good basis for supplier evaluation and selection. However, there are additional requirements. For instance, general safety instructions and specific requirements for various industry areas, such as pulp, chemical, logistic, packaging, recovered paper, and wood sourcing, and forestry. Pulp suppliers are required to utilize the best available techniques from a technical and economical point of view to minimize environmental load (UMP Pulp Supplier Requirements). UPM uses the EU Ecolabel Requirements for chemical suppliers. The EU Ecolabel Requirements focus on emissions to air and water and energy use. (UPM Chemicals and Pigments) Packaging suppliers are required to minimize the amount of packaging material and are encouraged to use recyclable and environmental materials (UPM Packaging). Procurement of recovered paper is based on EN643 (UPM Recovered paper). Wood suppliers are required to have a third-party certification (UPM Wood Sourcing and Forestry). The previous examples demonstrate that UPM focuses on certain industries, where suppliers are evaluated more carefully. It implicates that these industries can be seen as more vulnerable and therefore risky. With specific requirements, UPM has increased possibilities to manage sustainability risks.

#### *5.2.3.4 Supplier development and collaboration*

UPM Annual Report (2019) highlights the importance of collaboration and supplier development process among supplier risk and performance management. 1.6 million tonnes of chemical pulp come from external suppliers and they are required to develop actions towards a more sustainable way. The process includes collecting and analyzing

environmental and social sustainability data. The analysis is used to develop and plan processes together with the suppliers. UPM has taken part in Together for Sustainability (TfS) since 2018. This is an initiative that promotes and improves practices within the supply chain and its members. TfS is a global network of 26 chemical companies where the global standard for environmental, social, and governance performance of chemical supply chains are informed. (TfS) With help of TfS UPM can receive supplier data that consists of audit reports and sustainability assessments. TfS aims to help companies evaluate and improve the sustainability performance of the suppliers by a standard approach. (UPM Press release 2018) TfS has enabled UPM to improve the transparency and efficiency of its assessment and audits. UPM completed more than 400 environmental and social risk assessments with EcoVadis and TfS audits that are available for companies in TfS. Because UPM has such a vast number of suppliers it would be a hard task to review and audit all of the suppliers with its own resources. (UPM Annual Report 2019) Hence, taking part in TfS has enabled managing sustainability risks more broadly. UPM has had access to a larger information base which has facilitated the management of risks in their supply chains.

#### 5.2.4 Risk monitoring and control

Audits have pivotal importance when risks are monitored and controlled. Implementing supplier audits are mentioned as one of the tools to manage supply chain risks. Suppliers are audited constantly which includes systematic risk assessment practices. Audits facilitate implementation of responsible sourcing. In 2019, 185 supplier audits were implemented for UPM. In addition, there were 300 audits on contractors where the focus was on working conditions. (UPM Annual Report 2019)

UPM has a certain emphasis on supplier audits. For instance, in 2014 UPM began a program in Thailand where its supplier, Tapioca Starch, a raw material supplier, was audited regularly and extensively. The aim was to improve working conditions. The program was launched even though most of the workers were satisfied with the working and living conditions, as some safety concerns were noticed. Audits enabled advising the supplier and discussing sustainability concerns. (UPM Annual Report 2019) The example demonstrates that audits can be a part of a longer program where the aim is to develop processes constantly even though severe misconduct would not

be noticed. When preventive actions are implemented, there are better opportunities to avoid the realization of risks.

If suppliers' violations towards sustainability requirements are noticed during audits, UPM prefers corrective action rather than terminating the relationship immediately. When violations are noticed from the suppliers' side, they are required to take corrective action. UPM provides support to its suppliers to improve their actions. However, if the corrective actions do not reach the required objectives, contracts between UPM and its supplier can be terminated. (UPM Annual Report 2019)

#### *5.2.5 A different outlook of sustainable performance*

There are examples where UPM has been accused of greenwashing. According to Maan ystävät (Questioning UPM greenwashing campaign), a Finnish NGO, UPM has informed the external audience of the positive outcomes of their actions in Uruguay, instead of informing about the negative impacts these actions have on the environment and locals. The statement of Maan ystävät that has been signed by a vast number of different organizations and scientists, discloses how UPM produces cellulose in Uruguay at eucalyptus plantations. The statement accuses UPM of greenwashing since UPM claims that tree plantations that replace natural grasslands would benefit expanding biodiversity, help to mitigate consequences of climate change, prevent deforestation, and cellulose plants would contribute to sustainable water management. Instead of these positive outcomes that UPM discloses, Maan ystävät points out various negative outcomes. Cellulose plantations will increase monocultural plantations which will impact the environment and locals negatively. One of the main problems with cellulose plantations is monoculture tree plantations. When plantations are monoculture, the deforestation issues increase. Local communities will suffer from monoculture plantations expansion. When plantations focus on planting certain wood types, nature around it will suffer. In addition to changes in nature, plantations harm residents.

Plantations can change local productions, such as food sovereignty. In addition, plantations can have an impact on soil which may lead to loss of organic matter and minerals, and water. The plantations have negative impacts also on local residential

areas. Locals lose their territories because of plantations and there is increased demand for infrastructure. (World Rainforest Movement. Local Struggles Against Plantations)

### 5.3 Neste

Neste is an energy company, the world's largest producer of renewable diesel and renewable jet fuel refined from waste and residues. Neste has been recognized as a sustainable company. In 2020, Neste was in third place on the Global 100 list. Besides, Neste has been three times in the top three and 14 consecutive times on the list. Neste has been most consecutive times on the list from energy companies. (Neste Vuoden 2020 Global 100-listalle: Neste maailman kolmanneksi vastuullisin yritys) This shows that Neste is a frontrunner in sustainable (energy?) business and is aiming to develop its processes to become more sustainable.

Extensive attention is paid to sustainability practices in Neste's operations and several different actors are utilized to obtain a comprehensive view about sustainability. For instance, a materiality assessment is exploited to understand sustainability opportunities and challenges. Therefore, the materiality assessment has significant importance in Neste's operations. With the materiality assessment, stakeholders' sustainability concerns are surveyed, and it is implemented every two years. In 2018, the assessment consisted of 161 stakeholder representatives' views. Neste emphasizes the importance of their stakeholders' opinions about sustainability: the latest assessment identified nine material topics which provide a sustainability agenda for Neste. (Neste Annual Report 2019) Neste involves its stakeholders in the sustainability process to enhance its sustainability operations. When stakeholders are involved, Neste can understand the expectations and later fulfill them better.

The development of supplier sustainability has been widely considered at Neste. A few different approaches have been developed to facilitate supplier sustainability and thus reduce sustainability risks in the supply chains. For instance, supplier engagement and development processes are pivotal operations at Neste. A portal, Supplier sustainability portal, has been established for suppliers to manage relationships more effectively. The portal encompasses several processes, including sustainable sourcing of renewable raw materials. Supplier evaluation, supplier due diligence, engagement,

and submission of proof of sustainability documents are among the processes included. Suppliers have been involved in developing the portal, which aims to be supportive to all suppliers. (Neste Annual Report 2019) Besides, risk management processes are among the core operations in supply chain management. Therefore, supplier sustainability due diligence is closely monitored at Neste. Neste has developed a framework: “The Neste Supplier Sustainability Due Diligence Framework”. The framework has been a basis for a new Principle on Renewable Products (RP) Supplier Sustainability Approval. The principle is implemented with every counterpart that supplies renewable raw material for Neste’s renewable products. The approval is part of Neste’s framework managing counterparty risk. Credit control, compliance review, and sustainability due diligence processes are included in the framework. A six-step sustainability due diligence process defines the minimum requirements for supplier sustainability approval: 1) Review of material approval 2) sustainability risk assessment 3) supply chain identification 4) review of certain requirements of market compliance and Neste compliance 5) ESG evaluation and 6) Onboarding audit. The due diligence framework aims to collaborate with suppliers. It enables to enhance sustainability performance mutually through engagement, collaboration, and improvement. Besides, the framework facilitates Neste to know better the sub-suppliers. The Neste supplier sustainability due diligence framework and the supplier sustainability portal support each other, as the portal is used to manage the due diligence process. (Neste Annual Report 2019)

In addition to sustainable supply chain management, risk management has an important role at Neste. The operations are constantly developed, aiming to match the variable internal and external operating environment. The risk model at Neste classifies risks into three aspects: external, strategic, and operational. The most important risks among external risks are changes in the external operating environment and risks related to the partnership network. Supplier management includes partnership network management. (Neste Annual Report 2019) Supplier risk management is seen as an important part of Neste’s operations.

### 5.3.1 Risk identification

The risk management team at Neste leads the risk management cycle that includes identifying and assessing the most significant liability risks. The sustainability risks are identified and assessed as part of the annual risk management that is implemented by the risk management team. The risks are monitored and the risk management team ensures that risks are adequately mitigated in Neste's business areas, operations, and county units. Forced and child labor, discrimination, conditions of employment, and land and property issues are mentioned as the biggest concerns when suppliers' social sustainability is considered.

There are wide-range risks that challenge Neste. Neste's operations can cause considerable hazards since the nature of the operations. For instance, maritime accidents can have enormous impacts on the surrounding environment. Hence, risk management importance is highlighted in supply chain management. (Neste Annual Report 2019) A maritime accident is an example where sustainable and ordinary risks can occur at the same time. If the environment suffers because of the accident, it might produce reactions in stakeholders, but at the same time, the accident can cause disturbances that may also damage Neste's operations. This is an example of why Neste has an extensive focus on risk management when supply chains are managed. Sustainability risks are considered but the ordinary risks are not forgotten. The risk of adverse environmental impact is seen as the environmental risk in supply chain management. Palm oil has created a reputational risk for Neste during the past years, hence, it is considered one of the most important environmental risks in supply chain management. (Neste Annual Report 2019)

### 5.3.2 Risk assessment and analysis

Risk management assessment is implemented annually at Neste. Risk levels are monitored, and it is ensured that the risks are mitigated appropriately. Risk management is described as an essential part of ensuring that Neste reaches the set strategic goals and business objectives successfully. (Neste Annual Report 2019) The biggest social risks identified in Neste's supply chains are forced and child labor, discrimination, conditions of employment, and land and property issues. The environmental risks in the supply chains arise from the raw materials that are used in

products such as vegetable oils, waste, and residue fats. For instance, palm oil has been on display and posed a reputational risk to Nestle. NGOs and customers are considered about the usage of palm oil, which has posed a risk reputation. To manage and mitigate the previous risks, Nestle requires suppliers to comply with the Nestle Supplier Code of Conduct which contains strict human rights criteria. (Nestle Annual Report 2019)

The Nestle Supplier Sustainability Due Diligence Framework has an important role in assessing sustainability risks. Sustainability risk assessment is the second phase of the framework and ensures that identified risks are assessed properly and necessary actions can be implemented. (Nestle Annual Report 2019)

### 5.3.3 Risk treatment

Nestle has a wide range of different options for how sustainability risks are managed in their supply chains. Although, as a global actor, Nestle faces challenges to implement sustainable supply chain management. and there can be difficulties to enhance relationships with suppliers. Therefore, Nestle has established a couple of offices around the world, to be able to be closer to the suppliers. In 2019, Nestle opened two new offices, one in Shanghai and one in Melbourne. With help of the new offices, Nestle can engage the suppliers and exert more control to ensure high-level sustainability performance. (Nestle Annual Report 2019) The example demonstrates that sustainability risks can be managed more broadly than only with the traditional operating models that companies tend to utilize.

#### 5.3.3.1 Code of Conduct

Code of conduct has an essential role at Nestle. They are widely used to ensure sustainability in supply chains and therefore increase the possibilities to mitigate sustainability risks. The Nestle code of conduct is divided into two parts: One of them is a more conventional code of conduct for all of Nestle's partners, and the other one is modified for suppliers, which is called "The Supplier Code of Conduct". Environmental and social dimensions are presented in the supplier code of conduct. The environmental aspect emphasizes impacts on climate change and environmental impacts. For instance, suppliers should support a precautionary approach to environmental challenges and commit to initiatives to promote greater environmental



responsibility. Suppliers are required to meet the applicable environmental requirements including the laws, regulations, environmental permits in the business area in which the supplier operates. The social aspect has two aspects: 1) Human rights and workers' rights and 2) Occupational health, personal safety, and corporate safety. Human rights and workers' rights include that suppliers are required to comply with and keep appropriate records of applicable laws regarding working hours, minimum wages, overtime, adequate breaks, and rest periods. From the safety point of view, suppliers must provide employees a healthy and safe workplace following all laws and regulations applicable to its operations. Laws and regulations set the core of the code of conduct (Neste Code of Conduct).

The requirements of the codes of conduct are updated frequently, the latest update to the Supplier Code of Conduct was implemented in 2019. Updates ensure correspondence with existing norms and regulations, and stakeholders' expectations and needs. In addition to frequent updates, broad usage of code of conduct facilitates to mitigate the sustainability risks. In 2019, 100% of Neste's new indirect supplier contracts, 100% of the renewable raw material volume, and 88% of the fossil raw material volume that was delivered to Neste were covered by the Supplier Code of Conduct or equivalent. (Neste Annual Report 2019) The number for fossil raw materials was 91% in the previous year, implicating a slight decrease.

In addition to the supplier code of conduct, Neste has launched a supplier code of conduct guide for suppliers. The guide supplements the supplier code of conduct and advises how the requirements can be reached. Each of the supplier code of conducts requirements is presented but in addition to this, examples of good practices are given to help comply with the requirements. For instance, in environmental impact and climate change, companies are encouraged to establish, implement, maintain, and communicate the environmental policy. The policy should be appropriate to the purpose and context of the business. From the social point of view, suppliers should keep a record of working hours and working hours should be divided into normal and overtime hours. Neste's safety guidelines are at the core of guidelines for occupational health, safety, and security. (Neste resumes sourcing from palm oil company IOI Available) Neste aims to support the suppliers and assist them in reaching the

requirements. Guidelines provide tangible examples of how sustainability concerns can be taken into account.

#### *5.3.3.2 Certificates*

When procuring raw materials, certifications have a significant impact on Neste's operations. Certifications ensure the sustainability of renewable fuel production. Certificates that are used are compliant with the EU or the United States. In the United States, renewable fuels are required to fulfill the Environmental Protection Agency's (EPA) sustainability requirements. Besides, ISCC and RSPO certificates that are approved by the EPA, are used to monitor renewable material. With these actions, Neste ensures that its production and raw material sourcing fulfill the EU's and the United States' requirements. (Neste Annual Report 2019)

Certifications ensure that raw material production is implemented sustainably and thus procurement is will not damage Neste. Special attention that has been paid to, for instance: raw material used does not come from restricted areas such as high carbon stock areas or rainforests, biodiversity and endangered species are out of risk, land grabbing is forbidden, and human rights, including workers' rights are respected. (Neste Toimittajavaatimukset) Certifications focus on environmental and social aspects of sustainability. When certifications are utilized in supply chain management, Neste enhances sustainability-related risk management among supply chains.

If Neste's suppliers lose their certificates, Neste will terminate its purchases from the supplier (Neste f). It is a strong statement from Neste and emphasizes the importance of certificates. Suppliers' certificates inform Neste about the sustainability levels they have.

#### *5.3.3.3 Supplier evaluation and selection*

Neste's suppliers have strict requirements that are evaluated before contracts are signed. The code of conduct has an essential role in evaluation and selection. The core of the evaluation and selection process is set with a code of conduct but the other requirements are emphasized. The requirements for suppliers differ in the importance and industries of suppliers. Some industries and suppliers are considered more closely, such as suppliers that supply raw materials for palm oil. The suppliers are evaluated

and selected after a comprehensive process. For instance, the suppliers are required to commit to responsible action, the protection of biodiversity, and respect for human rights. before any contracts can be signed. Supplier evaluation and selection processes are considered closely at Neste due to their importance. Various instructional lists consisting of requirements are used.

All of Neste's suppliers are required to apply Neste's responsible sourcing principles with their suppliers. Neste Code of Conduct This enables Neste to have an impact further down the supply chain. In addition to the principles, suppliers are required to adhere to Neste's Human Rights Commitment and Principles. Industry and market-specific legal requirements are demanded of the suppliers.

Some of the suppliers have stricter requirements compared to others. Especially suppliers that supply raw materials for renewable fuels are focused on more closely. Raw materials for renewable fuels can be highlighted as an essential part of Neste's operations, therefore there is an increased focus on them. As a company emphasizing renewable fuels, palm fatty acid distillate (PFAD) is considered as one of the main waste and residue materials of Neste's portfolio. PFAD is only purchased from suppliers that are committed to sustainable working practices and meeting strict sustainability criteria embedded in the biofuels regulation. Preventing deforestation and mitigating its risks encompass the strict criteria. Besides, purchased PFAD is required to be traceable. Neste aims to map PFAD supply chains by the end of 2020 to be able to recognize actors along the supply chain. Mapping allows improved knowledge about the actors and their actions. (Neste Annual Report 2019) According to Stevenson and Cole (2018) mapping supply chains and publishing supplier lists improve the transparency of supply chains. When transparency has increased, companies have better possibilities to know the various operations in the chains and therefore be aware of the risks that the chains consist of. Consequently, mapping supply chains enhances chances to manage and therefore mitigate sustainability risk.

The code of conduct is the core of the supplier requirements which are supplemented with additional requirements. Although, it is mentioned in the annual report that the suppliers are required to fulfill the requirements of the supplier code of conduct. Differences can be found between the requirements of different suppliers. For instance,

renewable raw material suppliers are required to meet additional requirements such as responsible sourcing practices, Human Rights Commitment and Principles, and industry and market-specific legal requirements. (Neste Annual Report 2019) Some of the suppliers and industries can be seen as riskier which is why they have stricter requirements compared to others.

#### *5.3.3.4 Supplier development and collaboration*

Supplier development and collaboration with suppliers is considered as one of the risk management tools at Neste. Supply chain operations are improved constantly. Supplier engagement is seen as part of the key strategies to improve the supply base. When suppliers and their concerns are understood better, Neste has better possibilities to strive for practical solutions, which enhance sustainability risk management. (Neste resumes sourcing from palm oil company IOI Available) Supplier engagement increases possibilities for a more beneficial relationship. To have more efficient partnerships with Neste's partners, two new offices were established in 2019.

There are various examples where Neste has developed operations with its suppliers. Since 2015, Neste has arranged workshops with their palm oil suppliers to foster dialogue and hear supplier's concerns. Workshops have enabled Neste to better clarify the requirements and expectations it has set to their suppliers. Collaboration with suppliers has facilitated Neste to launch the Neste Responsible Sourcing Principle in 2019. (Neste resumes sourcing from palm oil company IOI Available) An important part is that the suppliers are involved in developing the process of the sustainability supplier portal. Consequently, the involvement of suppliers by Neste indicates better possibilities to strengthen sustainability knowledge and therefore managing sustainability-related risks more effectively.

In 2015, Neste introduced Neste Human Rights Commitment and Principles, aiming to improve human rights activities in each of the operations from its employees to supply chains. The aim is to develop its processes constantly to improve performance from the social aspect. Neste has been part of various projects aiming to improve social conditions in its supply chains. For instance, in 2019, Neste took part in a program that aimed to strengthen the rights and protection of children. Neste, among several other brands, collaborated with Business for Social Responsibility (BSR) and Wilmar to

protect the rights of children living on palm oil plantations. The program educated palm suppliers about pragmatic measures of how to enhance the living conditions of children. (Neste Annual Report 2019)

A considerable point in supply chain management is related to occasions where suppliers do not comply with the requirements that have been set for them. If violations against sustainability requirements have been noticed, Neste emphasizes the importance of improving supplier capabilities, instead of terminating partnerships. According to Neste, ending purchases does not resolve problems, therefore cooperation is seen as a better solution. Although, if sustainability requirements are not met after improvement processes, contracts will be terminated. If violations against sustainability are noticed, Neste has a clear framework of how the process is implemented. The supplier is required to disclose the situation. After Neste is informed about the situation, the supplier is provided an assessment and if necessary, a supply chain audit is carried out by Neste or a partner. The following step is to obtain a plan from the supplier of corrective actions. (Neste h)

#### 5.3.4 Risk monitoring and control

Audits are used to develop sustainability practices at Neste. Audits have pivotal importance in the due diligence process. (Neste Annual Report 2019) Besides, risks are identified and assessed annually which enables to control the risk better. When risk management is developed constantly, Neste has better possibilities to respond to changing challenges and thereby reduce sustainability risk in their supply chains.

Auditing is constantly developed at Neste to enhance sustainability performance at suppliers' sites. In 2019, Neste's supplier sustainability due diligence process was developed with a pilot. The launched pilot contains on-site audits for suppliers that provide used cooking oil. The aim is to further develop audits in the future. (Neste Annual Report 2019)

In 2019, Neste's supplier sustainability due diligence process was developed with a pilot. The launched pilot contains on-site audits for suppliers that provide used cooking oil.

Maritime transport has an important role in Neste's operations. Raw materials are transported over sea. Neste considers maritime accidents as major risks. If a maritime accident occurs, it can realize both sustainability and ordinary risks. Therefore, sea transportation is examined closely during auditing processes. The external shipping companies are selected carefully and audits are implemented regularly to ensure the safety and sustainability of Neste's operation at sea. (Neste kuljetusten turvallisuus)

#### 5.3.5 A different outlook of sustainable performance

Finnwatch, a Finnish NGO that focuses on studying the global impact of business, has reviewed Neste and its suppliers about palm oil production. In 2014, Finnwatch published its first survey where Neste's palm oil supplier, IOI Group, was exposed. The survey found severe violations. Employees were paid less than required by law and regulations, employees' passports were taken, the professional organization was prohibited and employees paid high recruitment fees. The survey discovered misconduct in certifications among palm oil industries and audits referring to certifications. Because of the violations, Finnwatch has kept its focus on IOI Group and its performance. (Finnwatch, Ananasmehujen taustalla pakkotyövoimaa) Neste has taken action against IOI Group since the violations appeared. Neste suspended IOI Group in 2016 because the supplier was suspended from Roundtable on Sustainable Palm Oil (RSPO) certification. After IOI had improved its sustainable performance and therefore obtained the certificate, Neste resumed purchasing palm oil from IOI Group. (Neste Supplier requirements) After the development process employees were satisfied with wages, living, and working conditions. Because the working conditions had improved, length of employee relationships was relatively long, 10 years, which implicates employee satisfaction. (Finnwatch, Ananasmehujen taustalla pakkotyövoimaa)

IOI Group's example seems to have had an impact on Neste's sustainable supply chain management. In 2018, Neste was among the first companies to disclose its palm oil suppliers. According to Finnwatch (Läpinäkyvyys lyö läpi. Neste teki historiaa), Neste was the first company to trace almost all of the PFADs it uses to the processing plant level. In 2014, Finnwatch had recommended Neste to trace and disclose their PFAD supply chains. This proves that companies listen to a wide range of suggestions from different stakeholders and therefore develop their processes. NGOs can have a

different perspective on certain issues which facilitates companies to have a more comprehensive outlook about their actions.

Palm oil suppliers have caused Neste bad publicity on several occasions. Chain Reaction Research (2020) has accused Neste of buying from a supplier, PT Bina Karya Prima, which has a controversial background. According to Chain Reaction Research, the supplier's palm oil come from Indofood and Sawit Sumbermas Sarana. Both of them have been accused of deforestation on their plantations, side businesses, and the use of shadow companies to obliterate links to deforestation and violations against human rights. According to Chain Reaction Research, Neste has been linked to orangutang habitat destructions in Indonesia through its supply chain.

The previous examples show that tracking down the whole supply chain is a challenging task, even for big multinational companies. Even though Neste has vast resources, misconduct has been found in the supply chains. Examples prove that with help of wide-ranging collaboration, the development process is possible.

There has been development in Neste's sustainability practices. Neste has become more transparent with the operations and different reports about their supply chains have been published. Neste has launched an online service where anyone can report a grievance or file a complaint. Neste discloses reports on complaints related to the supply chain of renewable raw materials. By the 9<sup>th</sup> of December 2020, Neste has disclosed three reports during 2020. The reports were about February, March, and April. Reports disclose the target of the grievance, its relationships with Neste, the parent company group of grievance target, a link to the grievance, and the status of the grievance. In addition, a link to the direct supplier grievance dashboard is presented. (Neste i) Increased transparency is one of the tools of how Neste aims to mitigate sustainability risks in supply chain management (Neste Annual Report 2019).

#### 5.4 Chapter summary

The chapter discuss empirical research based on utilized data. The case companies and their sustainability risk management practices in supply chains are discussed. Each one of the case companies are discussed through the framework which consists of: risk identification, risk assessment and analysis, risk treatment and risk monitoring. When the case companies are analyzed with these stages, it enables to obtain information of how sustainability related risk are managed. Later it is easier to compare the case companies and in addition, practical actions with previous literature. However, this chapter consider sustainability misconducts in all three companies. When misconducts are taken into account, it enables to obtain a more objective view of companies and their actions. It proves that companies have difficulties to manage sustainability risks even they would have vast resources.



## 6.Results

### 6.1 Risk identification

Risk identification has an important role in all three case companies. The processes are comprehensive with a vast number of different actors involved. Stakeholders are engaged in the risk identification process to obtain an extensive view of their concerns which can be useful in managing sustainability risks more effectively.

Neste identifies risks annually. Risk identification is implemented by the risk management team and its intention is to find the risks their supply chains consist of. Social risks include child and forced labor, discrimination, conditions of employment, and land and property issues. Environmental risks consist of raw material procurement such as palm oil that is an important raw material for Neste. In addition to mere sustainability risks, Neste considers the combination of sustainability and ordinary risks as pivotal because the nature of business maritime accidents can cause both ordinary and sustainability risks. Therefore, supply chain risk assessments are required to have a comprehensive focus. The maritime example shows that ordinary and sustainability risks can occur at the same time. Therefore, sustainability risk management can have wide-ranging effects on the company's operations in general.

UPM has a strong focus on sustainability risks in its supply chains. The materiality analysis is implemented annually to identify risks. Stakeholders are engaged to obtain a comprehensive view, including stakeholders' concerns. Social risks that are identified are child and forced labor, diversity, employee engagement, and health and safety. Environmental risks include resource efficiency, impact on climate change, product stewardship, and responsible forest management and biodiversity.

Kesko observes risk identification as an important part of managing sustainability risks in the supply chains. Environmental and social risks are considered as key risks in its supply chains. Environmental risks consist of the transaction, physical, and climate impact risks. Especially climate impact has great impact on sustainability risks. Products' and services' life cycle impact and climate emissions from energy solutions and energy consumption are emphasized in the environmental aspect. Kesko has a special emphasis on several products that are sold. For instance, the use of water in the

cultivation of products and tuna production. Social sustainability risks include Rights of freedom of association and collective bargaining, focus on discrimination and child labor, and occupational health and safety. Stakeholder engagement is used at Kesko. Customers are more interested in sustainable consumption which affects sustainable supply chain management. Shareholders are also interested in sustainability and therefore the issues are emphasized in supply chain management.

There are similarities and differences between case companies. All the case companies have a comprehensive risk identification process which consists of regular operations and stakeholder engagement. Stakeholder engagement has an important role when sustainability risks are identified in supply chains. The case companies analyze stakeholders' concerns about sustainability issues and identify the risks.

There are similarities and differences between sustainability risks. Especially social risks consist of similar concerns. Social risks such as child and forced labor, discrimination, and health and safety are concerned closely at the case companies. In addition, some risks, especially environmental risks, are industry-specific. For instance, Neste emphasizes maritime accidents, UPM sustainable forest management, and Kesko how water is used in the cultivation of their products.

Risk identification concludes that there are some universal sustainability risks that the case companies consider, for instance, usage of child and forced labor. However, these risks can be hard to notice because of the length of the supply chains. Therefore, companies pay special attention to these issues, especially as stakeholders consider child labor as one the most unacceptable factor. Besides common sustainability practices, the nature of a company's industry affects sustainability risk identification. In particular, environmental sustainability depends on the industry in which the companies operate.

## 6.2 Risk assessment and analysis

At Neste, risks are assessed annually to ensure that the most severe risks are found and thus risk management is successful. Risks are emphasized by the severity of consequences. For instance, there are severe risks when palm oil is procured. The procurement of palm oil has provoked reactions from stakeholders and is therefore considered a serious risk. Usage of child labor is also considered a severe risk.

Kesko has a strong emphasis on assessing risk countries. Some countries have certain conventional risks and therefore these countries are monitored closely. Kesko has a special focus on countries where risks of human rights violations are greatest, especially in Asia and Africa. In addition, to counterparty risks, some certain risks are paid more attention to. At Kesko, water risk is among the most considered environmental risks. Water risk is emphasized due to its strong link to fruit and vegetable cultivation. There are some special requirements for certain products such as cotton, chocolate, fish, and seafood. In the previous examples, Kesko has centralized its focus on certain risks because those are assessed as more severe. Therefore, risk management needs to consider these risks more closely.

UPM emphasizes certain risks more closely such as environmental pollution, occupational health, and working conditions. These are seen as important for specific risks. In addition, counterparty risks are considered closely in the risk assessment. The aim is to know the counterparties and therefore manage risks that are more likely for certain counterparties. For instance, country-specific risks are focused on when counterparties are assessed. UPM pays also special attention to some industries. Pulp suppliers have special requirements, as do the suppliers in the chemical industry. The special requirements indicate that certain industries are assessed more closely and need more attention.

All the case companies have certain sustainability risks that are considered more closely in their sustainability risk management in supply chains. Social sustainability risks are considered similarly. Labor conditions are severe risks that are assessed closely in all of the companies. Otherwise, there is a strong emphasis on the industry-specific risks. For instance, palm oil procurement at Neste, Kesko emphasizes tunafish procurement and UPM pulp procurement. In addition to some specific products, the

case companies focus on certain risk countries and counterparties which have an increased possibility to sustainability risk realization. This enables companies to focus on actors who are more likely to have problems with sustainability.

### 6.3 Risk treatment

The case companies have similar methods that are used to manage sustainability-related risks in their supply chains. Code of conducts, certificates, supplier evaluation and selection, and supplier collaboration and development are utilized in the case companies. In addition, the case companies have focused to be closer to their suppliers and other stakeholders. The case companies have set up offices around the world to achieve this. When companies are closer to their stakeholders, there is an increased chance to understand each other better and obtain information of each other which in turn increases chances to avoid sustainability risks in supply chains. All of the case companies have very similar methods to treat sustainability risk in their supply chains.

### 6.4 Risk monitoring

Sustainability risks are monitored and controlled in all three case companies. Monitoring and controls are used extensively to obtain assurance that suppliers implement sustainability practices, and contracts and requirements are followed. Monitoring and controls are important phases of sustainability risk management.

Neste uses audits as one of the core methods in their supplier sustainability due to the diligence framework. This implicates that audits are pivotal. Neste aims to develop its audits constantly and thus manage sustainability risk better in their supply chains. Kesko also emphasizes audits' importance. Especially suppliers from risk countries are audited more carefully. All Kesko's suppliers from risk countries are required to be audited. Kesko uses an independent auditing body, Neste and UPM use either their own auditors or partners.

## 6.5 Misconducts

Although the case companies have invested to manage sustainability issues, misconducts have happened in all of them. Sustainability misconducts provoke stakeholder reactions and therefore have a significant impact on companies and should be managed. Even though the companies have significant resources and clear processes to manage and thereby avoid various risks, it is challenging for them. The case companies have frameworks for sustainability risk management in their supply chains that are improved with help of various stakeholders. Regardless of the resources the companies have, the example misconducts indicate that there are limited control to suppliers. If supply chains are long, the case companies might have difficulties influencing suppliers that are further down in the supply chains. The case companies have invested increasingly to be able to influence suppliers with various supplier development programs and being closer to suppliers. These can be seen as significant operations when sustainability measures are improved. Misconducts of the case companies demonstrate that sustainability risk management is challenging and improvement is required to be able to manage and avoid the risks in the future.

## 6.6 Chapter summary

The sixth chapter discuss similarities between the case companies. This enables to obtain a comprehensive view about sustainability risk management in Finnish companies. The different stages of the sustainability risk management are discussed and case companies' actions are compared. The results show that companies have similar management processes and highlight the importance of sustainability risk management in supply chains. Risks are identified and stakeholders' opinion are utilized. In addition, the various risks are assessed and analyzed to obtain information about the most critical sustainability risks which should be considered. Risk treatment considers similar methods such as code of conducts, certificates, supplier evaluation and selection, and supplier collaboration and development are utilized in the case companies. In addition, the case companies have emphasized the importance of being close to their suppliers and other stakeholders. With help of this companies are able to be closer to suppliers and thus have better comprehension of mutual goals and objectives. The last part of the framework is about risk monitoring. The case companies highlight the importance of monitoring suppliers' sustainability practices.

It assures that suppliers implement sustainability practices, and contracts and requirements are followed. However, as mentioned, all the three case companies have sustainability misconducts. It indicates the complexity of sustainable risk management in supply chains. Companies are required to improve their practice constantly and be prepared to face various risks.

## 7. Discussion

This chapter will discuss how the results of the thesis aligned with the literature. All the framework phases will be considered in order to obtain a comprehensive view of what kind of similarities or differences the companies have with each other and if sustainability risk management in supply chains is implemented like literature suggests. At the end of the chapter, the research questions will be answered.

### 7.1 Risk identification

All of the case companies emphasize risk identification as an important part of sustainability risk management in supply chain management. The companies utilize stakeholders comprehensively to obtain a broader view of sustainability concerns. This supports the aim of supply chain management. Supply chains aim to produce value to customers and fulfill expectations (Winter & Knemeyer, 2013; Drake, 2012). When sustainability issues are taken into consideration in supply chain management, expectations are easier to fulfill and therefore mitigate risks. Stakeholders value companies from a different point of view than the traditional aspects such as cost, quality, and financial performance. Thus, companies have a special focus on sustainability issues in their supply chains. (Klassen & Vereecke, 2012) In the long run, it is difficult to be successful if stakeholders are not heard (Norman & MacDonald, 2015). Lintukangas et al., (2015) state that the future actions of a company are driven by its customers. Therefore, companies must listen to customers' opinions so that their needs are heard and understood. The three companies try to fulfill these expectations when sustainability issues are widely considered.

Giannakis and Papadopoulus (2016) state that these are common social risks in the supply chain in general. They also state child labor as one of the most pressing social risks because of its severity and difficulty to discover it. Reinehert et al., (2019) consider the usage of child and forced labor as the most important factors that cause stakeholder reactions. All of the case companies emphasize child labor and forced labor in social sustainability risks. This supports the severity of these issues and stakeholders' interest in the usage of labor. There are different emphases on environmental sustainability. Although the main idea is the same - have a small or no impact on the environment. However, the nature of the case companies' affects on

environmental risks. For instance, Neste focuses on palm oil suppliers when environmental risks are considered, UPM considers sustainable forest management and biodiversity as one of the risks and Kesko has emphasized the water risks as their environmental risks. Therefore, the nature of the company has a considerable impact on environmental risks.

## 7.2 Risk assessment and analysis

Sustainability risks in supply chains are assessed to find the most critical and severe risks that can damage companies. The assessment considers specific risks, industries, and counterparties. The case companies have certain risks that are given special attention to – risks that are seen as severe for companies. In addition to certain risks, counterparty risk management is common. For instance, suppliers coming from risk countries are focused on extensively. According to Reinerth et al., (2019) when countries are assessed, it facilitates understanding the country-specific supply chain sustainability risks. The assessment will help when decisions of which audits, development, or replacement are made. They consider country risk assessment as an important tool to prevent stakeholder reactions and thus financial losses. A third common factor in risk assessment and analysis is that they are specific to the industries. The case companies focus on certain industries that are perceived as vulnerable and can therefore damage the company. Similarities in risk assessment processes can be seen.

## 7.3 Risk treatment

The case companies have similar tools to manage sustainability risks in their supply chains. Code of conduct, certifications, supplier evaluations and selection, and supplier development and collaboration are the core methods of how sustainability risks are managed in the case companies. In addition, the empirical analysis found that local procurement and opening offices closer to suppliers and counterparts can be seen as one of the mitigation options.



### 7.3.1 Code of conducts

The code of conduct is seen as the core of sustainability risk management in supply chains in all the case companies. The minimum requirements for suppliers are set in the code of conducts where environmental and social aspects are included. Management of sustainability risks in the entire supply chain is facilitated with the code of conduct, the case companies require that suppliers have the same requirements for their suppliers. Code of conduct can therefore have a great impact on the sustainability of supply chains.

In their code of conduct, the case companies rely strongly on legislation and regulations which set the minimum requirements for suppliers. However, there has been criticism to relying on laws and regulations so heavily. Different countries vary in legal and regulatory perspective which affects the code of conducts. Even though there may not be any violations against laws and regulations, a company's stakeholders can react strongly because the code of conduct is only limited by law. (Zakaria et al., 2012) For instance, employment legislation can differ in different parts of the world. Some countries might have a lower minimum age for employment than some others. Therefore, only relying on local laws and regulations is questionable. However, the case companies rely also on international laws and standards. For instance, UPM requires its suppliers to follow either the introductions of the International Labor Organization where the minimum age for employment is 15, or local laws. The option chosen should be based on which one is higher. This demonstrates that the code of conduct is applied with local legislation and regulation, and international standards. By combining various requirements, companies can obtain a comprehensive method that can satisfy stakeholders.

However, this is not a trouble-free approach to the code of conduct. According to Egels-Zandén and Lindholm (2015), one of the greatest problems with the code of conducts is that they are unable to guarantee that a supplier stays compliant after contracts are signed. The case companies require compliance with the code of conducts, and if violations are noticed measures will be taken by the buyer's side. According to Zakria et al., (2012), NGOs and academics have criticized that buying companies force low-income countries to follow high-income countries' standards. Because of this, context-specific conditions and concerns might be ignored. However,

suppliers' concerns can be mitigated if they are informed properly. Code of conduct enables the communication of the buying firm's expectations of sustainability to their suppliers (Cole & Aitken, 2019). When suppliers have signed a code of conduct, they understand what is expected and it is easier for them to follow the requirements. These are used to ensure that suppliers obey the buyer company's sustainability strategy (Wu & Pagell, 2011). The case companies require their suppliers to sign a code of conduct that implicates that the code of conduct is utilized to ensure that suppliers follow the strategies. Neste and UPM have published guides for their suppliers to facilitate the suppliers' introduction to the code of conduct. Hughes and Wadd (2012) state that when suppliers understand the expectations of the buyer, there are better possibilities to fulfill the expectations and reach the goals. The guides can help suppliers with their practices and thus mitigate sustainability risks in supply chains and therefore improve the ability of suppliers to comply with the requirements of the code of conduct. The guides of Neste and UPM are clear examples of how suppliers are supported in becoming more sustainable, which helps both of the partners.

### 7.3.2 Certificates

The case companies emphasize the importance of certificates. Usage of certificates facilitates ensuring the sustainability of procurement in supply chains, for instance, when raw materials are procured. All three companies utilize certificates in certain industries. The industries are considered vital or vulnerable and therefore certificates facilitate risk management. For instance, Kesko utilizes certificates in fish and seafood, UPM with wood suppliers, and Neste in palm oil supplies. Neste's certificates ensure that rainforests and biodiversity are not harmed when raw material is procured. UPM's certificates ensure that supplied wood is in accordance with the EU's and the US's legislation. In addition, the traceability of wood is easier when the wood is certified. Kesko's certificates in the fish and seafood industry ensure that social and environmental issues are considered. With certificates, the case companies can show that their suppliers meet the sustainability standards (Miemczyk & Luzzini, 2019). However, certificates do not fully guarantee that the entire supply chain operates sustainably. Multaharju et al., (2017) state that even when buying companies require certificates from their suppliers, suppliers might not require certificates from their suppliers. It is a hard task to ensure sustainability in an entire supply chain (Schöggel et al., 2016). Therefore, certificates do not guarantee automatically that entire supply

chains operate sustainably. However, the usage of certifications facilitates managing sustainability risks in supply chains. Certifications are especially important when the buying company does not have a close relationship with its suppliers (Fan & Stevenson,2018). Nonetheless, utilizing certificates increases the possibility of sustainable supply chains. The case companies rely heavily on certificates and certificates are required from a vast group of suppliers.

### 7.3.3 Supplier evaluation and selection

The code of conduct is the core in supplier evaluation and selection. In addition, certificates supplement evaluation and selection process. Code of conducts set the minimum requirements for the three case companies. However, code of conducts have little detailed information about requirements. Therefore, the companies have focused on having additional and more specific requirements for certain suppliers and industries.

For instance, Kesko emphasizes the national law in suppliers' home countries. In addition, international standards are considered closely in supplier evaluation. Long-term engagement is emphasized in supplier selection process but also suppliers' willingness to follow Kesko's values and requirements. Wagner (2011) presents that supplier development processes require longer relationships between a buyer its supplier. Development processes are often implemented in the later stages of the relationships. Therefore, one of the reasons why Kesko emphasizes long-term engagement is that supplier development processes often require longer relationships and with help of development, sustainability can be improved. Talluri et al., (2010) also emphasize the long-term factor but in addition, the commitment to the process is seen as pivotal. This supports Kesko's requirements that suppliers are willing to follow Kesko's values and requirements. Thus, sustainability objectives are easier to reach and risks can be managed.

Some of the industries are considered more closely, therefore all the case companies have specific requirements for certain industries and suppliers. As discussed in the assessment and analysis section, some industries and suppliers are seen as more vulnerable, therefore additional requirements are utilized.

#### 7.3.4 Supplier development and collaboration

All of the case companies have focused on developing and collaborating with their suppliers. Development and collaboration is one option for a greater influence to suppliers' operations but the case companies consider complementary activities. Kesko has emphasized different programs, Neste has had close relationships with palm oil suppliers to foster dialogue with them, and UPM has been part of a program where the aim is to improve practices in their supply chains. The study indicates that the case companies concentrate on having close relationships with their suppliers in order to improve sustainability practices. Supplier development and collaboration is considered as one of the tools of how the case companies can manage risks (Hajmohammad and Vachon, 2016). Supplier development and collaboration can include activities such as training programs, compensating costs associated with their compliance, for instance shared investments in environmental-friendly equipment, and sponsoring ecological and social conferences to encourage the suppliers to share their knowledge and experiences. Supplier development and collaboration are widely used to improve suppliers' capabilities and thus mitigate risks in the case of companies. Neste emphasizes that having closer relationships with suppliers facilitates sustainability risk management and therefore development and collaboration are seen as one of the management tools. In addition, the case companies prefer supplier development operations instead of terminating contracts if sustainability violations are noticed, which emphasizes the importance of development and collaboration processes. Also NGOs prefer this, since improving suppliers' operations has a greater impact than terminating the contracts.

Supplier development and collaboration is a comprehensive tool that can be implemented in various ways. Companies can have their own projects where their suppliers are developed, or they can be part of a bigger project where other actors are involved. In 2019, Kesko was part of a program that was organized by the ICA Global Sourcing. With help of the program, four of Kesko's suppliers in India were trained about requirements, quality of products, and safety. In 2019, Kesko cooperated with the Center of Child Rights and Corporate Social Responsibility when the aim was to improve children's conditions, opening a kindergarten for factory employees' children. Employees and their children were satisfied with the kindergarten which enabled them to spend more time together. Employees' well-being has improved and

commitment to the company has increased. Subramaniam et al., (2019) state that direct involvement, such as supplier development and supplier collaboration, has a positive impact on suppliers' social performance. Neste took part in a program, where palm oil suppliers were informed about the living conditions of children. The Tfs network enables UPM to obtain detailed information about their suppliers and therefore develop processes with suppliers. Koberg & Longoni (2019) suggest that the buying firms should take advantage of NGOs or governmental organizations' information in their supply chain management. With help of third parties, there would be enormous chances to improve sustainability outcomes in a supply chain. The previous examples demonstrate that the case companies have wanted to cooperate with other actors to improve sustainability in their supply chains. Knowledge provided by other actors can be utilized and thus improve sustainability. In addition, buyer companies can work together to improve sustainability in supply chains.

An important example of supplier collaboration is from Neste, where suppliers have had a chance to develop the Supplier Sustainability Portal with Neste. This has facilitated suppliers' engagement in sustainability practices and therefore has affected sustainability risk management. Park et al., (2010) emphasize supplier involvement as an important factor in the success of supplier development and collaboration processes. When suppliers are taken into the development process, Neste has better possibilities to understand suppliers' concerns and take those into account. When suppliers' strategies, business models, and capabilities are understood it is easier to identify different opportunities and challenges suppliers have (Hughes & Wadd, 2012). Hollos et al., (2012) state that a buying company benefits the most from a supplier development process when the buyer and supplier can improve their practices at the same time. The Neste's Supplier Sustainability Portal enables both of the partners to improve their own practices when the development process is implemented together. Therefore, taking suppliers into development processes is beneficial and facilitates to manage sustainability risks.

Suppliers are widely used to improve sustainability practices at the case companies. Collaboration can include portal development from the buyer's side or the buyer might help its suppliers to improve suppliers' competence. Collaboration processes are emphasized at all three case companies. Therefore, supplier development and

collaboration are among the most important sustainability risk management tools. This conclusion will strengthen in the next chapter where closer relationship with suppliers will be discussed.

#### 7.4.5 Closer to the suppliers

Neste has opened new offices around the world and UPM has offices around the world. Being closer enables the companies to have more effective communication and thus understand different partners better. The study indicates that the case companies concentrate on having close relationships with their suppliers in order to improve sustainability practices. Various sustainability-related projects are easier to implement when the distance between actors is smaller. Besides, cultural differences are easier to avoid when partners are closer. According to Klassen and Vereecke (2012) geographical location is one of the risk factors when risks in supply chain management are considered. Busse et al., (2016) consider the distance between a buyer and its supplier as an increasing supply chain sustainability risk factor. It is easier to have a closer engagement with suppliers when suppliers are close, which enables to address sustainability-related issues more effectively with suppliers. (Yawar & Seuring, 2018). For instance, Juetner et al., (2020) state that big corporations have challenges in managing the trade-off between requirements of the head quarter and different regional areas. The difference is dependent on the geographical distance, differences between the regional and home market context. Lack of awareness and poor communication were mentioned as some of the reasons. The case companies can manage the previous challenges by being close to their suppliers. Grimm et al., (2014) highlight the importance of relationships in developing more sustainable supply chains. Therefore, the closer distance between the partners enhances possibilities when sustainability risks are managed in supply chains. Understanding and communicating expectations between partners increases the likelihood of success (Hughes & Wadd, 2012). When there is trust between a buyer and its supplier, development processes are more easily accepted on behalf of the supplier. Consequently, having suppliers closer enables mitigation of sustainability risks in supply chains.

## 7.5 Risk monitoring and control

Using an independent auditor allows obtaining impartial information (Hannibal & Kauppi, 2019). For instance, it is better to use a third-party auditor than a governmental auditor. Then there is less chance of various violations. Huq and Stevensons (2018) survey studied seven apparel industry suppliers in Bangladesh. These suppliers were audited by a governmental auditor. Although misconducts were noticed, bribes prevented the buying company from knowing about the misconduct. The governmental auditor took bribes from the suppliers which affected audit reports. Hence, using an independent auditor can be a better solution. Egels-Zandén and Lindholm (2015) state that audits have difficulties finding sustainability violations. Even when audits are be sophisticated, including off-site interviews with workers, labor rights violations may not be identified. Subramaniam et al., (2019) state that suppliers might only follow sustainability standards during audits and evaluation. Therefore, supplier audits are not a guarantee that misconducts can be found and thus mitigate sustainability risks in the supply chains. However, with constant supplier auditing companies can better manage sustainability risks in their supply chains and the case companies have invested in regular auditing processes. Supplier audits are only one part of sustainability risk management.

Auditing is a constant process that enhances the ability to manage sustainability risks. The case companies focus on having constant audits and there are some special programs implemented with suppliers. UPM has had constant audits with its supplier in Thailand aiming to improve working conditions. For instance, as Neste considers maritime accidents as one of the most vulnerable risks shipping companies are audited more regularly to ensure sustainability. Risks that are assessed as vulnerable and more likely are audited more closely, thus sustainability risks realization can be prevented or mitigated. Therefore, it can be seen that sustainability risk management in the supply chain is a chained process where risk identification and assessment impact later phases of management.

Supplier audits help to improve supplier relationships and therefore manage sustainability risks. If violations during audits are noticed, the case companies prefer corrective actions instead of terminating contracts. For instance, UPM provides its support to suppliers if needed. Foerstl et al., (2010) suggest continuing partnership

even when violations against sustainability requirements are noticed. If improvement actions have not reached the required level, then it is better to terminate contracts and find new suppliers. In 2019, Kesko had to terminate nine partnerships with its suppliers because the suppliers were not able to reach the required sustainability levels.

#### 7.6 Critique towards sustainability listing

There has been criticism towards listing the most sustainable companies. Pekka Seppänen writes in his column (YLE, 2019), that listing the most sustainable companies is not problem-free. He argues that when companies such as Neste and UPM are on the list, this raises questions about how sustainability is defined. Neste has a large part of its business in selling fossil fuels and UPM's business is based on felling wood, which reduced carbon sinks. Therefore, it is questionable, how both of these companies can be among the most sustainable companies in the world. According to Seppänen, when companies talk about sustainability, they often define themselves what sustainability is. When companies are able to define sustainability themselves it might lead to subjective perspective. Then it is more difficult for external audience to analyze companies' sustainability practices. Therefore, it is crucial that some external partners such as NGOs implement own research of companies' sustainability practices and disclose if misconducts are found. This enables to obtain a holistic view of sustainability practices in companies.

#### 7.7 Chapter summary

The seventh chapter was about comparing results with previous literature. As mentioned, companies follow similar practices as literature suggests. Sustainability risk management processes are utilized in supply chain management in order to manage sustainability risks. In addition, this chapter highlights that there has been criticism towards companies' sustainability listing. Since companies can define sustainability by themselves results might be subjective and therefore external audience might find it difficult to obtain objective information. When objective information is not available it is more challenging for external partners to analyze companies' sustainability practices. However, it is important that some external actors such as NGOs analyze companies and their sustainability practices critically and also disclose analysis. This facilitates to obtain a more transparent and holistic view of



companies and their sustainability practices. When external audience is more aware of sustainability issues it can put pressure towards companies to make their supply chains even more sustainable.

## 8. Conclusion

The importance of sustainability risks among supply chain risks have increased. Companies invest to manage sustainability-related risks more effectively to avoid severe consequences these might cause. In order to be successful, companies need collaboration with external stakeholders, such as customers and suppliers. Constant development processes are needed since the requirements for companies tighten from customers' and stakeholders' side. Therefore, open communication helps keeping up to date with the requirements that can be implemented.

Companies have clear frameworks to manage sustainability-related risks in supply chains. Risk identification, assessment, and analysis are included in the process. These activities are followed by risk treatment which consists of various tools that are utilized to manage risks. The last phase of the management process is risk monitoring which includes possible changes in processes. These form a loop that indicates ongoing operations for risk management.

Even though risk management processes are advanced, companies face various challenges when sustainability risks are managed. Supply chains are long and complex which hampers supply chain management from the sustainability point of view. Processes require constant monitoring and development to manage and minimize sustainability risks. Companies are not yet at the point where they can avoid all possible sustainability risks. On the other hand, it may take a long time to reach this point, as stakeholder requirements continue to tighten which challenges companies' operations. Therefore, companies are required to communicate with their stakeholders about their expectations and based on expectations develop their sustainability operations in supply chain management.

The three case companies from Finland are internationally recognized as sustainable companies. According to the Corporate Knights list in 2020 Neste is third, UPM 24<sup>th</sup> and Kesko 99<sup>th</sup> most sustainable company in the world. (Corporate Knights, 2020) According to the list, all of these companies have managed sustainability operations well which is why these companies were chosen as the case companies. This master thesis has examined how sustainable companies manage sustainability risks in their

supply chains. All of these companies are big public companies which affects the resources they use. However, this has a downside. All of the case companies operate in the international field, making sustainable supply chain management more complex and thus more difficult. Therefore, it has been interesting to discover how sustainability risks are managed in supply chains.

### 8.1 Research questions

The research questions of this master's thesis were divided into three parts: theoretical, empirical, and normative. The theoretical question was: "*Which kinds of risks are there in sustainable supply chain management?*" The empirical part was divided into two questions: "*Are there differences between industries in how sustainability risks are managed?*" and "*Which kinds of challenges are there to manage sustainability risks?*" and the normative question was: "*How can companies improve their sustainability risk management in supply chains?*".

*"Which kinds of risks are there in sustainable supply chain management?"*

Companies face a vast number of various sustainability risks depending on their industry. Sustainability-related risks are potentially occurring events that may provoke harmful stakeholder reactions such as boycotts, and therefore it is important to try to manage these. The difference between sustainability-related risks and ordinary risks is that sustainability-related risks can trigger stakeholder reactions without causing supply disruptions. Social sustainability risks include issues such as misconduct in working conditions and compensation. Child and forced labor are seen among the most severe social risks. The risks of social sustainability are similar for all companies whereas environmental risks are more industry-specific. Environmental accidents, pollution, energy consumption, and product waste are among endogenous environmental risks. Natural disasters and water scarcity include exogenous environmental risks. The risks companies face depend on the industry they operate in. For instance, some companies operate in areas where natural disasters are more likely compared to other areas. Another example is related to the workforce utilized in manufacturing. Some industries are located in areas where misconducts are more likely to occur. Therefore, sustainability risks in supply chains differ depending on the

industry which requires companies to make accurate assessments and analyze to identify the most likely risks to operate according to these analyzes.

*“Are there differences between industries in how sustainability risks are managed?”*

The three case companies have clear processes of how sustainability risks are managed in their supply chains. The sustainability risk management framework is followed by all three companies. Therefore, no clear differences were found in how sustainability risks are managed in the case companies. Stakeholders are utilized in risk identification and assessment processes, there is same kind of management tools such as certifications, code of conducts, and supplier development processes. In all three companies risks are monitored to obtain up-to-date information about risks. Nonetheless, although the case companies operate in various industries, the management processes are similar.

*“Which kinds of challenges are there to manage sustainability risks?”*

Even though the case companies have invested in management of sustainability risks in their supply chains, misconducts occur. Modern-day supply chains are long and complex which challenges the companies. Avoiding all sustainability risks in supply chains is practically impossible. Nonetheless, companies aim to manage sustainability risks and through it avoid them or at least minimize possible consequences. More and more resources are spent to increase possibilities to avoid sustainability risks. The case companies have processes that are followed but still, sustainability misconducts occur in their supply chain which causes sustainability risks. Lack of influence on suppliers is seen as one of the factors which can cause risks. For instance, requirements can be indistinct for sub-suppliers even when buying companies have clear requirements for their suppliers. If requirements are indistinct, there are greater chances that misconducts occur. Therefore, the case companies have invested in closer relationships with suppliers to inform about the requirements and develop suppliers' capabilities.

*“How can companies improve their sustainability risk management in supply chains?”*

The case companies improve sustainability risk management operations constantly. Improvement operations are implemented inside the companies but also external partners are taken into account. In order to be able to improve sustainability risk management, companies are required to collaborate with other actors. For instance, competitors can have cooperation projects to manage sustainability risks. A joint list of suppliers that have violated sustainability requirements could be one option. With help of a joint list, companies could have the same information about incapable suppliers which would help to avoid sustainability risks. At the same time, the reputation of the industry could be improved, which would help companies in the long run. Therefore, increasing cooperation with various actors can be one option when companies pursue improvements in sustainability risk management. Besides, cooperation can help the buyer companies to improve their own operations which may impact sustainability measures.

### 8.1 Limitations and future research

This master’s thesis has focused only on environmental and social sustainability issues in supply chain management. Economical dimension is not taken into account. If economical dimension would be considered it would enable to obtain a holistic point of view of sustainability risk management. Therefore, in the future it would be interesting to combine all three aspects of sustainability in sustainability risk management in supply chains. With help of this, researchers could obtain information if there are some links between the dimensions and how these links affect sustainability practices in risk management practices. In addition, the master’s thesis focused on companies that are generally accepted as sustainable companies. Besides, the case companies are Finnish public companies with enormous resources. Therefore, in the future research can focus on smaller companies with significantly fewer resources. It would be interesting to see whether there are differences between large and smaller companies in how sustainability-related risks are managed in supply chains. For instance, if resources have significant differences, do the company’s values affect sustainability operations. In addition, it could be useful to research companies from different countries. This would enable to obtain information if there are significant

differences in sustainability practices between countries and what are the reasons behind differences.

## 8.2 Chapter summary

The theoretical question was: “*Which kinds of risks are there in sustainable supply chain management?*” Companies face a large number of different sustainability risks. Sustainability risks might provoke stakeholder reactions which affect companies negatively. Misconducts in working conditions and compensation, and child and forced labor are seen as social sustainability risks. Energy consumption and natural disasters are among environmental risks. The social sustainability risks are similar for all companies whereas environmental risks are more industry-specific. The two empirical questions were: “*Are there differences between industries in how sustainability risks are managed?*” and “*Which kinds of challenges are there to manage sustainability risks?*” The results show that the three case companies have similar risk management processes when sustainability risks are managed in supply chains. No clear differences were found. The case companies have vast resources which enable them to manage sustainability issues in their supply chains. However, they face sustainability risks in their supply chains. Avoiding all sustainability risks in supply chains is practically impossible, as the misconducts prove. Lack of influence on suppliers is seen as one of the challenges companies face in sustainability risk management in supply chains. With help of closer collaboration with suppliers these challenges are tried to be managed. However, collaboration with suppliers requires vast resources and it is not always possible. The normative question was: “*How can companies improve their sustainability risk management in supply chains?*” Collaboration between various partners is seen as the key to improve sustainability risk management in supply chains. Collaboration can consider supplier collaboration but also collaboration between competitors. For instance, competitors can share supplier information and thus avoid suppliers which have negative reputation. This can improve reputation of an industry as well.

In addition, this chapter considered discussion about limitation of the thesis and future research. First limitation of the thesis is that only environmental and social sustainability dimensions are considered. Economic dimension is not taken into

account. If economic dimension would be considered, there could be a more holistic point of view on sustainability risk management in supply chain. Another limitation is that only public companies from Finland are considered. Because the case companies are public companies they have enormous resources. Some smaller companies do not have same resources. Therefore, it would be interesting to see if there are differences between bigger and smaller companies. In addition, it could interesting to see if there are differences between companies that come from various countries.

## 9. Summary in Swedish

### 9.1 Introduktion

Vikten av hållbarhet inom företagsverksamhet har ökat på senaste tiden. Intressenter kräver mera av företagen och därför måste de göra sina egna processer hållbarare. I och med att hållbarheten har blivit viktigare, har mängden av olika hållbarhetsrisker också ökat. Om risken uppstår kan intressenterna reagera kraftfullt. Intressenterna är allt mer medvetna om hållbarhetsdimensioner, vilket påverkar företagen. Intressenternas respons mot hållbarhetsbrott kan ha allvarliga konsekvenser för företagen. Hållbarhetsrisker i leverantörskedjor kan skada företagen på olika sätt. Upprätthållandet av företagets goda rykte ses som en av de starkaste drivkrafterna för att genomföra och upprätthålla hållbar hantering av leverantörskedjor. Negativ medieuppmärksamhet och bojkotter kan skada företagets rykte och ha en negativ påverkan på företagets intäkter. (Hoejmose et al., 2014)

Samtidigt som hållbarhet har blivit allt viktigare, har betydelsen av leverantörskedjehantering ökat. Leverantörskedjorna har blivit allt mer komplicerade och längre, vilket gör det svårare att hantera dem. En utmaning är att mängden av risker har ökat, vilket också utgör en del av själva hållbarhetsriskerna. Till exempel förhållandena på arbetsplatsen och olika miljöincidenter anses vara möjliga riskfaktorer inom leverantörskedjor. Om dessa riskfaktorer förverkligas, kommer det att orsaka problem för företagen. Därför behöver alla företag hantera deras hållbarhetsrisker inom leverantörskedjorna. Hållbarhetsriskhantering i leverantörskedjor är en kombination av tre åtgärder: hantering av leverantörskedjor, hållbarhetshantering och riskhantering. Att hantera hållbarhetsrelaterade risker i leverantörskedjor innebär att alla de tre hållbarhetskategorierna tas i beaktande i ett företag. (Valinejad & Rahmani, 2018)

Den här magisteravhandlingen handlar om hur finska företag hanterar hållbarhetsrisker inom leverantörskedjor. Ämnet har blivit allt viktigare eftersom olika intressenter är intresserade av hållbarhet och agerar kraftfullt om hållbarhetsproblem uppstår. Avhandlingen är begränsad så att endast miljömässig och social hållbarhet beaktas. På grund av UNDPs definition (UNDP sustainable procurement) kan hållbar upphandling definieras som en upphandling som har den



lägsta miljöpåverkan och det positivaste sociala resultatet. Eftersom denna definition endast betonar miljömässiga och sociala dimensioner, fokuserar denna magisteravhandling endast på dessa två dimensioner. Magisteravhandlingen är en kvalitativ fallstudie där tre finska företag undersöks. Fallföretagen är Kesko, Neste och UPM. Företagen har valts på grund av deras framgång inom hållbarhetsarbete. De tre företagen finns på Corporate Knights 100 Global där de 100 mest hållbara företagen är listade.

Denna magisteravhandling strävar efter att besvara sammanlagt fyra forskningsfrågor. Den teoretiska frågan är: ” Vilka typer av risker finns i hållbar hantering av leverantörskedjor?”. De två empiriska frågorna är: ”Vilka utmaningar finns för att hantera hållbarhetsrisker?” och ” Finns det skillnader mellan branscher i hur hållbarhetsrisker hanteras?”. Den normativa frågan är: ” Hur kan företag förbättra sin hållbarhetshantering i leverantörskedjor?”.

## 9.2 Litteraturöversikt

Företag anses ansvariga för sina produkter och tjänster, även om dessa skulle vara utom företagets direkta kontroll för den största delen av produkternas och tjänsternas livstid (Savitz 2013). Därför är hantering av leverantörskedjorna och särskilt hållbar leverantörskedjehantering ett utmärkt tillfälle för att ta hänsyn till hållbarhet i praktiken. Leverantörskedjor är komplexa enheter eftersom det finns ett stort antal olika aktörer involverade. Aktörerna är utspridda, vilket påverkar leverantörskedjehantering och gör den mer komplex. I den vanliga leverantörskedjehantering ses effektivitet, aktualitet och stabilitet som viktiga prestandamätningar. När hållbarhetsdimensionen beaktas finns det ett ökat antal faktorer som företag bör beakta. Till exempel bör arbetarrättigheter och koldioxidutsläpp beaktas när leverantörskedjor hanteras på ett hållbart sätt. Om hållbarhetsdimensionerna inte beaktas, finns det en stor risk att företagets varumärke och därmed också rykte undergrävs.

Leverantörskedjorna står inför olika risker. Dessa oregelbundna och oförutsedda händelser kan ha en negativ påverkan på leverantörskedjorna. En risk kan definieras som en oförutsägbar händelse i en leverantörskedja som kan leda till negativa konsekvenser. (Hajmohammad & Vachon, 2016). Till exempel bojkotter och

värdeförsämring kan vara konsekvenser som kan bli följden av leverantörskedjerisker. Hållbarhetsrelaterade leverantörskedjerisker är en ökad sårbarhet i en kedja på grund av de negativa effekterna av inköp på ekonomisk, social och miljömässig hållbarhet. Skillnaden mellan en vanlig leverantörskedjerisk och en hållbarhetsrelaterad leverantörskedjerisk är att hållbarhetsrelaterade risker kan utlösa flera allvarliga intressentreaktioner som kan påverka företaget negativt utan att orsaka leveransstörningar. Hållbarhetsrisker påverkar inte endast leveransverksamheten, utan dessutom företagets övergripande presentation. När hållbarhetsrisker hanteras har företagen bättre möjligheter att förbättra den övergripande presentationen och undvika de ekonomiska förlusterna som intressenternas reaktioner kan orsaka.

### 9.3 Hållbarhetsriskhantering

Hållbar leverantörskedjehantering är en bredare definition av leverantörskedjehantering. Inom hållbar leverantörskedjehantering tas de tre hållbarhetsdimensionerna i beaktande när leverantörskedjorna hanteras. Målet är att minska de negativa effekterna riskerna kan ha. Dagens leverantörskedjor är långa och komplexa, vilket utmanar företagens möjligheter att hantera hållbarhetsfrågor i sina leverantörskedjor. Särskilt sociala och miljömässiga problem beaktas när leverantörskedjor hanteras hållbart. Olika arbetsutmaningar, såsom barn och tvångsarbete, betonas ur social hållbarhetssynpunkt. Miljömässig hållbarhet består av att minska föroreningar och avfall samt energibesparingar i leverantörskedjor. Vikten av hållbar hantering av leverantörskedjor har ökat, vilket är orsaken till varför företag anses vara fullt ansvariga för sina produkter och tjänster även om dessa skulle tillbringa större delen av sin livstid utanför företagets direkta kontroll. (Savitz 2013) Företag får internt och externt tryck för att möta vissa hållbarhetsnivåer i sin verksamhet. Därför har hållbar leverantörskedjehantering inte bara en viktig del i företagets leverantörskedjehantering utan också i deras hela verksamheten.

Leverantörskedjehantering gör det möjligt att uppnå fördelar, till exempel ökad effektivitet och kostnadsbesparingar, men dessutom finns det risker som kan skada företag. Vanliga risker i leverantörskedjan kan vara oförutsägbara händelser som kan få negativa konsekvenser för en leverantörskedja och dess medlemmar. Resultaten av riskerna i leverantörskedjan kan vara oförmåga att möta kundernas efterfrågan eller

till och med orsaka hot mot kundernas liv och säkerhet. Dagens affärsmiljö har påverkat leverantörskedjorna. Globaliseringen och ökad konkurrens har förlängt leverantörskedjorna, vilket har påverkat komplexiteten i leverantörskedjorna. Därför har företagen alltmer uppmärksammat hanteringen av risker i leverantörskedjan. Det finns risker, vilka kan orsaka skadliga reaktioner från intressenterna och därmed skada företag. Vanliga risker i leverantörskedjan kan orsaka leveransstörningar medan hållbarhetsrisker påverkar intressenternas åsikter negativt.

För att kunna hantera hållbarhetsrisker behöver företagen olika processer. Hållbarhetshantering i leverantörskedjor kräver omfattande aktiviteter. I magisteravhandlingen presenteras en modell som kan användas när hållbarhetsrisker hanteras. Modellen är en femfasram som den empiriska analysen bygger på. Faserna är riskidentifiering, riskbedömning, riskanalys, riskbehandling samt riskövervakning och kontroll.

Riskidentifiering syftar till att hitta faktorer som kan skada företagens leverantörskedjor. Olika risker kan grupperas i en grupp när risker identifieras. Efter att riskerna är grupperade är det lättare att fördela vilka typer av processer för leverantörskedjehantering som är relevanta för varje risk. (Rangel et al., 2014) Syftet med att identifiera riskerna är att ha en profil för var och en av de risker som har upptäckts. När olika risker identifieras är det viktigt att företag förstår vilka hållbarhetsrelaterade risker som är viktiga för deras intressenter (Maignan et al., 2002). Att identifiera alla risker är dock utmanande eftersom företagen står inför ett stort antal olika utmaningar. Det är omöjligt att identifiera dem alla. Därför är det viktigt att företag bedömer olika risker som har hittats.

Riskbedömning är modellens andra fas. De identifierade riskerna bedöms för att fastställa de mest kritiska riskerna. Riskbedömning gör det möjligt för företag att fokusera på de mest kritiska riskerna och genom detta kan de hanteras bättre. Genom att kategorisera, bedöma och utvärdera de identifierade riskerna kan företag också uppfatta hur riskerna påverkar företag. Bedömning och utvärdering kan genomföras med hjälp av olika kriterier som potentiella förluster, sannolikhet, påverkan, konsekvenser och värsta scenarier. (Manuj & Menzer, 2008) Vid bedömning av risker är det användbart att se om det finns positiva samband mellan två riskfaktorer. Detta

möjliggör behandling av flera risker samtidigt. Miljö- och ekonomirelaterade faktorer samt sociala och ekonomiskt relaterade faktorer tycks ha en positiv korrelation, medan sociala och miljömässiga inte har det. Till exempel barnarbetskraft korrelerar med mutor och finansiella kriser. (Giannakis and Papadopoulus, 2016) Riskanalys är en väsentlig del av ramverket.

I modellens fjärde fas diskuteras olika behandlingsinsatser. Riskbehandling i riskhantering handlar om att minska eller eliminera riskfaktorer. Efter att riskerna har identifierats, bedömts och analyserats måste företagen erkänna vilka potentiella effekter det kan ha om riskerna förverkligas. Riskhanteringsstrategier syftar till att minska sannolikheten för förluster med riskhändelser (Manuj & Mentezer, 2008). Riskhantering av leverantörskedjor har en betydande inverkan på leverantörskedjans hållbarhet. Riskhantering gör det möjligt att påverka alla tre hållbarhetsdimensioner i leverantörskedjor. Det finns ett stort antal behandlingsfaktorer som underlättar hanteringen av hållbarhetsrisker inom hantering av leverantörskedjor. Exempelvis är uppförandekod, certifikat, utvärdering och urval av leverantörer samt leverantörsutveckling och samarbete bland de mest använda metoderna. (Multaharju et al., 2016) Med hjälp av dessa verktyg har företag bättre möjligheter att hantera hållbarhetsrisker och minimera negativa effekter som dessa risker kan orsaka.

Den sista fasen i modellen är riskövervakning och kontroll. Leverantörernas utvärderingsverksamhet fortsätter efter att kontrakt har ingåtts. Olika undersökningsverktyg, årliga självbedömningar och utvärderingar på plats är vanliga metoder vid bedömning av leverantörer. Köparföretag återkommer ofta till leverantörer baserat på leverantörernas betyg. När leverantörer får en hög poäng genomförs revisioner sällan medan leverantörer med låga poäng granskas oftare. Efter granskningar får leverantörer feedback och förbättringsriktlinjer för framtiden. (Adesanya et al., 2020) När leverantörer bedöms är det lättare att identifiera specifika punkter som behöver förbättras senare. Det bevisar att hela processen är ett kretslopp och för att uppnå bästa möjliga resultat från leverantörskedjehantering måste fokusföretag ständigt förbättra sina leverantörskedjor. Både partners, köparföretag och deras leverantörer kan lära sig under sitt partnerskap och utveckla processer för ett mer

hållbart sätt. Dessutom kan nya risker som kräver uppmärksamhet dyka upp, vilket gör det viktigt att hanteringsprocessen är konstant.

#### 9.4 Empiri

Magisteravhandlingen är en kvalitativ fallstudie. Hållbar riskhantering i leverantörskedjahantering är en process där olika faser övervägs noga. Det är en process som företag följer konsekvent för att få det att fungera effektivt. Syftet med avhandlingen är att skapa en förståelse av hur hållbarhetsrisker hanteras i leverantörskedjor. För att nå ett resultat undersöks fallföretagens processer.

Denna magisteravhandling är en jämförande fallstudie. I en jämförande fallstudie jämförs två eller flera fall systematiskt. För att kunna jämföra hållbarhetshantering i leverantörskedjor valdes tre finska fallföretag. Det jämförande perspektivet framträder när fallbolagen verkar i olika branscher, så att de kan hitta likheter och skillnader mellan branscher. Fallföretagen och deras metoder för hantering av hållbarhetsrisker i leverantörskedjor diskuteras. Fallföretagen har valts utifrån 2020 Global 100 rankingen som listar de 100 mest hållbara företagen i världen. När fallföretagen verkar i olika branscher möjliggör det vissa generaliseringar. Var och en av ärendeföretagen diskuteras genom ramverket, vilket har presenterats tidigare. När fallföretagen analyseras med dessa stadier möjliggör det att få information om hur hållbarhetsrelaterad risk hanteras. Senare är det lättare att jämföra fallföretagen och dessutom praktiska åtgärder med tidigare litteratur. I detta kapitel behandlas dock hållbarhetsbrott i alla tre företagen. När oegentligheter beaktas är det möjligt att få en mer objektiv syn på företag och deras handlingar. Det visar att företag har svårt att hantera hållbarhetsrisker även om de skulle ha stora resurser.

Analysen av den empiriska delen bygger på sekundär dokumentation av fallföretagen. Enligt Saunders et al., (2009) är fallstudier ofta baserade på sekundära data. Kvalitativ forskning har lett till spridning av många metoder för datainsamling som försöker förstå aktörer genom självproducerade texter (Hirsijärvi et al., 2007). I detta examensarbete består de analyserade uppgifterna av fallföretagens data från årsrapporter från 2019 och vid behov ytterligare information från deras hemsidor för att fördjupa kunskapen. Årsrapporter valdes eftersom de följer en formell struktur som

underlättar inhämtning av information. Årsrapporter informerar utförligt om företagets resultat. Förutom årsrapporter används företagets webbsidor för att få mer detaljerad information om de olika aspekter som nämns snävt i årsrapporter. Ändå är användningen av sekundär dokumentation inte helt problemfri. När sekundär dokumentation används måste den ses kritiskt. (Hirsijärvi et al., 2007; Kananen, 2017; Saaranen-Kauppinen och Puusniekka, 2006) Företagens rapporter kan vara subjektiva vilket gör det svårare att få objektiva resultat. Därför kommer den empiriska studien att överväga olika perspektiv jämfört med fallföretagens material. Data om hållbarhetsbrott i företagens leverantörskedjor samlas in från olika källor för att vidga perspektivet för det undersökta ämnet. I två fall samlas ytterligare data in från Finnwatch, som är en icke-statlig organisation som studerar verksamhetens globala påverkan. Information från Friends of the Earth används för att få ett mer omfattande perspektiv på ett av fallföretagen.

## 9.5 Resultat

Det sjätte kapitlet diskuterar likheterna mellan fallbolagen, vilket möjliggör en mer övergripande syn på hållbarhetshanteringen i finska företag. De olika stadierna i hållbarhetshanteringen diskuteras och fallföretagens ageranden jämförs. Resultaten visar att fallföretagen har liknande hanteringsprocesser samt att de betonar vikten av hållbarhetshantering i sina leverantörskedjor. Riskerna identifieras och intressenternas åsikter används. Dessutom bedöms och analyseras de olika riskerna för att få information om de mest kritiska hållbarhetsriskerna som bör beaktas. Alla fallbolag använder liknande metoder i deras riskhantering, som till exempel uppförandekod, certifikat, utvärdering och urval av leverantörer samt leverantörssamarbete och utveckling. Dessutom har fallbolagen betonat vikten av att vara nära sina leverantörer och andra intressenter, då det hjälper dem att få en bättre förståelse av deras ömsesidiga mål. Den sista delen av ramverket handlar om riskövervakning. Fallföretagen understryker betydelsen lyfter fram vikten av att övervaka leverantörernas hållbarhetspraxis, eftersom det hjälper dem att försäkra att leverantörerna faktiskt implementerar hållbarhetsreglerna samt att hållbarhetskraven och -kontrakten uppfylls. Som tidigare nämnts har dock alla de tre fallbolagen begått hållbarhetsbrott, vilket påvisar komplexiteten i leverantörskedjornas hållbara riskhantering. Företagen måste ständigt förbättra och uppdatera sin praxis.

Företagen har både likheter och skillnader i deras hållbarhetsrisker. Särskilt de sociala riskerna består av liknande faktorer. Sociala risker, så som barn- och tvångsarbete och diskriminering samt berörs av företagen. Miljörisker är å andra sidan mer branschspecifika, Neste betonar till exempel sjöolyckor, medan UPM talar om hållbar skogsförvaltning och Kesko nämner hur vatten används i odlingen av deras produkter. Inom riskidentifieringen kan man dra den slutsatsen att det finns några universella hållbarhetsrisker som fallföretagen överväger, till exempel utnyttjandet av barn- och tvångsarbete. Dessa risker kan dock vara svåra att lägga märke till på grund av leverantörskedjornas längd, vilket är varför företagen ägnar särskild uppmärksamhet åt dessa frågor.

## 9.6 Diskussion

Fallföretagen följer liknande metoder som tidigare litteratur föreslår. Hållbarhetshanteringsprocesser används i hantering av leverantörskedjor för att hantera hållbarhetsrisker. Å andra sidan det har varit kritik mot företagens notering av hållbarhet. Eftersom företag kan definiera hållbarhet själva kan resultaten vara subjektiva och därför kan extern publik ha svårt att få objektiv information. En kolumn av Pekka Seppänen diskuterar hur det är möjligt att ha Neste och UPM på en hållbarhetslista. Neste har en stor del av sin verksamhet inom att sälja fossila bränslen och UPM:s verksamhet bygger på avverkning av sko, vilket reducerar kolsänkor. Därför är det tveksamt hur båda dessa företag kan vara bland de mest hållbara företagen i världen. När objektiv information inte är tillgänglig, är det mer utmanande för externa partner att analysera företagens hållbarhetsmetoder. Det är dock viktigt att vissa externa aktörer såsom icke-statliga organisationer analyserar företag och deras hållbarhetsmetoder kritiskt och också publicerar sina analyser. Detta underlättar att få en mer transparent helhetssyn på företag och deras hållbarhetsmetoder. När extern publik är mer medveten om hållbarhetsfrågor kan det sätta press på företag att göra sina leverantörskedjor ännu hållbarare.

## 9.7 Slutsats

Hållbarhetsriskernas betydelse bland riskerna i leverantörskedjor har ökat. Företag investerar i att hantera hållbarhetsrelaterade risker mer effektivt för att undvika allvarliga konsekvenser som dessa kan orsaka. För att bli framgångsrika behöver företag samarbete med externa intressenter, till exempel kunder och leverantörer.

Företag har tydliga ramar för att hantera hållbarhetsrelaterade risker i leverantörskedjor. Riskidentifiering, bedömning och analys ingår i processen. Dessa aktiviteter följs av riskbehandling som består av olika verktyg som används för att hantera risker. Den sista fasen av hanteringsprocessen är riskövervakning som inkluderar möjliga förändringar i processer. Dessa bildar en slinga som indikerar pågående verksamhet för riskhantering.

Även om riskhanteringsprocesser är avancerade står företag inför olika utmaningar när hållbarhetsrisker hanteras. Leverantörskedjor är långa och komplexa vilket försvårar hantering av leverantörskedjor ur hållbarhetssynpunkt. Processer kräver konstant övervakning och utveckling för att hantera och minimera hållbarhetsrisker. Företag kan ännu inte undvika alla möjliga hållbarhetsrisker. Å andra sidan kan det ta lång tid att nå denna punkt, eftersom kraven på intressenter fortsätter att skärpas, vilket utmanar företagets verksamhet. Därför måste företagen kommunicera med sina intressenter om sina förväntningar och utifrån förväntningar utveckla sin hållbarhetsverksamhet inom leverantörskedjehantering.

Denna magisteravhandling har fyra forskningsfrågor. Den teoretiska frågan: *"Vilka typer av risker finns det i hållbar hantering av leverantörskedjor?"* Den empiriska delen delades in i två frågor: *"Finns det skillnader mellan branscher i hur hållbarhetsrisker hanteras?"* och *"Vilka utmaningar finns för att hantera hållbarhetsrisker?"* och den normativa frågan var: *"Hur kan företag förbättra sin hållbarhetshantering i leverantörskedjor?"*.



"Vilka typer av risker finns det i hållbar hantering av leverantörskedjor?"

Företag står inför ett stort antal olika hållbarhetsrisker beroende på branschen. Hållbarhetsrelaterade risker är potentiellt inträffade händelser som kan framkalla skadliga intressentreaktioner som bojkotter, och därför är det viktigt att försöka hantera dessa risker. Skillnaden mellan hållbarhetsrelaterade risker i leverantörskedjor och vanliga leverantörskedjarisker är att hållbarhetsrelaterade risker kan utlösa intressentreaktioner utan att orsaka leveransstörningar. Sociala hållbarhetsrisker inkluderar frågor såsom oegentligheter i arbetsförhållanden och ersättning. Barn- och tvångsarbete ses bland de allvarligaste sociala riskerna. Riskerna med social hållbarhet är lika för alla företag medan miljöriskerna är mer branschspecifika. Miljöolyckor, föroreningar, energiförbrukning och produktavfall hör till endogena miljörisker, exogena miljörisker inkluderar naturkatastrofer och vattenbrist. Riskerna som företag står inför beror på branschen de verkar i. Till exempel vissa företag verkar i områden där naturkatastrofer är mer sannolika jämfört med andra områden. Ett annat exempel är relaterat till arbetskraften som används vid tillverkning. Vissa industrier är belägna i områden där det är mer sannolikt att det uppstår missförhållanden. Därför varierar hållbarhetsriskerna i leverantörskedjorna beroende på branschen vilket kräver att företagen gör noggranna bedömningar och analyser för att identifiera de mest sannolika riskerna för att fungera enligt dessa analyser.

"Finns det skillnader mellan branscher i hur hållbarhetsrisker hanteras?"

De tre fallbolagen har tydliga processer för hur hållbarhetsrisker hanteras i deras leverantörskedjor. Ramverket för hållbarhetshantering följs av alla tre företagen. Därför hittades inga tydliga skillnader i hur hållbarhetsrisker hanteras i fallbolagen. Intressenter används i riskidentifierings- och utvärderingsprocesser, det finns samma slags hanteringsverktyg som certifieringar, uppförandekod och processer för leverantörsutveckling. I alla tre företagen övervakas riskerna för att få aktuell information om riskerna. Trots att fallföretagen verkar inom olika branscher är hanteringsprocesserna likartade.

"Vilka typer av utmaningar finns det för att hantera hållbarhetsrisker?"

Trots att företagen har investerat i hantering av hållbarhetsrisker i sina leverantörskedjor, uppstår missförhållanden. Moderna leverantörskedjor är långa och komplexa vilket utmanar företagen. Att undvika alla hållbarhetsrisker i leverantörskedjor är praktiskt taget omöjligt. Ändå strävar företagen efter att hantera hållbarhetsrisker och genom det undvika dem eller åtminstone minimera eventuella konsekvenser. Fler och fler resurser används för att öka möjligheterna att undvika hållbarhetsrisker. Fallföretagen har processer som följs men ändå uppstår hållbarhetsbrott i deras leverantörskedjor som orsakar hållbarhetsrisker. Bristande inflytande på leverantörer ses som en av de faktorer som kan orsaka risker. Till exempel krav kan vara otydliga för underleverantörer även när de köpande företagen har tydliga krav på sina leverantörer. Om kraven är otydliga finns det större risk att oegentligheter uppstår. Därför har fallföretagen investerat i närmare relationer med leverantörer för att informera om kraven och utveckla leverantörernas kapacitet.

"Hur kan företag förbättra sina hållbarhetshanteringar i leverantörskedjor?"

Fallbolagen förbättrar hållbarhetshanteringsverksamheten beständigt. Förbättringsåtgärder genomförs inom företagen men även externa partners beaktas. För att kunna förbättra hållbarhetshanteringen krävs det att företag samarbetar med andra aktörer. Konkurrenter kan till exempel ha samarbetsprojekt för att hantera hållbarhetsrisker. En gemensam lista över leverantörer som har brutit mot hållbarhetskrav kan vara ett alternativ. Med hjälp av en gemensam lista kan företag ha samma information om ohållbara leverantörer, vilket skulle hjälpa till att undvika hållbarhetsrisker. Samtidigt kunde branschens rykte förbättras, vilket skulle hjälpa företag i längden. Därför kan ett ökat samarbete med olika aktörer vara ett alternativ när företag fortsätter att förbättra hållbarhetshanteringen. Dessutom kan samarbete hjälpa köparföretagen att förbättra sin egen verksamhet som kan påverka hållbarhetsåtgärder.

Denna magisteravhandling har endast fokuserat på miljö- och sociala hållbarhetsrisker inom hantering av leverantörskedjor. Den ekonomiska dimensionen beaktas inte. Om en ekonomisk dimension skulle övervägas skulle det möjliggöra att få en helhetssyn

på hållbarhetshantering. Därför skulle det i framtiden vara intressant att kombinera alla tre aspekterna av hållbarhet inom hållbarhetshantering i leverantörskedjor. Med hjälp av detta kan forskare få information om det finns några kopplingar mellan dimensionerna och hur dessa länkar påverkar hållbarhetspraxis i riskhanteringsmetoder. Dessutom fokuserade magisteravhandlingen på företag som allmänt accepteras som hållbara företag och fallbolagen är finska offentliga företag med enorma resurser. Därför kan forskningen i framtiden fokusera på mindre företag med betydligt färre resurser. Det skulle vara intressant att se om det finns skillnader mellan stora och mindre företag i hur hållbarhetsrelaterade risker hanteras i leverantörskedjor. Till exempel, om resurser har betydande skillnader, påverkar företagets värderingar hållbarhetsverksamheten. Dessutom kan det vara användbart att undersöka företag från olika länder. Detta skulle göra det möjligt att få information om det finns betydande skillnader i hållbarhetspraxis mellan länder och vad som är orsakerna bakom skillnaderna.

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