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Supply chain responsibility reporting in the retail industry

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ABSTRACT:

Vastuullisen liiketoiminnan ja vastuullisuusraportoinnin merkitys on kasvanut nopeasti viime vuosikymmeninä. Tämä korostuu erityisesti vähittäiskaupan toimialalla missä kuluttajan rooli osana toimitusketjua on entistä tärkeämpi ja yhä useampi kuluttaja tekee valintansa tuotteen ja palvelun tuottajan vastuullisuuden perusteella. Vastuullisuusraportointi on tapa jolla yritykset viestivät vastuullisuudestaan.

Tässä tutkielmassa tarkastellaan sitä, millainen kuva vähittäiskauppayritysten toimitusketjujen vastuullisuudesta syntyy niiden julkaisemien vastuullisuusraporttien välityksellä. Tutkimus toteutettiin tarkastelemalla viiden suomalaisen ja viiden ruotsalaisen vähittäiskaupan toimialalla toimivan listatun yrityksen vastuullisuusraportteja vuosilta 2017 ja 2021. Tutkimuksessa tarkasteltiin sitä, miten tutkielman teoriaosassa rakennetun teoreettisen, vastuullisia toimitusketjuja kuvaavan mallin teemat ilmenevät yritysten vastuullisuusraporteissa.

Tutkimus toteutettiin laadullisena tutkimuksena, käyttäen sisältöanalyysiä tutkimusmenetelmänä. Empiirinen analyysi toteutettiin hyödyntämällä Leximancer-ohjelmistoa. Kun sisältöanalyysin tuloksia vertailtiin vastuullista toimitusketjua kuvaavaan teoreettiseen viitekehykseen, havaittiin että tärkeimmäksi konseptiksi nousi hankinta ja että tähän liittyviä keskeisimpiä teemoja olivat raaka-aineet, tuotteen alkuperä ja työvoimaa koskevat käytänteet. Toisaalta, tuotanto ja kiertotalous eivät nousseet merkittäviksi konseptekisi vähittäiskaupan yritysten vastuullisuusraporteissa, vaikka ne muuten ovat keskeinen osa vastuullista toimitusketjua.

Kun tuloksia tarkastellaan kokonaisuutena, vaikuttaa siltä että vähittäiskaupan yritysten toimitusketjuja ei hallinnoida yhtenäisenä ketjuna. Sen sijaan joitain osa-alueita painotetaan huomattavasti enemmän kuin toisia. Tämä on vastoin yleistä kirjallisuudessa esitettyä näkemystä, jonka mukaan toimitusketjuja pitäisi optimoida kokonaisuutena. Tutkielman tulosten perusteella voisikin suositella, että vähittäiskaupan alan yritykset painottaisivat raporteissaan enemmän esimerkiksi kiertotalouden ja tuotannon vastuullisuuden tärkeyttä.

KEYWORDS: sustainable supply chain management, sustainability reporting, retail industry, content analysis, sustainability, corporate social responsibility

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Abbreviations

CDP	Carbon disclosure project
CSR	Corporate social responsibility
CSRD	Corporate sustainability reporting directive
EOL	End-of-life
ESG	Environmental, social and governance
GRI	Global reporting initiative
GSCM	Global supply chain management
ISO	International organisation for standardization
NFRD	Non-financial reporting directive
OECD	Organization for economic cooperation and development
SCM	Supply chain management
SSCM	Sustainable supply chain management
TBL	Triple bottom line
WEF	World economic forum

1 Introduction

From a consumer point of view, sustainability is an increasingly important requirement for any organisation. It could even be argued that the scrutiny corporations are currently under concerning sustainability is higher than ever. In addition to being highly valued among consumers, for the better part of the last two decades this topic has grown a steady position both in corporate world and in academia. Sustainability and corporate social responsibility are both highly researched topics with articles and research papers from every field of business imaginable. How a company reacts to and handles the growing demand for sustainable operations directly affects the attitude of investors and the general demand for their product, and as Lawrence et al. (2010) note, corporations have obligations towards the society and the environment. Though it is clear that sustainability is not the main deciding factor for investors, it does seem that an increasingly large portion of investors and other sponsors understand the importance of it in terms of generating profit (Hartzmark & Sussman, 2019).

Corporate sustainability is a broad concept. In general, it covers all aspects of a company's operations from human resources to manufacturing and waste disposal. This study focuses on the supply chain part of a company's operations. A supply chain is a series of activities concerned with planning, coordinating and controlling material, parts and finished goods from suppliers to customers. It consists of not only the flow of materials and products but also the flow of information between a consumer and a supplier. (Stevens, G. C., 1989). Supply chain management can be defined as managing the total flow of goods inventory from the supplier to the consumer (Mentzer et al., 2001).

A modern consumer increasingly values transparency and traceability in corporate actions. Therefore, it is important that companies deliver reassurance for customers and stakeholders concerning their steps towards sustainability in all aspects.

The retail sector could be described as peak consumerism. Retail companies often sell goods designed by other companies and produced by multiple different manufacturers. For just a single retail company this creates an enormously complex web of supply chains. Reuter et al. (2010) note that globalization has had a major influence in the complexity of supply chains as one company can sell products all over the world while holding warehousing and manufacturing plants on multiple continents.

1.1 Background

In the past two decades, there has been a countless amount of research on the topic of both sustainable supply chain management (SSCM) and corporate social responsibility (CSR). After a glance over the research and literature on the topic, it was clear that the combination of the two, especially in the retail industry, is quite uncommon. The significance of sustainable actions in corporate world keeps increasing as the environmental problems are becoming more acute causing consumer behaviour to shift towards more sustainable behavioural patterns (Wiese et al., 2012).

Sustainability reporting is a relatively new concept, and the guidelines and standards are constantly developing. Currently there are only a handful of globally accepted standards for sustainability reporting, such as the GRI Standards and the AccountAbility standards, which will be covered later on in this thesis. Although some of these reporting standards have been existing since the beginning of the 21st century and many organizations have been publishing some form of sustainability reports even prior to them being published, the legislative rules on non-financial reports in the EU have only existed since 2014. That being said, the first time EU legislation took a stand on sustainability reporting issues was in 2003 in the Modernization Directive (2003/51/EC). In addition to the EU law concerning sustainability reporting, most countries have their own legislations.

The globalization of consumerism and the retail industry has created a web of complex and widespread supply chains. In the modern world, where a consumer increasingly

looks for traceability and transparency throughout the product lifecycle, the pressure for corporations to deliver socially responsible goods and services increases with it.

1.2 Research objective and structure

The aim of this study is to investigate how supply chain sustainability is represented in corporate sustainability reports in retail industry. The study is conducted by content analysis of sustainability reports from listed companies in the retail industry in Sweden and Finland. The availability of such companies is limited and therefore the analysis is done with a selected number of both Finnish and Swedish retail companies. For the analysis, the process was started by collecting the sustainability reports from the annual reports of each company. The collection of data was conducted in early 2022 and therefore the main data set for this study consists of sustainability reports from 2021. Furthermore, to get a wider perspective for the study, it was decided to add the sustainability reports from 2015. This gives the opportunity to also study the changes in reporting for a five-year period. This paper is structured as follows: first, a literature review on existing research concerning this study is conducted, focusing on sustainable supply chain management and corporate social responsibility reporting. Chapter two also includes the development of a modified sustainability reporting framework for the purposes of this study. Next, in chapter three, the data is presented, and the methodology is explained with the help of literature sources.

Next, the empirical data will be applied to a content analysis tool, Leximancer and finally, the results are written out and discussed. The discussion is based on the three research questions 1) *How is sustainability covered in sustainability reporting?*, 2) *How has supply chain sustainability reporting changed during a five-year period?* and 3) *Are there visible differences in reporting between the two sample countries?.*

1.3 Key concepts

Here I will briefly go through the key concepts involved in the thesis.

1.3.1 Supply chain

Supply chain can be defined as the set of activities involved in the product lifecycle. Traditionally the product lifecycle entails the stages of planning, sourcing and producing of the product and the warehousing and transportation of the product to its end-user. Stevens (1989) made the notion that a supply chain does not only consist of the flow of material but also the flow of information. Seuring & Müller (2008) ties these theories together and suggested that a supply chain is the flow and transformation of material from raw material to finished goods delivered to its end-user, including the flow of information both upstream and downstream of the supply chain.

1.3.2 Supply chain management (SCM)

Supply chain management (SCM) refers to all business processes and activities in the supply chain in order to deliver superior customer value while minimizing the cost of the whole supply chain and simultaneously satisfying the requirements of all stakeholders of the company (van der Vorst, 2004). Similarly, Seüring & Muller (2008) define supply chain management as the integration of all supply chain activities through improved relationships in order to gain competitive advantages.

1.3.3 Sustainability

A challenge with sustainability is that there is no standard definition for the term. Bateh et al. (2013) formulate a definition based on that of the Brundtland commission and characterizes sustainability as the process of development that satisfies the needs of the current generation, without hampering the needs of future generations. The concept of sustainability can also be connected to the Triple Bottom Line (TBL) concept. TBL is, according to Slaper & Hall (2011), an accounting framework focusing on three main aspects: society, economy and environment.

1.3.4 Sustainable supply chain management (SSCM)

A key element in defining sustainable supply chain management is combining the different elements of corporate sustainability into the supply chain management process. For the most part, the triple bottom line plays a major role in building a sustainable supply chain management process. For example, Ahi & Searcy (2013) define it as the creation of coordinated supply chains in a manner that integrates the economic, environmental and social aspects with vital business processes.

1.3.5 Corporate social responsibility (CSR)

While early definitions of corporate social responsibility go back to Bowen (1953), more recently, e.g., van Marrewijk (2003) define CSR as a combination of social and environmental issues in business operations. Further, OECD defines CSR the contributions a business makes towards sustainable development. They note that the aspect of societal and environmental concerns should be as significant in corporate behaviour as the financial concerns (OECD, 2001).

1.3.6 Sustainability reporting

Sustainability reporting is a CSR tool, used for reporting non-financial information on business practices and activities from the sustainability point of view. According to Michalczuk & Konarzewska (2020) CSR reports are thorough statements which detail the company's strategy and societal policy, as well as the results that CSR strategy creates to different stakeholders.

2 Literature

In this chapter I present a literature review on the main topics of this thesis. First, the concept of retail industry is presented and some literature concerning it is explored. Next the concept of SSCM is presented, followed with the presentation of the three sustainability frameworks which are then used to develop a modified framework to use further in this study. Finally, the concept of CSR reporting is presented and, as previously, some frameworks regarding the reporting are presented for the purpose of later stages.

2.1 Retail industry

Retail industry can be defined as selling products to consumers acting as end users, that is, individuals. It can be divided into grocery stores, specialty stores and car dealerships. It also entails physical in-store transactions, e-commerce, telephone sales, mail order and other channels. (Työ- ja elinkeinoministeriön julkaisuja ,Yritykset, 2021:28 Kaupan toimialan tilannekuva, muutos ja tulevaisuuskuva).

Schramm-Klein et al. (2016) characterize a retailer as “a gatekeeper” between the producer and the consumer. This being due to the fact that a quite unique aspect of the retail industry is that retail companies usually sell products designed and manufactured by other companies. This makes it difficult for the company to control the sustainability of the entire supply chain involved in the products they sell. Though goods and services are traded through multiple industries, the retail industry maintains a dominant position across all markets (Dal Mas et al. 2022). One major part of retail is the apparel industry. Diddi & Niehm (2016) discuss the fact that the apparel industry bares constant scrutiny over the unsustainable practices the industry practices and therefore makes the notion that sustainability is an important aspect of the retail industry business strategy.

It could be argued, that because the end-user of a retail product is a consumer, the sustainability aspect of the supply chain is more relevant than in other instances such as when the end-user is another company. Jones et al. (2016) argue that while all

companies are expected to promote a future of sustainable business models, the retail industry arguably plays the biggest role in it, as they hold the primary link between the two ends of the supply chain, which are the manufacturers and primary producers on the other end and consumers on the other.

The retail industry in Europe generates more than three trillion euros in sales annually, with 5,186,304 (2022) companies operating in the industry (Statista.com). Globally the industry generated nearly 24 trillion U.S. dollars in sales in 2020 and in a 2022 survey a forecast of more than 31 trillion U.S. dollars in 2025 was given (Statista.com). Globally, in 2020, the retail industry represented roughly 28% of the global gross domestic product (GDP) and in Europe nearly 18 % of the European GDP. With such a large portion of the global market, the retail industry holds fundamental economic power and environmental responsibilities consisting of the complex functions of a retail company's supply chain (Buallay, 2022).

In 2020 the Swedish retail sector had a turnover of 824 billion SEK from a combined 31 945 store locations (scb.se). With a GDP of 4977.4 billion SEK in 2020, the retail sector covers slightly less than 17% of the Swedish GDP (statista.com). The Finnish retail sector generated a turnover of 43.6 billion EUR in 2021 (kauppa.fi). In 2020 there were a combined amount of 28 257 store locations in Finland (stat.fi). The 2020 GDP in Finland was 238 billion EUR, and therefore the retail sector covered approximately 18% of the GDP. Therefore, the Finnish and Swedish retail sector are in sync with the European average of 18% of the GDP.

2.2 Sustainable supply chain management

Stevens (1989) defines the supply chain as a series of activities concerned with planning, coordinating and controlling material, parts and finished goods from suppliers to customers. In this definition it consists of not only the flow of materials and products but also the flow of information between a consumer and a supplier. A supply chain is a mechanism in which all firms participate, starting with raw materials and ending with

the ultimate consumer. According to Lambert & Cooper (2000) a supply chain can be described as a network of customers and suppliers. Mentzer et al. (2001) provides an alternative definition and suggests that a supply chain is the network of organizations involved within the product lifecycle. In other words, a supply chain consists of multiple firms, both upstream and downstream of the focal firm, as well as the ultimate consumer. Seuring and Müller (2008) further suggest that the supply chain includes all activities associated with the flow and transformation of goods from raw material to the end user. It also includes any information flows connected with the products, both up and down the supply chain.

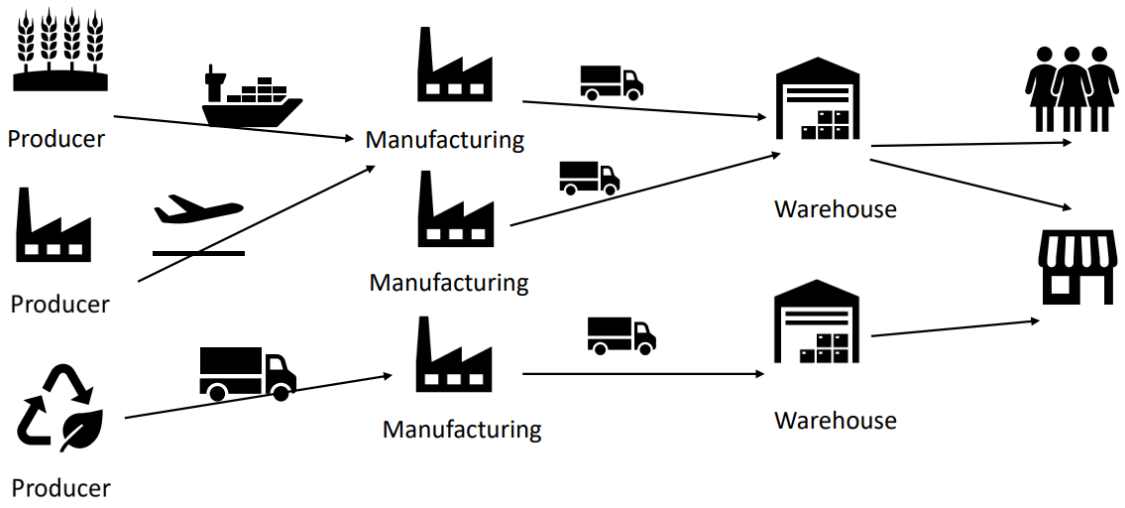

Figure 1. An example of a supply chain

Figure 1 presents a simplified example of a traditional supply chain. It starts with different types of producers who process either raw material or components to be used at later stages of the supply chain. These are then transported to manufacturing plants who then in turn transform the raw material into finished products and further transport the goods to warehouses. From the warehouses the goods are eventually transported to either directly to consumers or different retail outlets. Although a retail business often is not directly involved in the manufacturing process directly, when creating a supply chain,

they must take into account the source of the product as it is an important aspect of sustainability.

Supply chain management (SCM) can be defined as the integration of all activities within the supply chain through improved supply chain relationships to achieve sustainable competitive advantage (Seuring & Müller, 2008). van der Vorst (2004) suggests that SCM is the cohesive planning and control of all business processes and activities involved in the supply chain in order to create maximum consumer value while simultaneously minimizing supply chain related costs and satisfying any stakeholder related requirements. Carter & Easton (2011) further developed the idea of a network of firms in supply chain management into a multifirm effort to manage the total flow of goods which in turn affects the performance of all firms involved in the supply chain as well as the performance of the supply chain as such.

The literature concerning SCM has weighed heavily on environmental issues, which seems to have been the focus of research during the last three decades and as Carter & Easton (2011) pointed out is a key component of the triple bottom line (TBL). The triple bottom line is defined as an accounting framework that incorporates three dimensions of firm performance. These are social performance, environmental performance and financial performance (Slaper & Hall, 2011). Figure 2 presents a graphic description of TBL, built around the concept of sustainability.

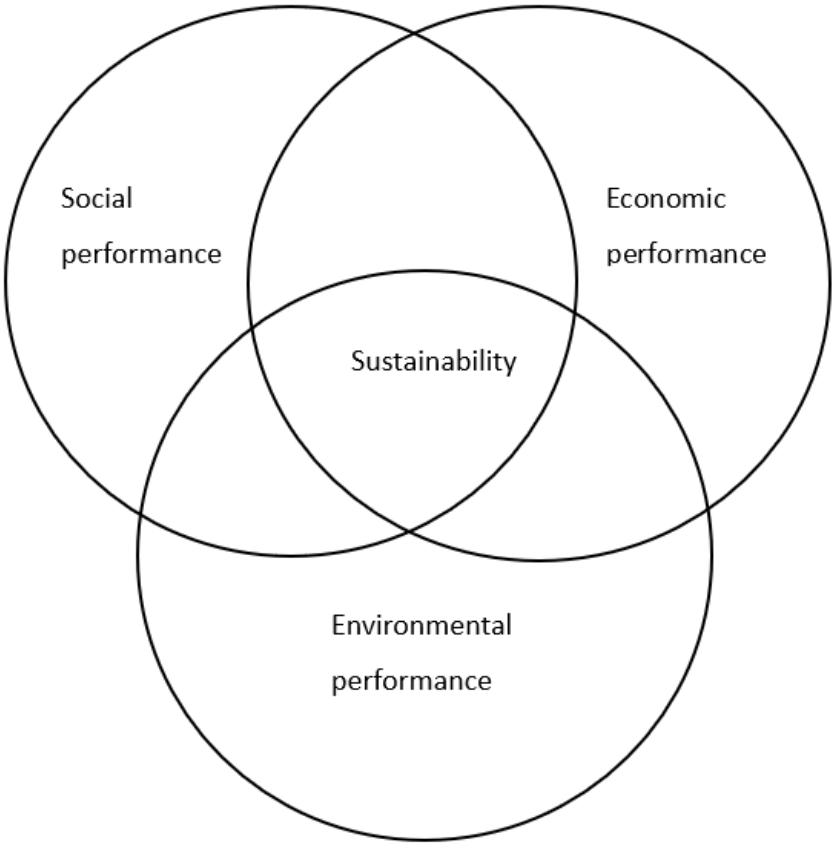

Figure 2. The three aspects of sustainability, the Triple Bottom Line

Slaper & Hall (2011) describe TBL as an accounting framework that is built around three dimensions of corporate performance: social, environmental and economic, also known as the three Ps: people, planet and profit. The TBL differs from traditional corporate accounting in the sense that it includes the environmental and social aspects of corporate behaviour. These aspects can be found hard to measure using a specific framework (Slaper & Hall, 2011).

When it comes to sustainable supply chain management (SSCM), it has been defined as a process that integrates the three dimensions of the TBL into the management of a supply chain. Therefore, where traditional supply chain management focuses on the material, information and capital flows within the supply chain, sustainable supply chain management focuses on the supply chain from the TBL perspective, paying more attention to the environmental and social impact of business operations (Frostenson &

Prenkert, 2015). Ahi & Searcy (2013) provide an additional definition of SSCM, describing it as the creation of coordinated supply chains, while integrating economic, environmental and social consideration with key business systems. They also characterize it as efficient management of the material, information, and capital flows associated with the procurement, production, and distribution of products or services, while simultaneously taking into consideration stakeholder expectations and enhancing corporate profitability and competitiveness, both in short-term and long-term. The most accepted definition of SSCM is that of managing SCM with profound consideration for environmental, economic and social issues, while also taking into consideration the long-term economic goals of the firm and its supply chains (Al-Odeh & Smallwood, 2012). Broadly speaking it encompasses the strategic and transparent integration of an organizations social, environmental and economic goals in the systemic coordination of key business processes in order to improve the long-term economic performance of a company and its supply chain (Carter & Rogers, 2008). Carter & Rogers (2008) also note that while most adaptations of SSCM incorporate a consideration of at least environmental and economic concerns, it is simpler and cheaper for a company to operate considering all three aspects of the TBL, that is, economic, social and environmental aspects. In addition to being a conceptual tool, the TBL framework also offers predictive and normative value when investigating SSCM. When designed and controlled properly, a SSCM strategy could be considered a competitive and strategic advantage (Berning & Venter, 2015).

Al-Odeh & Smallwood (2012) suggest that a key component in developing SSCM implementing sustainable purchasing strategies. Sustainable purchasing leads to waste reduction, by means of using environmentally friendly raw material. Additionally sustainable purchasing plays a significant role in SSCM as it assists companies towards environmentally friendlier resources and practices, such as developing a sophisticated circular economy, which ultimately leads to, for example, waste reduction in both ends of the supply chain and improving environmental performance. In their SSCM framework Al-Odeh & Smallwood (2012) also point out the importance of long-term partnerships and trust between different operators within the supply chain. They suggest that a great way to

establish and maintain a sustainable supply chain is to make sure that each operator within the SC are in communication. Carter & Easton (2011) and Carter & Rogers (2008) further establish that by implementing SSCM, organizations can achieve marketing advantages, improve corporate image and organizational reputation. An additional advantage of implementing SSCM can be that it brings about cost advantages (Al-Odeh & Smallwood, 2012). Schaltegger & Burritt (2014) characterize the main priorities of SSCM as managing all corporate functions with the ultimate goal of minimizing any negative environmental impact throughout the supply chain. Although sustainability is not just about the environmental impact a business causes, in a growing matter is environmental sustainability becoming a key meter for supply chain management evaluation (Fadavi et al., 2021).

An additional dimension of supply chain management are global supply chains (GSC), which extend beyond a single country's boundaries, distributing the production and warehousing facilities across multiple geographic locations and sourcing to offshore suppliers (Koberg & Longoni, 2019). The widespread facilities and networks of suppliers create a challenging environment for SSCM, as integrating stakeholder concerns for profit with ecological and social concerns throughout the widespread supply chain is a demanding process. In a literature review, Ahi and Searcy (2013) suggest that SSCM can be seen as an extension of global supply chain management (GSCM).

A carefully drafted SSCM process takes into consideration the risk factor of a supply chain. Oelze et al. (2018) characterize SCM risk as socioecological harm that the product, service or the SC operations can cause, environmentally, socially or economically. They note that SSCM should include the concept of risk management, as it is a crucial part of contingency planning in order to prevent disruptions, both inbound and outbound supply chains. Schaltegger & Burritt (2014) add that supply chain management includes the consideration of sustainability risks and opportunities of the existing supply chains in regard to the environmental and social impacts sustainability can contribute to the markets and society.

Companies can select between different sustainability strategies when building a SSCM system. Schaltegger & Burritt (2014) suggest that there are three alternative sustainability strategies which can be applied to build more sustainable supply chains. They are efficiency, consistency and sufficiency related strategies. The efficiency approach is characterized as being guided by the principle of maximizing economic value while minimizing negative social and environmental impact. The consistency approach on the other hand deals with substituting all unsustainable materials with a sustainable alternative. The sufficiency approach is the most profound strategy. A guiding principle of sufficiency is that of less consumption and the substitution of products with services. It implies that in order to function sustainably, production should be limited to only the products deemed necessary, i.e., products that have a guaranteed demand. Within the retail industry, sustainability seems to be a sensitive issue for the fast fashion retailer supply chains due to the nature of the products. Fast fashion production is notorious for the high resource use in all parts of the supply chain (De Brito et al., 2008). The retail industry in general, with some exceptions such as high-end fashion or car manufacturing, seems to lean towards mass production, and therefore implementing a strategy such as the efficiency approach is not valid for most organizations. Due to the qualities of the retail industry, an approach such as the consistency approach could be a well-suited option.

2.2.1 SSCM framework

For the purposes of this study, a modified SSCM framework was developed with the help of three existing frameworks. These frameworks are the World Economic Forum (WEF) SCM framework (2021), a corporate sustainability framework by Hassini et al. (2012) and a sustainable supply chain management research map by Kim & Kim (2017).

The frameworks used in developing this modified framework are similar in nature, emphasizing circularity and traceability. All frameworks begin with sourcing, the process of acquiring raw material of products, depending on the business model of the firm, and end with reverse logistics, the process of reusing and repurposing product at end of life.

The WEF framework includes seven steps, whereas the Hassini et al. (2012) framework includes six steps. The WEF steps are sourcing, processing, packaging, distribution, consumption, disposal and circularity. The Hassini et al. (2012) framework includes the six steps of sourcing, transformation, delivery, value proposition, consumption and product recycling. The Kim & Kim (2017) research map includes six steps, which are sustainable procurement, sustainable production, sustainable distribution, sustainable retail, customer's role and reverse logistics. All three share a similar structure of the framework with some minor differences. For example, the WEF framework lists packaging as one of the key components, while Kim & Kim (2017) include it in the sustainable distribution aspect and Hassini et al. (2012) include it in the delivery part of the framework.

Sourcing is the process of finding and managing suppliers of raw material or product. From the sustainability point of view, sourcing has a major role in the supply chain. This gives the focal company of the supply chain a possibility, and obligation, to push their suppliers to adopt and adapt technology and practises that result in environmentally and economically friendly material sources and labour practices (Hassini et al., 2012). Sustainable sourcing can be built around questions such as "Where does the product come from?" or "Is the product ethically produced?". The origin of the product, or material, and the ethical aspect are often linked.

The retail business is based on selling products which are not manufactured by the focal company. They often use suppliers from all over the world, depending on the type of goods the company sells. Dal Mas et. al. (2022) point out that this makes it difficult for a company to be fully invested in their supply chain and have a deep understanding on all aspects of it. Therefore, close supplier relationships are important for any retail industry company (Schneider & Wallenburg, 2012). A deep understanding and knowledge on the operations behind the company's manufacturing and supplying the product the focal company sells is essential, as any poor performance on their part affects the focal company and its reputation more than the suppliers (Spekman & Davis, 2004). Schneider & Wallenburg (2012) compile literature from the subject and note that the existing

research has highlighted the need for more active consideration of other stakeholders and increased internal cooperation within the entire supply chain. Further, they point out that implementing sustainable sourcing practices magnifies the difficulties and shortages of the traditional supplier-focused sourcing patterns.

Tate et al. (2010) give sustainable sourcing three requirements: provide economic value at competitive cost, meet set environmental standards and enforce the focal company's values and standards. Along the same theme, a viable definition for sustainable sourcing is given by Pagell et al., (2010, p. 58) describing it as managing all aspects of the upstream component of the supply chain in order to maximise triple bottom line performance.

Processing, or manufacturing, is the process of taking raw material and parts acquired and turning it to the product intended to be sold. The WEF lists processing as the second step of their frameworks. Hassini et al. (2012) lists the term transformation for this step. Product transformation and processing are essentially the same thing. As well as the sourcing process, the producing process is also a key element in building a sustainable and traceable supply chain. Generally, retail companies sell products which are mass produced and a noticeable number of manufacturers producing such merchandise are located in undeveloped countries. The labour practices in such countries are not as developed as in most western countries, and therefore it is difficult for many retail companies to achieve a fully sustainable supply chain.

Veleva & Ellenbecker (2001) point out that one of the major causes for the continuing decline of the global environment is the unsustainable consumption and production patterns adopted especially by industrialized countries. Processing is directly linked to consumption, in the sense that consumer goods have a certain level of safety regulations. Processing also inevitably creates waste. In order to achieve the objectives of sustainable production, a company must minimize all types of waste. They must also minimize the use of natural resources, such as minerals, and minimize the use of raw material and energy (Krajnc & Glavič, 2003). Veleva & Ellenbecker (2001, p. 520) introduce a definition

for sustainable production, representing it as the creation of goods and services using processes and systems that are non-polluting, conserve energy and natural resources, are economically viable, are safe for employees, communities and consumers and create value.

Distribution includes the delivery process of a company's product. The distribution can happen between several actors , such as from factory to warehouse or from warehouse to store or directly to consumer. Kim & Kim (2017) and Hassini et al. (2012) list product distribution as the third concept in their frameworks. The WEF list it as the fourth concept. The WEF framework differs from the other two in that it lists packaging as a separate concept, while Kim & Kim (2017) and Hassini et al. (2012) include packaging in the distribution, or delivery, concept. Hassini et al. (2012) breaks the concept into four main issues, which are transportation, location and layout of facilities, inventory and GHG emissions. All four concepts are linked with each other and together, when managed properly, play a major part in creating a sustainable supply chain. Kim & Kim (2017) break the distribution concept in to five sub-concepts, which are carbon footprint, packaging, warehousing, inventory control and transportation cost. Transportation to and from the factory and the manufacturing process are the main creators of greenhouse gasses within the supply chain, although it could be argued that for some product types, such as cars, a major part of emissions is released during the consumer's use of the period (Hassini et al., 2012).

A company faces many sustainability issues when building a sustainable distribution channel. These issues include the location of facilities, as the company faces the decision between close to customer and close to raw material. The mode of transportation also has an impact on a company's carbon footprint. The mode of transport is linked to the location of the manufacturing facilities. Developing a modern supply chain includes many aspects, and transportation decisions is one of the major ones. These transportation decisions play a big role in the environmental performance of the supply chain, and therefore the cost of product distribution is significantly linked with the total cost of the

supply chain (Validi et al., 2015). For this reason, one of the keys to successfully improving enterprise performance from the sustainability point of view is the value created with the product distribution decisions (Lopes et al., 2008). In a sustainable supply chain network, the provider of logistics services is required to contribute to the decreasing of the environmental impact the transportation creates by reducing for example carbon emissions (Wang et al., 2011). This can be done for example by re-designing the distribution channels, or by minimizing the number of distribution runs by only transporting full loads. For the purpose of creating a specialized framework for the retail industry, the aspect of packaging is considered included in the distribution part of a supply chain. Although it can be judged as a minor part of the sustainability aspect of a supply chain, in the long run a sustainable form of packaging is an undeniably large player in protecting the environment. Creating a form of packaging that uses the least amount possible of non-renewable material reduces waste on both ends of a supply chain.

Value proposition is the act of communicating to a customer how the company seeks to provide value with their product (Payne et al., 2017). Hassini et al. (2012) list value proposition as the fourth concept. Value proposition is particularly important for a company providing environmentally friendly, or green, merchandise (Hassini et al., 2017). The consumer price for such products is often higher than for a similar, non-ecological, product due to the higher cost of production. The production costs of environmentally friendly goods often rise due to the careful planning of the supply chain. Careful planning of the supply chain is also a major part of building a sustainable product. When each part of the supply chain is executed with a sustainable perspective, the cost of each step tends to go higher. The high production cost is ultimately transferred to the price of the product. Though value proposition is not a term apparent in many frameworks in the subject of sustainability, many authors still seem to agree on the fact that value proposition should always be defined from the customer perspective (Rintamäki et al.,2007). Value proposition undeniably has a major role in the pursuit of competitive advantages, but the value of a product is created at consumption, not production (Vargo & Lusch, 2004).

Consumption (consumer) is listed as the fifth step in the WEF framework. This is in line with the fifth concept in the Hassini et al. (2012) framework, which is customer and product use and the fifth concept of the Kim & Kim (2017) research map which is customer role. According to Hassini et al. (2012) the role of consumers in the supply chain tends to be missing from sustainability models. They note that traditionally the product life cycle has focused on the sourcing, production and delivery of goods, leaving out the part of consumption part of a supply chain. This concept involves multiple aspects as the customers role in the supply chain is multi-faceted. The role of a customer starts at the point of product design. The aim of product design is to develop a product that creates value for a consumer. Additionally, the customer is involved in the product life cycle from the point of a finished product to the point of end of life. While the consumer is responsible for disposing of an old product properly, a sustainable supply chain must include a product that can be disposed in a way that it does not end up in a landfill.

As a concept, sustainable consumption can be, more or less, dated back to the Rio Earth Summit in 1992 (Julia & Kassim, 2020). Jackson & Michaelis (2003) review some of the most popular definitions of sustainable consumption adopted by multiple institutions and studies. The Oslo Symposium in 1994 defined sustainable consumption as the use of goods and services that respond to basic needs and bring a better quality of life, while minimizing the use of natural resources, toxic materials and emissions of waste. The United Nations Environment Programme in 1999 defined sustainable consumption as not about consuming less but consuming differently and consuming efficiently. Jackson & Michealis (2003) also make a note that the current market conditions, which are highly based on consumerism, it may be relatively difficult for a business to begin the discussion concerning reducing levels of consumption. The rules and market positions have shifted from the early stages of capitalism, and in the modern age the market is defined by the consumer instead of the supplier.

Reverse logistics (recycling) is the final step of the supply chain in each framework. The WEF framework uses the terms disposal and circularity, Hassini et al. (2012) uses the terms reuse, recycle and return and Kim & Kim (2017) use the term reverse logistics. The Kim & Kim (2017) concept reverse logistics is the most descriptive of these three. Reverse logistics is a term describing the activities consisting of recycling and remanufacturing an end-of-life (EOL) product. By adopting a reverse logistics practice a company not only generates profit but also helps protect the environment (Kim & Kim, 2017).

Most SCM contributions comprise mainly procurement, production and sales, whereas conceptual extensions beyond the point of sale are of few (Dyckhoff et al., 2013). Although the practice of remanufacturing in the retail industry is still rare, the concept has been adopted by, for example, many fast fashion retailers. As an example, H&M has adopted a practice of colleting used textiles in their stores. When returning old textiles a customer receives a voucher to the store, which acts as an incentive (H&M, 2021). It is clear that EOL product recovery not only eliminates waste but also makes companies more resource efficient. The practice of product recovery also creates a more responsible and environmentally invested consumer image (Das, 2012). Hassini et al. (2012) states that the use of renewable and recycled material sources is a key feature of sustainable supply chains. They also make the point that consumer behaviour is not always predictable and as the use of renewable or fair-trade resources is often more expensive, which is directly allocated in the price of the product, the adaptation of such sustainable practices is a risky choice in the sense that a higher price can be a deal breaker for a consumer.

Although moving towards a greener circular supply chain can create new, fresh opportunities for a business, it does not come without risk (Hockerts and Wüstenhagen, 2010). Although new opportunities always come with a risk, the decision to venture on to new territories is necessary in creating value for a business, which is an essential part of any organization offering goods or services to consumers (Teece, 2010). In 2015, the European Commission implemented circular aconomy strategy, which includes measures to

promote Europe's transition toward a circular economy. Kalmykova et al. (2018) make a note that a CE's aim is to maximize resource efficiency. This is achieved by keeping materials at their highest value at all times, which in turn is achieved through reuse and remanufacturing of product and through recycling of raw material (Boldoczki et al., 2021). According to Korhonen et al. (2018), the highest resource efficiency is achieved by prioritizing the reuse of a product over the other CE tactics. Product reuse maximizes its sustainability and minimizes waste. It is important to note that a sustainable strategy it not always fully functional and can deliver unsustainable side effects (Helander et al., 2019), such as burden shifting (Boldoczki et al., 2021). Boldoczki et el. (2021) also note that the aim of CE activities is to change consumer behaviour pattens and production patterns, as the CE activities should be directed towards the entire supply chain in order for them to have effects on any part of it.

The linear socioeconomic system, the common conception of a supply chain ending in product disposal, is proving to be a weakening force of natural resources (dos Santos et al., 2022). Discarding products at end-of-life creates unnecessary waste, while the production of new products requires the extraction of more raw material from the environment (Zhao et al., 2019; dos Santos et al., 2022). CE has been considered an essential strategy to improve the overall performance towards sustainability (dos Santos et al., 2022), as it aims to limit production flow to levels tolerated by the environment (Korhonen et al., 2018) and considers the environmental impact of waste and seeks to create a model where resources can circulate within the supply chain (Sauvé et al., 2016).

Table 1 presents key components of SSCM models from Hassini et al. (2012), the WEF and Kim & Kim (2017) as well as a modified version created for the purposes of this study. While the three existing frameworks are very similar, there are some differences. Each of the three share the same base structure, beginning from sourcing and ending with EOL procedures. One of the main differences is that the WEF framework separates packaging as its own component. Additionally, Kim & Kim (2017) separate sustainable retail

as one additional component, whereas Hassini et al. (2012) separates value proposition as a component.

Table 1. SSCM models

Hassini et al. (2012)	**WEF (2021)**	**Kim & Kim (2017)**	**Modified**
Sourcing	Sourcing	Sustainable procurement	Sourcing
Transformation	Processing	Sustainable production	Production
	Packaging		
Delivery	Distribution	Sustainable distribution	Distribution
Value proposition		Sustainable retail	
Customers and product use	Consumption	Customer role	Consumption
Reuse, recycle, return	Disposal & circularity	Reverse logistics	Circularity

The other differences between the frameworks mostly relate to the wording of the components. For example, the last component of each framework relates to circular economy but the terms used by each study is different. Hassini et al. (2012) use Reuse, recycle and return, the WEF uses Disposal and circularity while Kim & Kim (2017) use Reverse logistics. For the purposes of this study, circularity was adopted. For the purposes of this study, value proposition was included in the component of consumption. The sustainable retail component in the Kim & Kim (2017) framework was excluded from the framework as a separate component, as the entire framework was built around the concept of sustainable retail. Additionally, the packaging component. which was listed separately in the WEF framework, is included in the distribution component in the modified framework.

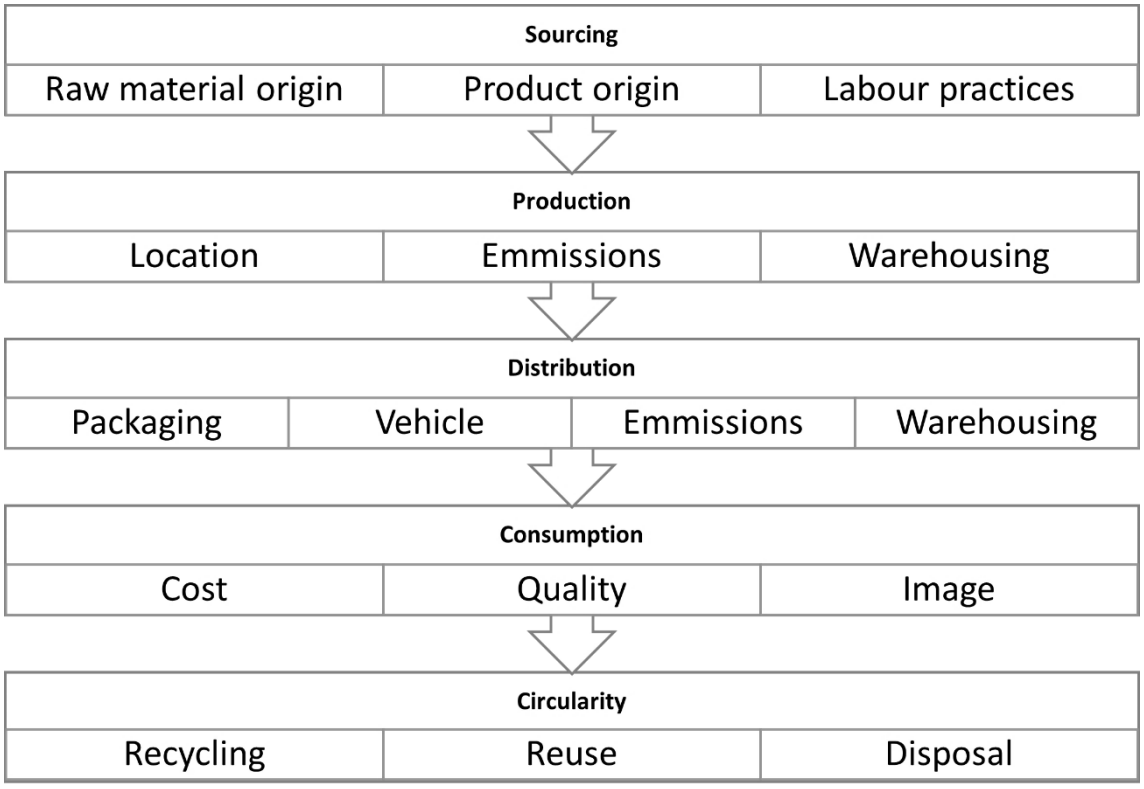

Figure 3. Modified framework

Figure 3 presents the modified framework in a more detailed fashion. For the purposes of the analysis of the data in following chapters, the framework is divided into more detailed themes. The framework consists of five main themes: sourcing, production, distribution, consumption and circularity. These concepts were selected with consideration to the retail industry business model and was built around the frameworks presented previously and the discussion above. The first theme, sourcing consists of three concepts which are raw material origin, product origin and labour practices. Sustainable sourcing is an important part of a sustainable supply chain, especially in the retail business which does business by selling products manufactured by other companies. Therefore, the sustainability of a retail company depends on the sustainability of its upstream supply chain. The second theme is production, which consists of location, emissions and warehousing. From the production point of view emissions refer to the toxic waste and greenhouse gasses (GHG), among others, resulting from manufacturing. Sustainable production can be defined as production that is non-polluting, conserves energy and natural resources,

is safe for all stakeholders and economically viable (Veleva & Ellenbecker, 2001). The third theme, distribution, consists of four concepts, which are packaging, vehicle, emissions and warehousing. From the distribution point of view, emissions refer to the GHG and pollution resulting from the different modes of transportation. Warehousing is included into both the second and third theme due to the global spreading of supply chain operations and the nature of the retail industry. In a well-developed sustainable supply chain, the four concepts have to be managed simultaneously. The fourth theme is consumption which includes the three themes of cost, quality and image. While the customer perspective is present in the frameworks presented above, its role is complicated. On one hand the sufficiency strategy of SSCM implies that consumption is unnecessary, and therefore should be limited to only necessary products. In the retail industry, for which the selling of products is a key business strategy, this cannot be the starting point. Instead, a company can concentrate on the sustainability of the products it sells. Finally, the fifth theme, circularity, consists of recycling, reuse and disposal. Recycling and reverse logistics is becoming an increasingly important aspect of SCM, and it helps in reducing in unnecessary waste as well as improving the overall performance towards sustainability (dos Santos et al., 2022).

2.3 Corporate social responsilibity reporting

Even if corporate social responsibility (CSR) has gained a lot of attention in recent decades it is not a new phenomenon. Bowen (1953) provided an early definition of CSR i.e., the social responsibilities of businessmen: “It refers to the obligations of businessmen to pursue those policies, to make those decisions, or to follow those lines of action which are desirable in terms of the objectives and values of our society” (Bowen, 1953, p.6). Bowen (1953) further suggested that businessmen were responsible for the consequences of their actions, not just in the sense covered by the financial statements. More recent definitions of CSR have been provided by, e.g., Smith (2003), who describes it as the obligations that the company holds towards society as a whole and further to its stakeholders specifically. In other words, towards anyone affected by corporate policies and activities. van Marrewijk (2003) expands this idea with the notion that CSR entails

inclusion of social and environmental concerns in business operations. A similar idea is presented by the World Business Council for Sustainable Development. However, a key point to note, according to Hohnen & Potts (2007) is that CSR as a concept is constantly evolving and therefore does not have a universally accepted definition. Indeed, Carroll & Shabana (2010) have identified nearly forty separate academic definitions for CSR and note that the number may even be an underestimation. However, typically the literature concerning CSR revolves around the same concepts of the integration of the TBL concerns into the corporate values, strategy and operations, and incorporating more sustainable practices within the company (Hohnen & Potts, 2007). Further, Hohnen & Potts (2007) note that transparency and accountability are key factors when establishing better practices within the company in order to create wealth while simultaneously improving society. There are three main principles that are relevant for CSR systems: 1) doing things right the first time, 2) doing the right things, and 3) continuous improvement and innovation (Zwetsloot, 2003, p. 201).

In addition to the academic definitions for CSR, some international organizations have also provided definitions. The OECD has defined CSR as the contributions a business makes towards sustainable development. Further, the OECD notes that in addition to creating financial value, corporate behaviour must also respond to the concerns of the society it serves and the environment it operates in (OECD, 2001). The International Organization for Standardization (ISO) describes CSR as a well-rounded approach for organizations to address the TBL issues, providing the means to create value to people, communities and society (ISO, 2002).

Much of the literature studying corporate social responsibility entails a few standard components. One of those components is transparency. Michalczuk & Konarzewska (2020) suggest that incorporating CSR reporting into corporate practices is a key element of transparency. They continue that non-financial reporting gives a company the opportunity to provide information concerning the implementation of sustainability efforts, the possibility to identify the company’s environmental opportunities and risks and

therefore non-financial reports can act as a measuring tool concerning the functionality and impact of the company's sustainability efforts. Maon et al. (2010) further expands the idea, stating that transparency promotes stakeholder trust and affects the relationships between firms and stakeholders. Additionally, it can be stated that, in an increasing manner, organizations use CSR activities to better their brand position in the eyes of consumers and stakeholders (Lindgreen & Swaen, 2010). Additionally, Dahlsrud (2008) presents some dimensions along which CSR schemes often revolve around. These include the TBL dimensions, i.e., the social, economic and environmental dimensions and as well a stakeholder dimension and a voluntariness dimension. These dimensions are used to determine the company's approach towards CSR.

Non-financial reports such as sustainability reports are a great way for corporations to provide information concerning their environmental and social efforts. Although internal reasons are a key justification for producing non-financial reports, societal reasons such as credibility and corporate reputation play an increasingly important role (Kolk, 2004). Hohnen & Potts (2007), among others, indicate that while financial reporting is an integral part of transparent corporate behaviour, there is a growing consensus about the connection between CSR and business success. It has been noted on multiple occasions, by for example the World Business Council for Sustainable Development, that a consistent CSR strategy, containing all aspects of the TBL, has been proven to positively benefit the company, as well as the society (Hohnen & Potts, 2007). McWilliams et al. (2006) state that active CSR participation is useful for both the society and corporations. They list several advantages CSR practices can have for businesses, gathered from related literature. Among others, these advantages include lowered risk for business operations, improvement of corporate image and reputation, stimulated business innovation and the boost human capital value. Other important aspects of CSR McWilliams et al. (2006) mention are the increased attractiveness towards external sponsors and the stimulation of organizational culture. McWilliams et al. (2006) also make a note that as CSR strategies can be a vital element of all corporate operations, it should be considered as a form of

strategic investment. Finally, it could be argued that establishing a good relationship with stakeholders is a key strategic goal of non-financial reporting.

2.3.1 CSR requirements

The purpose of sustainability reporting is to provide further, non-financial information on business operations. Sustainability reports commonly include many perspectives of sustainability, such as human resources, manufacturing and many more internal and external sustainability factors. Further, Michalczuk & Konarzewska (2020) explain that CSR reports are comprehensive and detailed statements concerning a company's strategy and social policy, and the results of implementing the CSR strategy to their stakeholders. Sustainability reports appear under many different names, one of which is the report of non-financial information. The term "non-financial information" was first introduced in the EU legislation with the Modernization Directive (2003/51/EC). A more comprehensive directive concerning the non-financial reporting (2014/95/EU), also known as the Non-financial Reporting Directive (NFRD) was introduced in 2014. The latter describes the rules on disclosing non-financial information, but according to, e.g., Baumüller & Sopp (2022) the text was vague and did not disclose a concrete framework for non-financial reporting. The directive did, though, disclose the entities that are required to report on non-financial matters, and the type of information to be disclosed. According to the directive, public companies with more than 500 employees, including, e.g., all listed companies, banks and other businesses of public interest, must disclose information regarding environmental and social matters, human resources, i.e., employee treatment and board diversity, matters regarding corruption and bribery and human rights issues. In 2021 the EU expanded the previous directive, and the Commission published the Corporate Sustainability Reporting Directive (CSRD). The CSRD revises the existing NFRD guidelines, entailing clauses such as expanding the directive for, e.g., all listed companies with the exclusion of micro-businesses, added the requirement of auditing the published non-financial reports and the requirement to report according to EU sustainability reporting standards. In addition to the EU law concerning sustainability reporting, many western European countries have, even prior to the union-wide legislation,

implemented requirements for sustainability reporting. According to Hąbek & Wolniak (2013), for example in Sweden it has been obligatory for all state-owned companies to deliver sustainability reports based on the GRI guidelines since 2009. According to Fifka & Drabble (2012) Finnish cultural characteristics encourage sustainable business practices and much of what has recently been considered an additional effort toward sustainability in other countries has long been a common practice in Finland. Additionally, Arya & Mittendorf (2015) note that using government incentives and directives in order to boost CSR has spread increasingly in recent history and further, according to Istudor & Suciu (2020), the implementation of such government incentives has rapidly increased the amount of non-financial reporting.

As Baumüller & Sopp (2022) noted, the existing EU directive is fairly vague and therefore many organizations have attempted to develop standardized CSR reporting guidelines. The growing consensus revolving around sustainability issues over the recent decades has increased the pressure for corporations to improve and expand the non-financial information disclosed. According to Michalczuk & Konarzewska (2020), among others, one of the most popular guidelines for non-financial reporting is the GRI Reporting Framework. The GRI guidelines have been a globally recognized and used guideline for more than two decades, with the first guidelines being published in 1999. The framework allows a company to create a personal reporting system and prepare reports containing quantified and comparable data (Michalczuk & Konarzewska, 2020). Other popular guidelines for CSR reporting are the AccountAbility AA1000 framework and the Cardon Disclosure Project (CDP) (Siew, 2015). The AA1000 sustainability standards were published in 1999 and function as principles for non-financial accounting. The CDP is a non-profit organization working with businesses and cities in order to deliver public information regarding their environmental impact, to be used by stakeholders, politicians and journalists, among others. CDP differs from the previous two in that it is not a framework for reporting, but instead it collects environmental data from corporations, cities and regions and uses that data to give these sources scores based on their environmental functions and impact.

Juščius & Snieška (2008) provide a perspective on the corporate requirements for CSR. Their vision is based on the fact that all corporate levels and functions need to be a part of the CSR actions. This starts from the organizational infrastructure, which as a whole functions with the aim of creating, e.g., consumer satisfaction and long-term competitive advantages. They point out that the corporate image and culture have substantial influence on the consumer behaviour. They also conclude that by creating long-term strategies, and further providing long-term satisfaction, the company can be seen as operating in a responsible manner.

2.3.2 CSR framework

The Global Reporting Initiative (GRI) is an independent international organisation that was founded in 1997 with the purpose of developing a global sustainability reporting standard in order to help businesses with their non-financial reporting and create a standardized reporting model. The first version of GRI guidelines was published in 2000 and have since been developed and expanded. The first updated guidelines, G2, were published in 2002, and the second, G3, in 2006 and the third, G4, in 2013. In 2016 GRI moved forward from sustainability guidelines and published the first global sustainability reporting standards, the GRI Standards.

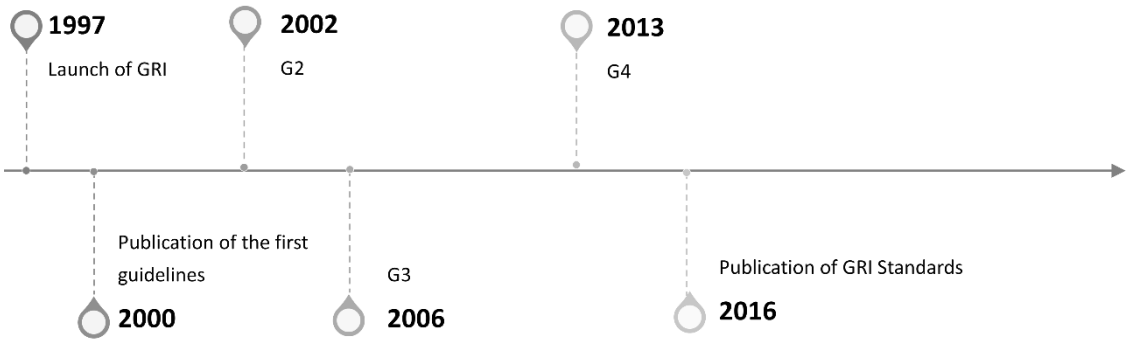

Figure 4. Timeline of GRI guidelines and standards

In addition to the Global reporting guidelines, the GRI also offers sector specific guidelines for a growing number of fields. The sector specific guideline programme was launched in 2019, and the first guidelines were published in 2021 for oil and gas industries. Figure 4 above presents the timeline of the development of the GRI guidelines.

Another good example of CSR frameworks is the AccountAbility (AA) standards for sustainability. AccountAbility is a global consulting company that works with businesses, investors, governments, as well as multi-lateral organizations on Environmental, Social and Governance (ESG) matters (AccountAbility.org). The company was founded in 1995, and the first sustainability standards, the AA1000 AccountAbility Principles, first appeared in 1999. Since then, all of their work concerning corporate sustainability have been based on the four principles presented in the AA1000: inclusivity, materiality, responsiveness and impact. AA defines inclusivity as the right for a person to have a say in decisions affecting them; from a retail perspective inclusivity could be considered as giving a consumer the opportunity to have an influence on the origin of products they buy, or the material used in products and packaging. Materiality is defined as the importance of being transparent in identifying the sustainability topics that matter. Responsiveness is the need to act transparently when it comes to the impact of corporate sustainability. Lastly, AA defines impact as a company's accountability on the environmental, social and governmental decisions it makes.

3 Methodology

In chapter three I will present the data used in this company, including brief presentations on the firms whose sustainability reports are used. This chapter also includes the methodology part, introducing the method of content analysis and the research process.

3.1 Data

The data for this study consist of sustainability reports from five Finnish and five Swedish listed retail companies. Although sustainability reporting is more of a norm these days, the decision to use listed companies was made based on the fact that sustainability reporting is required from all listed companies within the EU. The main focus of the paper is to study the trends of supply chain sustainability documentation of these 10 companies and the differences between the two Nordic countries. The main data is collected from the companies' 2021 and 2017 annual sustainability reports. How the reports are named and presented varies, not just between different companies, but within one company over a period of time. Some companies include the sustainability report in their annual report, while others have a separate report for the non-financial information. While some companies call the reports simply Sustainability reports, others have opted to name them Corporate sustainability reports or Corporate social responsibility reports. Due to the increasing interest in sustainability from a shareholder point of view, it could be argued that any company should strive toward accessible sustainability reporting. For the majority this seems to be the case, as the sustainability aspect has been added to the title of the report. The year 2021 was selected due to being the latest available report. Additionally, in order to expand the scope of the study and get a better understanding of the reporting trends, for nine of the companies, sustainability reports from 2017 were also included in the study. Musti & Mirri Oyj was not listed at this time, and therefore does not have sufficient reports available. Although Verkkokauppa.com was also listed later than 2017, the company has included a sustainability report in their annual reporting previous to their listing. The 2017 sustainability reports are used to examine the changes in reporting trends during a five-year time period. The companies represent a

wide variety of operating fields within the retail industry, including fast fashion, car retailing, home goods and hardware.

The Finnish companies included in this study are Kamux Oyj, Musti Group, Stockmann Oyj Abp, Tokmanni Group Oyj and Verkkokauppa.com. Kamux Oyj is a Finnish used car dealership. In addition to Finland, they operate in Germany and Sweden, with a combined 78 physical stores and an online store. In 2021 the company employed in total 848 people, 562 of them in Finland. Their 2021 turnover was approximately 937 m€. In 2021 the company sold 68 429 cars in total, 48 660 of them in Finland. Kamux Oyj was listed in NASDAQ Helsinki in 2017.

Musti group is the largest pet supply store in the Nordic countries. It was founded in Finland in 1988 but was sold to a Swedish capital investment group EQT in 2015 which is currently the main shareholder. Musti Group got listed in NASDAQ Helsinki in February 2020. In 2021 Musti Group employed 1397 people in Finland, Sweden and Norway, operating 344 stores in total, 32 of those being franchise stores. For the financial year of 2020 Musti Group had net sales worth 340.9 m€.

Stockmann Oyj Abp is a Finnish department store chain. It operates six department stores in Finland, one in Latvia and one in Estonia. Prior to 2016, it also operated seven department stores in Russia. In 2007, the company acquired the Swedish fashion store Lindex. In 2021 Lindex generated nearly two thirds of the organisation's revenue with 441 stores in 19 countries. In 2021, Stockmann's turnover was 899 m€ and it employed on average 5649 people. The company was listed in the Helsinki stock exchange in 1942.

Tokmanni Oyj was founded in 1989 and is currently the largest discount department store chain in Finland based on turnover. By the end of 2021 the company operated 196 stores. The largest shareholder of Tokmanni Oyj is Takoa Invest, a Finnish investment company, holding close to 18% of the shares. In 2021 their turnover was 1141.8 m€ and the company employed 4105 people. Tokmanni was listed in NASDAQ Helsinki in 2016.

Contrary to many other companies, Tokmanni seems to have paid a lot of attention to sustainability in the past, publishing extensive sustainability reports even prior to being listed in the stock exchange.

Verkkokauppa.com is an electronics and home appliances retailer. The main focus is in their online store, but the company also operates four physical stores in Finland. The company was founded in 1992 and it got listed in NASDAQ Helsinki in 2020. In 2021 the company turnover of 574.5 m€ and employed 825 people.

The Swedish companies included in this study are Boozt Fashion AB, Byggmax Group AB, Clas Ohlson AB, H & M Hennes & Mauritz AB (publ) and Nelly Group AB (publ). Boozt Fashion AB is a Swedish online fashion and lifestyle store which was founded in 2007. The company has operations in Sweden, Denmark and Lithuania. The online store Boozt.com opened in 2010. The company was listed in Nasdaq Stockholm in 2017. In 2021 the company employed on average 1049 people and had a turnover of 5814 million SEK.

Byggmax Group AB is a Swedish hardware store chain. Byggmax was founded in 1993 and was listed in Nasdaq OMX Stockholm in 2010. The company operates in Sweden, Denmark, Norway and Finland with a total of 192 stores and an online marketplace. In 2021 they employed 1370 people and had a turnover of 7645 million SEK.

Clas Ohlson AB is a Swedish retail chain store. Their main focus is in small electronic appliances and home goods. Clas Ohlson currently operates in Sweden, Norway and Finland with a total of 197 stores in 2021. Prior to 2018 the company also had operations in the UK and Germany. Combined the company employs 4500 people and in 2021 had a turnover of 8300 million SEK.

H & M Hennes & Mauritz AB is a Swedish fast fashion and home goods concern. The concern runs globally, consisting of six clothing brands 4801 stores worldwide in 75

markets and the share of online sales is 32% of total sales. The company was founded in 1948. The company is to this day owned by the founding family, which still holds a majority of shares and deciding votes. Their annual sales in 2021 were 198,967 million SEK and the concern employs roughly 107,375 people.

Nelly Group AB is a Swedish online based fashion and lifestyle retailer. The company was founded in 2004 and is currently operating under the Qliro Group Ab concern. In 2021 the company employed on average 250 people, and the company had a turnover of 1428 million SEK.

There are several ways to rate companies based on their social responsibility performance. One such solution is the CSR hub which produces a company specific rating based on 852 sources. These ratings are called ESG ratings, and they give a position for each company within their respective industries (Csrhub.com). ESG ranking measures and makes evaluations regarding companies social, environmental and corporate governance terms (Escrig-Olmedo et.al., 2010). Table 2 presents these ratings for the companies used in this study, with the Swedish companies on the left and the Finnish companies on the right. As shown, most of the companies have at least a relatively good rating, but from each country one company stands out. For the Swedish companies, Nelly Group only has an ESG rating of 15%, and for the Finnish companies Kamux holds an ESG rating of 56%. Generally, scores above 50% are considered good, and scores below 50% bad (Miralles-Quirós et al., 2018).

Table 2. ESG ratings

Company	Ranking	Company	Ranking
Boozt	82%	Kamux	56%
Byggmax	71%	Musti Group	80%
Clas Ohlson	89%	Stockmann	92%
H&M	97%	Tokmanni	97%
Nelly Group	15%	Verkkokauppa.com	86%

Table 3 presents key information of the companies included in the empirical part. The first column list turnover for each company for the year 2021. For the Finnish companies this is presented in Euro and for the Swedish companies in SEK. The second column lists the titles of the reports for both 2017 and 2021. The titles vary a lot. For Finnish companies it seems to be more common to produce separate reports, which are called either corporate sustainability reports of non-financial information reports. The Swedish companies however seem to produce more often combined reports which are called annual and sustainability reports. These reports include both financial and non-financial information. The next column lists the number of pages in each report. The number of pages vary a lot, and a common theme seems to be that the length of the reports has grown from 2017 to 2021. The shortest report was three pages long, while the longest was 100 pages long. For H&M, the number of pages in the 2021 report is impossible to determine, as the sustainability issues are discussed throughout the report instead of presenting them in a separate section. The next column presents the listing year of each company. Some of the companies have been listed for a relatively long time, while others have only been listed very recently (2020). Finally, the last column presents the field of business for each company. The companies are spread over various fields, although some, such as fast fashion, appear more often.

Table 3. Company descriptions

Company	Turnover (2021)	Title of report	Nr. of Pages 2017 / 2021		Listing Year	Field of Business
Bootz	5812 MSEK	Sustainability report; Annual and sustainability report	7	15	2017	Fast fashion
Byggmax	7645 MSEK	Annual report; Annual report and sustainability report	8	16	2010	Home improvement
Clas Ohlson	8300 MSEK	Annual report; Annual and sustainability report	4	17	1999	Home goods
H&M	196,867 MSEK	Sustainability report; Annual and sustainability report	100	N/A	1974	Fast fashion
Kamux	937 MEUR	Annual report	3	14	2017	Used cars
Musti Group	340.9 MEUR	Non-financial information report	-	11	2020	Pet supplies
Nelly Group	1428 MSEK	Annual report; Sustainability report	11	18	2010	Fast fashion
Stockmann	899 MEUR	Corporate social responsibility (report)	45	49	1942	Department store/Fast fashion
Tokmanni	1141.8 MEUR	Corporate responsibility report; Sustainability report	85	91	2016	Discount store
Verkkokauppa.com	574.5 MEUR	Annual report; Statement of non-financial information	8	23	2020	Electronics/home appliance

3.2 Content analysis

Content analysis is a method used for condensing large sets of text into smaller content categories. It is a systematic coding and categorizing approach used for exploring text-based data to determine trends or patterns of the frequency, relationships and structures of the words used (Vaismoradi et al., 2013) and is used as a tool to determine the presence of words or concepts in textual data. The method has been given multiple definitions over the decades, described as research technique for the objective, systematic, and quantitative description of the manifest content of communication (Berelson, 1952) and as making inferences by systematically and objectively identifying specified characteristics of messages (Holsti, 1968). Krippendorff (2018) describes content analysis as an empirically grounded method with exploratory and predictive qualities. Most of the definitions available in the literature share the same basic terminology, describing it as a systematic and objective method for analysing text-based data (Stemler, 2000). Originally, content analysis was strictly a quantitative method, used as a method for recording the frequency of pre-determined targets for research. Over time, the academic interest in, for example, human behaviour in natural surroundings grew and content analysis was developed further to accommodate such research (Kleinheksel et al., 2020). According to Downe-Wamboldt (1992) the goal of content analysis is to provide knowledge and understanding on the subject of study. Weber (1990) emphasizes that content analysis goes beyond just examining and counting words or phrases but categorizes these words or phrases into context groups.

Hsieh & Shannon (2005) describe three different approaches to content analysis. They categorize these different approaches as conventional, directed and summative content analysis. They gather that the conventional method is best used in an instance where the existing data is limited, as the aim of this approach is to describe a phenomenon, and therefore the data used tends to be exclusively gathered for the purpose of the specific study. The directed approach has the ultimate goal of extending and validating

existing research and theories. Finally, summative content analysis goes slightly further than the other two, including also the latent analysis, i.e., interpretation of the content (Hsieh & Shannon 2005). An important notion to make is that these three approaches are valid for qualitative content analysis. Alternatively, content analysis can be divided into two different perspectives. These are the conceptual analysis and relational analysis. Conceptual analysis measures the presence and frequency of concepts in data. Relational analysis on the other hand measures the relationships between concepts within the data (Weber, 1990).

The process of a content analysis study can be divided into segments. Kleinheksel et al. (2020) divide it into the following five parts: immersion in the data, unit of meaning, condensation, code, category and theme. Immersion in the data is the process of getting to know the subject. This can be done in various manners, such as reading or transcription of the data. Unit of meaning can be for example a statement or a sentence describing the concept of the research. Kleinheksel et l. (2020) describe condensation as simplifying a unit of meaning, without altering the original meaning. Code is a short label describing the unit of meaning and category is a group of codes relating to each other. Finally, theme is a collection of several categories which share similar characteristics.

According to Weber (1990), content analysis can be used for a variety of purposes. Kleinheksel et al. (2020) note that content analysis is a great tool of research for not just written data but for audio-based and visual data as well, such as music or pictures. Content analysis is by no means a new method of research, but over the past decade or two the variety of research topics explored with the method has grown drastically. Stemler (2015) describes how social media, text messaging, email and many more modern communication methods have brought on an entirely new medium of data to be explored, which has further developed the method. Similarly, as the possibilities concerning the type of data to be studied, also the quantity of data has grown. Therefore, it seems to no longer be profitable or lucrative to conduct the analysis by hand. Due to this, some computer-based programmes have been developed to help with the process.

Content analysis is based on coding, or categorizing and classifying, the themes from the study material. Kim & Kim (2017) argue that there are three different types of coding: qualitative coding, computer-assisted coding and computer-based coding. Qualitative coding is manual coding, based on for example intuition. Computer-assisted coding is essentially the same as qualitative coding, but the results of the study are prepared with a computer programme. Computer-based coding is based entirely on a computer programme. Smith & Humphreys (2006) point out that there are several reasonings for using an automated method for content analysis. The process of content analysis coding, depending on the amount of data being studied, can be expensive and time-consuming and additionally the human decision-making process can be unreliable as a human is subjective to outside influences (Smith & Humphreys, 2006). Automating this process therefore can be effective both in the sense of cost-effectiveness and in the sense of speeding up the process. A software, such as Leximancer, uses algorithms to code the source material. This study is conducted using the third, computer-based coding and the computer software Leximancer. The decision to use such software was done based on the notion that the study uses a large amount of text-based data. Using the computer-based method gives the study a deeper dimension, as a software, such as Leximancer, is able to analyse the data more in-depth (Kim & Kim, 2017).

This study was conducted with the help of a content analysis programme, Leximancer. Leximancer is a computer-based text mining program based on co-occurrence and frequency (Kim & Kim, 2017). The Leximancer User Guide describes the programme as a tool for analysing the content of a collection of textual data and delivering visual representations of the results. There are several possible applications for Leximancer, some of which are the analysis of open-ended surveys, media analysis and academic research. Leximancer employs two stages of extraction from episodic co-occurrence information, performed sequentially. These can be characterized as semantic extraction and relational extraction. Both extraction methods are employed with different statistical

algorithms, which use non-linear dynamics and machine learning (Smith & Humphreys, 2006).

3.3 Research process

Figure 5. presents the research process. The process started with the selection of the companies for the empirical study. Once the companies had been selected the relevant sustainability reports and other reports containing sustainability issues were retrieved from the company web pages. The second part of the process consisted of uploading the reports to the selected software Leximancer. Leximancer has a feature which creates so-called folder tags to the concept maps. These tags can be used to identify differences between data sources or groups, such as countries or years. In the case of this study, folders were created for countries (Finland and Sweden) as well as years (2017 and 2021). This allows separate investigation between these groups in one concept map. The folders are also used to investigate the reports separately, by country and by year and to create separate concept maps for each group. In step three, I first created one concept map with all companies and for each year. At this point I noticed that some additional words needed to be added to the stop list. While Leximancer automatically identifies names and adds them to the stop list, it doesn't do so if the names are not written in capital letters (kamux, byggmax, etc.). In this case, they need to be added manually. Also, words like year, company, total assests, billion, during, financial, etc. that appear in the reports frequently, were added to the stop list manually. For example, the word financial appears a lot in the text because some of the sustainability reports are combined with financial statements of the firms. This seems to be especially the case for Swedish companies.

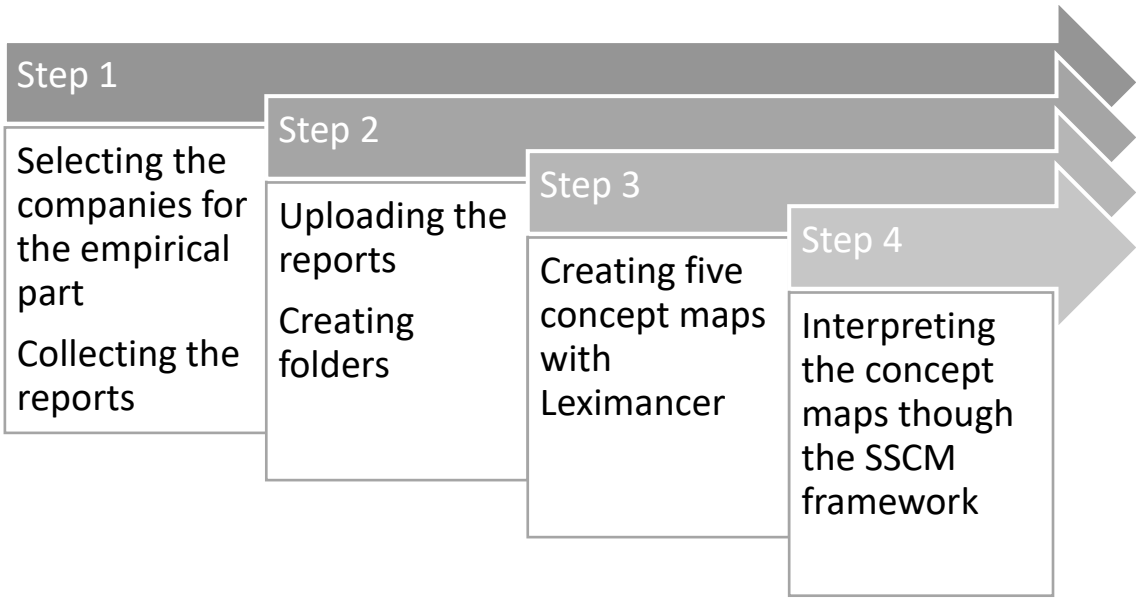

Figure 5. Research process

Continuing with step three I recreated the concept map for the whole data set. While the folder tags in this concept map allow for some analysis by year or country, it is difficult to interpret the differences. In order to be able to investigate the differences in more detail, I further created separate concept maps for all the reports from 2017 and 2021, respectively. Finally, I created separate concept maps for Sweden and Finland.

Figure 6. shows the official process behind the Leximancer mining program. The map shows the main steps of the process, and the hidden, smaller actions behind and between them. The process begins with selecting and downloading the documents into the software. The whole process of the Leximancer analysis is based on concepts, a collection of words that seem to follow each other within the text. In the scope of this study, the concept could include the key words presented in the framework.

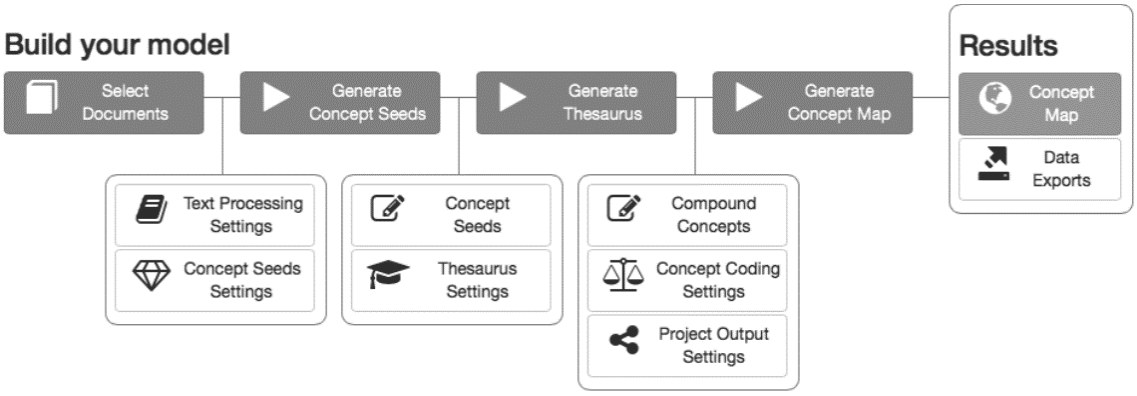

Figure 6. Leximancer process map

It is possible to create concept maps with default settings. This means that the user does not add any words to the stop list, or create any folders etc. It is however possible to add words to the stop list in the *text processing settings.*

Finally, in step four of the research process I interpret the five concept maps through the SSCM framework created and presented in chapter two. The concept map identifies the main themes as well as concept that are related to these themes. It also recognizes the connections between the themes as well as the concepts.

4 Empirical Results

This section presents the empirical results of the study. At first, I present the five concept maps, one for the whole data and further separate ones for each year and country. Second, I interpret the results of the concept maps through the SSCM framework from section two. Finally, I conclude this section with discussion of the results.

4.1 Concept map for the whole data

Figure 7 presents a concept map which has been constructed from sustainability reports from all firms in the data set and from both years 2017 and 2021. This map consists of eight themes. As we can see from Figure 8, the largest one of these is products, which gets 6339 hits in the sustainability reports. The products theme consists of several concepts and the most commonly observed ones are products, use, customers, stores, sustainability, services, impact, supply, material and chain. The second most important theme is value, which consists of concepts such as value, market, sales, information, performance, price and governance. The next theme is work, consisting of concepts such as work, management, responsibility, employees and suppliers. Operations, the fourth most common theme includes concepts such as operations, development, risk and requirements. Fifth most common theme is shares, which consists of themes including shares, assets, profit, costs and expenses. The final three themes online, sustainability and companies only include one concept each, which is the same as the theme in all cases.

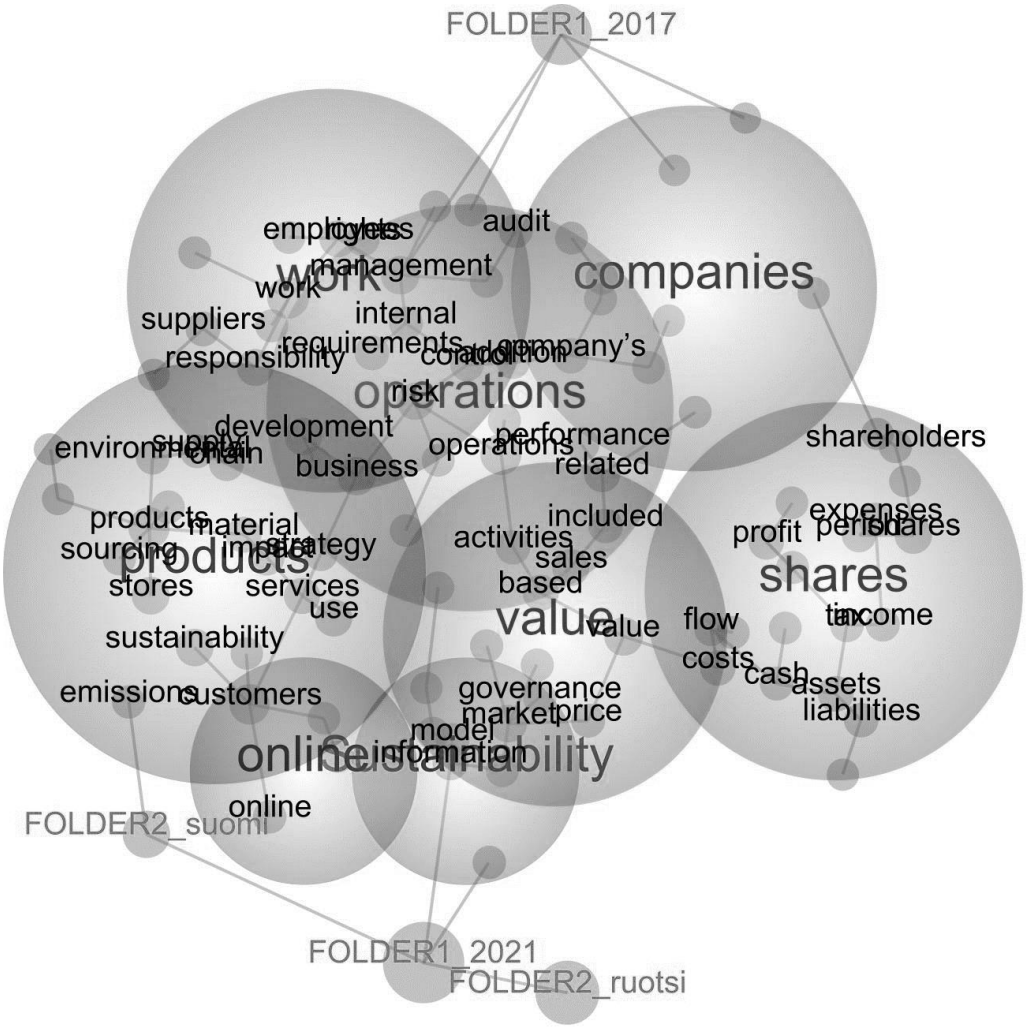

Figure 7. Concept map for all companies and both years

Figure 7 also entails folder tags for Finland, Sweden and the years 2017 and 2021. For example, the folder tag for 2017 suggests that the themes company's and work are more often present in the sustainability report from that year while the other folder tags, Sweden and the 2021 tag show a more prominent presentation of the concepts value, sustainability and online. Finland on the other hand is more prominent in the online and products themes. Because it is somewhat difficult to interpret the differences between the years and countries based on the folder tags alone, I create four additional concept maps in the following chapters.

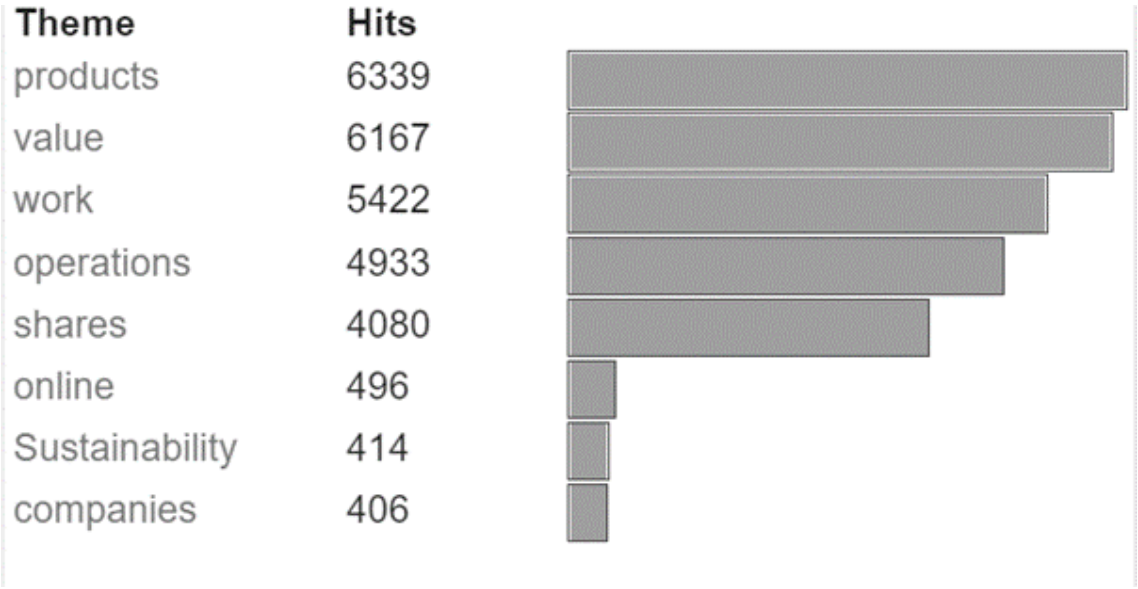

Figure 8. Themes for all companies and both years

When comparing this concept map with the SSCM framework presented in chapter two, we can see many of the concepts appear in different themes. For example, in the products theme the concepts products, use, customers, stores, sustainability and material appear or are related to the concepts in the framework.

4.2 Concept maps for 2021 and 2017

Figure 9 presents the concept map for all the sustainability reports for the year 2021. The map consists of six themes. Figure 10 presents the themes involved in this map, which are operations, work, customers, shares, meeting and member.

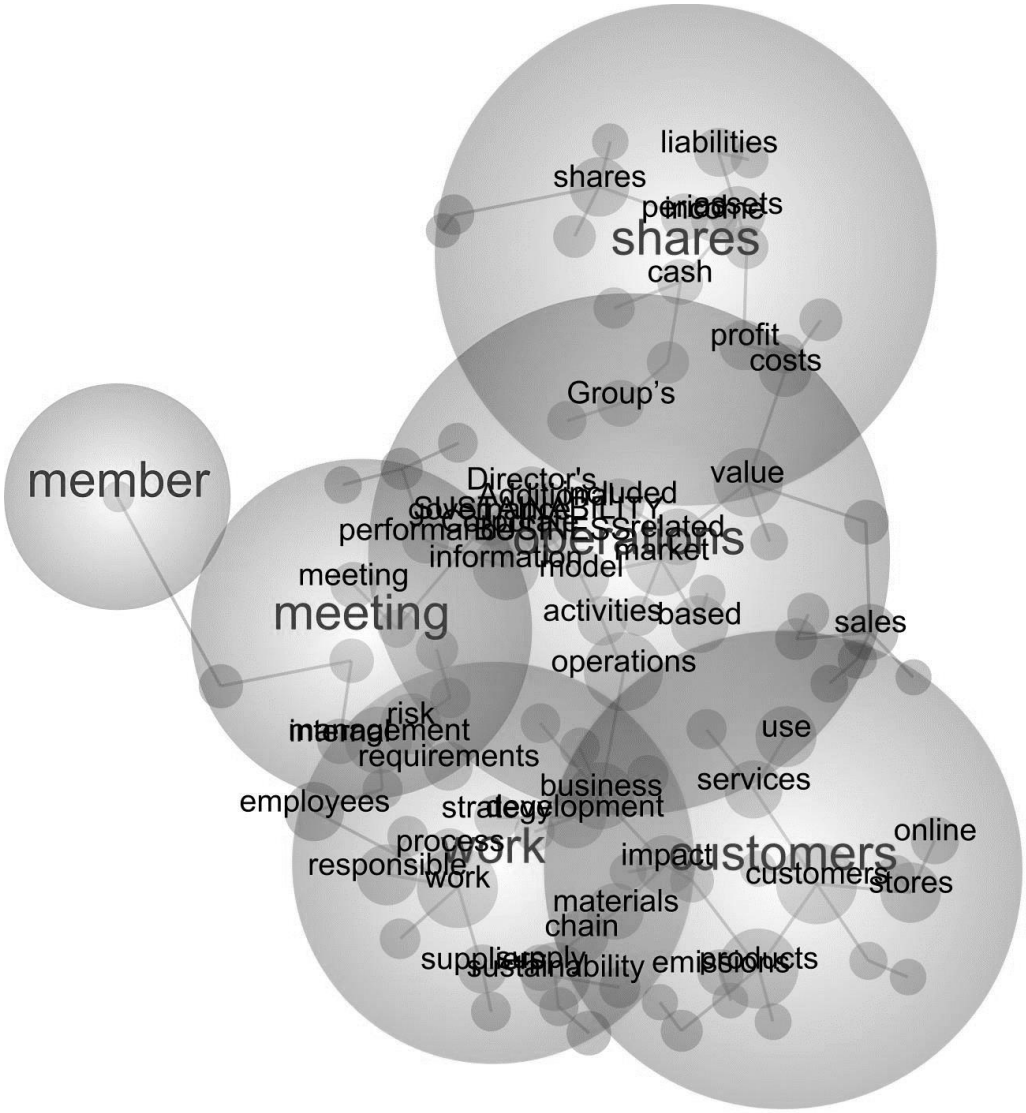

Figure 9. Concept map for 2021

The themes that emerged from the 2021 sustainability reports consist of several concepts each. The first theme, operations, which has 4192 hits in total, consist of concepts such as operations, use, market, value, information, sales, sustainability, model, corporate and activities. The second theme, work, has almost as many hits at 4119 and it consists of concepts such as work, sustainability, management, development, risk, responsible, employees, suppliers and strategy. Customers, the third theme, includes concepts such as customers, products, impact, stores, services, material, chain, online, and emissions. The fourth theme, shares, includes the concepts shares, assets, profit and

liabilities. The fifth theme, meeting, consists of concepts such as meeting, directors and performance while the sixth theme, member only includes the concept member.

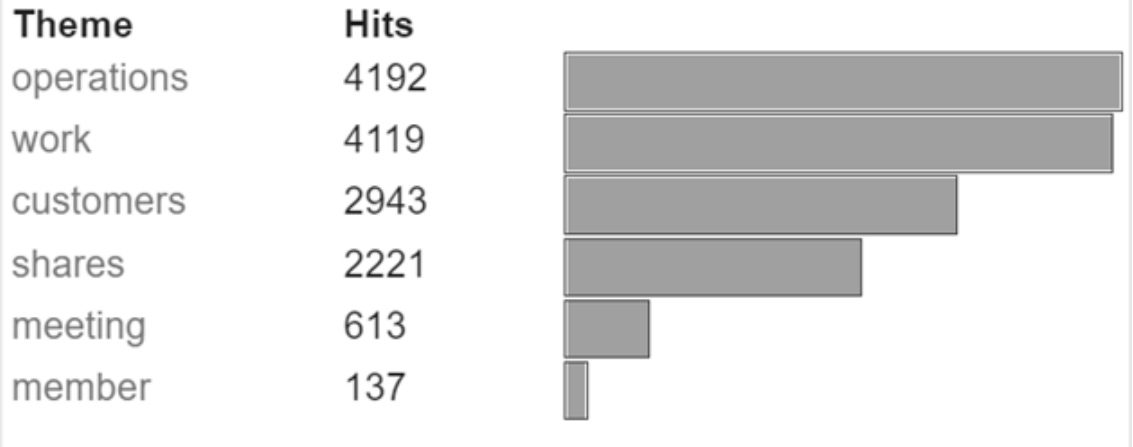

Figure 10. Themes from 2021 concept map

Again, when comparing this map with the SSCM framework presented earlier, it is evident that many of the concepts introduced in it appear within the first three themes operations, work and customers. These concepts include for example emissions, development, and strategy.

Figure 11 presents the concept map for the sustainability reports from all companies for the year 2017. In the 2017 concept map five themes appeared. These themes are work, operations, products, shares and directors. Figure 12 presents these themes and the number of times each theme appeared within the concepts.

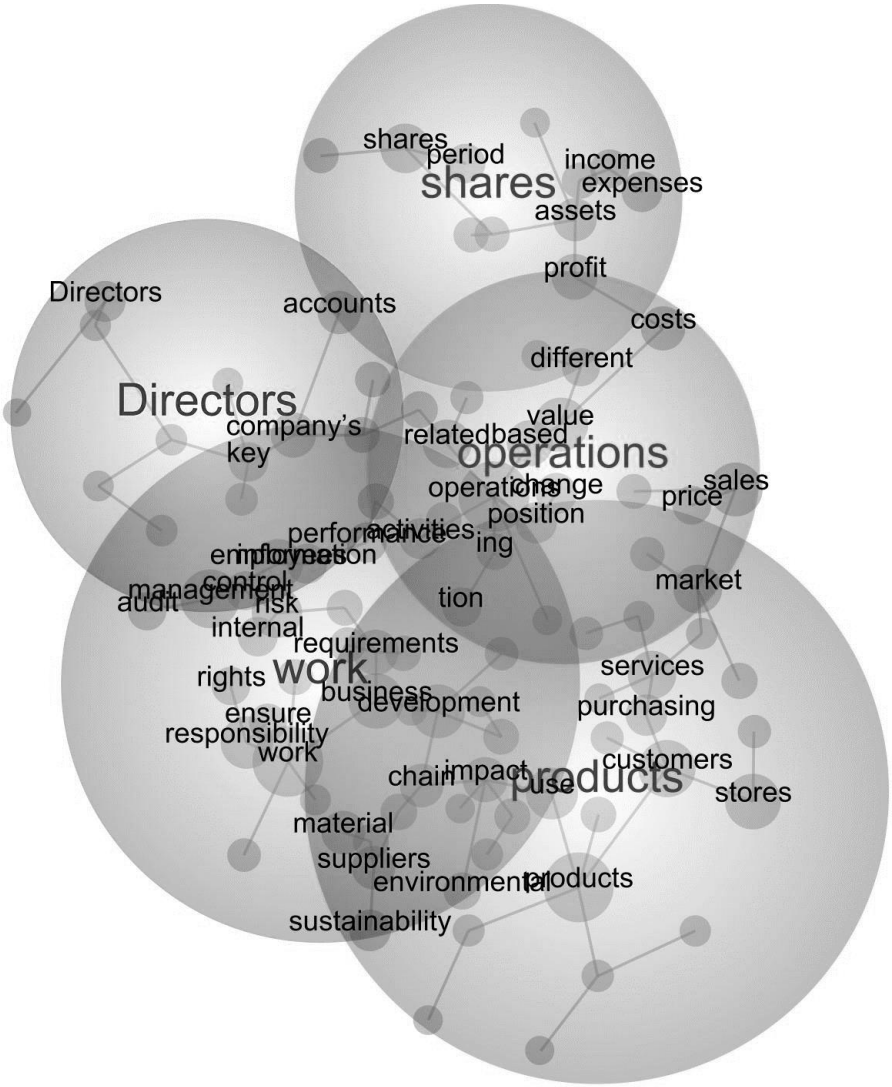

Figure 11. Concept map for 2017

The most common theme that emerged in this concept map is work, with 3920 hits. This theme consists of concepts such as work, management, development, responsibility, employees, risk, requirements, material, suppliers, sustainability, information, performance and control. The next theme, operations had 3353 hits and consists of concepts including operations, value, sales, market services, costs, change, activities and price. The next theme is products, which consists of concepts such as products, use, customers, stores, impact, purchasing and environmental. The shares theme consists of the themes shares, profit, accounts, assets, expenses and income, while the last theme, directors, includes the concepts directors, audit and accordance.

Theme	Hits
work	3920
operations	3353
products	2431
shares	1679
Directors	544

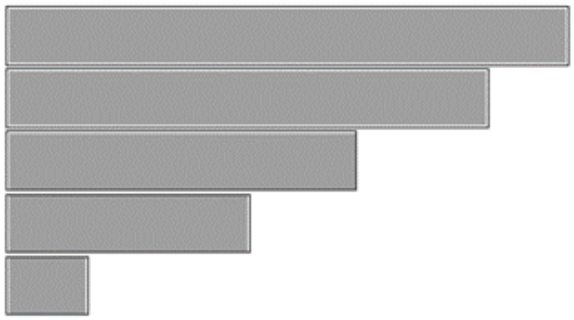

Figure 12. Themes from 2017 concept map

In the 2017 concept map themes, the work, operations and products themes all include some aspects of the SSCM framework presented previously. When comparing the maps from 2017 and 2021, we can see that some differences emerge. While the two most commonly observed themes are the same, work and operations, their order is different. In 2021 operations is more common, whereas in 2017 work appears more often. The third theme, however, is different. In 2017 the theme products is the third most common, whereas in 2021 the theme customers had the third most hits. In both cases the last themes don't seem to have any direct link with SSCM.

4.3 Concept maps for Sweden and Finland

Figure 13 presents the concept map for all of the sustainability reports from the Swedish companies. It consists of seven themes which are value, products, management, stores, share, governance and member.

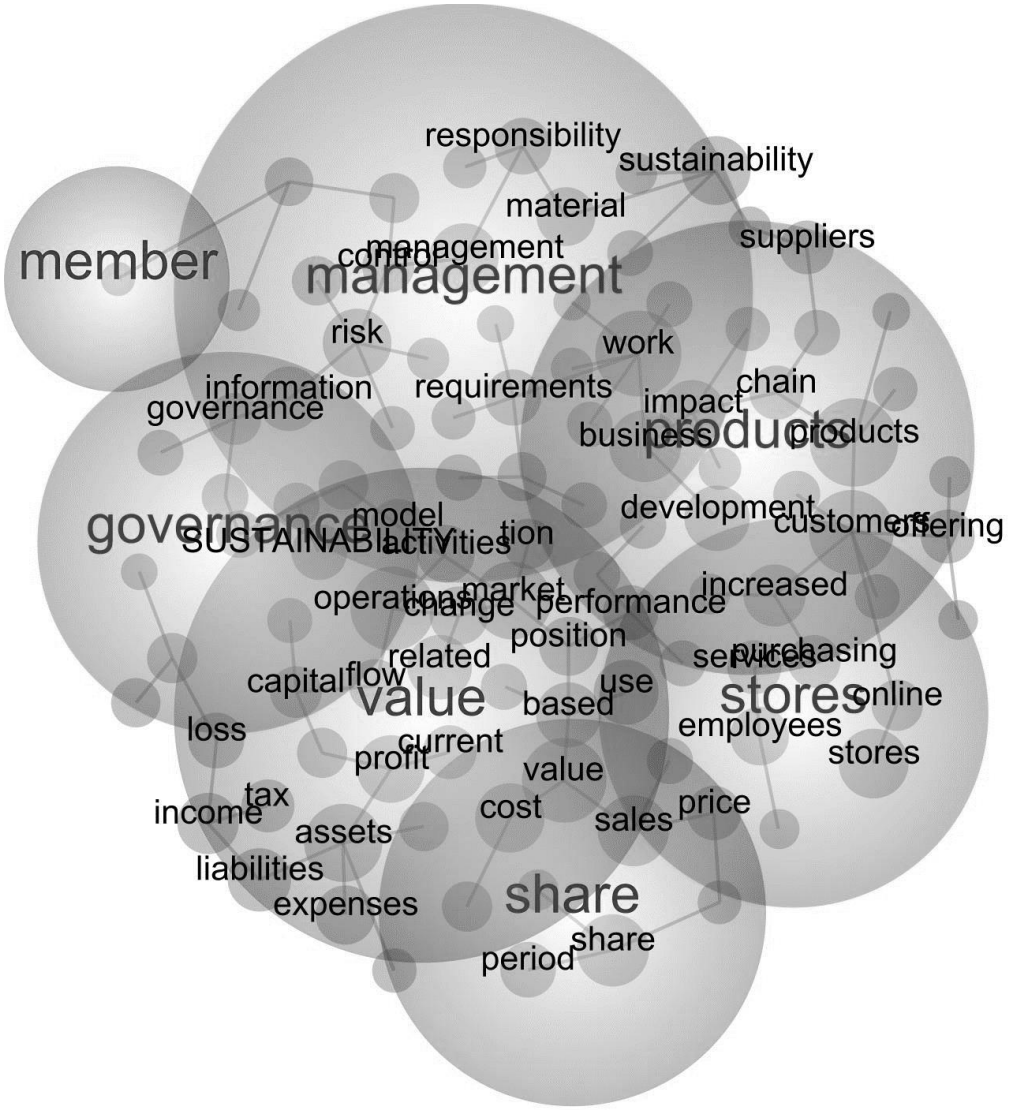

Figure 13. Concept map for Swedish companies

The appearance of the themes in the Swedish reports is shown in Figure 14. The most common theme in the Swedish sustainability reports is value, with 5202 hits. It consists of concepts such as value, operations, assets, market, cost, use and sustainability. The next most common is products, consisting of the concepts products, work, customers, impact, chain and suppliers. The third theme, management, includes the concepts management, sustainability, risk, material, responsibility, requirements and control. The fourth theme is stores, and it consists of the stores, employees, price, services, purchasing and online. The share theme consists of the concepts share, sales and period while

the two least emerged theme, governance and member, only consist of one concept which is the same as the theme.

Theme	Hits
value	5202
products	3822
management	2842
stores	2128
share	1730
governance	239
member	149

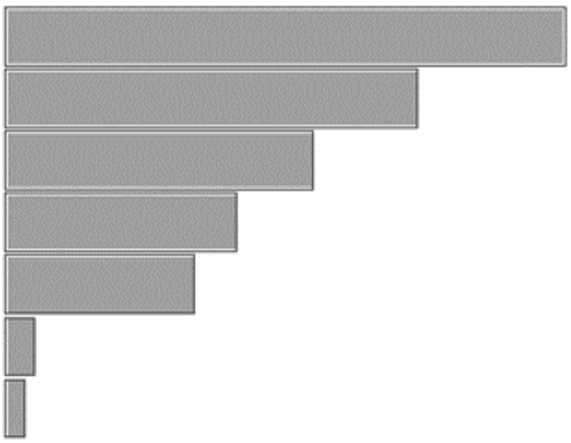

Figure 14. Themes from concept map for Swedish companies

Figure 14. Chart Sweden

In this concept map the themes value, products and stores are directly linked to the SSCM framework in chapter two. It is not clear how for example member could be related to the framework, because it seems to be fairly separate from the other themes.

Figure 15 presents the concept map for all of the Finnish sustainability reports. It consists of six themes, which are operations, customer, products, directors, audit and profit. Figure 16 presents these themes and their appearance.

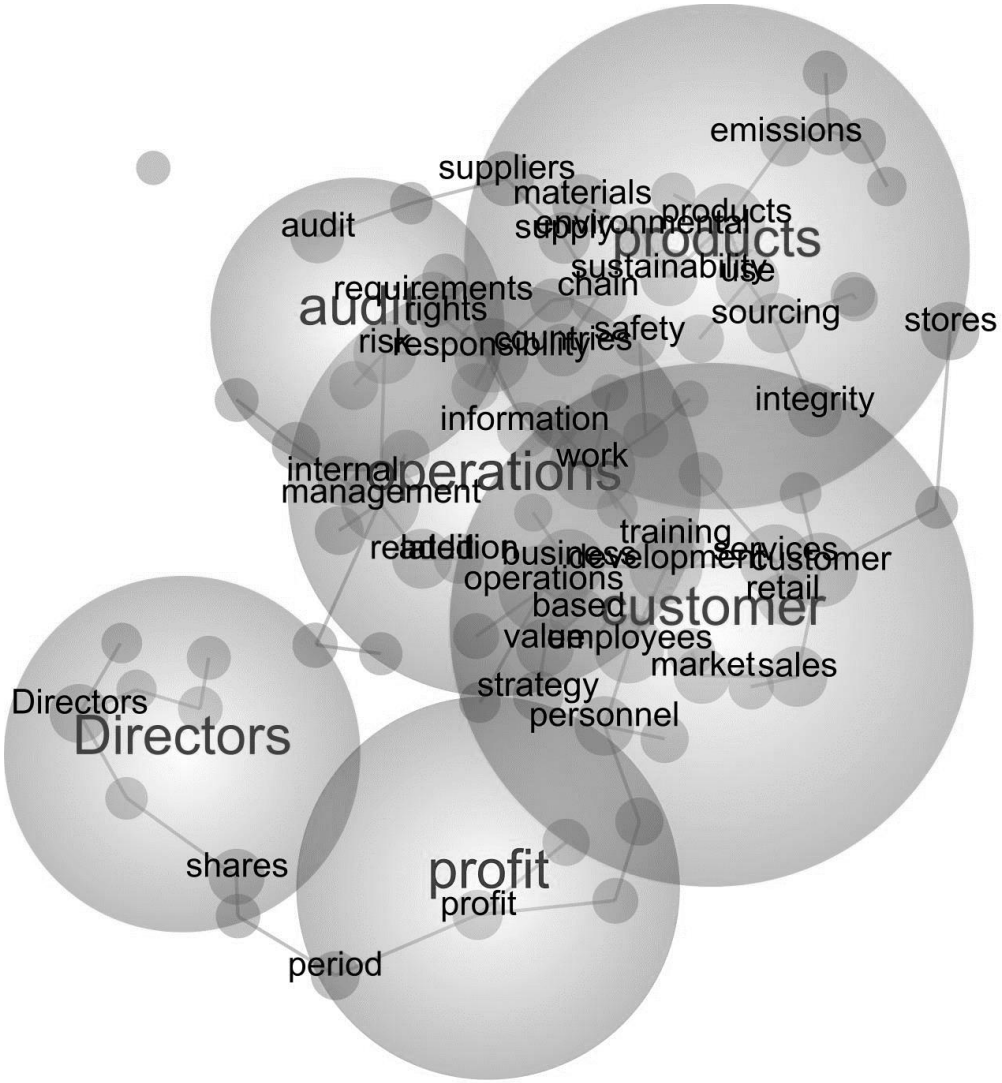

Figure 15. Concept map for Finnish companies

The first theme, operations, has 2562 hits and consists of concepts such as operations, work, risk, value, information, management and responsibility. The second theme is customer. It consists of the concepts customer, sales, retail, employees, market, value and development. The third theme, products, includes concepts such as products, sourcing, materials, suppliers, sustainable, use, safety and emissions. The next theme, directors, consists of concepts such as directors and shares. The theme audit includes concepts such as requirements and responsibility, and the last theme, profit, consists of the concepts profit and period.

Theme	Hits
operations	2562
customer	1827
products	1807
Directors	678
audit	447
profit	380

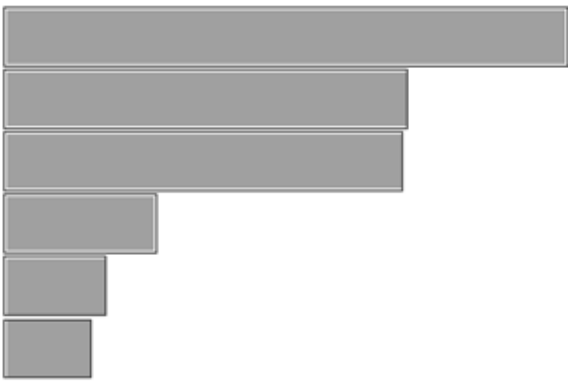

Figure 16. Themes from concept map for Finnish companies

In the concept map for Finland, four out of the seven themes are linked to the SSCM framework. These themes are work, products, customer and energy. The remaining three are mainly related to the financial reporting. When comparing the reports for Sweden and Finland, we observe that they only have two themes, work and customer, in common. In Finland the focus is more on products and product related concepts, whereas in Sweden the focus is more on markets.

4.4 Concept maps through the SSCM framework

Table X. presents an analysis of the concept maps through a comparison on the SSCM framework presented in section two. When looking at the table as a whole, it is evident that the sourcing concept of the framework is most apparent in the concept maps developed in chapter three, whereas the production and circularity concepts appear rarely, or not at all. It is important to note, that the concept maps show the themes which appear in the reports most often. Within the sourcing concept, all of the three main topics, raw material, product origin and labour practices, are somehow present in all five concept maps. The topic of raw material is presented by concepts such as material and suppliers, the topic of product origin by the concept of suppliers and the topic of labour

practices by the concept of employees. The fact that sourcing is the most commonly observed concept is well in line with the fact that sourcing plays a major role in the supply chain in general. This finding is also in line with Hassini et al. (2012), who indicate that focal companies are likely to pay attention to the suppliers as it gives them the possibility of pushing them to adopt more sustainable materials and labour practices. Further, Schneider & Wallenburg (2012) indicate that supplier relationships are especially important in the retail industry which sells products produced by other companies.

The production concept is rarely present in the sustainability reports of the companies studied, only appearing in the concept map 2021 within the topic of emissions. This could be explained by the fact that retail companies rarely act as the producer, but instead source the finished goods from other companies. Furthermore, this also implies that the retail companies do not pay a lot of attention to the production practices of their suppliers. Veleva & Ellenbecker (2001) indicate that an important element of sustainable production is that the systems are non-polluting and conserve energy. While Hassini et al. (2012) suggest that manufacturing is a key element of the supply chain, the results here may imply that the focal companies have less input on the processing of the products that they sell than on the selection of producers.

The distribution concept is mostly presented within the topic of packaging, as material is a concept that appears in all of the concept maps. Additionally, emissions are part of the concept maps of 2021 and Finland. Especially the fact that it appears in the 2021 concept map tells us that the conversation around the environmental impact of emissions has increased during the five-year period. The distribution concept consists of different aspects, and as shown in table X. the packaging aspect is evident in each concept map. Naidoo & Gasparatos (2018) expand this by noting that decreasing and recycling packaging materials and other waste is an increasing priority for retail companies.

Table 4. Analysis of concept maps trough the SSCM framework

Framework		Combined map	2017	2021	Sweden	Finland
Sourcing	Raw material	Material; Suppliers;	Material; Suppliers; Purchasing	Suppliers; Material	Material; Suppliers	Sourcing; Materials; Suppliers
	Product origin	Suppliers;	Suppliers; Product; Purchasing	Suppliers; Product	Suppliers; Products; Purchasing	Sourcing;
	Labour practices	Employees;	Employees	Employees;	Employees;	Employees;
Production	Location					
	Emissions		Environmental;	Emissions;		Emissions;
	Warehousing					
Distribution	Packaging	Material;	Material;	Material;	Material;	Materials;
	Vehicle			Emissions;		
	Emissions		Environmental;	Emissions;		Energy;
	Warehousing					
Consumption	Cost	Cost; Price	Cost; Sales; Price		Cost; Price	
	Quality					
	Image	Stores; Online; Value;	Value	Value	Value; Online; Stores	Stores;
Circularity	Recycle					
	Reuse					
	Disposal					

Consumption is the second most common concept within the concept maps. It is mostly represented within the topic of image, as value is a concept that appears in all five concept maps. The topic of cost is also mentioned in the combined map, the 2017 map and the Sweden map. While previous literature, e.g., Hassini et al (2012) and Kim & Kim (2017), indicate that the role of consumers in the supply chain is mostly missing from

sustainability models, the findings in this study suggest that the concept of value is one of the most commonly covered themes in the sustainability reports. The fact that value is present in all maps is in line with the idea that the value proposition is especially important for companies selling sustainable merchandise. However, Rintamäki et al. (2017) suggest that the production cost of sustainable products is often higher than other products, which highlight the importance of careful planning of the supply chain.

While the concepts sustainability and chain also appear within the themes for the whole data, they are not concepts that directly appear in the framework. Table X. shows that none of the concept maps include concept that have to do with circularity. This does not however mean that circularity or the concepts circularity, recycle, reuse or disposal, would not be covered in the sustainability reports but indicates that they are not common enough to appear in the concept maps. While we know from literature, that for example H&M has adopted circularity practices (H&M, 2021), this study indicates that it is not yet a common practice in the retail industry.

Previous studies, e.g., van der Vorst (2004), indicate that the supply chain should be optimized as a whole and it is plausible to think that this should also apply to the sustainable supply chain. Based on the combined results presented in table X., it seems that this is not the case, at least when judged by what the companies report in their corporate sustainability reports. Surprisingly little attention is given to issues concerning the production, distribution or circularity. It could be argued that most of the supply chain emissions are related to the processing and distribution of products (Veleva & Ellenbecker, 2001; Validi et al., 2015). Simultaneously paying greater attention to the EOL practices the environmental impact of the supply chain could be reduced (Zhao et al., 2019; dos Santos et al., 2022).

5 Conclusion and discussion

5.1 Conclusion

The aim of this study was to investigate how corporate supply chain sustainability is represented in sustainability reporting in selected retail industry companies. A literature review on the topic shows that while both sustainable supply chain management and corporate social responsibility are widely researched topics, there is not a lot of research on how sustainable supply chains are managed and reported in sustainability reports in the retail industry. As consumers increasingly demand traceability and transparency throughput the product lifecycle, companies in the retail industry are more and more expected to deliver socially responsible goods and services.

This study was conducted by content analysis and the data was collected from sustainability reports of Finnish and Swedish listed companies operating in the retail industry. The data included sustainability reports from 2017 and 2021, which enabled the analysis of changes in the reporting through time. Also, collecting data from two countries gave the possibility of studying the differences between them.

Supply chain management can be defined as the integration of all activities within the supply chain through improved supply chain relationships, planning and control of all business activities and processes in order to maximize value while minimizing costs and satisfying stakeholder requirements (Seuring & Müller, 2008; van der Vorst, 2004). Sustainable supply chain management is further defined as integrating the Triple Bottom Line into the management of the supply chain, creating a more environmentally and socially focused management of business operations (Frostenson & Prenkert, 2015). Further, Ahi & Searcy (2013) characterize it as efficient management of the material, information, and capital flows associated with the procurement, production, and distribution of products or services. A widely accepted definition of SSCM is that of managing SCM

with careful consideration for environmental, economic and social issues, not forgetting the long-term economic goals of the firm (Al-Odeh & Smallwood, 2012).

For the purposes of this study, a SSCM framework was built in order to investigate the supply chain sustainability in the retail industry. The modified framework was built with the help of three existing frameworks by Hassini et al. (2012), Kim & Kim (2017) and The WEF (2021). The modified framework consists of five dimensions of a sustainable supply chain: sourcing, production, distribution, consumption and circularity.

This study was conducted with the help of a content analysis programme, Leximancer, which is a computer-based text mining program based on co-occurrence and frequency. The program automatically analyses text document to identify concepts and themes that occur most commonly in the text. It also visualizes the concepts, ideas and relationships in the documents by creating concept maps.

When the concept maps, which were created by Leximancer, were analysed through the modified framework built in this study, the theme most apparent in the concept maps was sourcing, while the themes that appeared the least were circularity and production. For the concept of sourcing, the three main topics were raw material, product origin and labour practices, which are all important elements of a sustainable supply chain. It could be generalized that a sustainable supply chain is based on these three topics. In order for a product on the market to be sustainable, the raw material used needs to be sustainably produced, the origin of the product needs to be traceable and socially unresponsible labour practices, such as child labour, can not be tolerated. This finding is also in line with previous studies, which suggest that supplier relationships are especially important in the retail industry (Hassini et al., 2012; Schneider & Wallenburg 2012).

The fact that production is not a common theme in the sustainability reports in the retail industry is not necessarily surprising. Largely the companies in the retail industry do not produce the products they sell but source the finished goods from other manufacturing

companies. By using outsider suppliers it may prove easy for the retail company to dismiss the manufacturing company's sustainability practices, or the lack of such.

While the importance of circularity has been largely accepted by the general public in recent years, surprisingly little attention is given to it in the sustainability reports of the retail companies in this study. This is even more surprising given, for example, the fact that the retail industry uses a lot of packaging materials that could be recycled and reused, if proper practices were adopted.

Overall, the results imply that the sustainability of the supply chains of the retail companies investigated in the study are not managed as a whole, even if this would be both economically and socially optimal, as suggested in, e.g., van der Vorst (2004). This could be due to the lack of a universal model for sustainability reporting, which leaves a lot of room for the companies to report according to their own benefit. This is also reflected by the fact that the length of the reports in this study varied a lot, from three pages to 100 pages. It is likely that the contents of a three pages long sustainability report can not be very comprehensive, at least comparing to a 100-page long report.

The uniformity of the sustainability reporting may however be improving in the future, at least in the retail companies operating in the European Union. In 2024 the new EU directive Corporate Sustainability Reporting Directive (CSRD), published in 2021, is set to revise and expand the previous directive, and among other changes includes the requirement to report according to EU sustainability reporting standards. While the new standards will undoubtedly improve the uniformity and quality of the sustainability reports, this does not necessarily mean that the different aspects of a sustainable supply chain will be covered in a more detailed manner in the future. This will depend on the emphasis the company gives to different aspects of the SSCM frameworks and it will also depend on the way the company manages its supply chain.

5.2 Generalizability of the results

The study was conducted with data from ten companies, five from Finland and five from Sweden, during a five-year time period. All companies operate in the retail industry. We could argue that the results are generalizable within the retail industry in Finland and Sweden and during the time period in question. As there already are some EU regulations concerning the sustainability reporting, it could be argued that the results are also somewhat applicable within the EU region in the retail industry. On the other hand, it is possible that the results are not generalizable to other industries. For example companies in the manufacturing industry are likely to emphasize production related issues, which were not emphasized within the retail industry. Further, as the reporting is evolving, the results on studies such as this could be different in the future.

The validity of the results can be considered quite good, as all the analysis is based on the theoretical background of the topic. First, the theoretical background of the study has been used to formulate a theoretical framework and second, the empirical data has been analyzed through this framework. Also, a dialogue between theory and data has been used so that any conclusions are coherent and the study thereby valid. Furthermore, the results can be considered reliable. This is due to the objectivity of the research tool, Leximancer, and the fact that the results can be replicated by anyone using the same data and methodology.

5.3 Future research opportunities

The topic of sustainable supply chain management offers several possible research opportunities as it is a rapidly developing area of research. For the topic of this study, there are several future opportunities of research. First, the same study could be replicated with other softwares, such as Nvivo or Atlas. Alternatively, content analysis could be performed manually. Secondly, alternative qualitative research methods, such as interviews,

or quantitative research methods, such as surveys, could be used to investigate sustainable supply chain management at the corporate level. Furthermore, it could be interesting to investigate sustainable supply chain management in different industries and/or the differences between different industries. There is also a great opportunity to replicate this study in the future, when the new EU standards have been launched, to see if the new guidelines have an impact on the results.

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