PERCEPTION OF SUSTAINABLE TEXTILE AND CLOTHING SUPPLY CHAINS – “Made in” label perspective

Lappeenranta–Lahti University of Technology LUT

Bachelor's thesis

2021

Victoria Mielck

Examiner: Junior researcher Axel Zehendner

ABSTRACT

Lappeenranta–Lahti University of Technology LUT

LUT School of Business and Management

Business Administration

Victoria Mielck

Perception of sustainable textile and clothing supply chains – "Made in" label perspective

Bachelor's thesis
2021
45 pages, 5 figures, 4 tables and 3 appendices
Examiner: Junior researcher Axel Zehendner

Keywords: Sustainable clothing and textile supply chain, fashion industry, sustainability issues in the fashion industry, "Made in" label

This Bachelor's thesis examines sustainability in the fashion industry. The main aim of the thesis is to understand better how the Country of Origin, or its used form "Made in" label can affect sustainable consumer choices in the fashion industry, and how effectively. To understand the efficacy and background of the "Made in label", the study especially focuses on the complexity of textile and clothing supply chains and manufacturing countries together with their impacts on the "Made in" label.

To examine the topic, qualitative research was conducted. The material for this thesis was collected with semi-structured interviews. Six (6) different representatives were interviewed, including consumers, NGO representative and a textile and clothing company employee. Experts and consumers were interviewed, to understand the topic in depth.

The results of this study show, that effective sustainable consumer decisions cannot be based solely on the "Made in" label, since the label was found to be misleading for consumers. The "Made in" label was found to be misleading and incomplete for consumers as the "Made in" label does not provide adequate information about the global and complex textile and clothing supply chains. To be able to make more sustainable consumer decisions, more transparency in the textile and clothing supply chains would be needed, which could be improved by, for example, with changes to the "Made in" label, e.g. by QR codes or alternative labels.

TIIVISTELMÄ

Lappeenrannan–Lahden teknillinen yliopisto LUT

LUT-kauppakorkeakoulu

Kauppatieteet

Victoria Mielck

Vastuulliset tekstiilien ja vaatteiden hankintaketjut - ”Made in” merkin näkökulmasta

Kauppatieteiden kandidaatintyö
2021
45 sivua, 5 kuvaa, 4 taulukkoa ja 3 liitettä
Tarkastaja: Nuorempi tutkija Axel Zehendner

Avainsanat: Vastuullinen tekstiili- ja vaateteollisuuden hankintaketju, muotiteollisuus, vastuullisuusongelmat muotiteollisuudessa, ”Made in” -merkki

Tämä kandidaatintutkielma käsittelee vastuullisuutta muotiteollisuudessa. Työn päätavoitteena on ymmärtää paremmin, miten ja kuinka tehokkaasti ”Country of Origin” tai sen käytetty muoto "Made in" -merkki voi vaikuttaa vastuullisiin kulutusvalintoihin. ”Made in” -merkin laajan kokonaiskuvan ja taustan ymmärtämiseksi tutkimuksessa keskityttiin erityisesti tekstiilien ja vaatteiden monimutkaisiin toimitusketjuihin ja valmistusmaihin.

Aiheen tarkastelemiseksi toteutettiin kvalitatiivinen tutkimus. Tämän kandidaatintyön materiaali on kerätty puolistrukturoiduilla haastatteluilla. Työtä varten toteutettiin yhteensä kuusi (6) haastattelua kuluttajille, kansalaisjärjestöjen edustajalle sekä tekstiili- ja vaatealan yritysten työntekijöille. Asiantuntijoita ja kuluttajia haastateltiin, jotta aiheesta pystyttiin luomaan syvällinen kokonaiskuva.

Tämän tutkimuksen tulokset osoittavat, että vastuulliset kuluttajapäätökset eivät voi tehokkaasti perustua pelkästään "Made in" -merkkiin, sillä merkin todettiin olevan harhaanjohtava kuluttajille. ”Made in” merkki osoittautui harhaanjohtavaksi ja keskeneräiseksi, sillä ”Made in” -merkki ei anna riittävää tietoa tekstiilien ja vaatteiden monimutkaisista ja globaaleista toimitusketjuista kuluttajille. Vastuullisimpien kuluttajapäätösten tekeminen edellyttäisi tekstiili- ja vaatetusketjujen läpinäkyvyyttä, jota voitaisiin saavuttaa mm. parantamalla "Made in" -merkkiä, esimerkiksi QR-koodien tai vaihtoehtoisten merkkien avulla.

Table of contents

Appendices

Figures

Tables

1. Introduction

Sustainability has become an important theme in the fashion industry due to the raised awareness of sustainability issues among consumers (Caniato, Caridi, Danese, Giau, Macchion, Rinaldi&Vinelli 2017, 9). According to Koszewska (2021, 1), despite these growing sustainability trends and needs, consumers still lack sufficient knowledge about sustainability in the fashion industry. Sustainability issues in fashion industry often stem from the textile and clothing (T&C) supply chains (SC), which involve multiple players. Therefore, to get an assessment of clothing sustainability, an investigation of the whole product life cycle is required. (Koszewska 2021, 1.)

The necessary information about T&C products are usually informed with different clothing labels. According to Ramsoedh (2017, 2): "Labels aim to facilitate consumer decision-making by providing consumers with adequate information". One of these labels providing information and affecting consumer behavior is the Country of Origin (hereafter COO) label (Ramsoedh 2017, 2), indicating where a clothe is manufactured. However, in order to base effective consumer decisions on clothing labels, consumers should understand whether the information provided in the COO label presents adequate information in terms of, for instance, sustainability.

According to Peterson and Jolibert (1995, 883), COO's effect on consumer behavior has been one of the most researched issues in international business marketing and consumer behavior. Moreover, already in 1987, Tan and Farley have called the COO and its effects "the most researched international aspect of buyer behavior" (Farley&Tan 1987, 540). However, as current knowledge about the COO effect is still limited (Aichner 2013, 82) especially regarding the COO effects on sustainable consumer decisions, the topic needs further investigation. In addition, while sustainability in the fashion industry has been a research topic in recent years (Song, Tong&Yang 2017, 1), the context between T&C supply chains and the COO label needs further research. There is a clear research gap to study more about the relationship between the COO label and sustainability, more specifically, COO label's effectiveness on sustainable consumer decision making. Therefore, studying the

relationship of COO and sustainability brings new and valuable information on top of previous research.

The fashion industry is one of the biggest and polluting industries in the world (Dong, Li, Perry & Shen 2017, 1) and in the last 30 years, the manufacturing in the fashion industry has been outsourced to less developed countries (MacCarthy&Jayrathne 2010; Atluntas and Turker 2014, 838), further impacting sustainability in the fashion industry. Therefore, as the industry affects consumers worldwide with current sustainability issues, there is a current need to study the topic. Due to the global impacts and consumers' raised awareness of the sustainability issues in the fashion industry, it is important to understand the T&C supply chains and manufacturing processes behind clothing, to assess its sustainability. Therefore, as sustainability is one of the core values for consumers today in the fashion industry, it is needed and important to study the topic of T&C supply chains, consumer decision making and sustainability from the COO labels perspective.

The main aim of this thesis is to understand better how the COO or its used form “Made in” label can affect sustainable consumer choices in the fashion industry. In this thesis the terms fashion industry and T&C industry are used interchangeably, which in this thesis include consumers. To understand the efficiency and background of the COO "Made in label", the study especially focuses on the complexity of T&C supply chains and manufacturing countries together with their impacts on the “Made in” label. To answer these research problems, the main research question has been selected.

The main research question is:

- *How effective is the “Made in” label in guiding sustainable consumer choices in the fashion industry?*

To understand and examine the main research question more thoroughly, two sub-questions have been set. These two sub-questions will help understand the way consumers perceive the labels in fashion industry, and to understand the relationship between consumer choices and T&C supply chains. In addition, it is also important to examine if there are any further improvements or alternatives on the COO “Made in” label.

The sub-research questions are:

- *What kind of benefits and issues are associated with the "Made in" label?*
- *How could the "Made in" label be improved by developing T&C SC transparency?*

The aim for the first sub-question is to understand the COO ("Made in") label in depth, and thus further research on the label's benefits and issues are needed to understand and examine. The aim of the second sub-question is to understand how the T&C supply chains can be more transparent for consumers by finding solutions or alternatives to the COO "Made in" label and improving the T&C supply chains in general.

The research questions will be answered with information found from previous literature and interview data collected for this thesis. This thesis will begin with an introduction, theoretical framework, and literature review. Later, the study methods and material are introduced, and data analysis and research results are explained. Finally, this thesis includes discussion and conclusions.

2. Literature review and theoretical framework

In this section, the literature review and theoretical frameworks will be introduced to get a comprehensive understanding of the research problem and topic. Furthermore, this literature review will introduce the T&C supply chains and sustainability issues within them. In addition, the COO ("Made in") label used in T&C industry and possible issues are introduced. This literature review is based on previous literature and research about the mentioned subjects. The literature review will proceed in the order mentioned above.

2.1 Textile and clothing supply chain (T&C SC)

The concept of textile and clothing supply chain (T&C SC), addresses the sourcing, manufacturing and distribution processes needed to transform raw material into textile and distribute it to end-consumers. The T&C SC consist of numerous different processes

(Agrawak, Kumar, Sharma 2018, 2), which according to Şen (2008, 572-573) can be divided into four main stages once the required raw materials are produced: fiber and yarn production, fabric production, apparel manufacture and retail. The simplified T&C SC from raw materials to end-consumer is shown in figure 1.

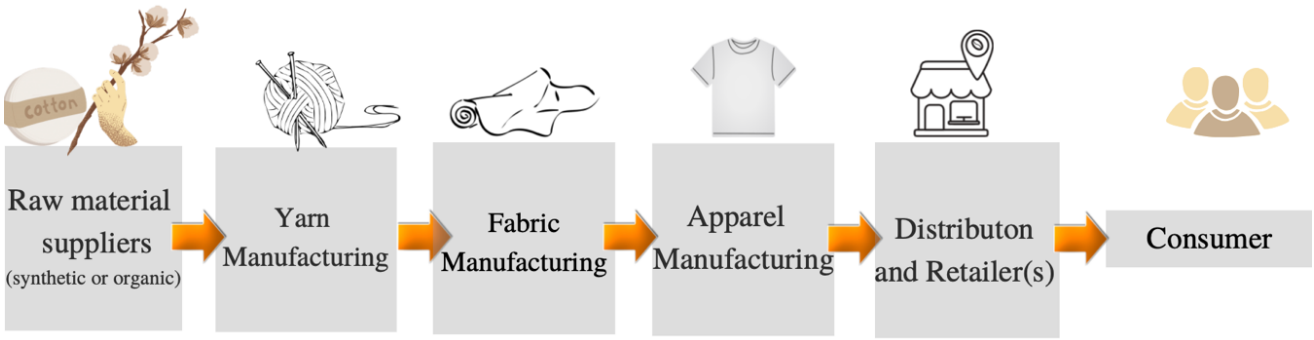

Figure 1. Simplified T&C SC (Own illustration based on Agrawal et al. 2018, 3 and Şen 2008, 572-573).

To turn raw materials into textile products, raw material suppliers are needed. The raw materials used in the textile industry can be organic or synthetic. (Assmuth, Heiskanen, Häkkinen, Kautto, Lindh, Mattila, Mehtonen&Saatinen 2011; Luongo 2015, 14.) For example, natural fibers consists of cotton wool and silk, whereas synthetic fibers can be made of oil or natural gas (Appelbaum&Gereffi 1994, 46).

In textile production (yarn and fabric manufacturers), yarn manufacturers turn raw materials first into yarns and other textile products. Next, in the fabric manufacturing stage, the yarns are turned into fabrics. (Agrawal et al. 2018, 2, 7.) The textiles can be, for example, dyed, provided with special physiological features, coated, or stained. To alter the fabrics, the need of chemicals and dyes may be needed (Teli, 2008, 5; Choudhury 2013, 14).

After the raw materials have been turned into fabrics and yarns, the textile products are transformed into the finished desired clothing by e.g., weaving or knitting in the apparel manufacturing stage (Agrawal et al. 2018, 2). During this stage, the fabrics will be finished and labeled according to their specific requirements. The last main step of the process is distribution and sales, which involves getting the finished garment to the end-customer. To reach the end-customer, fashion products are sold by variety of retail channels, such as online stores. (Şen 2008, 573.)

In reality, T&C SC is a complex network involving various partners in all of the production stages, instead of the simplified T&C SC in figure 1. First, raw materials come from multiple upstream suppliers, processing the materials. Next, the processed products are transferred to the next downstream buyer. (Agrawal et al. 2018, 2.) Upstream supplier means the production of raw materials and downstream supplier means manufacturing and customizing the materials from upstream suppliers (Donoso&Singer 2007, 670). Additionally, the T&C SC also consists of sub-suppliers and contractors, which can be, for example, providing add-on (e.g. buttons), and processing services (e.g. chemical treatments) (Agrawal et al. 2018, 2).

Due to the numerous processes, diverse suppliers and multiple intermediate products, the T&C SC are often characterized as "geographically long and complex global production networks" (Agrawal et al. 2018, 2). Moreover, as a consequence of the rapidly changing trends in fashion and high price pressure apparel companies need to be agile and adapt the trends quickly (Appelbaum et al. 1994, 49). As mentioned before, this can lead to a high number of suppliers and long geographic distances, which is a main driver for complexity in the T&C industry. As an example of the complexity and high number of suppliers, clothing company H&M works with 850 different suppliers and 1926 factories (H&M 2015, 30).

2.2 Sustainability issues and complexities in the T&C SC

To understand issues in the T&C supply chains previous literature has shown, the term sustainability needs to be defined. According to Elkington (1997) sustainable supply chains and responsible sourcing are often viewed from three different aspects which are economic, social and environmental point of view. Similarly, also Müller and Seuring (2008, 1700) consider the economic, environmental and social aspects in their definition of sustainable supply chain management (SSCM) as they state that it is: "The management of material, information and capital flows as well as cooperation among companies along the supply chain while taking goals from all three dimensions of sustainable development into account which are derived from customer and stakeholder requirements".

The three aspects of sustainability are based on the idea of Elkington's triple bottom line (TBL) theory, also known as the three-dimensional concept of sustainability. (Elkington 1997; Brettel, Fischér&Mauer 2020, 88-89) In the intersection, one can find the balance with positive effects to the environment and society (Carter&Rodgers 2008, 365). For a visual illustration of the three dimensions of sustainability, please refer to figure 2.

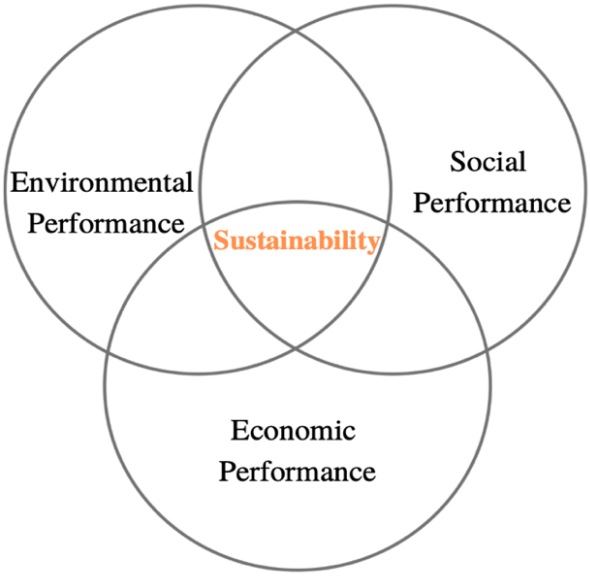

Figure 2. Three-dimensional concept of sustainability (Own illustration based on Carter et al. 2008, 365 and Brettel et al. 2020, 88)

The three different dimensions of sustainability can be briefly characterized as following: In social performance everyone is required to be treated fairly, equally, and ethically, with access to public health, skills and education. In the economic performance a competent production of resources is needed to maintain reasonable standard of living, by having financial, physical, human, and intellectual capital. Lastly, the environmental performance requires that the environmental resources are protected in society, without compromising the earth's biodiversity. (Bansal 2002, 123; Brettel et al. 2020, 89.)

As mentioned, for a T&C SC to be sustainable, a company needs to follow all the three aspects of sustainability in their sourcing and engaging partnerships suppliers (Dong et al. 2017, 2). However, according to Pagell and Wu (2009, 38), it is not possible to have a completely sustainable SC. This is because a completely sustainable SC would be one that wouldn't cause harm to the environment or social systems while being profitable. However,

other supply chains can be significantly more sustainable than others. (Pagell and Wu 2009, 38.)

Due of the complexity and the globality of T&C supply chains, sustainability is one of the main issues in the fashion industry. Most of the sustainability issues in the fashion industry and T&C SC stem from environmental and social sustainability dimensions in the three-dimensional concept of sustainability (Muthu et al. 2021, 1). Furthermore, the issues are often traced to production processes in Third World low-cost production countries (Appelbaum et al. 1994, 44).

Firstly, environmental issues in the textile industry can stem from the manufacturing of raw materials. To grow natural resources, an excessive amount of water, land, energy and chemicals is needed (Ha-Brookshire&Norum 2011, 371). In contrast to organic materials, synthetic materials need to be extracted from non-renewable materials, taking an excessive amount of energy to produce (Muthu et al. 2021, 6). Noteworthy is that the textile and fashion industry sector is a significant factor in greenhouse gas emissions (GHG) (Ding, Li&Wang 2021, 2).

In addition, it should be noted that the treatment of waste product is not ideal in all developing countries where textiles are often produced, causing harm to the environment (Birthwhistle, Bruce&Moore 2007,112). For instance, only in Bangladesh 22,000 liters of waste from tanneries is dumped into the river of Bangladesh, which affects negatively to the environment and people (Muthu et al. 2021, 9).

Moreover, as the supply chains are long and highly global and the manufacturing plants are usually located far away from consumers, appropriate transportation also contributes to the environmental factors (Flodén, Nagurney&Yu 2013, 398). Thus, moving clothes and textiles from low-labor-cost countries to consumers in Europe and the US (Abecassis-Moedas 2006, 414) significant environmental impacts are caused due to the emissions from transportation (especially carbon) (Flodén et al. 2013, 398).

In addition to environmental sustainability issues, many of the supplier sustainability issues concern the social performance in the three-dimensional concept of sustainability. As mentioned before, the garments are often made in developing countries, where the manufacturing costs are low. This also means that in the manufacturing countries there can be less strict health and safety legislations. For example, chemicals are widely used in the production and distribution processes (Teli 2008, 5; Choudhury 2013, 14), which are known to be hazardous to humans and the environment (e.g. allergenic, carcinogenic, toxic) In addition, developing countries may manufacture textiles with using chemicals which are restricted to use in the EU. (Assmuth et al. 2011, 11, 18, 75.)

Oftentimes, working in the fashion industry does not require any special skills or education, and therefore the positions are often filled by young and poorly educated employees. Furthermore, it is noteworthy that most of the employees are either women or children and forced labour is an issue the industry faces. There are many issues linked to social sustainability, since the employees in developing countries are often faced with discrimination, low wages, long working hours and bad treatment at the workplace. (Altuntas&Turker 2014, 839.) For example, the wages can be as low as 197 $ per month in Bangladesh, which is only 25 percent of the amount that would fulfil people's basic needs (Muthu et al. 2021, 4).

While contributing to the local economy by bringing jobs and economic growth to the region, economic sustainability can be a concern (Atluntas et al. 2014, 842). This is because, as Bansal mentions (2002, 123), an economic problem arises when industrialized countries manufacture clothes in developing countries with low costs and wages, consequently locking the developing countries into a cycle of poverty without allowing further economic growth. In addition, no segment in the fashion industry can guarantee high profits due to the potential bankruptcies and failures at entry level (Appelbaum et al. 1994, 60).

Noteworthy, not all suppliers and T&C SC are completely unsustainable. Nevertheless, many T&C companies face issues due to the large and global structure of the T&C SC as local companies might not be able to track the involved suppliers, contractor, and sub-suppliers. (Egels-Zandén, Huthen&Wulff;Guercini&Runfola 2009; Agrawal et al. 2018, 2.)

2.3 COO “Made in” label

First, it is important to recognize that the COO label is different from sustainability labels used in fashion industry. Overall, there are approximately 120 sustainability labels and over 100 certifications (Damert, Koep, Morris 2021, 262), from which the first sustainable labels were already introduced in the early 1990s (Kozewska 2011, 23-24). The main purpose of sustainability labels is to provide transparent information for consumers and affect consumer behavior. However, the sustainability labels might require thorough understanding and are not always trusted. (Banning, Gam, Ma 2017, 2-3.) As these sustainability labels are voluntary for T&C organizations, the COO label or its alternation is usually required by law in T&C products.

The COO label has been defined by Zhang (1996, 51) as "information pertaining to where a product is made”. According to Aichner (2014, 84), the “Made in” label is the most typically used alternation of the COO label unless prescribed by national laws. This is since companies often believe that the “Made in” label would positively influence their image and products, and therefore sales. (Aichner 2014, 85.)

It is important to understand that the COO label requirements and alternations differ depending on a country and their legal environments. Furthermore, according to Aichner (2014, 84) the “Made in” label is the only compulsory COO element for products in most countries. This is because the “Made in” label helps legislators to immediately recognize products from specific nations. Furthermore, Aichner explains that the purpose of the “Made in” label is to use it in case of import bans and additionally, to ensure that customers know the country in which the product was produced or assembled. This way, if needed, consumers can boycott products from particular countries. (Aichner 2014, 84-85.)

The COO label has a long history, especially in branding. David Wengrow (2008) has studied the history of commodity branding and his findings show that throughout the history of branding, there had been a way to indicate origin, authenticity, and value of a product. In history, the origin of manufacture has been marked by, for example, stone seals and clay seals as the idea of the labeling was to show the original country of production. In addition,

Wengrow's studies show similarities between the modern COO markings to history. For example, from southern Egypt around 3000 BC was found a specific quantity "finest oil of Tjenheu", referring to a region in modern-day Libya. (Wengrow 2008, 13, 9.) Moreover, the modern-day COO "Made in" label was first introduced in 1887 by the British "Merchandise Marks Act", when it was first mandatory for foreign (especially German) products to be labeled with "Made in Germany". Quickly, the "Made in Germany" label became a mark of a quality product. (Aichner 2014, 86.) Therefore, as the history of COO and "Made in" label from Wengrow and Aichner show, the COO or "Made in" label's original meaning is to bring value and transparency to a product.

2.3.1 COO effects on consumer behavior and decisions

Furthermore, the COO "Made in" label country has been found to affect consumer decision-making process, especially in terms of consumer product evaluations (Cappelli, D'Ascenzo, Natale, Rossetti, Ruggieri&Vistocco 2017, 2). Such consumer behavior, where the products' origin impacts consumers, is called "COO effect" in literature (Aichner 2014, 82). The "Made in" label can, for example, influence consumers' views and decisions on quality, brand loyalty, brand choice and brand preference (Moradi&Zarei 2011, 540).

Moreover, according to Diamoantolous&Oberecker (2011, 63) and Bernard&Zarrouk-Karou (2014, 65), it has been shown that the "Made in" label affects consumer behavior as consumers tend to pay more for products with certain "Made in" labels. Paying more for a product is due to the fact that the "Made in" label with positive COO country is often seen as a sign of quality, thus consumers might be more likely to buy a product. (Diamantopoulos, Koschate-Fisher, Oldenkotte 2012, 19).

In addition, COO can affect consumers' view on sustainability. It has been shown that consumers in industrialized countries are more likely to buy products with the "Made in" label from their own home country, as COO from their home country can be sign of sustainability (Alden, Batra, Ramaswamy, Streetcamp 2000, 87). Thus, buying a product from home country can make consumer think of avoiding global shipping journey, therefore seeing the product being more environmentally sustainable. However, if the COO

sustainability image is weak it can reflect to consumer decisions. For example, some Asian countries where laws and working conditions can be low, the COO can have a negative country image in industrialized countries, thus consumers do not prefer to buy from these countries with low COO image. (Diamantopoulos et al. 2012, 19, 35.)

As mentioned, some countries have stronger COO reputation than others. These strong COO countries are studied to be Germany, USA and Italy as they are considered as the key industries in regard to the COO effect (Aichner 2014, 85). As an example, 9 characteristics have been studied to influence the "Made in Italy" tag, which are, for example, sustainability, price, quality and tradition. Furthermore, as mentioned before, consumers are willing to pay higher prices for certain COO. However, previous literature indicates that consumers are willing to pay a premium price for manufacturing countries with strong COO, e.g. for the "Made in Italy" tag. (Cappelli et al. 2017, 7, 14.)

Furthermore, many of the consumer decisions based on the "Made in" label, according to Hamzaoui&Merunka (2006, 154) and Cappelli et al. (2017, 3) are made with judging by prejudices. In addition, COO is often associated through branding or promotion (Papadopoulos and Heslop 2002, 296). In contrast to consumers in industrialized countries preferring to buy products with the "Made in" label from their own country, this effect is the opposite in developing and low-cost countries. In developing countries, foreign product is seen in a positive light, since foreign products are often perceived to be higher in quality. (Crawford, Lumpkin&Kim 1985; Dakin&Carter 2010.)

Besides affecting consumer behavior on product quality, sustainability, and price, as described, the history of the COO that the label has been an important factor in branding since it was invented. Furthermore, the COO label still today can affect consumer decisions by evaluating brands higher and wanting to buy a clothe from countries which have stronger COO (Chun, Kim&Ko 2017, 266). Thus, COO image has a moderating effect on consumer brand preference and equity, which have a direct influence on purchase intention, as shown in the figure 3.

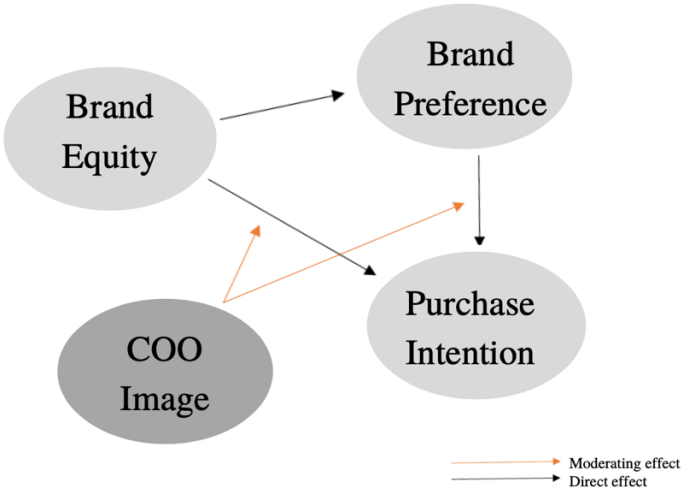

Figure 3. COO image in purchase intentions (Own illustration based on Moradi et al. 2011, 560)

Nevertheless, it should be noted that even though the COO and ”Made in” label affect consumer decisions, it is not the only factor consumers consider when buying products. For example, according to Wang (1978, 2) other factors, such as particular historical moment, political, cultural and economic issues have a stronger influence on consumers behavior than the “Made in” label’s COO.

2.3.2 Issues with the “Made in” label

As shown in chapter 2.3, in history, the original concept of COO was to show the origin of production when supply chains were less complex than today. Furthermore, as shown, the COO label has been an important factor in product branding since the concept was launched, which has not changed, as the COO effect is still strong, especially in branding. However, the meaning of the label has changed throughout the history and according to Pegan, Luca&Vianelli (2019, 2), the meaning of COO today is complex and multidimensional.

Moreover, the COO label can be seen as complex and multidimensional, as today the COO or “Made in” label can have many other meanings than only the country of origin, such as, the country of design, country of production, country of assembly, country of brand, country of service delivery and country of the provider’s birth country (Chun et al. 2017, 255). The meaning of COO has changed due to the global sourcing and manufacturing, therefore, many products today have dual or multinational origins (Chattalas, Kramer, Takada 2008, 55).

Due to these reasons, the meaning and understanding of COO is more complicated and further sub-divided for consumers today. Therefore, previous literature shows that there are, in fact, also issues associated with the COO "Made in" label.

As the supply chains are highly global, this leads to the problem that it might be harder for consumers to understand the real made in country of a product, which are not shown in the "Made in" label. For example, the label "Made in the EU" can be used, when in reality the production is outsourced to a third country (Ramsoedh 2017, 80). Furthermore, Aichner (2014, 85) points out, that a committee of European partners has informed that the "Made in" label does not give reliable information for consumers and is a statement of the European Union against free trade. One of the organizations in the committee is the Finland Central Chamber of Commerce. Noteworthy, according to Aichner (2014, 84) in the EU, the legislation for the "Made in" label is not clearly defined. Furthermore, the legislation for the label is partially affected by the Madrid protocol, national trademark laws, customs legislation and competition laws. (Aicher 2014, 84-85.)

Due to these issues with the COO and "Made in" label, previous literature has suggested some possible improvements to gain more transparent T&C supply chains. These previous studies, however, concentrate more on the transparency of T&C supply chains, not in the COO or "Made in" labeling. However, some examples, such as blockchain technology to track the stages in T&C SC has been suggested in order to share and track information more sufficiently. Briefly, in blockchain technology all transactions are recorded and open to public, made between multiple authorized partners of the blockchain network (Agrawal et al. 2018, 3-4). Moreover, ecolabeling as a carbon footprint label, has been studied to show the specific product carbon footprint to consumers, influencing consumer purchasing decisions in order to enhance environmental sustainability in SC (Flodén, Nagurney and Yu 2015, 63).

3. Study methods and material

The main aim of this section is to go through the study methods and material used in this thesis. Furthermore, the collected data and the collection methods are explained. After that, the different interviewees are introduced to ensure creditability and context to the collected data. Finally, the coding of the data is shown in detail to understand the specific process of acquiring the main themes of the interviews.

3.1 Qualitative analysis

In this research, qualitative research is conducted through the lens of Patton (2015, 14), meaning that "Qualitative inquiry includes collecting quotes from people, verifying them and contemplating what they mean". Qualitative analysis research methods are found to been particularly useful when examining and developing theories dealing with the role of meanings and interpretations and exploring complex topics and their context (Ezzy 2002, 3).

In general, the data for qualitative analysis can be collected by interviews, observations and fieldwork or documents (Patton 2015, 14). There are different types of qualitive interviews, which can be structured, semi-structured and unstructured interviews (Brinkmann 2013, 19-21). In this research, the data was collected by semi-structured interviews. In qualitative research, semi-structured in-depth interviews are the most used interviewing format, occurring either with an individual or in groups. Moreover, in semi-structured interviews a study guide of open-ended questions is chosen with a certain theme, where other questions can emerge from the dialogue. (DiCocco-Bloom, Barbara, Crabtree&Benjamin 2006, 315.) Semi-structured interviews give more leeway and let the interviewer participate more than in a structured interview (Brinkmann 2013, 21).

3.2 Collection and description of data

Interviews as a study method enabled a comprehensive understanding of the thesis's subject. In addition, the interview method of semi-structured interview was picked because it gave

structure and ensured to interview questions from a specific theme around chosen study guide questions. In total, six different representatives were interviewed for this thesis and the interviews were conducted in September-October 2021. The interviews were held in Finnish excluding one English interview and the interviews were held on Zoom or by email.

To understand the insights about the COO "Made in" label and the sustainability behind the label in T&C SC, interviews were needed from T&C SC and fashion industry experts and consumers. Furthermore, the interviewed T&C SC and industry experts consisted of a non-governmental organization (NGO) representative and three T&C company representatives. Moreover, it was important to get information from both NGO and a T&C company representative, to get versatile insights about the "Made in" label's issues, understand T&C supply chains and the "Made in" label in general from both party perspectives. In addition, the NGO perspective was chosen since when not representing a company, the respondent may be willing to share more detailed information. By interviewing both consumers and experts in different fields, it allowed to get broader understanding about consumer behavior, the influence of "Made in" label and insight on experts' thoughts about the T&C industry.

Consumers and experts were asked different interview questions. In total, there were three differentiated interview guides for NGO members, T&C company employees and consumers. The questions were differentiated due the fact that each interviewee category held different information and expertise, and therefore asking questions specific to each category, more valuable and precise information was received. To make the interview guides clearer, the questions were divided into their own sub-categories. The interview questions can be found at the end of this thesis for NGO representative (appendix 1), fashion industry representatives (appendix 2) and consumers (appendix 3).

The T&C SC and fashion industry expert interviewees were found by approaching them via email and on LinkedIn. Overall, 31 experts were approached, from which 4 experts agreed for an interview. It was important that the experts had experience from T&C industry supply chains, T&C industry and sustainability. Additionally, T&C companies with sustainability values were prioritized. Furthermore, the interviewed consumers were selected from my own network due to their interest in fashion, especially sustainable fashion. These criteria for the experts and consumers were chosen to ensure that the interviews would provide useful information and insights for the research.

3.3 Introduction of the interviewees

The interviews are anonymous, and the interviewees nor their represented companies or NGOs cannot be recognized from this thesis. To protect the identities of the interviewees, the experts are marked with numbers 1-4 and consumers with numbers 1-2. However, to bring creditability and context to this thesis, the interviewees are introduced with unidentified information. For a detailed introduction of the interviewees, please refer to table 1 below.

Table 1. Introduction of the interviewees

Expert 1	• Purchasing Manager at a Finnish fashion industry company, interview via email • Over 20 years of expertise from T&C supply chains, especially from Finnish retail chains and department stores • The company has turnover of about 7 million euros yearly
Expert 2	• Consists of two fashion industry company experts. The interviewees are concerned as one (expert 2), since they thought and answered the given questions together in one answer via email interview. • The answerers are colleagues in a Finnish fashion industry company • One has a background of 11 years from the fashion industry and the other with 6 years of experience. One expertise's in working as product and responsibility expert and the other as business development, responsibility, and communication leader in the T&C company. • The company has a turnover of about 11,5 million euros yearly
Expert 3	• Product assistant a Finnish fashion company, interview via email • Expert 3 has experience from responsibility and sustainability in fashion industry and has 8,5 years of experience from the field • The company has a turnover of about 12 million euros yearly
Expert 4	• NGO's representative in multiple countries where the aim is to provide organic textiles and improve environmental sustainability in the fashion industry, interview via email • The interviewee has been working in the NGO for three years and has previous experience from creating fairer T&C supply chains with a background of textile management studies • The represented German NGO has a vast influence on the sustainable fashion industry with being in the field for 19 years
Consumer 1	• University student in Finland, focusing studies on sustainable business and environmental engineering, interview on Zoom • Interested in sustainable consumption and fashion
Consumer 2	• University student in Finland, studying business, interview on Zoom • Interested in sustainable consumption and fashion

3.4 Coding schemes and data analysis

To analyze the primary data, qualitative content analysis was used in this study, which according to Weber (1990, 2) can be used for many purposes. The main aim of content analysis is to form a clear verbal description of the studied phenomenon. Moreover, it is important to create clarity in the data so conclusions can be drawn about the studied subject. Content analysis can be divided into three different main stages, which are: reduction of the data, grouping of the data (clustering), and conceptualization of the data. In reduction, all non-relevant material for the research is removed to make the data easier to analyse. Clustering means that similarities and differences in the data are considered, which helps finding a theme or themes from the collected data. (Tuomi&Sarajärvi 2018, 79, 89–92.) Further, in data conceptualization the research ideas are transformed into common concepts to develop correspondence between users (Sequeira 2014).

However, before analysing the data and interviews, it is important to alter the collected data to an easier form. According to Metsämuuronen (2011, 220, 254) first, the interviews need to be transcribed into a different file for the researcher to gain a deep understanding of the interview in question. Thus, the Zoom interviews were recorded and transcribed to a different file to facilitate the interpretation of the answers and data. All the interview data was then reduced, for example, by removing questions without an answer or useless words and sentences, e.g. “could you please repeat that” or “that is a good question”.

After transcribing and reducing the data, grouping (clustering) arising themes were searched. According to Bell, Bryman&Harley (2019, 301, 537) one way to familiarize oneself with data is coding as coding is seen as a key process in most qualitative analyses. Therefore, line-by-line coding was conducted to find main themes and ideas from the interviews, which were then labelled. Moreover, in this first stage of clustering 1st order concepts were identified. According to Gioia, Corley&Hamilton (2013, 20) the meaning of 1st order concepts is not to find strict categories from the data, even though all respondent terms are explored. Instead, the purpose of 1st order concepts is to determine terms and topics that are relevant to the study. An example on the 1st order concepts can be found in table 2.

Table 2. 1st Order Analysis (Based on Gioia et al. 2013, 20)

What do you think the "Made in" label tells consumers or what information consumer can get from the "Made in" label in clothing and textiles?

Example Quotes	1st Order Codes
"Consumers may not be aware that the label only mentions the country of final manufacture of the garment."	No full understanding of the "Made in" label, final manufacture place
"Product Country of manufacture (sewing place)"	Sewing place
"It may be that consumers do not have a full understanding of what it means. But I understand that for many, for example, Made in China is worse than, for example, Made in Portugal."	No full understanding of the "Made in "label, other manufacturing countries seen as better
"The "Made in" label refers to the region/country of the manufacturing unit, but does not usually reveal the name of the company which manufactured the textile product. Made in label doesn't tell about the supply chain, it is the country where the product has been manufactured (sewn)"	No information about SC, place of manufacture/sewing

After collecting the 1st order codes, the next aim was to find larger themes from the interviews. This was made by 2nd order analysis. In 2nd order analysis, the aim was to find similar patterns between the codes and additionally differences and similarities in answers. (Gioia et al. 2013, 20-21). However, as there were three different interview guides, it should be noted that the analysis was searching for similarities in all interviews, from where they were put into larger 2nd order themes.

Next, all the codes were evaluated and placed into four different main categories, also known as "aggregate dimensions" (Gioia et al. 2013, 20), which are the main themes of this thesis research. The 4 main themes for this research are the following:

1. Complexities and challenges in the T&C SC
2. Limited and misleading information from the "Made in" label
3. "Made in" label guiding sustainable consumer behavior ambiguously
4. "Made in" label and T&C SC improvements

More specially, sub-categories and more specific codes are shown in figure 4.

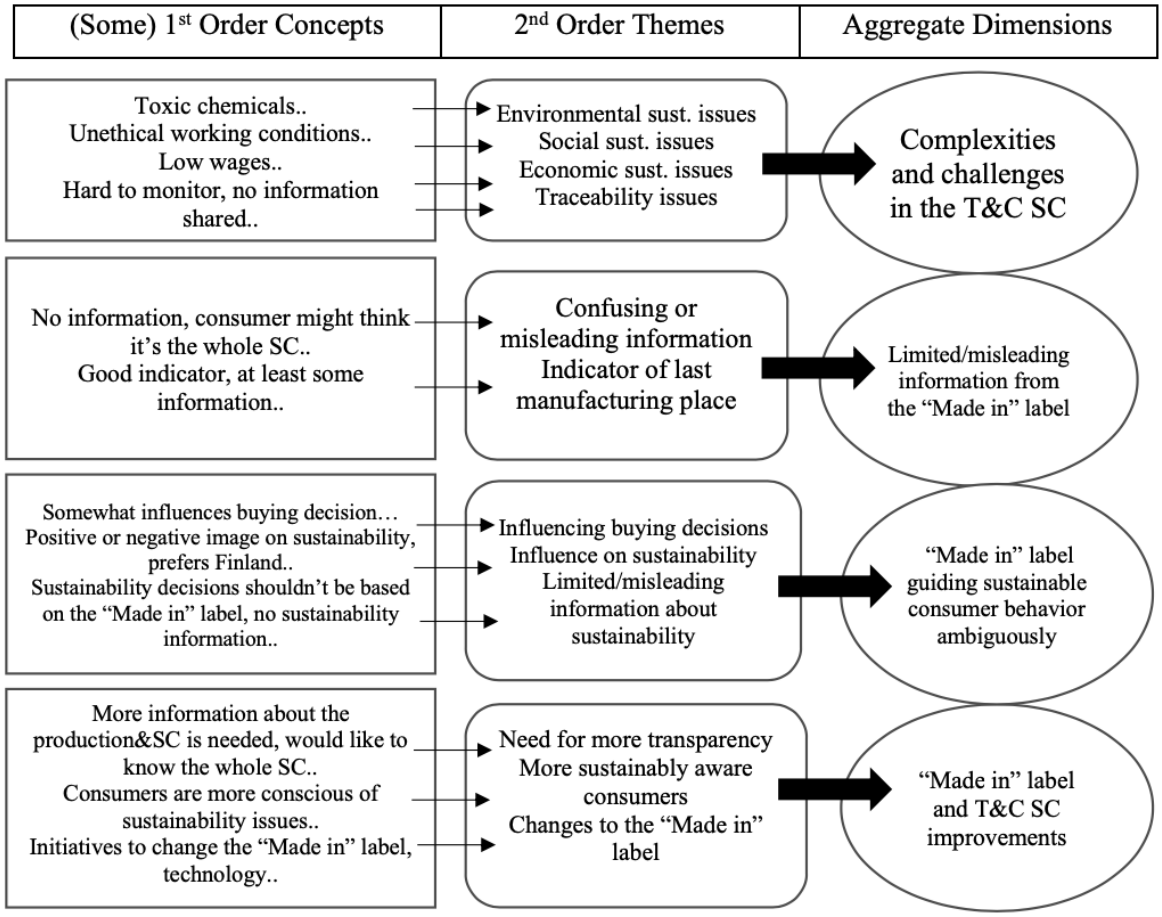

Figure 4. Data structure and main themes (Based on Gioia et al. 2013, 21)

Furthermore, quality criteria of this research have been ensured multiple ways. The trustworthiness of qualitative research has four main aspects; credibility, transferability, dependability and confirmability (Guba&Lincoln 1994, 114; Sarma 2015, 184). To ensure the quality criteria of the research, data was collected from various different sources (NGO representative, T&C industry employees and consumers) which are later compared to findings from previous research. Also known as triangulation, when findings from different sources are compared together (Bell&Bryman 2011, 397.), which in this study was used as triangulation of interviewees due to the broad variety of interviewees. Additionally, the transparent coding process ensured the quality criteria of this research, since it brings transparency and flexibility and can be used for different structured information (Bell&Bryman 2011, 305), thus the coding and different steps are showed in detail above. Moreover, together the interviews, anonymity, the presented semi-structured interview guide and coding brought replicability and value to the research.

4. Research results

In this section, the results found from the data analysis will be reviewed. The results will be looked through the main theme and sub-themes found from the coding schemes and data analysis (chapter 3.4) and guided by the research questions. First, the data will be presented from the first sub-question's perspective, to understand the complexity and issues behind the "Made in" label, and the possible limited sustainability information from the label. After, the last sub-researched question will be focused on by different improvement ideas to the "Made in" label and T&C SC transparency to understand how effective sustainable choices could be made. The aim of the research results and analysis is to be able to answer the main research question.

4.1 Issues and benefits with the "Made in" label

The aim of this section is to understand the complexity and issues related to the "Made in" label. Hence, the sustainability issues and complexity of T&C SC is looked more closely to understand the network behind the "Made in" label. Further, the information provided in the "Made in" label is discussed, which points out some main issues and benefits related to the label, also to understand sustainable consumer behavior related to the label. Consequently, the purpose is to provide answers on sub-research question.

4.1.1 Complexities and challenges of the T&C SC behind the "Made in" label

To understand the complexity of T&C supply chains behind the "Made in" label, the experts 1-4 were asked specific questions about the T&C supply chains. First, experts were asked what sustainability issues they see in T&C supply chains and to explain where the issues possibly stem from. Additionally, the interviewed consumers 1-2 were asked their knowledge about the T&C SC.

According to all the experts, sustainability issues in the T&C are a common problem. For example, this can be seen in the following quote:

”Each stage faces different challenges when it comes to environmental and social impact.” – Expert 4

The feeling of unethical production and social sustainability issues was also brought up by Expert 1:

“Sustainability challenges: Social responsibility control in factories, the long distance between the manufacturer makes it difficult to cooperate and control.” – Expert 1

Moreover, expert 4 pointed out an example of an environmental sustainability issue:

“Usage of high amount of toxic chemicals are harmful for the environment.” – Expert 4

Therefore, the data shows that in each stage in the T&C SC face different challenges when it comes to the most common sustainability issues, which are shown to be usually concerning the environmental and social dimensions, as mentioned by expert 4. The interviewed experts had similar thoughts about the sustainability issues, however, mentioned different examples of possible issues. In addition, some economic sustainability issues were also identified, noteworthy, the experts did not recognize the economic issues as crucial as the environmental and social sustainability issues. Therefore, the experts recognized sustainability issues concerning each dimension of sustainability in the T&C SC.

Sustainability issues found from the data by experts and consumers are described in table 3, noteworthy, the answers are explained below the table in more detail. However, as the experts pointed out, certain sustainability issues belong to more than just one sustainability dimension (e.g. toxic chemicals and low wages) as seen below on table 3.

Table 3. Sustainability issues in T&C SC

Environmental issues	Social issues	Economic issues
Machine oils containing heavy metal (expert 4)	Compliances with labour and human rights (expert 4, consumer 1, consumer 2)	Low wages (expert 3, consumer 1, consumer 2)
Toxic chemicals (expert 1, expert 4, consumer 1)	Toxic chemicals (e.g. carcinogenic) (expert 1, expert 4, consumer 1)	
Transportiton emissions (expert 2)	Lack of supervision in factories (expert 1)	
Overproduction and waste of fabrics (expert 3)	Low wages (expert 3, consumer 1, consumer 2)	

In relation to the environmental sustainability issues, expert 4 explained that the machine oils containing heavy metals are used in spinning, weaving and knitting, in apparel manufacture stage. Expert 4 also identified that heavy metals and toxic chemicals were seen harmful for the environment due to polluting, for example, rivers and soils. In contrast to the issues found by expert 4, expert 2 recognized transport emissions occurring in all parts of the SC, where expert 3 found the issue of overproduction and waste of fabrics to be a problem in the whole T&C SC.

Social issues which all the experts pointed out were, firstly, overall issues especially in the production stage. Further, expert 4 stated that compliances with labour and human rights are an issue in all parts of the T&C SC. Moreover, expert 1 pointed out that the lack of supervision in the factories may often lead to other social issues. Further, such issues concerning e.g., the use of toxic chemicals for workers were seen as a liability by expert 1, since the chemicals may be, for example, carcinogenic. In addition, social-economic and economic dimension issues were identified by expert 3, such as the low wages and different pay rates between countries in the fashion industry.

Interestingly, both interviewed consumers were able to predict some of the same sustainability issues as the experts in the T&C supply chains, as shown in table 3. Issues which the consumers 1 and 2 pointed out, concerned both social and economic issues, namely low wages and compliances with labour and human rights. In addition, similar to expert 1 and expert 4, consumer 1 saw the toxic chemicals as a significant sustainability

issue. Therefore, as both the consumers and the experts were able to point out many sustainability issues in all of the three dimensions of sustainability, the T&C supply chains consists of multiple different sustainability issues in all parts of the T&C SC.

According to all the interviewed experts, the main reason for the multi-dimensional sustainability issues in the T&C SC is due to the overall complexity.

"Generally, textile-supply chains are very complex, spanned around the globe, including multiple actors and workers in different settings and therefore are hard to monitor." – Expert 4

Additionally, interviewee 2 mentioned the length and complexity of the T&C SC:

"The complexity of the textile supply chain can be unclear to many." -Expert 2

Therefore, sustainability issues in the fashion industry can often stem from the complex and global T&C SC. Firstly, all the other respondent experts agreed on the globality and the length of the T&C supply chains which makes monitoring of the T&C SC extremely demanding. According to the respondents, as the supply chains are shattered to different countries with multiple actors and workers in different parts of the SC, tracking might in some cases be even impossible for T&C companies, let alone consumers.

According to the collected data, it might be even impossible for clothing manufacturers to get information where a clothe is made. Therefore, the limited information shared of the T&C SC worried the experts. This is illustrated in the following quotes:

"Fabric supply chains can be very long, and it may be impossible for clothing manufacturers (especially small ones like Finnish companies) to find out the origin of cotton, for example. The information is fragmented and the industry is not used to sharing information." – Expert 2

"Unfortunately, not all of our suppliers want to release information about all of their subcontractors, which sometimes puts us in a tricky position." – Expert 3

As expert 2 and 3 points out, this is due to the nature of the fashion industry. According to experts 2 and 3, detailed information about the SC and suppliers is not usually shared in the fashion industry. Thus, even fashion industry companies might have difficulty sharing sustainability information about T&S SC, even if wanted.

Therefore, when the multiple actors in the complex and global T&C SC are used to the fact that detailed information is not required to be shared, there might be multiple sustainability issues due to the lack of transparency and supervising. Thus, it was stated that transparency and traceability issues are a problem in the whole fashion industry and supply chains, since even the manufacture companies might not receive information on exactly in what conditions nor where the textile is made. Therefore, the expert 1 personally thought that it would be impossible for consumers to trace the raw materials back to individual farms, since even T&C companies cannot trace the whole T&C SC and sub-contractors.

However, the T&C company experts (experts 1-3) said that they do have information about their suppliers, where their production is made and in which countries. For example, Expert 1 pointed out:

"We know where the products are made and from which country / region the raw material comes from." – Expert 1

Therefore, to be as sustainable as possible, expert 1 told that since they cannot have detailed information on all the sub-suppliers, the least they can do is to always try and request the country of origin of the raw materials and avoid high-risk manufacturing countries. Similarly, all of the T&C company experts said that they try to ensure, for example, with audits and code of conducts that their clothes are made as sustainably as possible.

In conclusion, monitoring clothing might be extremely hard, even if T&C companies would request it, due to the nature of the T&C supply chains and the fashion industry. This results to many sustainability issues throughout the T&C supply chains, due to the lack of transparency and tracing.

4.1.2 Limited and misleading information obtained from the “Made in” label

Because the T&C are hard to trace and monitor, it was crucial to understand what information the “Made in” label provides to consumers. Moreover, to understand more about possible issues and benefits related to the label and the information it holds.

First, consumers 1 and 2 were asked to explain what the “Made in” label means. While both consumers said that they were unsure about the meaning, they thought that it means the last country where the clothing was assembled. Consumers 1 and 2 specified that as a benefit of the “Made in label”, it ensures that consumers get to know the last manufacturing country of a cloth, which is better than no information from the manufacturing.

Moreover, the interviewed experts were asked about their thoughts on the “Made in” label in general, and more specifically, which benefits and issues they can integrate to the label. All the experts saw the same, one benefit with the label. The experts thought that the “Made in” label is an easy and needed information for consumers to see the last manufacturing country (sewing country) of a textile. For example, as expert 1 pointed out:

“It's an easy way to see the country of manufacture (sewing place).” -Expert 1

Therefore, as the experts saw the same benefit with the label as the respondent consumers, there could only be recognized one benefit from the label, which is showing consumers one manufacturing country (sewing place) of the T&C SC.

Nevertheless, all the interviewees considered more negatives to the “Made in” label rather than benefits. Both the experts and consumers clarified that the “Made in” label does not provide enough information to the consumer. According to the interviewed experts and consumers, the most substantial issue with the “Made in” label is that it doesn’t provide any information about the production countries in the different steps of the T&C SC. Moreover, expert 3 and 4 pointed out:

"You can hide things you don't want to bring up behind the "Made in" label."-Expert 3

"Generally, brands do not have to reveal their supply chain, they simply have to mark the country where the product has been manufactured (sewn) through the label." -Expert 4

Moreover, there is usually, according to expert 3, not just one country of origin where the clothe was made, but multiple countries as mentioned before in chapter 4.1.1. Therefore, as expert 3 said, fashion industry companies can even hide things behind the "Made in" label, which emphasizes the limited information provided on the "Made in" label, despite the multiple sustainability issues throughout the manufacturing process.

Therefore, due to the limited information found on the "Made in" label, all the experts and consumers were asked if they find the label misleading to consumers. Experts 1, 2 and 3 and said that the "Made in" label is misleading, where expert 4 and said that the label is not necessarily misleading but thought that it does not provide enough information about the complex T&C supply chains or other production countries. More specifically, expert 4 referred to the "Made in" label as incomplete instead of misleading:

"It (The "Made in" label) is incomplete since it only refers to one stage of the textile production and does not reveal anything about where exactly and under what circumstances the product has been produced." – Expert 4

Similarly to expert 4, expert 2 clarified that usually consumers might not have a clear understanding what the label truly means, and therefore expert 2 found the "Made in" label misleading. Correspondingly, expert 1 stated that the label can be found misleading if consumers do not have knowledge of T&C SC in general, thus might not realize the complexity behind the "Made in" label and in what conditions or where the clothing was actually made. As expert 1 said:

"Consumer may think that all the product's manufacturing steps have been completed in this one country informed in the ("Made in") label." – Expert 1

However, even if consumer 1 and 2 pointed out that they had an idea of what the label means, expert 2 explained that to understand the complexity of the label, a full understanding of the

label and T&C SC is needed, which is not often understood by consumers. This emphasizes that consumers might get completely different impression of the manufacture, due to the complexity of the T&C SC and limited information on the “Made in” label.

However, to understand whether only the experts find the label misleading or not, also the consumers were asked the same question as experts, about the potential misleading aspect of the label. Consumer 2 found the label misleading and consumer 1 only to some extent. Moreover, the reason why, in fact, the consumers found it misleading or somewhat misleading was due to the complex supply chains and other countries behind the label without informing consumers, and only one manufacture country on the label. This information from consumers also aligns with the experts’ thoughts. As shown by the data, none of the interviewed consumers or experts found the label informational, but the majority found it either misleading or somewhat misleading.

Therefore, the main issue with the “Made in” label is that it can be misunderstood by consumers as they might have a wrong illusion of the T&C SC complexity and countries behind the label. Thus, the data shows the “Made in” can be seen as the last manufacture place of the T&C product, however, in most cases, misleading for consumers.

4.1.3 “Made in” label guiding sustainable consumer decisions ambiguously

To gain a deeper understanding of the consumer behavior based on the “Made in” label, the consumers and experts were asked more specific questions on sustainable consumer decision based on the “Made in” label. Furthermore, consumers were asked if they could they base their decision to buy sustainable made clothing on the “Made in” label.

Both consumers (1-2) told that even though the “Made in” label’s country is not the most important factor when buying a cloth, the production country still plays a role in the purchasing decision. Other more important factors affecting buying decisions for consumers 1-2 were price and quality. However, both consumers said that the COO “Made in” label matters because of the prejudices they have from specific manufacturing countries, even if the prejudices were false.

"The "Made in" label doesn't necessarily tell anything about sustainability, but I still could, and I base, my buying decision to the label. Not the whole buying decision is based on the "Made in" label, however, it is an important factor when buying new clothes."
-Consumer 1

Thus, the "Made in" label was told to affect consumer decision making and behavior of the interviewed consumers. The reason why consumers thought that the "Made in" label has value and affects their decision, was especially due to the sustainability value they see it creating. The interviewed consumers saw e.g "Made in Finland" label to bring more value to a clothe than produced in, for instance, Asia due to the assumption that in Asian countries the clothes might not be as sustainably made as in Finland.

Noteworthy, other countries are proven to have better sustainability reputations than others and are seen as more sustainably. Moreover, expert 3 pointed out that Finnish consumers seem to prioritize Finland and other European countries over other countries due to the assumption of shorter and hence more sustainable supply chains. Thus, the label affects in consumers' considerations of product's sustainability and decisions-making, even if it not the most important factor in guiding consumer decisions and behavior.

However, according to expert 4 there is an issue with judging a product's sustainability by prejudices. This is because, as expert 4 clarified, consumers cannot truly make sustainable choices based on the "Made in label", unless a consumer wants to support a production closer to their home country. Moreover, when asking about the "Made in" label guiding sustainable consumer choices, the NGO representative (expert 4) answered:

"It (the "Made in" label) might influence purchasing decisions, e.g. if a consumer says: I don't want to support bad working conditions in low developed countries. However, it does not portray the whole supply chain and is therefore not transparent."
-Expert 4

Therefore, as the interviews indicate, sustainability decision should not be based purely on the "Made in" label, as consumers can not truly know the sustainability actions in the T&C SC nor all of the countries where the clothe was made in. Thus, the consumer 1 told that in order to judge product sustainability, consumers would check the product's website to learn more about the company and its values and production. However, the "Made in" label is

easy to access for example at a clothing store and make assumptions about product sustainability, according to consumer 1.

Moreover, expert 4 confirmed, that sustainability decisions should be judged by other indicators than the "Made in" label. This can be seen in the below quote:

"In terms of sustainability, decision should be made based on raw material, environmental impact in the production and fair treatment of workers in the supply chain. Thereby, each country poses their own challenges." -Expert 4

As expert 4 pointed out, there is much more to understand the whole sustainability actions rather than just the "Made in" label. Moreover, the expert 1 explained, that even the suppliers and factories in Europe need to be monitored, therefore, the manufacturing country itself should not be a promise of a sustainable product. Thus, a more sustainable "Made in" country reputation does not necessarily portray a more sustainable product.

Therefore, as the data in chapters 4.1.2 and 4.1.3 show, there can be considered multiple issues with the "Made in" label. For a complete picture of the issues and benefits related to the "Made in" label found by the respondent consumers and experts, please refer to table 4 below.

Table 4. Issues and benefits with the "Made in" label

Issues	Benefits
No information about SC --> portrays only one part of SC (all the interviewees)	Indicating the last manufacture country (sewing place) (all the interviewees)
Misleading&incomplete (expert 1, expert 2, expert 3, expert 4, consumer 2)	
Consumers might not understand the label (expert 2)	
False prejudices based on label (expert 4, consumer 1, consumer 2)	
Not transparent&not enough information for consumers (all the interviewees)	
Sustainability issues behind the label (all the interviewees)	

4.2 Improvements and alternatives to the “Made in” label

Both the consumers and all experts had similar thoughts, that ideally the T&C supply chains should be more transparent than they currently are, and consumers should have the possibility to track suppliers and manufacturers. When knowing all the manufacturers or manufacturing countries, consumers might be able to make truly sustainable choices based on the whole T&C SC sustainability. Moreover, all the experts were asked what possible improvements or alternatives there could be to the “Made in” label. Additionally, the consumers were asked what could enable them to make more sustainable consumer decisions. This chapter helps to answer the sub-research question 2.

4.2.1 “Made in” label development and alternatives

Overall, many propositions to improve the “Made in” label were suggested by the interviewed experts. It was a mutual interest of the experts that changes to the “Made in” label would be provided, as the “Made in” label was referred as “misleading” and “incomplete” by the experts, as shown in table 4. Therefore, to make the “Made in” label more complete, the respondents called for more detailed information regarding the production. From consumers’ point of view (consumer 1 and 2) it was agreed that tracking the supply chains would bring creditability, transparency and help guidance in sustainable consumer behavior. The interviewed consumers did not have any concrete ideas on how to improve tracking the T&C SC, however, consumer 1 pointed out that tracking the T&C supply chains should be made uncomplicated for consumers to find the needed information with ease.

Similarly to the consumers, also the interviewed experts pointed out that the “Made in” label should be informational and uncomplicated for consumers. Experts 1 and 2 suggested that information about the material’s place of manufacture should be transparent for consumers, instead of just the last place of manufacture in the “Made in” label. For example, expert 2 suggested that at least 60% of the material’s (usually fabric) manufacturing countries should be mentioned in the clothes’ labeling, for example with a “materials from” label, instead of

or in addition to “Made in” label. Additionally, expert 2 proposed, that the “Made in” label should be refrained or added with “produced in”.

Further, experts 2, 3 and 4 saw new possibilities in developing the “Made in” label with technology. As an example, experts 3 and 4 suggested that there could be added a Quick response code (QR code) to the “Made in” label.

“Below the Made in sign could be a QR code that allows you to see where and where the most important parts related to the garment (fabric, yarn, fiber) were produced.” -Expert 3

“Include the whole supply chain of the product and allow consumers to track the companies the products are produced in, e.g. via a QR code.” – Expert 4

Therefore, these QR codes added to the “Made in” label would add transparency for consumers to be able to track the whole T&C SC easily. Moreover, expert 2 additionally mentioned the EU product passport already in development, which could be visible with the “Made in” label in clothes. To conclude, all the respondents had improvement ideas to the “Made in” label.

4.2.2 Overall transparency improvement in T&C SC

According to the expert and consumer interviewees, changes solely to the “Made in” label might not be enough to create more transparency in the T&C SC and to make more sustainable consumer decisions. Moreover, to improve the “Made in” label, the whole T&C SC would need to be more transparent. Therefore, all the experts were asked whether and in which ways the T&C could be more transparent in the future. Thus, also other initiatives were suggested rather than just changes to the “Made in” label, which can be seen in the quote below:

“Other initiatives (than changes to the “Made in” label), such as laws requiring brands to take responsibility for their supply-chain.” – Expert 4

Furthermore, as expert 4 suggested, other initiatives such as the law could be changed, in order for textile industry companies to have the need to take more responsibility for their

supply chains. Additionally, expert 2 had a similar thought as it was pointed out that responsibility reporting should be mandatory for companies where the T&C supply chains are explained for consumers. These initiatives would be needed for T&C companies to have pressure to renew their supply chains and ensure sustainability.

The respondents also pointed out that now due to the globality and complexity of the supply chains, there are a vast number of different certificates and labels, which are used to ensure sustainable T&C supply chains. However, expert 1 pointed out that the labels and certificates are hard to trust due to the high number and diversity of the labels. Therefore, it is extremely hard to know which ones are valid (expert 1).

"There is a huge number of different audits and certifications and it is not always easy to compare them and controlling them is very time-consuming." -Expert 1

Consumer 1 shared similar thoughts as expert 1, that understanding sustainability certificates can be demanding:

"I do not believe in any sustainability certificates and I don't have the energy to find out what all of the different labels mean." -Consumer 1

Therefore, the experts 1 and 4 suggested that sustainability labels and certificates could be further improved, to have more transparent T&C SC. Thus, other factory supervising tools such as the Global Organic Textile Standards (GOTS) were suggested by expert 4, to provide monitoring system for the industry. Additionally, other third-party supervising, and auditing tools were suggested by expert 1 which could be more transparent for consumers. However, if providing other new labeling or certifications, as expert 1 and consumer 1 pointed out, certificates and labels used to prove sustainability should be validated and explained better for consumers and fashion industry employees to trust and verify sustainable labeling.

Noteworthy, the experts pointed out that tracking the whole T&C SC would bring plenty of extra work if it would even be possible to track each sub-contractor and producer of the T&C SC (see chapter 4.1.1). Expert 2 also pointed out that the supply chains might vary and change rapidly, thus keeping the information up to date would be crucial and demanding.

Additionally, the experts saw developing the “Made in” label and T&C SC transparency as a needed improvement and a possible opportunity in the fashion industry. In conclusion, as the experts pointed out, more sustainable consumer decisions in the fashion industry could be made by having more transparent T&C SC. Improvement ideas found by the respondent experts concerning the “Made in” label (chapter 4.2.1) and T&C SC in general can be seen in figure 5. The improvement ideas solely concerning the “Made in” label are written in bold and cursive in the figure 5 below.

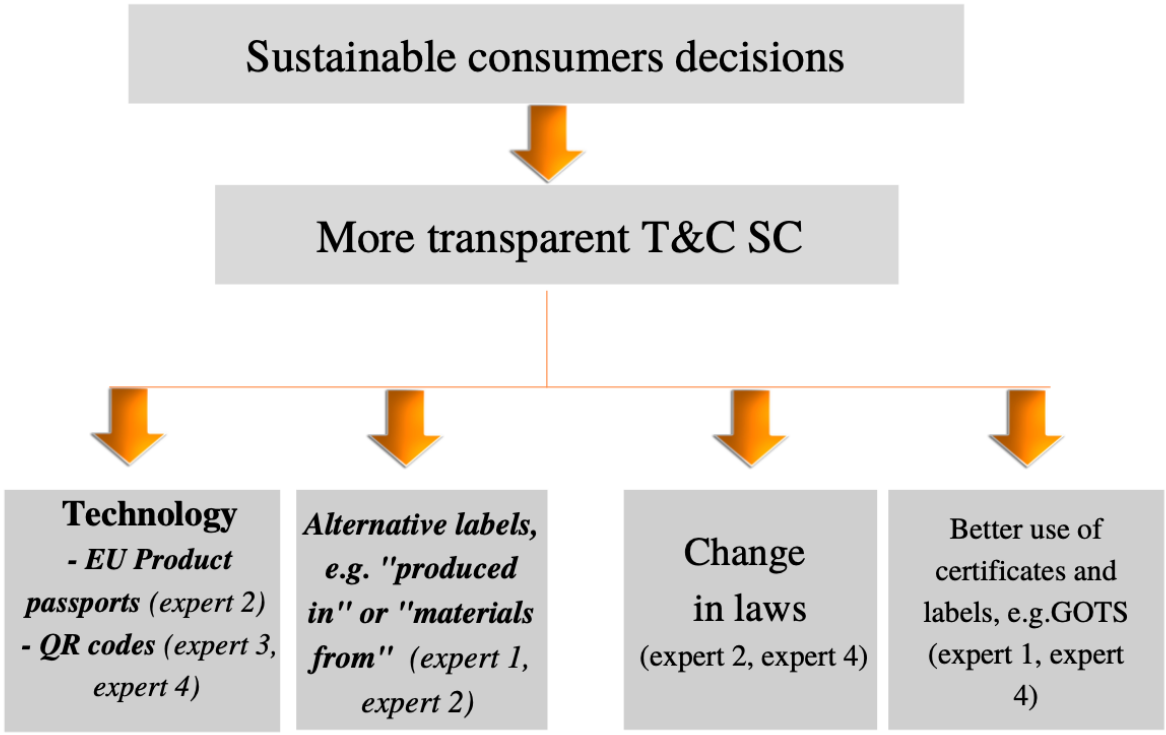

Figure 5. “Made in” label and T&C SC improvement ideas

5. Discussion

In this section, the aim is to answer the established research questions, first the sub-questions independently and then discuss the main research question of how effective is the “Made in” label in guiding sustainable consumer decisions. Then, the limitations and ideas for future research are presented.

5.1 Issues and benefits associated to the “Made in” label

As the theory section and interview data showed, the fashion industry still faces many sustainability problems in all the three dimensions of sustainability, the environmental, social and economic performances (Elkington 1997; Brettel et al. 2020, 88-89). The issues often stem from low-cost countries, since fashion industry companies need to gain economic sustainability and gain profit, thus manufacture clothes as cheaply as possible.

These main environmental and social issues in the T&C SC were, for example, concerning with compliances in labour and human rights and high GHG emissions throughout the whole T&C SC. Moreover, the issues found by previous literature and the data in this research had many similarities, for example, issues with low wages, toxic chemicals and overall human right issues in the T&C SC. Further, economic issues are concerning the T&C SC due to the low wages, as Bansal (2002, 123) showed in the literature review that it can lock the developing countries in a chain of poverty. Moreover, the data from interviews and previous research showed (chapter 2.2) that sustainability issues are found to be a problem in all parts of the T&C SC.

Due to the complex and global structure of the T&C SC, the idea of COO “Made in” label has also shifted, even if it is still strongly used in branding of a product. Moreover, the label does not anymore portray the COO or the manufacture process as it did in the history of the label. As showed in the theory section by Pegan et al. (2019, 2), and the research results, the label’s meaning is much more complex today due to the multi-dimensional background of it. The one benefit of the “Made in” label found from this study, is that the “Made in” label does give some idea to consumers about the manufacture process, by indicating the last place of manufacture.

However, main issues related to the “Made in” label are regarding the limited, not adequate enough information consumers can retrieve from the “Made in” label. As the data gathered for this research and previous literature shows, the “Made in” label only refers to one part of the T&C SC, not where and how the product was actually made. This is due to the complexity and globality of the T&C supply chains explained by interviews and in line with

Agrawal et al. (2018, 2) where the manufacturing is usually shattered to different countries with multiple different players, thus even impossible to track each sub-suppliers.

Moreover, some consumers might believe that the label portrays the whole T&C SC, not just one part of it, hence making false assumption of the manufacturing process of a product, affecting consumer decisions. Thus, as the "Made in" label does not portray the whole T&C SC the label can be misleading for consumers. Further, as consumers cannot get adequate information from the label, consumers might not be able to identify the possible sustainability issues in the T&C SC. These conclusions found by the interview data are in line with previous research by Ramsoedh (2017), indicating that the "Made in" label does not provide enough information and can be misleading, especially for EU consumers.

5.2 Improving the "Made in" label by developing T&C SC transparency

In order for consumers to understand the sustainability issues in T&C SC, changes to the T&C SC and the "Made in" label would need to be made. According to the interviewed consumers, consumers would need to be able to identify transparency in the whole T&C SC to make sustainable consumer decisions.

For example, the data gathered from interviews showed that transparent T&C SC could be acquired with the following improvements and changes to the "Made in" label; QR codes of the whole T&C SC added to the "Made in" label, EU's product passport or different wording and supporting labels. However, to improve the "Made in" label, changes to T&C SC transparency would be needed. Therefore, this study showed that T&C SC transparency could be developed with different sustainability certificates, supervising tools or changes in laws which would help make the T&C SC more transparent. These alternations and improvements could help consumers make more sustainable consumer decisions in the fashion industry and identify the possible sustainability issues. Moreover, requiring more transparency in the T&C SC by law, could possibly force T&C companies to have more sustainable supply chains and actions in general. These findings are in line with previous research by Flodén et al. (2015) showing that the whole fashion industry would need a change to be more transparent. Noteworthy, previous literature has not taken into account

all the improvement ideas found in this research, for example, EU product passports or alternative detailed label suggestions have not been yet recognized by previous literature.

However, it should be noted that due to the nature of the T&C SC, improving the SC transparency could be time-consuming and more importantly, even impossible to track to each sub-supplier. As this study showed, the nature of fashion industry is very private and information is not usually shared. This was also supported in the theory section, showed by previous literature that the T&C SC can be hard to track (Egels-Zandén, et al. 2009; Agrawal et al. 2018, 2). Further, the improvement ideas such as the use of QR codes or digital passports could put consumers to unequal position, as opening a QR code requires a smart device. Thus, these above propositions to improve the "Made in" label and transparency in T&C SC are just solely ideas gathered from the data of this study.

In conclusion, as shown by experts in this study, more sustainable consumer decisions could possibly be made with developing and improving the "Made in" label by T&C SC transparency. These suggestions mentioned above are primarily based on the data gathered from the interviews, however, blockchain technology and eco-labels have been studied in previous literature and introduced briefly before in this thesis (chapter 2.3.2), to be used more widely to improve the transparency of T&C SC, thus could be also used as improvement ideas for T&C SC.

5.3 Effectiveness of the "Made in" label in guiding sustainable consumer decisions

Previously, Aichner (2014, 82) showed that COO or the "Made in" label has been studied to influence widely consumer behavior and decisions, also known as the "COO effect". For example, influencing consumer's view of product quality, sustainability, brand or willingness to pay a higher price, therefore influencing buying decision and purchase intention. Even with limited information about sustainability in the "Made in" label, this study supported previous literature that the label affects sustainable consumer behavior and decisions, even if it is not the most important factor when judging a product's sustainability. Moreover, as found out both in the literature review and the interview data, some countries are seen more sustainable over others, even just by the "Made in" label. Therefore, the "Made

in" label guides consumer behaviour in sustainable consumption with manufacturing country prejudices.

However, when making sustainable consumer decisions, the study showed that sustainability considerations should be made based on raw material, environmental impact in the production and fair treatment of workers in the SC. Nevertheless, as any of this information is not on the "Made in" label, sustainable consumer decisions should not necessarily be based on the country reputation and prejudices of the "Made in" label. Even if the "Made in" label provides information about the last country of manufacture (sewing), it does not provide any information on the actual manufacturing processes, as shown in this study.

Therefore, as the "Made in" label does not provide any information about the T&C SC nor the three-dimensional sustainability issues to consumers, consumers cannot get any sustainability information of the manufacturing. Moreover, as the T&C supply chains are extremely private and hard to track, consumers are not able to identify whether a SC is sustainable or not. This may lead for consumers to buy a product they considered it to be sustainable, or on the other hand unnecessarily boycott certain manufacturing countries based on COO prejudices.

Thus, without possible alternations or improvements to the "Made in" label and improving T&C SC transparency summarized in chapter 5.2 this research shows that consumers should not necessarily think of a more sustainable production based on the prejudices of the "Made in" label. If possible improvement ideas mentioned during interviews could be made to the label and T&C SC transparency improved, more effective sustainable consumer decisions could possibly be made. By improving the "Made in" label and T&C SC transparency, consumers could be able to base purchase decisions on detailed information, and to possibly force T&C industries to have more sustainable T&C SC. However, due to the current issues with the "Made in" label, T&C SC sustainability, and T&C SC transparency shown by previous literature and the data in this thesis, effective sustainable consumer decisions cannot usually be made based on the "Made in" label in the fashion industry.

5.4 Further research ideas and limitations

It should be noted that, this study is mainly conducted to Finnish answerers, and thus the respondents from interviews could have varied if interviewed representatives from multiple countries. The geographical limitation to understand this context in Finland, was due to the complexity of the COO label and its alternations (for more information, see chapter 2.3). However, according to International Trade Administration (2021): "The country of origin – "made in (country)" must be clearly and durably marked on the label" in Finland. As the COO alternation "Made in" labeling is required in Finland, it was natural to interview Finnish representatives as when the label "Made in" label is widely used and common in the Finnish fashion industry. Moreover, by interviewing in the interviewees' native tongue, it could be seen as an advantage to communicate as fluently as possible and to avoid potential misunderstandings due to language barriers.

However, the rather limited number of interviewees can be seen as a shortcoming. With more interview data, the study could be more reliable. However, the findings from previous literature supported the findings from this study, which thus increases the reliability of this research. Moreover, for even more reliable results, in future research the study could be conducted to a larger number of respondents more globally. In addition, it should be noted that due to the limited number of interviewees, possibly not all sustainability issues in the T&S SC and issues with the "Made in" label were identified and therefore the topic could be studied further. Other limitations of this research include the fact that I was the only person involved in the coding, thus biases cannot be avoided during data analysis. Therefore, the coding of the data was shown as transparent and detailed as possible.

The interviewed experts in this thesis were all professionals in the field with vast knowledge on the topic. However, due to the interviewees' busy schedule and the current pandemic situation some interviews were conducted via email. The email interviews can be seen as shortcoming, since the interviews were not conducted face to face, thus body language nor tone of voice could not be further analysed. Nevertheless, offering the respondents a possibility to answer via email ensured not only a larger sample size, but also allowed the respondents to go through their answers with more time. Consequently, the linguistic barriers

and potentially sensitive topics that the respondents did not feel comfortable talking about in person were limited. Therefore, valuable and reliable data was gathered additionally from the email interviewees.

For future research, it would be interesting to examine more of the possibilities and possible implementations on the "Made in" label to improve transparency in T&C SC found from this study, for example how could the ideas be executed. This is because, due to the issues and nature in the fashion industry, transparency and tracking of T&C SC might be extremely difficult to implement. Moreover, further research could explore how effective the new improvements on T&C SC transparency and the "Made in" label would be in guiding sustainable consumer behaviour in the fashion industry.

6. Conclusion

In conclusion, the aim of this study was to find out how effective the COO label's form "Made in" label is in guiding sustainable consumer decisions and behavior in the fashion industry. Moreover, the study was conducted by examining the T&C SC and its sustainability issues in particular. This study is in line with previous research by strengthening the idea of COO effect in consumer behavior and COO effect from the sustainability point of view. Moreover, this study contributes to previous research by bringing a more detailed perspective to the COO effect on sustainable consumer behavior, more specifically from Finland's point of view. It was important to study this topic now, since sustainability issues and demand for transparency for consumers have been widely discussed recently.

To be able to answer the main research question, qualitative analysis and study were conducted. First, a comprehensive literature review was conducted to find out more about the subject and findings from previous research and to set the research to an academic context. The empirical part of this research was conducted by interviewing several T&C SC and industry experts as well as consumers. With the semi-structured interviews, more

information about T&C supply chains, the COO “Made in” label and future improvement ideas were identified.

The key findings showed that consumers are not able to base truly effective sustainable decisions on the “Made in” label. Effective consumers decisions cannot be made purely on the “Made in” label, due to the issues behind the label. Moreover, the “Made in” label can often be misunderstood or even find misleading. The label can be found misleading by consumers, due to the lack of knowledge of the fashion industry and even more due to the true complexity and globality of the T&C supply chains. Behind the “Made in” label can therefore be hidden many sustainability issues, not transparent to consumers or provide adequate information. Thus, many future ideas for more transparent T&C SC and alternatives for the “Made in” label were implemented, such as rephrasing the label, using technology such as QR codes or changing laws.

This research is important for all consumers, especially for consumers interested in sustainability and sustainable fashion. Furthermore, this study can help consumers to understand the real meaning of the “Made in” label and guide sustainability actions more effectively. Moreover, this study could help future policymakers and law enforcement to adjust the use of the “Made in” label and require more transparent T&C supply chains as proposed above.

As this study showed in line with Hartmann&Moeller (2014) and Damert et al. (2021, 258) *labeling itself will not solve sustainability issues in the fashion industry, but transparency and sustainability information for end-consumers could be developed by improving labels.*

References

Abecassis-Moedas, C. (2006) Integrating design and retail in the clothing value chain: an empirical study of the organization of design. International Journal of Operations and Production Management. Vol.26, no.4, pp. 412-428.

Agrawal T.K., Kumar V. & Sharma A. (2018) Blockchain-Based Secured Traceability System for Textile and Clothing Supply Chain, in: Thomassey S., Zeng X. (Eds.) Artificial Intelligence for Fashion Industry in the Big Data Era. First Edition. Springer Series in Fashion Business. Singapore, Springer.

Aichner, T. (2014) Country-of-origin marketing: A list of typical strategies with examples. Journal of Brand Management. Vol. 21, no 1, pp. 81-93.

Alden, D.L, Batra, R., Ramaswamy, V. & Steenkamp, J.-B.E.M. (2000) Effects of brand local and non-local origin on consumer attitudes in developing countries. Journal on Consumer Psychology. Vol. 9, no.2, pp.83–95.

Altuntas, C. & Turker, D. (2014) Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. European Management Journal. Vol. 32, no. 5, pp. 837-849.

Appelbaum, R.P. & Gereffi, G. (1994) Power and Profits in the Apparel Commodity Chain, in: Bonacich, E., Cheng, L., Chinchilla, N., Hamilton, N. & Ong, P.(Eds.), Global Production: The Apparel Industry in the Pacific Rim. Temple, University Press, Philadelphia, pp. 42–62

Assmuth T., Heiskanen J., Häkkinen P., Kautto P., Lindh P., Mattila T., Mehtonen J. & Saarinen K. (2011) Risk Management and Governance of Chemicals in Articles. Case Study Textiles. Helsinki, Finnish Environment Institute.

Banning, J., Gam, H. J. & Ma, Y. J. (2017). Perceived ease of use and usefulness of sustainability labels on apparel products: Application of the technology acceptance model. Fashion and Textiles. Vol.4, no. 3.

Bansal, P. (2002) The corporate challenges of sustainable development. Academy of Management Executive. Vol.16, no. 2, pp. 122-131

Bell, E. & Bryman, A. (2011) Business Research Methods. Third Edition. Oxford University Press.

Bell, E. Bryman, A. & Harley, B. (2019) Business Research Methods. Fifth Edition. Oxford University Press.

Bernard, Y.& Zarrouk-Karoui, S. (2014) Reinforcing willingness to buy and to pay due to consumer affinity towards a foreign country. International Management Review. Vol. 10, pp. 57–67.

Birtwhistle, G., Bruce, M. & Moore, C. (2004) International Retail Marketing - A Case Study Approach. First edition. UK, Elsevier Ltd.

Brettel, M., Fishér, D. & Mauer, R. (2020) The Three Dimensions of Sustainability: A Delicate Balancing Act for Entrepreneurs Made More Complex by Stakeholder Expectations. Journal of Business Ethics. Vol. 163, pp. 88-106.

Brinkmann, S. (2013) Qualitative Interviewing. Second Edition. Oxford, England, Oxford University Press.

Cappelli, L., D'Ascenzo, F., Natale, L., Rossetti, F., Ruggieri R.& Vistocco, D. (2017) Are Consumers Willing to Pay More for a "Made in" Product? An Empirical Investigation on "Made in Italy". Sustainability. Vol. 9, no. 4.

Caniato, F. Caridi, M., Da Giau, A., Danese, P, Macchion,L., Rinaldi,R. & Vinelli,A. (2018) Strategic approaches to sustainability in fashion supply chain management, Production Planning & Control. Vol.29, no.1, pp. 9-28

Caro, F. & Martínez-de-Albéniz, V. (2014) Fast Fashion: Business Model Overview and Research Opportunities, to appear in: Agrawal, N. & Smith, A.S. (Eds.) Retail Supply Chain Management: Quantitative Models and Empirical Studies (2015). Second Edition. Springer: Boston, MA, USA; pp. 237–264.

Carter, C.R. & Rogers, D.S. (2008) A framework of sustainable supply chain management: moving toward new theory. International Journal of Physical Distribution & Logistics Management. Vol.38, no.5, pp. 360-387.

Chattalas, M., Kramer, T. & Takada, H. (2008) The impact of national stereotypes on the country of origin effect: A conceptual framework. International Marketing Review. Vol. 25, no.1, pp. 54-74.

Choudhury, R. & Kumar, A. (2013) Green chemistry and the textile industry. Textile Progress. Vol. 45, no.1, pp. 3–143.

Chun, E., Kim, N. & Ko,E. (2017) Country of origin effects on brand image, brand evaluation, and purchase intention: A closer look at Seoul, New York, and Paris fashion collection, International Marketing Review. Vol. 34, no. 2, pp. 254-271.

Dakin, J.A. & Carter, S. (2010) Negative image: Developing countries and country of origin - An example from Zimbabwe. International Journal of Economic and Business Research. Vol.2, pp.166–186.

Damert, M. , Koep, L. & Morris, J. (2021) Labels In The Textile and Fashion Industry: Communicating Sustainability To Effect Sustainable Consumption, in: Matthes A., Beyer K., Cebulla H., Arnold M.G., Schumann A. (Eds.) Sustainable Textile and Fashion Value Chains. Springer, Cham.

Diamantopoulos, A. & Oberecker, E.M. (2011) Consumers' emotional bonds with foreign countries: Does consumer affinity affect behavioral intentions? Journal of International Marketing. Vol.19, no.2. pp. 45–72.

Diamantopoulos, A., Koschate-Fischer, N. & Oldenkotte, K. (2012) Are consumers really willing to pay more for a favorable country image? A study of country-of-origin effects on willingness to pay. Journal of International Marketing. Vol.20, pp. 19–41.

DiCicco-Bloom, B. & Crabtree, B.F. (2006) The Qualitative Research Interview Medical education. Vol.40, no.4, pp.314–321.

Ding, X., Li, X., Wang, L. & (2021) Textile supply chain waste management in China. Journal of Cleaner Production. Vol. 289.

Dong, C., Li, Q., Perry P. & Shen, B. (2017) Sustainability Issues in Textile and Apparel Supply Chains. Sustainability. Vol.9, no.9.

Donoso, P. & Singer, M. (2007) Upstream or downstream in the value chain? Journal of Business Research. Vol. 61, pp. 669-677.

Egels-Zandén, N., Hulthén, K., & Wulff, G. (2015) Trade-offs in supply chain transparency: The case of Nudie Jeans Co. Journal of Cleaner Production. Vol.107, pp.95–104.

Elkington, J. (1997) Cannibals with forks: The triple bottom line of the 21st century. Oxford, Capstone.

Ezzy, D. (2002) Qualitative Analysis - Practice and innovation. London, Routledge, imprint of the Taylor & Francis Group.

Flodén J., Nagurney A. & Yu M. (2013) Supply Chain Network Sustainability Under Competition and Frequencies of Activities from Production to Distribution. Computational management science. Vol.10, no.4, pp.397–422.

Flodén J., Nagurney A. & Yu M., (2015) Fashion Supply Chain Network Competition with Ecolabeling, in: Choi TM., Cheng T. (Eds.) Sustainable Fashion Supply Chain Management. Springer Series in Supply Chain Management. Vol 1. Springer, Switzerland.

Forza, C. & A. Vinelli (2000) Time compression in production and distribution within the textile-apparel chain, Integrated Manufacturing Systems. Vol. 11, no.2, pp. 138-146.

Gereffi, G., Humphrey, J. & Sturgeon, T. (2005) The governance of global value chains. Review of International Political Economy. Vol.12, no.1, pp. 78–104.

Gioia, D., A., Corley, K, G. & Hamilton, A. (2013) Seeking qualitative rigor in inductiveresearch:NotesontheGioia Methodology. Organizational Research Methods. Vol 16, no. 1, pp.15-31.

Guercini, S. & Runfola, A. (2009) The integration between marketing and purchasing in the traceability process. Industrial Marketing Management. Vol.38, no.8, pp.883–891.

Guba, E.G. & Lincoln, Y.S (1994) Competing Paradigms in Qualitative Research. In N.K. Denzin&Y.S. Lincoln (Eds.). Handbook of qualitative research (pp.105-117). Thousand Oaks, CA: Sage.

Ha-Brookshire, J. & Norum, P. (2011) Cotton and Sustainability: Impacting Student Learning through Sustainable Cotton Summit. International journal of sustainability in higher education. Vol.12, no.4, pp.369–380.

Hamzaoui, L. & Merunka, D. (2006) The impact of country of design and country of manufacture on consumer perceptions of bi-national products' quality: An empirical model based on the concept of fit. Journal of Consumer Marketing. Vol.23, no.3, pp.145–155.

Hartmann, J. & Moeller, S. (2014) Chain liability in multitier supply chains? Responsibility attributions for unsustainable supplier behavior. Journal of Operations Management. Vol. 32, pp. 281–294.

H&M (2015) Conscious Actions Sustainability Report 2014. Available at: https://about.hm.com/content/dam/hmgroup/groupsite/documents/en/CSR/reports/Conscious%20Actions%20Sustainability%20Report%202014_en.pdf [Accessed 6.10.2021].

International Trade Administration (2021) Finland – Country Commercial Guide, Labeling/Marking Requirements. Available at: https://www.trade.gov/country-commercial-guides/finland-labelingmarking-requirements [Accessed 10.10.2021].

Koszewska, M. (2011) Social and eco-labeling of textile and clothing goods as a means of communication and product differentiation. Fibres & Textiles in Eastern Europe. Vol.19, no. 4, pp. 20–26.

Koszewska, M. (2021) Clothing labels: Why are they important for sustainable consumer behaviour? Journal of Consumer Protection and Food Safety. Vol. 16, pp. 1–3.

Lumpkin, J.R., Crawford, J.C. & Kim, G. (1985) Perceived risk as a factor in buying foreign clothes. International Journal of Advertising. Vol.4, no.2, pp. 157–161.

Luongo G. (2015) Chemicals in textiles: a potential source for human exposure and environmental pollution. Doctoral Thesis. Department of Environmental Science and Analytical Chemistry Stockholm University.

MacCarthy B.L. & Jayarathne P.G.S.A. (2010) Fast Fashion: Achieving Global Quick Response (GQR) the Internationally Dispersed Clothing Industry, in: Cheng T., Choi TM. (Eds.) Innovative Quick Response Programs in Logistics and Supply Chain Management. International Handbooks on Information Systems. First Edition. Berlin, Heidelberg, Springer Inc.

Martin W., Yanagishima K. & Yang Y. (1997) Evaluating the benefits of abolishing the MFA in the Uruguay Round package, in: Global trade analysis: modeling and applications. Cambridge University Press, pp. 253–279

Metsämuuronen, J. (2011) Tutkimuksen tekemisen perusteet ihmistieteissä. Helsinki, International Methelp Oy.

Moradi, H. & Zarei, A. (2011) The impact of brand equity on purchase intention and brand preference – the moderating effects of country of origin image. Australian Journal of Basic and Applied Sciences. Vol. 5, no.3, pp. 539–545.

Müller, M. & Seuring, S. (2008) From a literature review to a conceptual framework for sustainable supply chain management. Journal of Cleaner Production. Vol. 16, pp. 1699-1710.

Muthu, S. (2017) Sustainability in the Textile Industry, in: Textile Science and Clothing Technology. First Edition. Springer Nature Singapore Pte Ltd.

Muthu, S. (2020) Assessing the environmental impacts of textiles and the clothing supply chain. Second Edition. UK, Elsevier Ltd.

Muthu S. & Rathinamoorthy R. (2021) Sustainability and Fashion, in: Bacterial Cellulose. Sustainable Textiles: Production, Processing, Manufacturing & Chemistry. First Edition. Singapore, Springer Nature Pte Ltd.

Pagell, M. & Wu, Z. (2009) Building a More Complete Theory of Sustainable Supply Chain Management Using Case Studies of 10 Exemplars. Journal of Supply Chain Management. Vol.45, no.2, pp. 37-56.

Papadopoulos, N. & Heslop, L. A. (2002) Country equity and country branding: Problems and prospects. Journal of Brand Management. Vol.9, no.45, pp. 294-314.

Patton, M.Q. (2015) Qualitative research & evaluation methods. Fourth edition. Thousand Oaks (CA), London, SAGE Publications Inc.

Pegan G., de Luca P. & Vianelli D. (2020) Introduction to the Country of Origin Effect in International Marketing Strategies, in: International Marketing Strategy. International Series in Advanced Management Studies. Switzerland, Springer Nature Switzerland.

Peterson, R.A & Jolibert A.J.P. (1995) A meta-analysis of country-of-origin effects. Journal of Business Studies. Vol 26, pp. 883-900.

Ramsoedh, A. (2017). Textile labeling: A concern for the EU consumer? Ph.D. Thesis, Faculty of Law, University of Amsterdam.

Sarma, S.K. (2015) Qualitative Research: Examining the Misconceptions. South Asian Journal of Management. Vol. 22, no. 3, pp. 176-191

Sequeira, A.H. (2014) Conceptualization in Research. Psychology of Innovation ejournal CMBO.

Şen, A. (2008) The US fashion industry: a supply chain review. International Journal of Production Economics. Vol. 114, no.2, pp. 571-593.

Tan, C.T. & Farley, J.U. (1987) The Impact of Cultural Patterns on Cognition and Intention in Singapore. Journal of Consumer Research. Vol.13, no 4, pp.540-544.

Teli, M.D. (2008) Textile coloration industry in India. Color Technol. Vol. 124, pp.1–13.

Tuomi, J. & Sarajärvi, A. (2018) Laadullinen tutkimus ja sisällönanalyysi. Helsinki, Tammi.

Usunier, J.C. (2011) The shift from manufacturing to brand origin: suggestions for improving COO relevance. International Marketing Review. Vol. 28 No. 5, pp. 486-496.

Wang, C. (1978) The Effects of Foreign Economics, Political and Cultural Environment on Consumer's Willingness to Buy Foreign Products. Ph.D. Thesis, Texas A&M University, College Station, TX, USA.

Weber, R. (1990) Basic content analysis. Second Edition. Thousand Oaks, SAGE Publications Inc.

Wengrow, D. (2008) Prehistories of Commodity Branding. Current Anthropology. Vol. 49, no.1, pp. 7–34.

Zhang, Y. (1996) Chinese consumers' evaluation of foreign products: the influence of culture, product types, and product presentation format. European Journal of Marketing. Vol. 30, no. 12, pp. 50-69

Appendix 1: Interview questions for NGO representative

If possible, could you please describe your role in the organization, how many years of experience you have in this field, the size, origin, and purpose/goal of your organization. The interview will be anonymous, and you or your organization won't be recognized from the thesis. However, if possible, I would like to have this non-identifying information in my thesis to bring creditability and context.

Complexities and (sustainability) challenges in textile supply chains:

1. Please outline the different stages of the textile supply chain (and the main sustainability challenges/issues of these stages)?
2. How common are problems in the textile supply chains, especially in fast fashion (e.g. environmental problems, low wages etc)?
3. What do you consider are the most time consuming parts in the textile supply chains (e.g. producing raw materials, alter the fabrics etc)
4. Do the manufacturers in supply chains, e.g the producers of raw materials, know that the consumers don't always know the real supply chain of a clothe/textile?
5. How transparent is the textile supply chain to the end-customer?
6. In general, are more expensive clothes usually made more sustainably and ethically than clothes in fast fashion?
7. How important is the country of origin for the sustainability of textiles?

The role of the "Made in" label in making sustainable consumer decisions:

8. In which part of the textile supply chain the labeling of the cloth is made?
9. In your own words, could you please explain what the "Made in" (COO) label in textiles stands for?
10. What information can consumer get from the "Made in" label in textiles? Is information from textile supply chains available from the "Made in" label?
11. Do you consider the "Made in" label misleading or even greenwashing for consumers? If yes, why?
12. What benefits could be seen from the "Made in" label?
13. Do you believe consumers can make sustainable choices based on the "Made in" label?
14. How effective is the "Made in" label in guiding sustainable (or ethical) consumer choices?
15. In what ways could a consumer make sure that a cloth is being sustainably and ethically made?
16. Does the "Made in" label put some pressure on focal firms (e.g. to ensure the sustainable production of their products)?

Potential improvements of "Made in" label and alternatives to the "Made in" label:

17. How could the "Made in" label be improved (e.g. so that consumers could make more sustainable choices based on the label)? Are there (better) alternatives to the "Made in' label?
18. Would it be possible in the future to make the supply chain in fashion industry more sustainable or transparent?

Do you have anything you would like to add to this subject?

Appendix 2: Interview questions for fashion industry company representatives

If possible, could you please describe your role in the organization, how many years of experience you have in this field and the size your organization. The interview will be anonymous and you or your organization won't be recognized from my thesis. However, if possible, I would like have to these non-identifying information in my thesis to bring creditability and context.

Textile and clothing supply chains:

1. What kind of textiles&clothes do you sell or produce?
2. Can you briefly outline your textile supply chain and some of the possible main sustainability challenges at each stage?
3. How do you supervise your suppliers and make sure the clothes are sustainably and ethically made?
4. For how long have you had the same suppliers?
5. How much overview/information do you have about your supply chain?
6. How do you make sure that your textile supply chains are sustainable?
7. How important is it for your customers to have detailed information about the production of your products?
8. If consumers would like see the whole supply chain of your clothes, would it be possible to consumers to track the whole supply chain?
9. Can certain manufacturing countries seen as an asset and a way to charge more from a cloth? Suggestion of these countries:
10. Do you believe consumers base their buying decision on the manufacturing country?
11. Do you believe the manufacturing country of a cloth brings extra value to a garment?
12. How transparent is the textile supply chain to the end-customer?

The role of the "Made in" label in textile companies:

13. What do you think about the "Made in" label in clothes?
14. Does the "Made in" label affect your company? If yes, why/why not?
15. What do you think the "Made in" label tells to consumers?
16. Can the "Made in" label be misleading or misunderstood by consumers?
17. What pros and cons can be seen from the "Made in" label (e.g. for you and/or your customers)?

Potential improvements of "Made in" label and alternatives to the "Made in" label:

18. How could the "Made in" label be improved? Are there (better) alternatives to the 'made in' label?
19. Would it be possible in the future to make the supply chain in fashion industry more sustainable or transparent?

Do you have anything you would like to add to this subject?

Appendix 3: Interview questions for consumers

Consuming habits and background information:

1. How much do you know about sustainability in textile supply chains?
2. How often do you buy clothes or textiles?
3. What do you think is the most important feature when buying a clothe? (e.g. Price, Brand, Style, Texture, Manufacturing country, Sustainability of the clothe, etc.)

Supply chains in the textile and clothing industry:

4. Does the manufacturing country (or made in label) of a clothe influence you decision on buying a clothe? If yes, why?
5. Would you be willing to pay more for a clothe knowing that is made sustainably and ethically?
6. Do you pay attention where your clothes are made&is the manufacturing country important to you? Why (or why not)?
7. Do you see the manufacturing country of a clothe to bring extra value to the clothing? If yes, why?
8. Do you believe that it's important that your clothes are made sustainably and ethically?
9. How do you make sure a cloth is sustainable?
10. Do you believe more expensive clothes are more sustainably made?
11. Would you like to trace the supply chain of your clothe e.g. knowing all the countries where the cloth and its parts has been manufactured?
12. Do you prefer some manufacturing countries over others? Why? (e.g. would you rather buy your clothes from Finland or Europe)

The role of the "Made in" label in making sustainable consumer decisions:

13. Do you know what the label "Made in" stands for? Please explain in your own words what you think the label means.
14. Does the "Made in" label in a clothe affect your decision on buying a cloth?
15. Does the "Made in" label guide your decision on buying sustainable clothing?
16. Do you find the "Made in" label misleading?
17. Could you base your decision on the "Made in" label when buying sustainable clothing?
18. What would help you to make more sustainable (or ethical) consumer choices?

Do you have anything you would like to add to this subject?