

# HOW DOES SUSTAINABILITY AFFECT YOU?

A HOLISTIC VIEW OF HOW SUSTAINABILITY  
AFFECTS CONSUMERS' APPAREL PURCHASING  
BEHAVIOUR IN SWEDEN AND IN FINLAND

Thesis for Master, 30 ECTS  
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## **Abstract**

**Background** Sustainability is one of the hot topics in the apparel industry currently. Companies are working to improve an environmental impact of clothing production and social conditions at manufacturers and communicating to the public about these practices. At the same time, consumers are showing a growing interest towards sustainability in the apparel industry. However, there is little knowledge about how consumers perceive sustainability and how much they pay attention to the apparel companies' sustainability practices.

**Purpose** The purpose of this thesis is to examine, with a holistic perspective, how consumers perceive sustainability in the apparel industry and how it affects their purchasing behaviour.

**Methodology** A web-based self-completion questionnaire was conducted to examine consumers' clothing purchasing behaviour and their perception of sustainability within the apparel industry. Convenience sampling method was used for the primary data collection. In total, 423 respondents from Sweden and Finland participated in this study.

**Findings** The findings of this study show that the respondents are generally concerned about environmental issues in the apparel industry. However, their favourable attitudes seldom transfer into their purchasing intentions. Furthermore, the results show that the consumers of this study do not actively search sustainability information. Particularly they are not paying attention to the communication at the point of clothing purchase.

**Contribution** This study gives insights into how consumers reflect upon sustainability when purchasing clothes and how actively they search for sustainability information. These insights are a valuable base for future improvements in order to achieve a meaningful manner in the apparel industry's sustainability communication.

**Keywords:** Apparel industry, Consumer behaviour, Sustainability, Sustainability communication, Sustainable consumer behaviour

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# 1 Introduction

*The first chapter of the thesis introduces the background on what sustainability is in an apparel context and how companies are communicating about their sustainable business activities. The background provides the insights of sustainability communication and consumer awareness of sustainability in the apparel industry. Furthermore, the general background of the problem will be described, following the research gap, purpose, and research question. The introduction chapter ends with the delimitations providing the framework for the study.*

The pace of the fashion cycle is faster than before, and shorter lead times are changing a traditional supply chain setup in the apparel industry (The Business of Fashion and McKinsey&Company, 2017). According to The Economist (2017), global clothing production has doubled from 2000 to 2014. Instead of producing a few collections a year, fashion companies are producing multiple collections every year. The Spanish fast-fashion brand Zara offers more than 20 collections and the Swedish Hennes & Mauritz realises up to 16 collections per year (The Economist, 2017). At the same time, with the development of consumer society, clothing consumption is increasing (Hjelmgren, Salomonson and Ekström, 2015). For example, in Sweden private consumption of clothes and shoes increased by 53% between 1999 and 2009 (Roos 2010).

After a collapse of a clothing factory at Rana Plaza in Bangladesh in April 2013, social issues in the fashion industry became public and visible to everyone's eyes. A global movement, Fashion Revolution, was born after the collapse in order to raise consumer awareness of the state in the fashion industry. Fashion Revolution encourages consumers to ask fashion brands "who made my clothes?" and brands to publicly disclose their suppliers (Fashion Revolution, n.d.). Documentaries, such as The True Cost and The Machines, have revealed to the public the life of garment workers in developing countries, and how the apparel production affects the environment. Furthermore, media in Sweden and in Finland have taken up the discussion about microplastics and apparel companies' practice of burning unsold garments (Fegan, 2017; Svensson, 2017). Sweden and Finland are forerunners in sustainable development and aiming to achieve UN Sustainable development goals by 2030 (Bertelsmann Stiftung & Sustainable Development Solutions Network, 2017) and therefore this study was chosen to conduct in these countries.

Today's consumers are interested in wellbeing and they like to spend money on products that make them feel good, but also clothes that have a positive impact on the environment and society. This development is particularly visible in the food sector, but also increasingly in the apparel context. Simpson and Radford (2012) stated that consumers are showing a growing interest towards sustainability issues in the apparel industry. It is unknown how strong this interest is and how much consumers pay attention to available information about apparel companies' environmentally and socially good practices. To fill this gap in previous research, this study explores how Swedish and Finnish consumers perceive sustainability in the apparel industry and how it affects their clothing purchasing behaviour.

## 1.1 Background

Sustainability is currently a popular theme in the apparel industry. The Business of Fashion and McKinsey&Company (2017) forecast that sustainability will be one of ten phenomena which will shape the fashion industry during the year 2018. Companies are working with environmentally friendly materials and production processes, as well as doing projects to improve social conditions at manufacturers. Companies communicate about these sustainable business activities to the public and their customers. Besides the companies' sustainability communication, Non-Government Organisations (NGOs) are also sharing information about environmental and social issues within the apparel production. As a result, there is more and more information about sustainable practices available to consumers. However, it is unknown to what extent consumers pay attention to all this information and how well they understand it.

Brundtland's (1987) widely known definition describes sustainable development as "*a development that meets the needs of the present without compromising the ability of future generations to meet their own need.*" Sustainability consists of three pillars; economic, social, and environmental development, which are independent, but in the long run, their existence is dependent on each other (Morelli, 2011). Before sustainability discussion in apparel industry focused mainly on environmental impacts. Today social concerns are also a part of the discussion due to the nature of the industry.

In addition to sharing information about companies' environmental and social contribution, the concept of supply chain transparency is increasing among fashion brands. According to The Business of Fashion and McKinsey&Company's (2017) annual report, '*The State of Fashion 2018*', 42 out of 100 fashion brands disclosed their supplier information in 2017. Transparency implies openness, accountability, and communication about business practices. According to Egels-Zandén and Hansson (2016) supply chain transparency consists of two main dimensions: traceability and disclosing sustainability conditions at the supplier. Traceability relates to the ability to track a product's flow through the whole supply chain and sharing the names of suppliers who have been involved in the production. Another dimension, disclosing sustainability conditions at the supplier, implies sharing information about the practices and working conditions during the production (Egels- Zandén and Hansson, 2016).

Parallel to the growing discussion within the field, environmental and social consciousness is growing among consumers. Consumers want to know whether or not brands and retailers care about environmental and social issues (Siegel and Stec, 2016). According to Simpson and Radford (2012) consumers are showing a growing interest towards sustainability issues. Moreover, WGSN's (2015) forecast '*The Future of Retail 2016*' describes that Millennials and Generation Z are increasingly interested in sustainability and they want to know more about the origin of products and how they are produced (WGSN, 2015).

Several studies show that the knowledge of sustainability is very limited among young consumers and mainly focused on other product categories rather than clothing (Kagawa, 2007; Gwozdz, et al. 2013). It has been suggested that consumers may not have the awareness of how their consumption of clothing affects the environment (Ekström, Hjelmgren and Salomonson, 2015). Furthermore, Eurobarometer 367 (European Commission, 2013) concluded that consumers are confused about the wide diversity of environmental information. Consumers' biggest claims were related to lack of information, difficulties to differentiate environmentally friendly products from other products and lack of trust towards companies' own communication about their environmental performance (European Commission, 2013).

## 1.2 Sustainable marketing communication in the apparel industry

In response to the growing discussion, apparel companies are increasingly communicating about their environmental and social good practices. Some of the companies have created an image of sustainable solution providers by informing consumers about their actions to work towards improving environmental challenges. Companies' websites and social media are the main channels for sharing information and engaging consumers in sustainability conversations (McDonagh and Prothero, 2015). Sustainability communication takes place also within the physical retail environment through product labelling and posters.

Additionally, stakeholder groups have their own demand for apparel companies regarding the industry's social and environmental issues. The European Union and government authorities impose legislation while NGOs demand openness of the supply chain. A wide range of certifications and guidelines are shaping apparel companies' business behaviour. While companies' sustainable communication is influenced by these expectations and is targeted towards these other stakeholders as well as consumers.

This study focuses on sustainability communication towards consumers referring specifically to apparel companies' marketing communication and sharing of information related to their social and environmentally friendly practices. Apparel companies' sustainability communication is conducted through marketing communication channels such as advertising, official websites, social media, in-store marketing and products labels.

## 1.3 Problem discussion

The sustainability communication can be performed in several ways by using different channels. The effectiveness of the communication depends on the receiver's perception and interpretation as well as the accessibility. There are several studies about consumer attitudes towards sustainability and consumption of clothing.

In existing literature, consumers' attitude towards sustainable consumption and the relationship between their attitudes and purchasing behaviour are widely studied topics (Ulusay and Baretta, 2016). Previous studies (Kim and Damhorst, 1998; Niinimäki, 2010) provide the profile of environmentally conscious consumers, but a general overview of consumer understanding has not been mapped. Another research direction in the existing literature is to examine consumers' awareness and knowledge of different eco-labels (Henninger, 2015), but this does not tell how much consumers pay attention to the sustainability information in the apparel industry in general.

Consumers are interested in sustainability, mainly in the food sector but also increasingly in the apparel industry. However, favourable attitudes do not often translate into actual purchasing behaviour (Ulosoy and Barretta, 2015). Simpson and Radford (2012) have concluded that it is hard to understand what sustainability is in the apparel context due to the complex structure of the apparel industry. According to McDonagh and Prothero (2015), there is a need to increase the competence to communicate about sustainability in a meaningful way within the fashion industry. In order to improve apparel companies' sustainability communication, there is a need for research with a consumer perspective.

## 1.4 Purpose

Based on previous problem discussion, the purpose of this study is to explore, with a holistic perspective, consumers' perception of sustainability in the apparel industry and in which extent sustainability affects their clothing purchasing intentions.

Furthermore, this study examines how strong consumers interest towards sustainability is and how much they pay attention to available information about apparel companies' environmentally and social good practices.

The aim is to provide insights about consumer knowledge and purchasing behaviour within the apparel industry. Understanding the consumer perspective is needed in order to communicate about sustainability in a meaningful manner in the future. Further, the areas where consumers need more information and education will be identified. This will contribute towards the necessary mapping of consumer perceptions and interpretations about sustainability as a whole. Previous studies have not identified how much consumers pay attention to all available information of sustainability information in the apparel industry and this study aims to fulfil this gap.

## 1.5 Research question and hypotheses development

As previous discussed, this study examines consumers' perception of sustainability and how strong their interest towards sustainability is within the apparel industry and aims to answer the following research question:

*How Swedish and Finnish consumers perceive sustainability in the apparel industry and how it affects their purchasing behaviour?*

Existing studies have pointed out a gap between consumer interest and actual purchasing behaviour related to sustainable clothing. These findings from previous research are the base for four hypotheses, which the author has formulated for this study. The hypotheses, which will be presented below, have been used as a foundation for the development of the questionnaire.

Bhaduri and Ha-Brookshire (2011) have identified that there is a low level of knowledge related to the environmental impact of apparel production and purchasing among consumers. Consumers' attitudes and knowledge affect their behaviour. Therefore, the following hypothesis is proposed:

**H1** *When consumers purchase apparel, they do not pay attention to sustainability.*

Clothing reflects a person's self-image and identity. People are not purchasing clothing rationally, rather more irrationally. Style, colour, fit and price are the dominant factors when buying clothing. Furthermore, consumers seldom pay attention to new information at the point of purchase (Ritch, 2015). Accordingly, the following hypothesis is advanced:

**H2** *When consumers purchase apparel, they do not look to sustainability information.*

Scepticism and lack of knowledge are frequent in the existing literature of consumers' attitude towards sustainability. According to Ritch (2015), the concept of sustainability is unclear for the consumers in apparel context. There are misunderstandings of the environmental impacts of apparel production as well as incorrect information particularly about textile materials (Hiller Connell, 2010). Hence, the following hypothesis is suggested:

**H3** *When consumers purchase apparel, they are not aware what sustainability means.*

Besides misunderstanding and lack of knowledge, the apparel supply chain has a complex structure which is hard to understand for consumers (Simpson and Radford, 2012). Apparel production usually takes place far away, and its effect is not directly visible. Consumers do not tend to think about issues which are not closely connected to their everyday life. Thus, the following hypothesis is proposed:

*H4 When consumers purchase apparel, they do not focus on transparency.*

## 1.6 Delimitations

This study examines consumers' perception of sustainability in the apparel industry. The term sustainability will refer to all its three pillars; economic, environmental, and social development. The focus of this study will be on environmental and social development, because they are the most commonly viewed parts of sustainability in the apparel industry.

This study has adopted a consumer perspective and therefore, it will not examine how apparel brands communicate about sustainability and whether companies' actual practises differ from their communication.

This study was chosen to conduct in Sweden and in Finland because sustainability is a popular theme in a public discussion and there are many legislations for reducing environmental impact of consumer society. The focus of the forerunners in sustainability gives only insights from consumers' perception and consumer behaviour in these countries, therefore the results of this study cannot be generalized to other countries. However, the results can be seen as directional for the other countries.

Primary data is collected from Sweden and Finland during a four week period in spring 2017. Data were collected by using the convenience sampling method and therefore the results cannot be generalised to the overall population (Bryman and Bell, 2015). However, the sample size of the study was large with 423 responses, and therefore the results can provide a good overview of consumer perception of sustainability in Sweden and in Finland.

## 1.7 Thesis outline

*Chapter one* presents the background of this study; the concept of sustainability in the apparel industry as well as the communication about sustainable business practices. The motivation behind the study is described through presenting the purpose, the research question and the limitations of the study.

*Chapter two*, on the basis of literature, reviews consumer attitudes and perception of sustainability as well as sustainable marketing communication within the apparel industry. The theory of planned behaviour is used in this study to explain the relationship between consumers' attitudes and behaviour.

*Chapter three* describes the methodology of the study and explains how the study was conducted. The methods selected for sampling, data collecting, and data analysis are described and the motivation behind the selection is argued in this chapter.

*Chapter four* presents the findings of this study. An overview of the sample is presented and followed by descriptive data of the most significant results. Moreover, statistical analysis will be conducted at the end of this chapter.

*Chapter five* discusses and reflects on the results on the basis of the earlier presented theoretical framework. It includes answers to the research questions and hypotheses.

*Chapter six* presents the conclusions of the study. It also discusses scientific and practical contributions and gives suggestions for future research.

## 2 Theoretical framework

*This chapter introduces the theoretical framework of this study, by reviewing the field of literature. The theoretical framework covers the consumer behaviour related to consumers' attitude, knowledge, and perception towards sustainability in the apparel industry. The theory of planned behaviour is used to explain consumers' attitude-behaviour relationship. Further, companies marketing communication-related to their sustainable business activities is described. This literature review aims to build the basis of the present study and to create a deeper understanding of the chosen research field.*

### 2.1 Consumers and sustainability in the apparel industry

The consumer perception of sustainability is a widely studied topic in consumer behaviour in the field of fashion and clothing. There are several phenomena which dominate the findings in previous studies. Researchers have concluded that there is misunderstanding and a lack of knowledge among consumers (e.g. Hiller Connell, 2010; Hill and Lee, 2012; Ritch, 2015). The following sections will discuss these phenomena in more detail.

#### 2.1.1 Consumer attitude towards sustainability

There are multiple studies which have examined consumer attitude towards sustainable clothing. Consumers' environmental concern is growing and their attitude towards environmentally friendly products is mainly positive (Cheah and Phau, 2011; Hill and Lee, 2012). Furthermore, there is a growing interest in environmentally friendlier products and a willingness to learn about how garments are produced.

According to McNeill and Moore (2015), fashion consumers' attitudes towards sustainability related to clothing purchases are influenced by their general knowledge and concern about social and environmental wellbeing. Niinimäki (2010) concluded that consumers' ethical interest and ethical values are strong drivers of purchasing environmentally friendly clothing and ethically made garments.

Consumers' positive and favourable attitude towards sustainability is not often transferred to their actual purchasing behaviour (McNeill and Moore, 2015; Ulosoy and Barretta, 2016). Consumers seem to be interested in purchasing sustainable products, but the interest does not turn into an actual purchasing action. It seems that consumers are not willing to pay a higher price or to compromise their own desire for clothing for sustainability (McNeill and Moore, 2015). Price, style, and quality have found to be more dominant factors for consumers in apparel purchases instead of a product's sustainability. (Niinimäki 2010; Bhaduri and Ha-Brookshire, 2011).

In contrast to the growing interest towards sustainability, there is also visible scepticism and lack of trust among consumers. According to Ulosoy and Barretta (2016), consumers may not trust the companies' own claims about their sustainable business practices. A consumer might feel that the companies are taking advantage of consumers' increasing awareness and therefore they have more trust in NGO's and civil society organisations' communication about environmental claims (Ulosoy and Barretta, 2016). Consumers' scepticism is not only related to companies' communication about their sustainable products and business practices, they also feel sceptical about sustainable products (Simpson and Radford, 2012). Simpson and Radford (2012) stated that a lack of confidence causes this scepticism. Furthermore, consumers might

see companies' marketing activities about the environmental benefits of a product as greenwashing (Simpson and Radford, 2012), which refers a company's marketing communication of environmental friendly products and practices without actual implementation.

On the other hand, sustainability is regarded differently in the food sector (Ritch, 2015). Organic food products imply health benefits for the consumer, thereby directly influencing them. The implementation of organic materials in apparel products and an ethical production do not have the same kind of impact on the consumers themselves, which lowers their interest in purchasing these types of products.

### 2.1.2 Consumer awareness and knowledge about sustainability

Previous studies (Hiller Connell, 2010; Niinimäki, 2010; Bhaduri and Ha-Brookshire, 2011; Hill and Lee, 2012; McNeill and Moore, 2015) have discovered a low level of knowledge related to apparel production and consumption among consumers which is one of the most common barriers for sustainable purchasing behaviour. Consumers have a limited awareness how apparel production and consumer consumption of clothing affects the environment (Hiller Connell, 2010; Niinimäki, 2010; Ekström, Hjelmgren and Salomonson, 2015).

The term sustainability seems to be often misunderstood and it mainly focuses on environmental aspects among consumers (Simpson and Radford, 2012). Ritch (2015) states that the meaning of sustainability in fashion and apparel context is unclear to most consumers. However, as previously mentioned, they are more knowledgeable about sustainability related to food (Ritch, 2015). Most consumers are not familiar with sustainable practices in apparel production (Hiller Connell, 2010) and they have an incorrect knowledge of textile materials (Ritch, 2015). For example, natural fibres are generally considered more environmentally friendly than synthetic fibres because they grow naturally (Hiller Connell, 2010; Ritch, 2015). Furthermore, recycled materials are perceived more negatively than conventional materials (Rucker, 2009).

Lack of knowledge and misunderstanding the concept of sustainability is apparent in findings of previous studies. However, Simpson and Radford (2012) concluded that consumers' knowledge about sustainable clothing is slowly increasing. Shen, et al. (2014) stated similarly that consumers' attitude towards sustainable fashion is changing. Consumers are willing to know more about the production of garments (Shen, et al., 2014). Ha-Brookshire and Yoon (2012) state that consumers are interested to know the country of origin in order to evaluate products' attributes and ensure that products are safe and produced in a proper manner. Consumers tend to consider products as higher quality when they are produced in more economically advanced countries (Ha-Brookshire and Yoon 2012).

### 2.1.3 Consumer perception of sustainability

There is a connection between consumer behaviour and how consumers perceive and understand the concept of sustainability. The findings from Simpson and Radford's (2012) and Hiller Connell's (2010) studies show that consumer perception of sustainability is highly focused on the environmental aspects and they do not reflect that much on social and economic perspectives. This phenomenon is not only common among consumers, many companies and academic researchers are focusing mainly on the environmental concern and not the social or economic aspects of sustainability (Hill and Lee, 2012).

On the product level, consumers understand that sustainability implies durability, quality, and reliability (Simpson and Radford, 2012). They see that long-lasting garments are more sustainable than conventional products; however, they do not connect sustainability to the manufacturing process of the apparel products (Hiller Connell, 2011; Hill and Lee, 2012; Simpson and Radford, 2012).

Related to the issues of limited knowledge, consumers feel some confusion about how sustainability applies to apparel (Ritch, 2015). As previously said, consumers are more familiar with organic and Fairtrade food products (Ritch, 2015). The additional value of sustainable materials for clothing stays therefore unclear for consumers and they might decline a higher price for the garment (Ritch, 2015).

Previously environmentally friendly products have been perceived as not good-looking (Mc Neill and Moore, 2015), less stylish, and less fashionable than conventional clothing (Hiller Connell, 2010). Nowadays, however, sustainable garments do not differ that much from other products and thus consumers are showing greater interest towards them (Shen et al., 2014).

#### 2.1.4 Consumer perception of transparency

Similarly, consumers have a more positive attitude towards transparency and products from transparent businesses than they have positive attitudes towards sustainable products (Bhaduri and Ha-Brookshire, 2011). But consumers' positive attitudes do not usually transfer into actual purchasing intentions of transparent garments either (Bhaduri and Ha-Brookshire, 2011). According to Bhaduri and Ha-Brookshire (2011), this gap between attitude and actual behaviour is caused by a lack of trust and suspiciousness towards apparel companies' claims.

Consumers said in Bhaduri's and Ha-Brookshire's (2011) study that purchasing products from transparent businesses made them feel a lot better. Differing from consumers' perception of sustainability, consumers mentioned social concerns related to apparel production (Bhaduri and Ha-Brookshire, 2011). Getting a better feeling from purchasing apparel from transparent companies, makes consumers willing to pay a higher price for the product. However, consumers do have their individual limits for purchasing power. Bhaduri and Ha-Brookshire (2011) also found that consumers who had better knowledge of issues in apparel production were more willing to pay a higher price for products from transparent companies.

Egels-Zandén and Hansson (2016) investigated consumer willingness to buy products from Swedish jeans company Nudie Jeans after viewing the company's production guide on their website. Nudie Jeans is a medium-sized Swedish company, which has profiled itself for interest, engagement and practical work in sustainability issues (Egels-Zandén and Hansson, 2016). One of their practical activities in the field of transparency is a production guide which includes information about Nudie Jeans' suppliers and subcontractors as well as documentation of executed audits. Egels-Zandén and Hansson (2016) concluded that viewing the Nudie Jeans' production guide seems to have a positive influence on consumers' willingness to purchase the company's products.

WGSN's (2016) consumer forecast "*Future Consumer 2018*" stated that cost transparency is becoming popular among consumers. Cost transparency refers to publishing information of production costs for the public (Simintiras, et. al., 2015). In the apparel industry, Belgian based *Honest by* and *Everlane* from the USA are examples of actors of this type of radical pricing transparency. Both brands disclose sourcing cost for each of their product on their websites,

furthermore *Honest by* reveals products' markup calculations. Mohan (Buell and John, 2014) argued that cost transparency increases sales and consumers' brand loyalty. Simintiras, et. al. (2015) argued correspondingly, and they stated that cost transparency offers high value for the consumers. This is in line with findings from Mohan's (Buell and John, 2014) study where people considered cost transparency as intimate information by the company and therefore were attracted to it. Moreover, Simintiras, et. al. (2015) state that cost transparency will empower consumers.

## 2.2 Theory of planned behaviour

The theory of planned behaviour by Ajzen (1985; 1987; 1991) is widely applied in studies in consumer behaviour to investigate consumers' intention and attitude towards a product or a service. The theory of planned behaviour (TPB) expands the theory of reasoned action (Fishbein and Ajzen, 1975; Ajzen and Fishbein, 1980) and examines a relationship between an individual's attitudes and behaviour. The central factor of the theory is the individual's intention which can be used as a predictor of actual behaviour (Ajzen, 1985; 1987). According to theory, intentions are assumed to capture the motivational factors that have an impact on individual's actual behaviour.

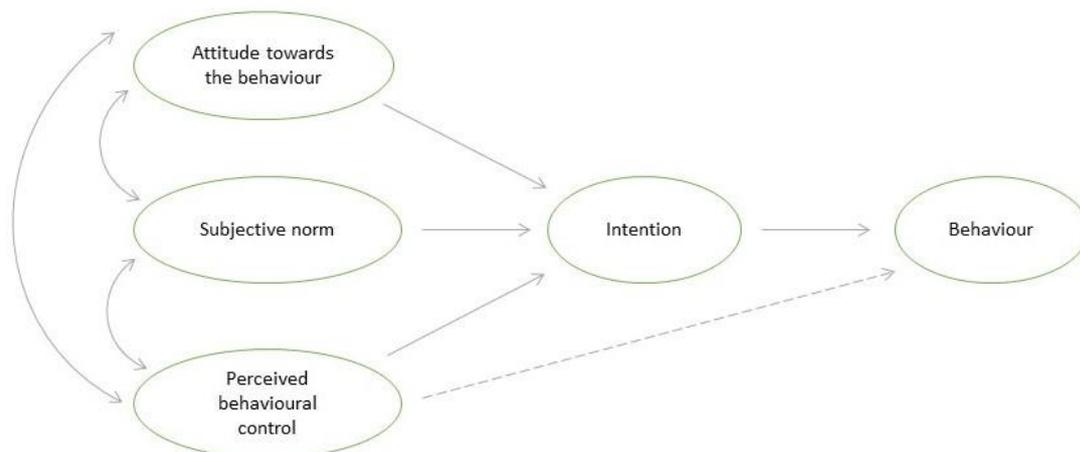


Figure 1. Theory of planned behaviour (Adapted from Ajzen 1987)

The theory of planned behaviour states that an individual's behavioural intentions and actual behaviour are shaped by three factors; *attitudes towards behaviour*, *subjective norms* such as perceived social pressure and *perceived behaviour control* (Ajzen, 1985; 1987). Figure 1 presents the elements of the theory of planned behaviour and their relations to each other. Perceived behavioural control is an important part of the theory of planned behaviour because it refers to the individual's perception how easy or difficult it would be to perform a certain behaviour. The theory of planned behaviour differs from the theory of reasoned action by an addition of perceived behavioural control.

Behavioural expectations are more likely to accurately predict the actual behaviour more closely than the behavioural intentions (Ajzen, 1985). Behavioural expectations refer to a difference between what the individual intends to do and what they actually will do. According to the theory, there are three elements which affect how likely an individual is to perform a certain behaviour (Ajzen, 1985). Firstly, the individual needs to intend to try a behaviour. Secondly, the individual believes that nearest people agree that he/she should try it and last, the

individual should believe that he/she can control the behaviour (Ajzen, 1985). Furthermore, beliefs and an individual's assumption of success or failure regarding the behaviour plays an important role in how motivated the individual will be to try the certain behaviour (Ajzen, 1985).

The theory of planned behaviour is applied in studies to examine consumers' purchasing intentions towards sustainable apparel products. Phau, (Teah and Chuah, 2015) used TPB as a framework to investigate consumers' attitudes towards luxury fashion apparel which is made in sweatshops. In their framework, one of the main elements was a social pressure which individuals face when performing a particular behaviour (Phau, Teah and Chuah, 2015). Kang, (Liu and Kim, 2013) investigated young consumers' attitudes, perceptions, and behavioural intentions towards a consumption of environmentally sustainable textile and apparel products in three markets: the US, South Korea and China. In their study, there were three areas (consumer knowledge, perceived consumers effectiveness and perceived personal relevance) incorporated in the TPB model (Kang, Liu and Kim, 2013). Cowan and Kinley (2014) explored US consumers' environmental knowledge, environmental concern, and attitude towards environmentally friendly apparel. By using TPB as a framework Cowan and Kinley (2014) gained insights about consumers' purchasing intentions towards environmentally friendly apparel.

### 3 Methodology

*The following chapter presents the methodology of how this study was designed and conducted. At the beginning, the research approach will be described. The research method, data collection process and analysis will be presented. Finally, reliability and validity of this study will be discussed.*

#### 3.1 Research approach and research design

The present study is based on four hypotheses describing consumer behaviour related to clothing purchases and sustainability. A research which explores a phenomenon through hypothesis and tests if a theory is valid in given circumstances adapts the deductive research approach (Research Methodology, 2016b). In the deductive research approach, hypotheses are deduced from existing literature and theories and will be confirmed or rejected in an empirical study (Bryman and Bell, 2015). The theory might be revised if findings of the research do not confirm it (Bryman and Bell, 2015).

A descriptive research design is considered to fulfil the purpose of this study, which is used to describe various aspects of the phenomenon and its characteristics, such as consumer attitudes or behaviour in a specific group (Nassaji, 2015; Research Methodology, 2016c).

Descriptive research can be conducted either with a quantitative or a qualitative research strategy and it aims to discover what happened rather than how or why it happened (AECT, 2001; Nassaji, 2015). This study has adopted a quantitative strategy, using a questionnaire for primary data collection. The questionnaire is a typical data collection method for the descriptive research design (Research Methodology, 2016c). The quantitative strategy provides a description of phenomena with a data which can be measured numerically (AECT, 2001; Lewin, 2005). Furthermore, descriptive is an effective research design for analysing non-quantified subjects and studies that strive to find out implications and relationships (AECT, 2001; Research Methodology, 2016b). Since this study aims to describe consumers' perception of sustainability, it is considered that the descriptive research design will provide an appropriate explanation of the phenomena.

#### 3.2 Research method

*This chapter will explain in detail how the study was conducted. It provides a reasoning for a chosen research method and descriptions for a development of a questionnaire and a sampling method. The data analysis method is discussed later in this section.*

##### 3.2.1 Questionnaire

A questionnaire is a research method which allows asking the same questions to a large number of respondents at the same time (Bryman and Bell, 2015). In social sciences, it has been used to explore people's attitudes and opinions on a variety of topics. For this current study, a self-completion questionnaire was conducted to understand consumers' attitudes and perception towards sustainability in the apparel industry.

The conducted consumer survey was a web-based self-completion questionnaire which enables a gathering of a large number of people with different backgrounds (Bryman and Bell, 2015). However, the use of web-based surveys limits responses to the participants who are using the Internet in their everyday lives (Bryman and Bell, 2015). This study was conducted in Sweden and in Finland, where the use of the Internet is on a high level and growing continually. In Sweden, 93% of the residents used the Internet in 2016 (IIS, 2016). In Finland, the corresponding figure was 88% in the same year (Statistics Finland, 2016).

In terms of questionnaire design, a web survey provides a wide variety of appearance features (Bryman and Bell, 2015). Furthermore, collected data can be transferred automatically to the database which reduces the failure of data coding (Bryman and Bell, 2015).

The self-completion questionnaire refers to a survey which respondents complete by themselves (Bryman and Bell, 2015). The method is more convenient for respondents than structured interviews because it allows them to answer the questionnaire when it suits them and in what time they need (Bryman and Bell, 2015). From a researcher's perspective, the self-completion questionnaire requires less time compared to structured interviews (Bryman and Bell, 2015; Lewin, 2005). However, it might take several weeks to gather a sufficient amount of responses to the questionnaire (Bryman and Bell, 2015).

There are several additional advantages of the chosen research method. First, a web-based questionnaire provides complete anonymity for the respondents, if their contact details are not collected while completing the questionnaire (Lewin, 2005). This means it is not possible to link the responses to participants afterwards. According to Niinimäki (2010) consumers are more likely to give positive and socially correct answers when asked about attitudes and purchasing behaviour towards sustainability. By ensuring the anonymity for respondents, it can be assumed that they are more likely to answer truthfully to the questionnaire (Bryman and Bell, 2015). Secondly, respondents can complete the questionnaire without the pressure of an interviewer's attendance. It has been demonstrated that the interviewer's personality may affect a person's way to answer questions (Bryman and Bell, 2015).

The biggest challenge for the self-completed questionnaire is making it as easy to understand as possible. Respondents cannot ask for any help or assistance if they have difficulties in completing the questionnaire (Lewin, 2005; Bryman and Bell, 2015). Moreover, the length of the questionnaire cannot be too long, otherwise, the respondents lose interest and will not complete it (Bryman and Bell, 2015). Unfamiliar terms and foreign language could lead to misunderstandings of questions and bias in the data. In order to reduce the risk of language-based misunderstandings, there were two language versions of the survey in this study: Swedish and Finnish versions allowed respondents to use their first language. This possibility is an advantage which leads to more honest answers and reduces the risk of misunderstandings. It could be assumed that people are more willing to answer questionnaires in their first language.

Besides designing the survey to be as easy to complete as possible, it is also important to avoid missing data. According to Bryman and Bell (2015), this risk is smaller when conducting a web-based survey. It is demonstrated that there are less unanswered questions in the web surveys than postal questionnaires (Bryman and Bell, 2015). In order to reduce the risk of missing data in this study, all questions were qualified as mandatory, except one open-question of clothing stores which respondents avoided consciously.

## Questionnaire Development

A questionnaire about consumers' shopping behaviour and attitudes towards clothing purchases and sustainability was developed by the author and based on the four hypotheses, which are presented in the chapter 1.5 1.5 Research question and hypotheses development. Twenty-five statements and questions were developed by using the existing literature to assess respondents' clothing purchasing behaviour, habits, and interest in sustainability. Demographic questions were included in the beginning of the survey.

The questionnaire was created by using an online survey tool called *Google Forms*. Furthermore, a web domain and website were created for the research purpose. One's own website was considered more convenient and professional for sharing the survey. A brief description of the study was provided on the website before the respondents could click the "start the survey" button, which then led to the Google questionnaire. The conducted questionnaire, with the translation in English, can be found in Appendix 1.

There were four main statements in the survey, which are based on the hypotheses:

- *"I reflect on sustainability (environmental and social impact) when shopping for clothes."*
- *"I am a person who pays attention to apparel companies who communicate about their sustainability practices."*
- *"I am aware of the apparel brand's sustainability practices in the apparel industry."*
- *"I appreciate clothing companies that are open about their values, production and origin."*

In order to confirm or reject the main statements, several statements about participants actual behaviour and interest about clothing purchases were asked. Respondents were asked to rate the statement in a 6-point Likert-scale with 1 representing "strongly disagree" and 6 "strongly agree". According to Lewin (2005), the 6-point scale forces respondents to express an aspect which they prefer. It was desired that respondents would express their opinion either as positive or negative, which would not be possible with the most commonly used 5-point scale, where the mid-rating means a neutral stance. Therefore, the 6-point scale is considered as a suitable measurement method for this study. Except for the one open-ended question, closed statements and questions were used in this survey, as they are quick to answer and easy to analyse with statistical methods (Lewin, 2005).

People's awareness and knowledge towards sustainability were investigated in several ways. Participants were asked to rate several factors in terms of what they value when purchasing clothing, what sustainability means to them and what they are interested in knowing when shopping for clothes. Furthermore, two statements handled participants' recognition of eco-labels. Before starting, participants were informed that it will take approximately five to ten minutes to complete the survey. The structure of the questionnaire and a relationship between statements and theories are summarised in Table 1 below.

Table 1. Structure of the questionnaire

Structure of questionnaire	Question/ Statement	Theoretical Connection	Type of Question
Profile of respondent	Gender	-	Multiple choices
	Age	-	Multiple choices
	Education	-	Multiple choices
	Current position	-	Multiple choices
Purchasing clothes	1	Buying Behaviour	Multiple choices
	2	Buying Behaviour	Multiple choices
	3	Buying Behaviour	Multiple choices
	4	Buying Behaviour	Open-ended
Consumers attitude towards sustainability	5	Consumer awareness	Likert-scale
	6	Buying Behaviour	Likert-scale
	7	Buying Behaviour	Likert-scale
	8	Consumer awareness	Likert-scale of 12 objects
	9	Buying Behaviour	Likert-scale
	10	Buying Behaviour	Likert-scale
Consumers awareness and knowledge about sustainability	11	Buying Behaviour	Likert-scale
	12	Consumer awareness	Likert-scale
	13	Consumer awareness	Likert-scale
	14	Consumer awareness	Likert-scale
	15	Consumer awareness	Likert-scale
Consumer perception of sustainability	16	Consumer awareness	Likert-scale
	17	Consumer knowledge	Likert-scale
	18	Consumer knowledge	Likert-scale
	19	Consumer knowledge	Multiple choices
	20	Consumer knowledge	Likert-scale + "I don't know"
Consumer perception about transparency	21	Consumer knowledge	Likert-scale of 8 objects
	22	Consumer awareness	Likert-scale
	23	Consumer awareness	Likert-scale
	24	Consumer awareness	Likert-scale
	25	Consumer awareness	Likert-scale of 6 objects

The majority of scale measures were based on existing literature, while the author created the rest of the statements. Table 2 provides the information of the used scale measures and their connection to the existing literature.

Table 2. Sources of measurement scale items

Scale measure	Source	Number of statements
Sustainable purchasing behaviour	Kozar & Hiller Connell (2010)	1
	McNeill & Moore (2015)	1
Preferences in clothing purchases	Niinimäki 2010)	1
	Kim & Damhorst (1998)	1
	Dickson (1999)	2
Awareness of sustainability communication	Kim & Hiller Connell (2010)	6
Awareness and knowledge of sustainability	Dickson (2000)	1
	McNeill & Moore (2015)	1

A Swedish version of the questionnaire was developed first and it was reviewed and pre-tested by ten people. Based on their comments, the questionnaire was modified with a few adjustments: an explanation of sustainability was added to one statement, the order of statements was changed, and the explanations of Likert-scale was turned in the more common order. Just before publishing, the survey was pre-tested once more by one person. According to Lewin (2005), piloting is a crucial part of questionnaire design in order to avoid potential pitfalls such as ambiguous questions and technical errors.

Both language versions of the survey were created by the author. The author is a fluent Finnish speaker and has a good knowledge of Swedish as well. Therefore, both questionnaires can be seen as equal in content.

The survey was available for a duration of four weeks in the period from 30<sup>th</sup> of May 2017 to 26<sup>th</sup> of June 2017. The major part of responses was collected during the first week. A total of 423 surveys were completed, whereof 160 were from the Swedish version and 263 from the Finnish version.

### 3.2.2 Sampling method

Convenience sampling refers to people which the researcher has a simple access to and who are requested to participate in the study (Lewin, 2005; Bryman and Bell, 2015). It is a type of non-probability sampling, where the sample has not been collected by using a random sampling method (Bryman and Bell, 2015). Non-probability sampling is often used in a small-scale research and when the research is not aiming to generalise findings to population (Lewin, 2005).

Convenience sampling is widely used in the field of consumer behaviour for collecting primary data of consumer perception (Bryman and Bell, 2015; Research Methodology, 2016a). The aim of this study is to reach out to a large group of different people who are living in Sweden and in Finland and explore their views and perception of sustainability in the apparel industry. Previous studies (Simpson and Radford, 2012; Kozar and Hiller Connell, 2012; Ritch, 2015) in the same area have used convenience sampling, which suggests that this could be an appropriate sampling method for this study.

More specifically, the convenience sample for this study was collected through a snowball sampling method using e-mails and social media. In snowball sampling, participants have connected to each other in a way where they recommend other individuals to participate in the research (Lewin, 2005; Research Methodology, 2016d). In this study, the survey was distributed to friends and acquaintances via e-mail and social media. They were also requested to share the link with their acquaintances in order to avoid limitation to the author's acquaintanceships and get a sample that is as big as possible. The link to the survey was also shared in several groups on Facebook and a blogger shared the link in her blog post.

### 3.2.3 Data analysis method

The collected primary data from both language versions of the survey were combined and summarised in Microsoft Excel. The main data analysis of this study was made with a computer software called IMP SPSS (Statistical Package for the Social Science) Statistics (version 24). Some initial analysis was also done using Microsoft Excel. In the field of social sciences, the IMP SPSS Statistics is one of the most used software for conducting quantitative data analysis (Bryman and Bell, 2015). The IMP SPSS Statistics was chosen for data analysis based on its commonness in the field.

Preliminary data analysis consisted of analysing the frequency of respondents' demographic profile. A frequency analysis including mean and standard deviation was made for the statements. These statistics were used as descriptive statistics giving an overview of the collected data.

In order to evaluate the relationship between consumers' attitude and sustainability, the regression analysis was conducted. Regression analysis is a statistical tool which investigates relationships between two or more variables (Sykes, 1993). It can also provide a description of phenomena of interest (Jones, 2005). The relationship between two variables can be presented with scatter plots, but also with a numerical index: the correlation coefficient (Howitt and Cramer, 2011). The correlation coefficient may be both positive and negative where values vary from 0 to 1 (Howitt and Cramer, 2011).

Regression analysis requires that variables are quantifiable: interval or ration scale variables (Jones, 2005; Lind, Marchal and Wathen, 2010). The variables in this study were based on 6-point Likert-scale, were 1 stood for strong disagreement and 6 for strong agreement with the statement. There is a discussion whether Likert-scale variables are ordinal or interval type of variables within the research field (Blaikie, 2003). This study has adopted a common view where the categories are discrete and identical across the Likert-scale, which means that variables are interval variables (Blaikie, 2003; Bryman and Bell, 2015).

According to Bryman and Bell (2015), Pearson's  $r$  is the method for analysing the relationship between two interval variables. As a type of correlation coefficient, Pearson's  $r$  ranges also from -1 to 1, where a value of 0 means no relationship and 1 a perfect (positive or negative) relationship (Howitt and Cramer, 2011; Bryman and Bell, 2015). This reflects the strength of the relationship whereas positivity or negativity indicates the direction of the relationship (Bryman and Bell, 2015).

In the present study, the purpose was to see if there is a relationship between consumers' attitude towards sustainability and their actual behaviour when purchasing clothing. This study does not predict how consumers' attitude affect their purchasing behaviour, however, the study uses correlation coefficients to understand the strength and relationship between variables.

The data analysis follows the same structure which was used in the questionnaire. This is also how concepts are presented later in this written report. Based on hypotheses the following sections are:

- Consumers' attitude towards sustainability
- Consumers' awareness and knowledge about sustainability
- Consumers' perception of sustainability
- Consumers' perception of transparency

When conducting a quantitative study, it is important to consider the confidence of results, which means whether the results are real or just a change influenced by the sample (Barnes and Lewin, 2005). Statistical significance tests this relationship between the sample and the population and shows how confident the results of the study are (Bryman and Bell, 2015). Statistical significance is typically evaluated by calculation of different probability levels and presented by p-value (Barnes and Lewin, 2005; Bryman and Bell, 2015). In the social sciences p-value of 0.05 is widely used (Barnes and Lewin, 2005) and thus also chosen for the level of

significance in the present study. The significance level of  $p < 0.05$  implies that there are less than 5 chances in 100 for a sampling error (Barnes and Lewin, 2005; Bryman and Bell, 2015).

### 3.2.4 Ethical considerations

A research which examines people requires particular attention to the research ethics. According to Bryman and Bell (2015), it is crucial to be aware of ethical principles when conducting a business research. Therefore, several ethical considerations have been applied in this study. Ethical principles in business research contain four main areas; harm to participants, lack of informed consent, an invasion of privacy and deception (Bryman and Bell 2015). All of these are more or less relevant to this study.

The main ethical consideration in social science is to avoid any harm to the participants (Bryman and Bell, 2015). In the survey research, the possible harm is mainly related to anonymity. In this study, contact information of participants was not collected at all, which means that it is impossible to know who answered the questionnaire. There is a link between anonymity and invasion of privacy (Bryman and Bell, 2015). Some people may be sensitive to some topics (Bryman and Bell, 2015) and therefore, research should be considerate of this sensitivity.

Researchers need to contemplate how much information about the research they need to share with participants beforehand. It is necessary to provide enough information for participants that they are able to make a decision whether or not to participate in the research (Bryman and Bell, 2015). It should also be communicated; how much time is required for a participation in the research (Bryman and Bell, 2015). In this study, respondents were asked to participate in the online survey about clothing purchasing and buying behaviour. Additional information of how much time it would approximately take to conduct the survey was provided in the letter as well as at the beginning of the survey.

Sometimes the researcher desires to limit participants' understanding of the actual motivation of the research in order to get more natural answers (Bryman and Bell, 2015). Bryman and Bell (2015) state that deception, which relates to issues where a research is presented as something other than what it actually is, is a wide-spread phenomenon study in social science. According to Niinimäki (2010) people tend to give socially correct answers when it comes to sustainability, therefore the sustainability aspect of this study was not mentioned beforehand.

Based on the sampling method, the author received a few comments about the survey afterwards. Some participants told that the survey made them consider their clothing purchases more. Even, bad consciousness and limited knowledge of sustainability in the apparel industry was mentioned. The questionnaire might raise interest towards the topic among respondents, however, the educational aspect was not the purpose of the survey and is thus beyond the scope of the research.

## 3.3 Reliability and validity

Reliability and validity are the criteria for evaluating the quality of a study and they are fundamentally concerns in a quantitative research (Bryman and Bell, 2015). Both reliability and validity measure a concept and seem to be often synonyms, but they do differ in terms of how they evaluate concepts (Bryman and Bell 2015). Reliability refers to the consistency or stability of a measure, while validity refers to the integrity of the measure (Lewin, 2005; Bryman and Bell, 2015).

### 3.3.1 Reliability

Reliability means that the results of a study are repeatable and consistent (Lewin, 2005; Bryman and Bell, 2015). There are three different factors of reliability; stability, internal reliability, and inter-rater reliability. Stability refers to how stable the measurement is if it would be used on another occasion (Bryman and Bell, 2015). In this study, the measurement refers to the respondents who took part in the conducted web-based questionnaire. In order to achieve stability, the study aimed to get a as wide selection of respondents as possible. The questionnaire did not target the specific group of people and therefore it was shared with acquaintances with different backgrounds. Furthermore, respondents were asked to share the questionnaire further with their acquaintances. To get an overview of respondents, the initial questions regarding gender, age, education, and occupation were included in the beginning of the questionnaire.

Internal reliability refers to a consistency of different measures (Bryman and Bell, 2015). In this study, internal reliability refers to how different statements in the questionnaire measure the same issue. An example showing the internal reliability of this study are the statements “*I check the country of origin of the garment before I buy it*” and “*I am not interested in where and how my clothes are made. The main thing is that I like the garment*”. Both statements measure consumers’ interests of the origin of the garment. Usually, internal reliability is tested by using Cronbach’s alpha (Bryman and Bell, 2015). Nevertheless, Cronbach’s alpha was not applicable to use in this study, because statements were not possible to get into pairs. Instead, the regression analysis was used to measure the correlation between main statements and supportive statements.

### 3.3.2 Validity

Validity refers to the consistency of the measure, which means if a chosen measure collects appropriate data to answer the research purpose (Lewin, 2005; Bryman and Bell, 2015). Measurement validity can be established in several ways: face validity, concurrent validity, predictive validity, construct validity, and convergent validity (Bryman and Bell, 2015). Face-validity refers to an issue where the measure reflects the content that it should measure (Bryman and Bell, 2015). In this study, ten people with experience in the field pre-tested and commented the questionnaire in order to increase face validity.

Construct validity relates to a measurement’s suitability to measure the intended concept or phenomenon (Research Methodology, 2016e). In other words, construct validity tests if the theory, where hypotheses are deduced, is relevant to make research of the phenomenon (Bryman and Bell, 2015). In this current study, construct validity was acquired through a literature review of relevant academic research. The literature review gave insights of the research area and built the base of the current study. Several studies in the same field have used Ajzen’s (1991) TPB theory to explain consumers’ perception of sustainability, therefore TPB theory can be considered as an appropriate theory also for this current study.

## 4 Results and Analysis

*In this chapter, the results of this study will be presented. An overview of the sample is presented at the beginning of the chapter, followed by descriptive data where the most significant results from the questionnaire are described. These results are divided into four parts: consumers' attitude towards sustainability, consumers' awareness and knowledge of sustainability, consumers' perception of both sustainability and transparency. In the last part of this chapter, statistical analysis will be conducted with the results of this study.*

### 4.1 Overview of the sample

A total of 423 respondents participated in this study by completing the web-based survey. All responses were usable for the study. All in, 343 females and 80 males participated in the study. The majority, 40.9%, of respondents, were aged between 20 and 29 years. Additionally, the majority of respondents were highly-educated, 66.4% of respondents had a degree from a college or a university. Further, most respondents, 64.8%, had a full-time job during the completion of the survey. The biggest group of respondents (26.2%) were females aged between 20 and 29 years with an educational background at college or university. Table 3 below provides a full summary of respondents' demographic profiles.

Table 3. Profile of respondents

		Frequency <i>n</i> = 423	Percent
<b>Gender</b>	Female	343	81.1 %
	Male	80	18.9 %
<b>Age</b>	–19	13	3.1 %
	20–29	173	40.9 %
	30–39	87	20.6 %
	40–59	129	30.5 %
	60–	21	5.0 %
<b>Education</b>	Elementary school	8	1.9 %
	Upper secondary school	119	28.1 %
	College / University	281	66.4 %
	Vocational school	11	2.6 %
	Other	4	1.0 %
<b>Current position</b>	Employee, full-time	274	64.8 %
	Employee, part-time	39	9.2 %
	Job applicant	24	5.7 %
	Student	71	16.8 %
	Retiree	15	3.6%

Typically, in a survey research in social sciences, the percentage of people who agree to participate in a study is calculated and expressed with a response rate (Bryman and Bell 2015). The response rate for this study was impossible to constitute due to an online based sampling method where it is impossible to know the amount of the people who saw the invitation. This is aligned with Bryman and Bell (2015) who stated that for online surveys it is nearly impossible to calculate the response rate. Nevertheless, the collected sample, 423 responses, can be seen significant enough for this study to represent a group of different consumers who are living in Sweden and in Finland.

In addition to the respondents' demographics, questions regarding their clothing purchasing habits were asked at the beginning of the questionnaire. Questions of how often and where the participants purchase clothes provide an insight into their clothing purchasing behaviour. Answers to these questions are summarised in Table 4 below. The majority of respondents (54.8%) shop for clothing less frequently than every month, but several times a year. This is followed by 42.8% of the respondents who purchase clothes every month, but not every week. Furthermore, the majority of respondents (64.3%) mainly purchase their clothing from stores and department stores. Only about one fifth, 18.4%, of the respondents, mainly purchase clothes from the Internet.

Table 4. Respondents' clothing purchasing behaviour

		<b>Frequency</b> <i>n</i> = 423	<b>Percent</b>
<b><i>Approximately how often do you shop for clothes?</i></b>	Every week	9	2.1%
	Every month, not every week	181	42.8 %
	Every year, not every month	232	54.9%
	Almost never or almost not at all	1	0.2%
<b><i>Where do you mainly purchase your clothes?</i></b>	Shop & department store	272	64.3%
	Internet	78	18.4%
	Second hand	50	11.8%
	Outlets, markets & sales	23	5.4%

The last question regarding respondents' clothing consumption and purchasing behaviour mapped if the respondents have some clothing stores or chains which they avoid deliberately. This question was not mandatory to answer, which led to over one-third of the respondents (40.2%) to leave this question without an answer. The type of answer varied in this open question from a short "yes" or "no" to a longer description of their own purchasing behaviour and preferences. 34.0% of the respondents expressed in some way that they do not shop for clothing in certain stores. Fast fashion was mentioned in many answers in this category, several of them stated ethical issues as one of the reasons for their decision. Some of the respondents stated that they are curious about materials and therefore they shop in certain stores. Bad consumer experience, difficulties with sizes and expensive prices were also mentioned as a reason behind not shopping at certain stores. However, 24.8% of the respondents stated that they do not deliberately avoid any store.

## 4.2 Descriptive data

The respondents were asked to take a stand for different statements related to sustainability in the apparel industry, their apparel purchasing behaviour and their habits to search sustainability information for garments in the web-based survey. Furthermore, attributes which the respondents pay attention to when shopping for clothes and factors what they would like to know before a purchasing decision is made, were asked in the survey. The respondents rated the statements with 6-point Likert-scale where 1 represented strongly disagree/not at all important and 6 meant strongly agree/extremely important. The most significant results from the survey are presented in the following chapters, separated into four main themes of this study.

4.2.1 Attitude towards sustainability

This first part of the results focuses on consumers’ attitude towards sustainability and their purchasing behaviour. Furthermore, it explains factors which consumers prefer when they are shopping for clothes. The result of the first main statement shows that consumers do not pay that much attention to the sustainability when they purchase clothing. 76.4% of the respondents valued between strongly disagree and slightly agree with this statement. While 8.7% of the respondents gave the highest value, 6 – strongly agree, for the statement. The frequency of the responses for the statement “I reflect on sustainability (environmental and social impact) when shopping clothes” is shown in Figure 2 below.



Figure 2. Attention to the sustainability when shopping clothes – Question 5

In the following two statements, the respondents were asked to rate whether they pay attention to the garment’s material and producing country origin before making a purchasing decision. The majority (35.2%) of the respondents strongly agreed that they look at the material before buying a garment. This is followed by 22% of the respondents who valued 5 – agree with this statement. The minority of respondents (6.1%) do not look at the material marking before making a buying decision (see Figure 3 below).

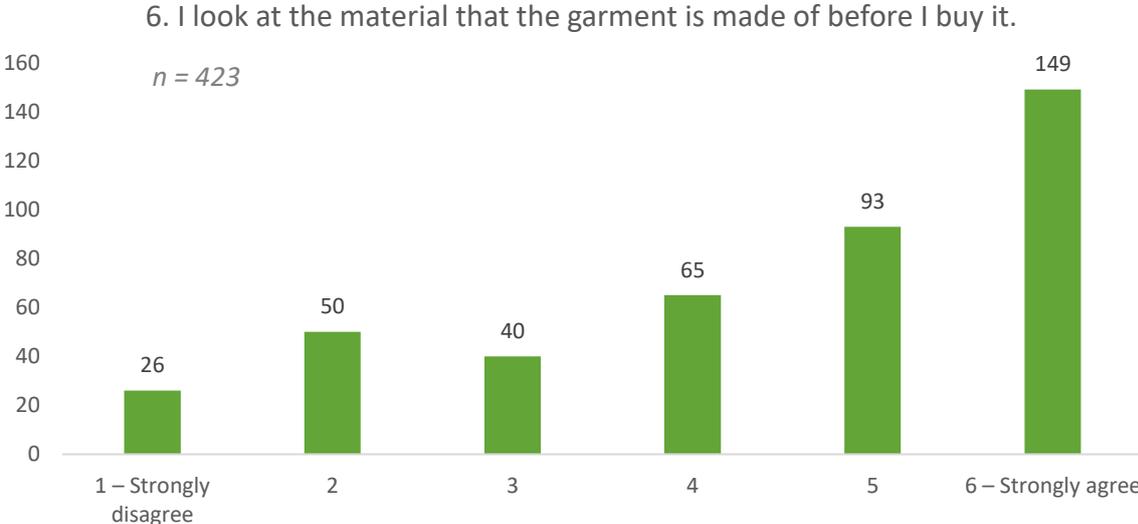


Figure 3. Interest towards garment’s material before purchasing decision – Question 6

The result for the seventh question shows that the consumers have a low interest towards the country of origin when they are shopping for clothes. Over half of the respondents, in total 61.5%, marked their answers to the disagreeing side (items from one to three) of the scale. Whereas 38.6% of the respondents valued their answers to the agreeing side of the scale. It can be interpreted that the information of the country of origin is not meaningful to the respondents (see Figure 4 below).

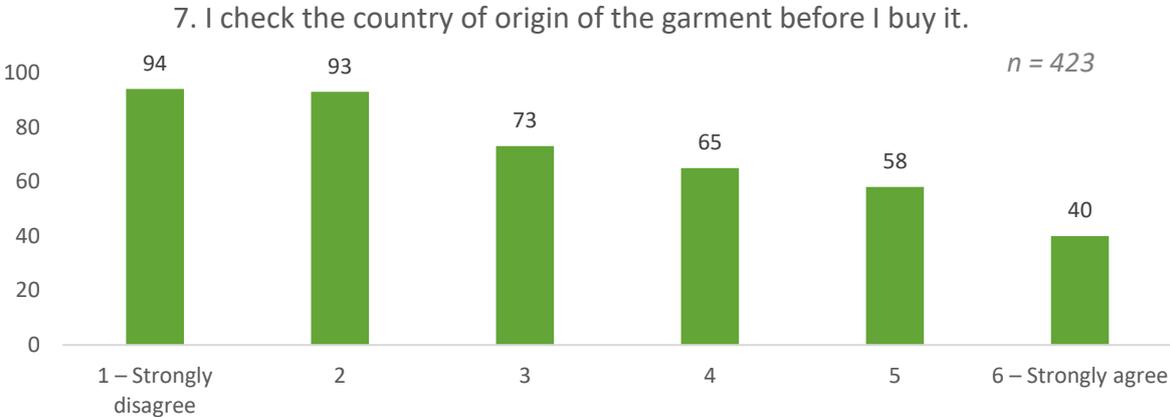


Figure 4. Interest towards the country of origin of the garment – Question 7

In the following question, the respondents were asked to value how important 12 given attributes are for them when shopping for clothes. The results show that the respondents value the garments’ physical attributes over sustainable factors. The most valued attribute was fit which 55.8% of the respondents valued as extremely important. This is followed by style, quality, and durability/timeless design. The style was valued as an extremely important attribute by 41.4% of the respondents, quality by 32.6% and durability by 23.9% of the respondents. The brand, eco-labels, country of origin and ethical production, were not that important for most of the respondents (see Figure 5 below). Around one-fourth of the respondents valued brand, eco-labels, country of origin and ethical production as not at all important attributes when shopping for clothes.

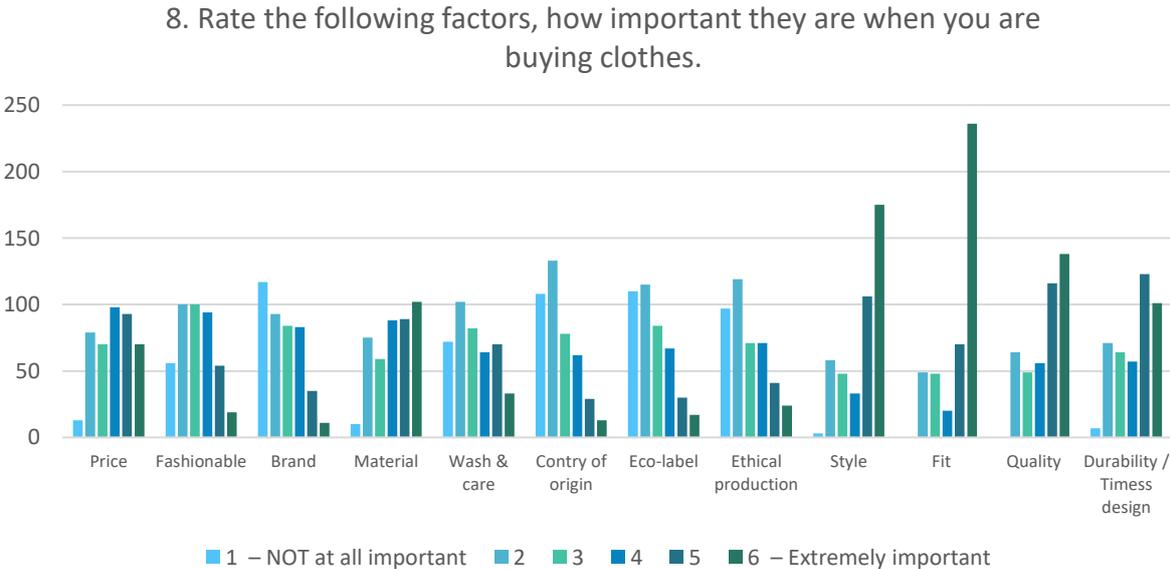


Figure 5. Importance of 12 attributes when purchasing clothes – Question 8

Statements nine and ten explored how the respondents appreciate better quality in clothing and if they prefer quality over quantity. The results show that the respondents tend to prefer clothing in better quality which they can use for a long period of time. In total 75.4% of the respondents selected to agree and strongly agree with the statement nine about classic style clothing. Only 1.4% of respondents valued strongly disagree to this statement. It can be interpreted that the respondents want to use their clothing for a long period of time (see Figure 6 below.)

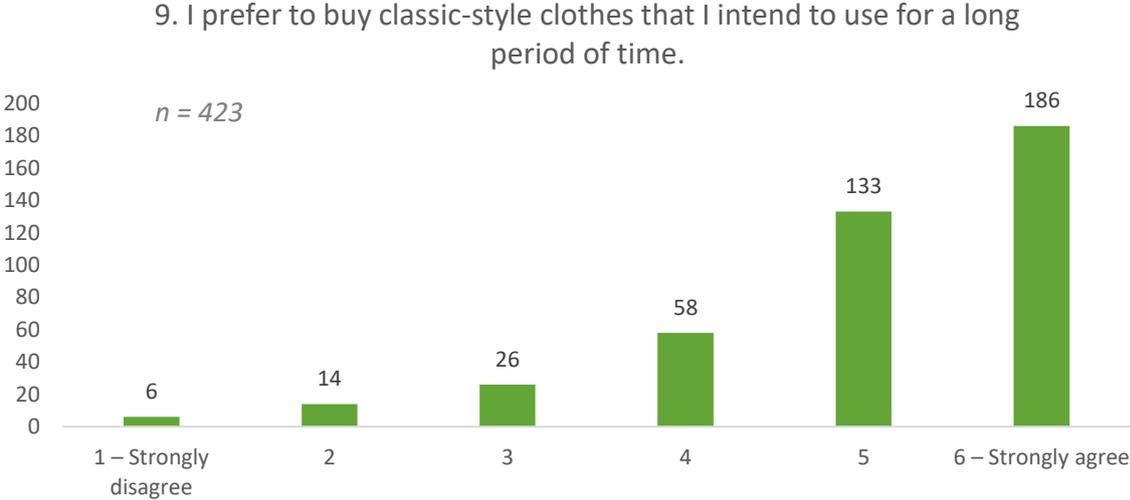


Figure 6. Interest towards clothing to use for a long period of time – Question 9

Similarly, the majority of the respondents, in total 55.3%, strongly disagreed or disagreed with the statements if they prefer to buy three t-shirts with a little simpler quality than one t-shirt of better quality if the cost was the same. This statement was formulated in a way where a more sustainable purchasing behaviour was on the disagreeing side of the scale. Therefore, strongly agree meant in this statement less sustainable behaviour. There was 5.3% of the respondents who stated strongly agree with this statement which can be interpreted that only a minority of the respondents prefer quantity over quality (see Figure 7 below).

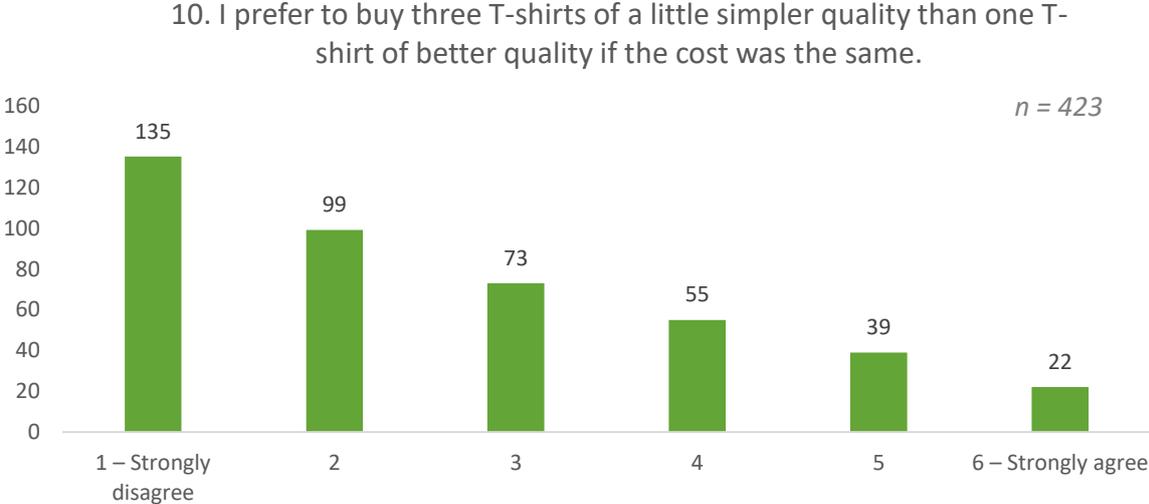


Figure 7. Purchasing preference: quality or quantity? – Question 10

The last question of the first section of the questionnaire was a control question about respondents' interest towards the origin of a garment. This question was formulated "I am not interested in where and how my clothes are made" which means that more favourable attitude towards sustainability is on the negative side of the scale. The majority of the respondents (75.2% valued from 1 to 4) expressed that they are interested in where their clothes are made while 9.2% of the respondents agreed that they prefer the appearance of the garment over the origin of the garment (see Figure 8 below).

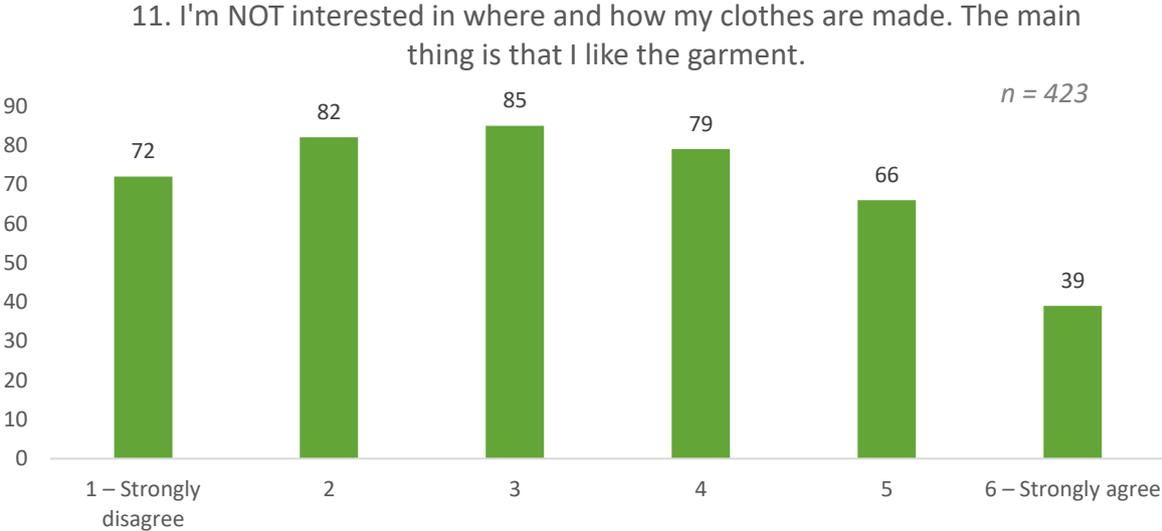


Figure 8. Interested towards an origin of a garment – Question 11

Overall, the results from the first section of the questionnaire show that consumers have a favourable attitude towards sustainability, but they do not consider sustainability when shopping for clothes. When it comes to purchasing garments, physical attributes such as fit, style and quality dominate. The country of origin, eco-labels, and brand are less important for the respondents. The majority of the respondents do not pay attention to the country of origin when shopping for clothes. However, they are interested in the material and they prefer to use clothing for a long period of time.

4.2.2 Awareness and knowledge of sustainability

The second section of the survey was addressing how aware the respondents are about sustainability and if they have searched for information about sustainability and companies' sustainability practices within the apparel industry. The respondents were asked if they have searched for information about brands' sustainability practices from their websites and if they have asked about sustainability in stores.

The results show that distribution of responses is very spread for the second main statement "I am a person who pays attention to apparel companies who communicate about their sustainability practices". The majority of the responses (in total 76.8%) are in the middle of the scale with an emphasis on the positive side of the scale. Furthermore, there are the same amount of the respondents (11.6%) valued with strongly disagreement and strongly agreement with this statement (see Figure 9 below).

12. I am a person who pays attention to apparel companies who communicate about their sustainability practices.

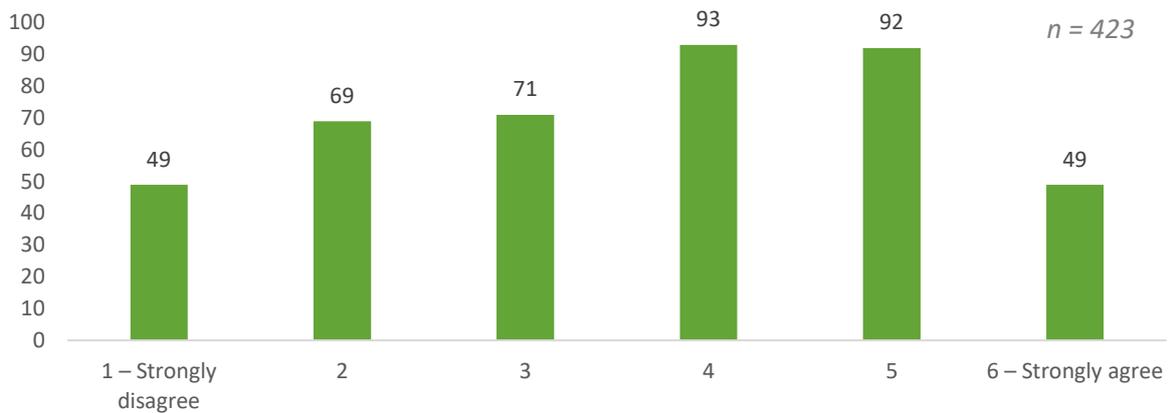


Figure 9. Attention to apparel companies' sustainability communication – Question 12

In the following four statements, the respondents were asked to take a stand for if they have searched information about the environmental impact of an apparel product or if they have searched for information about any brand's sustainable business practices from the website or in a store environment. The results show that the respondents do not search sustainability information actively from websites. The majority of the respondents (44.4%) have not searched for information about the environmental impact of an apparel product. Only 5.4% of the respondents strongly agreed with the statement 13 (see Figure 10 below).

13. I have searched for information about the environmental impact of an apparel product.

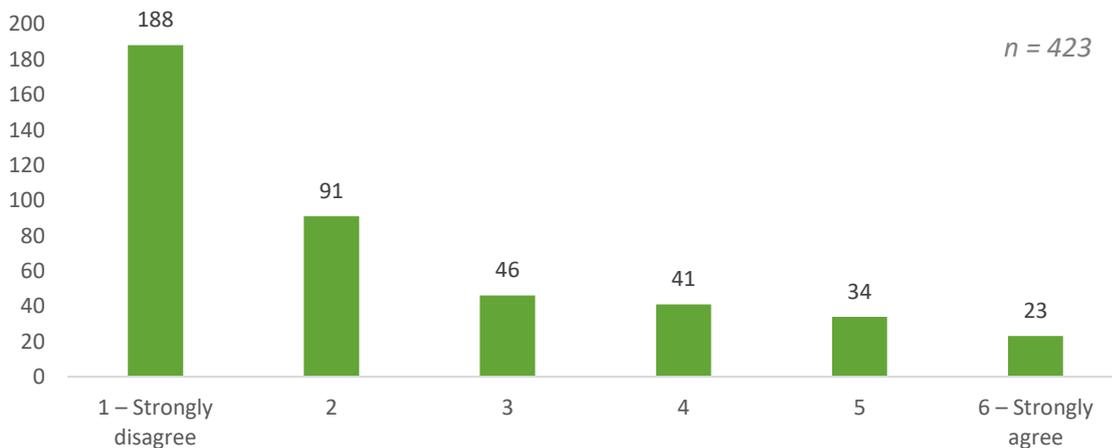


Figure 10. Searching for information about the environmental impact of a garment – Question 13

Equally, with the results from the first section of the questionnaire, the results of the statement 14 show that the respondents are not that interested in information about the manufacturing of garments. The results show that the majority of the respondents (39.5%) have not searched for information on where apparel companies manufacture their products. In total, less than one-fifth of the respondents strongly agreed (7.3%) or agreed (9.5%) that they have examined where apparel brands produce their products (see Figure 11 below).

14. I have searched for information on where (in which country) the apparel company manufactures its products.

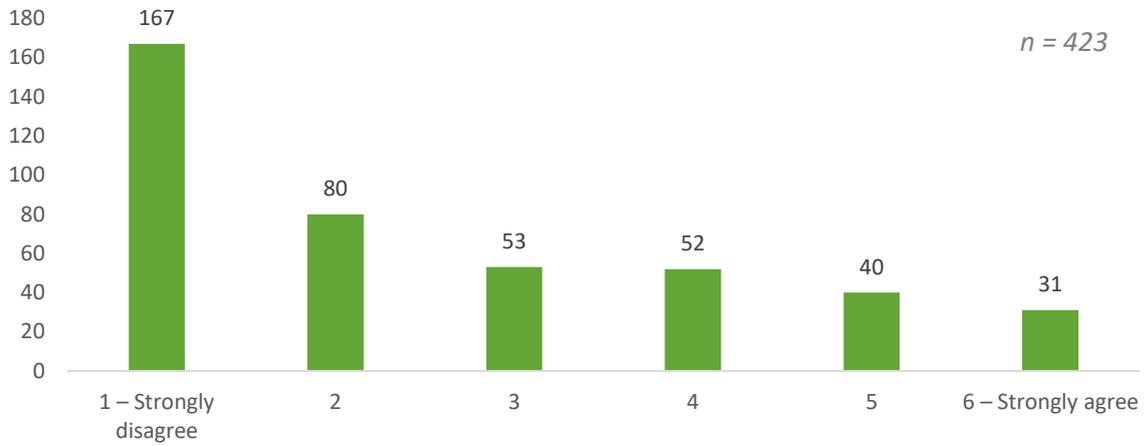


Figure 11. Searching for information about the manufacturing of garments – Question 14

The statement 15 explored if the respondents have visited in the sustainability section of an apparel company’s website. The result shows that over one-third of the respondents (43.0%) do not visit the sustainability pages on apparel companies’ websites, while 14.2% of the respondents have read some general information regarding apparel brands’ sustainability practices (see Figure 12 below).

15. I have visited an apparel company's website and read about sustainability.

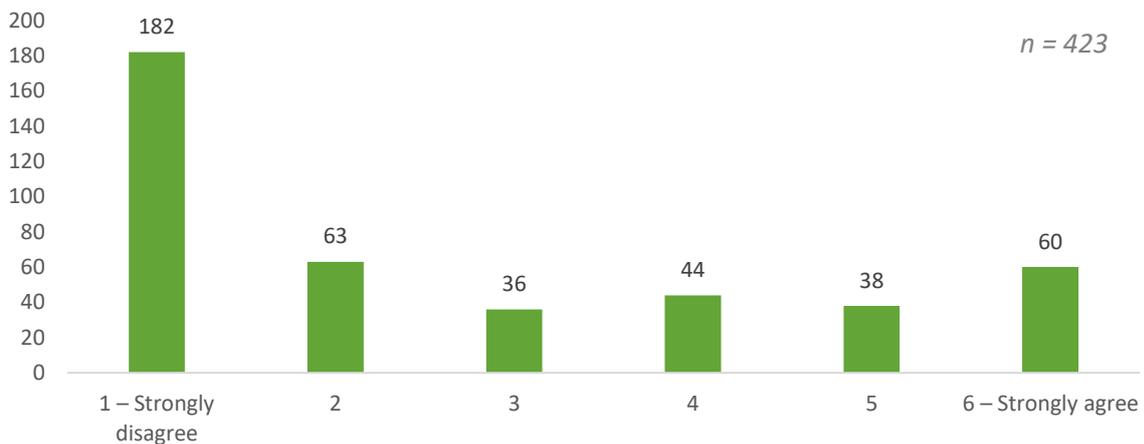


Figure 12. Visiting in the sustainability section of an apparel company’s website – Question 15

In the last statement of this section, the respondents were asked if they have asked about apparel company’s sustainability work in a store environment. The results show that over half of the respondents (62.4%) have not done that. Only a very small part of the respondents (3.8%) have discussed sustainability practices with a salesperson in a retail store (see Figure 13 below).

16. I have asked about an apparel company's sustainability practices in store.

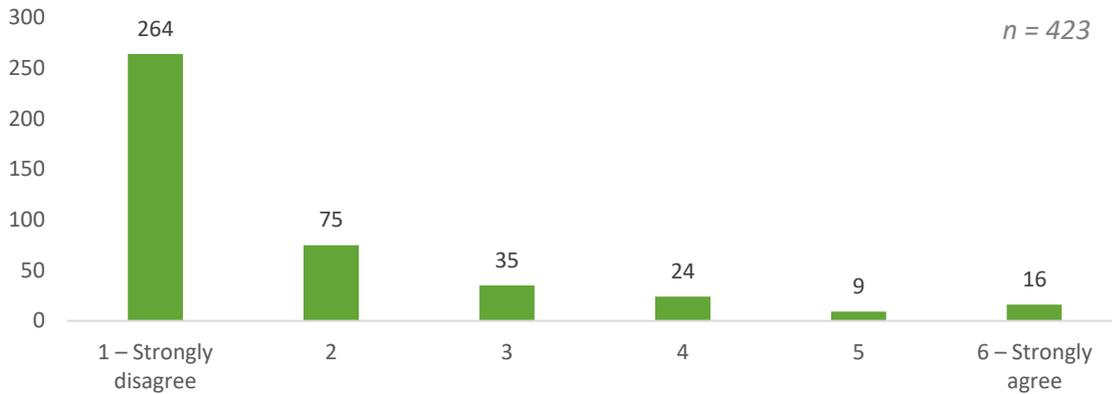


Figure 13. Asking about sustainability practices in a retail store – Question 16

#### 4.2.3 Perception of sustainability

The third section of the survey was about the respondents' knowledge and understanding of sustainability in the apparel industry. The results show that distribution of responses is very homogeneous; however, 64.3% of respondents stated some level of disagreement with the third main statement *"I am aware of the apparel brand's sustainability practises in the apparel industry"* while, a very small part of the respondents, 3.1%, felt very familiar with this subject. This means that the majority of the respondents just feel slightly aware or not aware of sustainability practices within the apparel industry (see Figure 14 below).

17. I am aware of the apparel brand's sustainability practices in the apparel industry.

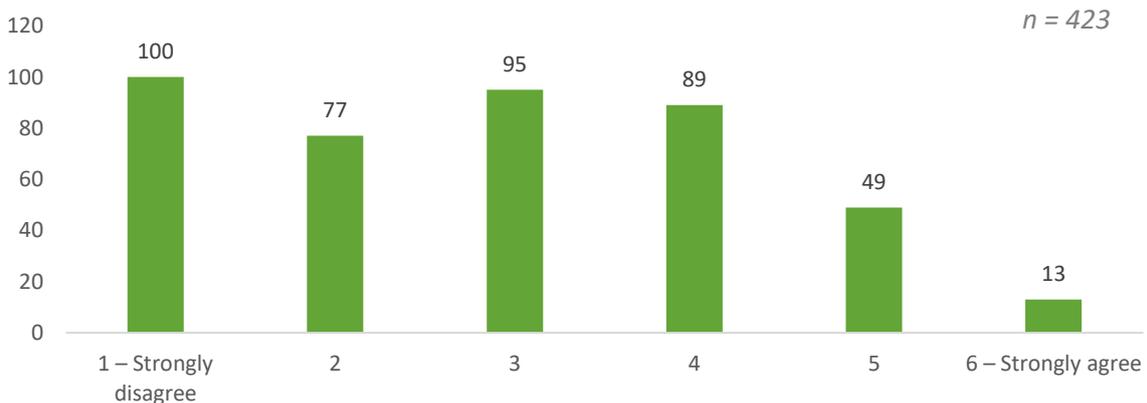


Figure 14. Awareness of apparel brand's sustainability practices – Question 17

The 18<sup>th</sup> statement explored the respondents' awareness about apparel companies who are selling Fairtrade or environmentally friendly products. The results show that awareness about Fairtrade and environmentally friendly products within the apparel industry is spread among the respondents. There is almost the same amount of answers for each option in the 6-point scale (see Figure 15 below).

18. I know clothing companies that have Fairtrade or environmentally friendly products.



Figure 15. Awareness of companies that have Fairtrade or environmentally friendly products – Question 18

The respondents' familiarity with different eco-labels was also asked about in the survey. The results show that the Nordic Swan Ecolabel is the most known eco-label among the respondents. In total 387 respondents (91.5%) expressed that they recognise the Nordic Swan Ecolabel, followed by The Fairtrade mark, which 88.6% of respondents, 375 individuals, recognise in the survey. These are labels which are also used in the food industry. This shows that labels which are only related to the textile and clothing industry are less known. Better Cotton Initiative's BCI-label was the least recognised label in the survey with 49 markings. 93 respondents (22.0%) recognise the GOTS label which stands for Global organic textile standard. The eco-labels that were presented along with statistics of the respondents' recognition is shown in Figure 16 below. There was one textile eco-label which over half of the respondents recognised, the OEKO-TEX®. The OEKO-TEX® Standard is an international eco-label which sets requirements for harmful chemicals in textile products. It has been introduced to the market in 1992 (OEKO-TEX, n.d).

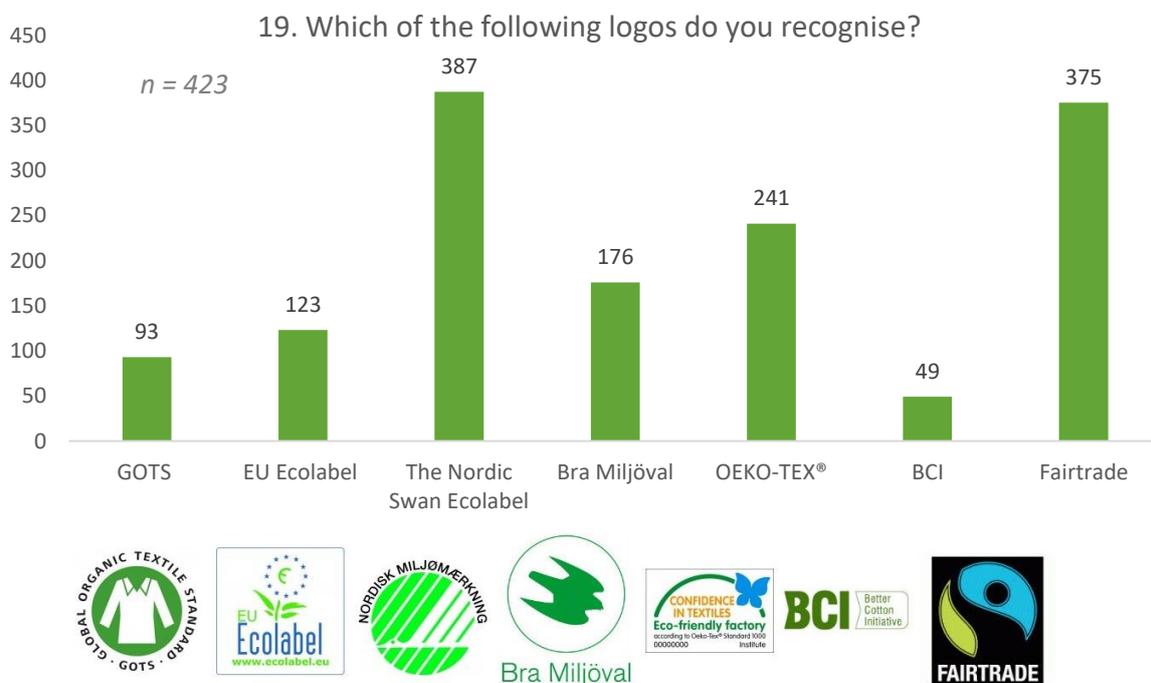


Figure 16. Recognition of different eco-labels – Question 19

The statement regarding shopping for apparel products with an eco-label had, as an exception, an “I do not know”-option to choose besides the 6-point Likert-scale. The results show that the respondents do not pay attention to the eco-labels when they are shopping for clothes. Almost a third of the respondents (31.7%) has not been aware if they have purchased any clothing labelled with any of the above-mentioned eco-labels (see the eco-labels in Figure 16). However, 23.4% of the respondents are strongly aware of the eco-labels which means that they pay attention to eco-labels and they deliberately shop for garments with these labels (see Figure 17 below).

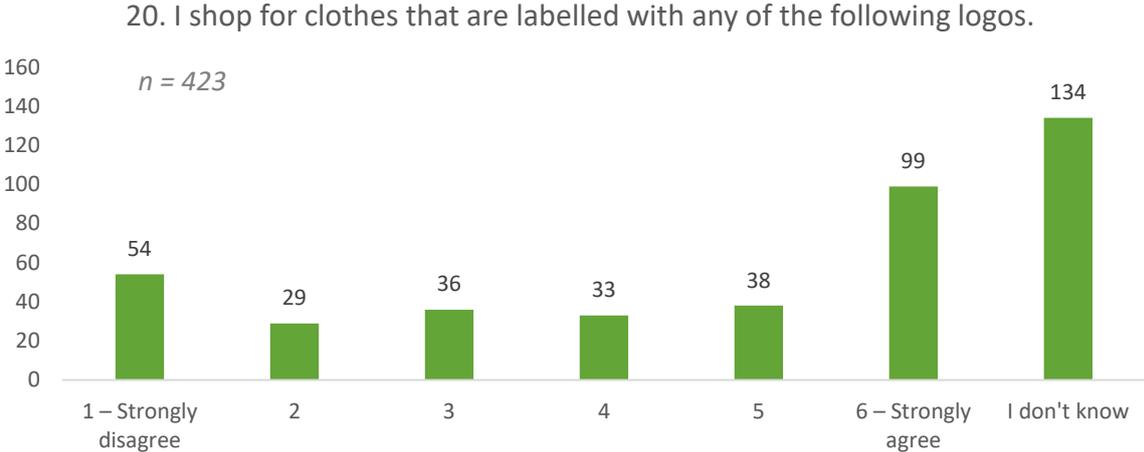


Figure 17. Awareness and attention to eco-labels when shopping clothes – Question 20

In the following question, the respondents were asked to evaluate how important eight given attributes are for the concept of sustainability. The results show that the distribution of responses in organic materials, water-savvy production methods, reducing textile waste and second hand are quite homogeneous. The distribution of responses is more split for environmentally friendly materials, environmentally friendly packaging materials, repair & recycle and high quality & timeless design. These are also attributes which most of the respondents valued as extremely important (see Figure 18 below).

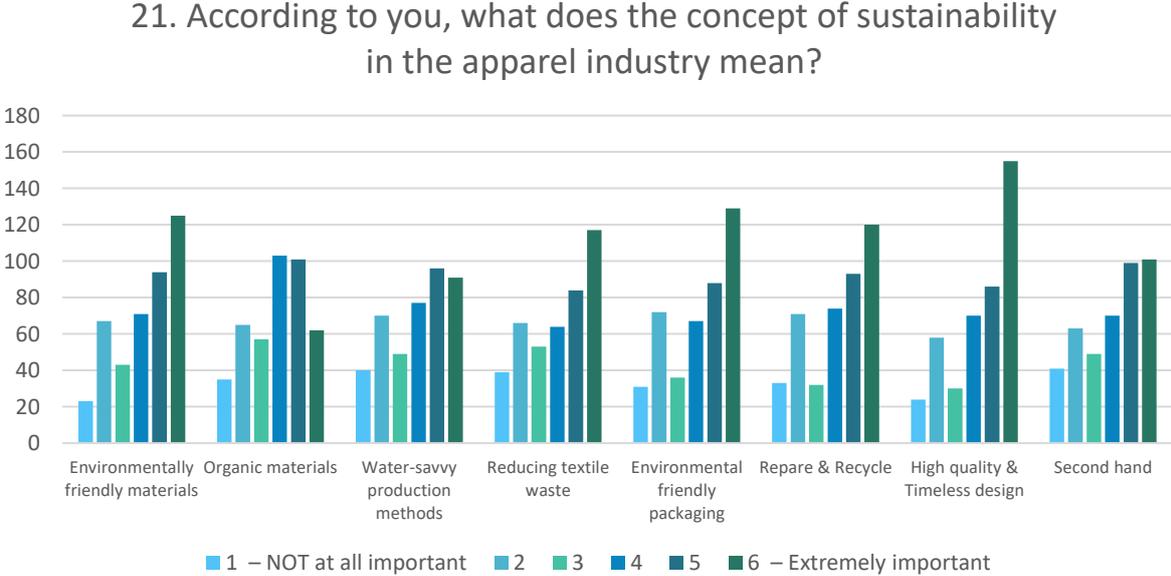


Figure 18. Importance of 8 attributes in the concept of sustainability – Question 21

### 4.2.4 Perception of transparency

The last section of the survey focused on the respondents’ awareness and interest towards supply chain transparency in the apparel industry. The results show that there is a strong desire to appreciate apparel companies that are open and transparent with their values and supply chain practices. Almost four-fifths of the respondents (77.1%) agreed that they appreciate companies that are transparent. Only a few respondents (2.1%) reported a lack of interest towards this topic (see Figure 19 below).

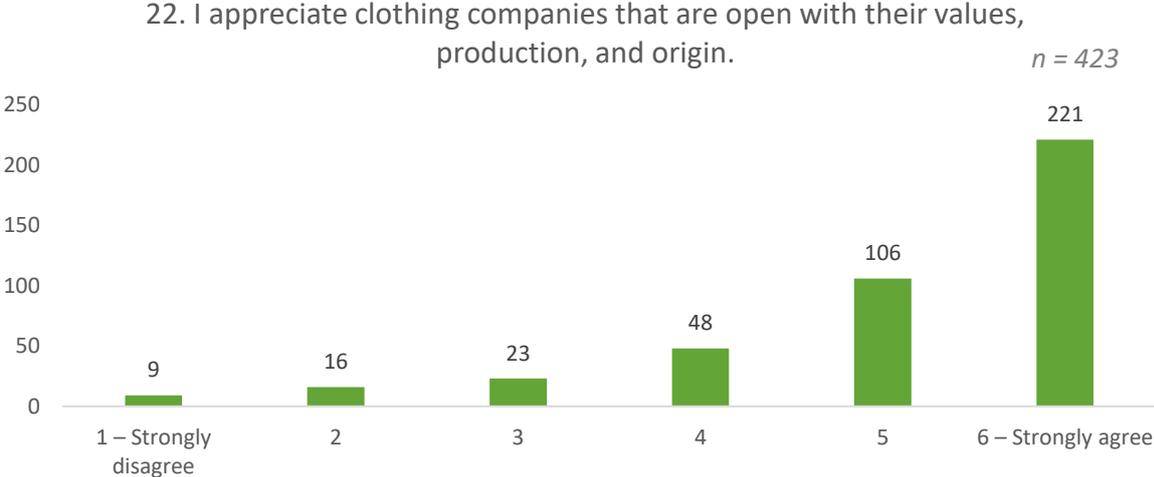


Figure 19. Interest towards transparent businesses – Question 22

The statement 23 explored if the respondents have searched for information about where apparel companies manufacture their products. Even though statement 14 explored same issues, it was a conscious decision to have two similar types of statements in the questionnaire. The responses to these two questions are similar, which shows the internal reliability of the questionnaire. The result of the statement “*I have searched information about where apparel company manufactures its products*” shows that almost a third of the respondents (61.5%) have never searched information or been interested in where apparel companies manufacture their products. On the other hand, a third of the respondents have searched or have tried to search information about the manufacturing country. The distribution of answers is equal between all scale items except “strongly disagree” (see Figure 20 below).

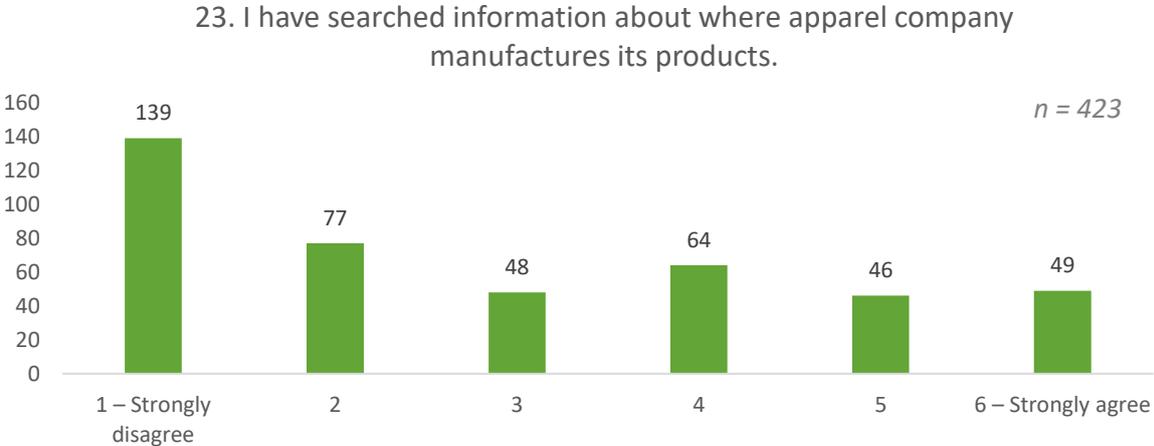


Figure 20. Interest towards the origin of garment – Question 23

The 24<sup>th</sup> statement explored the respondents' interest towards working conditions in the apparel manufacturing. The results of statement 24 shows that over 60% of the respondents have not asked or actively wondered about the working conditions in the manufacturing of the garments. There are very few who have actively questioned or have been interested in the manufacturing of the garments. Only 2.6% of the respondents strongly agreed with the statement that they have searched information about the working conditions in the apparel industry.

24. I have asked from the apparel company about under which working conditions the garments are manufactured.

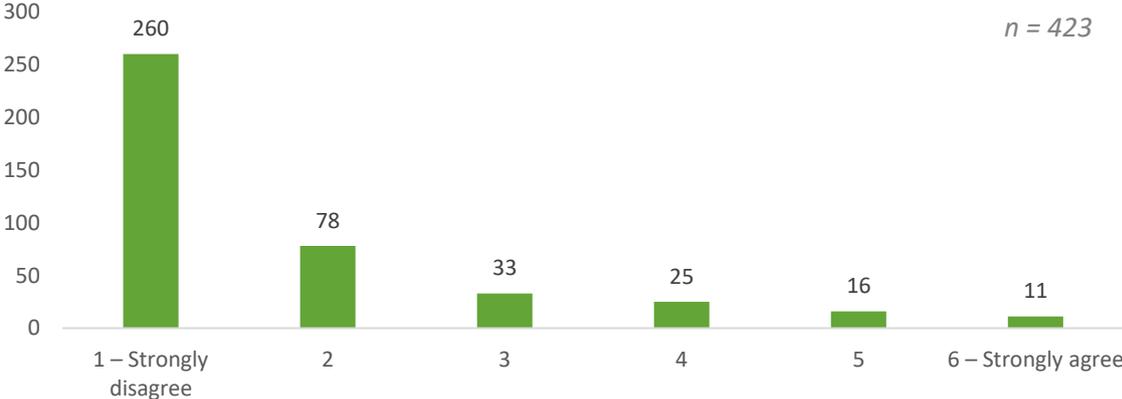


Figure 21. Wondering the working conditions for manufacturing of the garments – Question 24

In the last statement of the survey, the respondents were asked to value how interested they are about five factors which are related to the transparency. In general, the results show that there is no interest towards these factors or the interest is very weak. The respondents are not interested in suppliers' names, certificates which suppliers' have, visual material about the manufacturing process or a price structure of the garment. Over 30% of the respondents strongly disagreed with each of these three factors. The factors where the distribution of the answers is more homogeneous were when environmental impact and country of origin was asked about. These two factors were the most interesting to the participants; 13.9% of the respondents were strongly interested about environmental impact and 8.5% were strongly interested in the country of origin (see Figure 22 below).

25. What are you interested in to know when shopping for clothing?

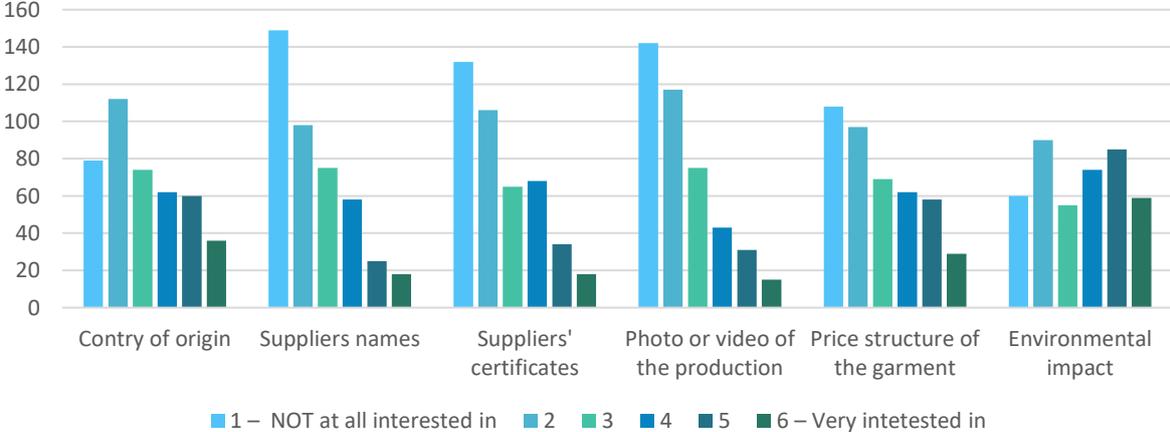


Figure 22. Interest towards 6 attributes of the concept of the transparency – Question 25

### 4.3 Statistical analysis

In order to examine the relationship between consumers' attitude towards sustainability and their actual behaviour, regression analysis was conducted. Statistical analysis provides in-depth information about relationships between variables (Barnes and Lewin, 2005) and was therefore chosen as the analysis method in this study. Furthermore, it allows exploring the nature of relationships (Barnes and Lewin, 2005). The chosen values for the regression analysis were Pearson's *r*, R-Square, B coefficient and Significance. Pearson's *r* indicates a strength and a direction of the relationship between two interval variables. R-Square tells the amount of the variance in one variable which is explained by another variable. The B coefficient shows how much the dependent variable changes if the independent variable changes by 1. Statistical significance refers to how confident results can be seen as and it allows to analyse if the results are "real" ones or if they just are caused by a chance (Barnes and Lewin, 2005).

#### Consumers' attitude towards sustainability

The results of the regression analysis show that consumers' general attitude towards sustainability (independent variable) has a positive statistical impact on how interested they are about a garment's material (dependent variable). This is shown in Table 5, where the level of significance is presented. The relationship between the variables is significant when the p-value is less than or equal to 0.05, which were chosen for as the level of significance in this study. This implies that consumers' interest towards textile materials are related to their general attitude towards sustainability. The B coefficient shows that there is a positive relationship between the variables. This means that consumers who are interested in sustainability are more likely to check the material of the garment before buying it.

Table 5. Regression analysis – Attitude towards sustainability

<b>Independent variable – Q5 – I pay attention to sustainability (environmental and social impact) when shopping clothes.</b>				
<b>Dependent variables:</b>	<b>R</b>	<b>R Square</b>	<b>B Coefficient</b>	<b>Significance</b>
Q6 – I look at the material that the garment is made of before I buy it.	0.491	0.241	0.548	0.000
Q7 – I check the country of origin of the garment before I buy it.	0.623	0.388	0.706	0.000
Q9 – I prefer to buy classic-style clothes that I intend to use for a long period of time.	0.309	0.096	0.250	0.000
Q10 – I prefer to buy three T-shirts of a little simpler quality than one T-shirt of better quality if the cost was the same.	0.327	0.107	-0.346	0.000
Q11 – I'm NOT interested in where and how my clothes are made. The main thing is that I like the garment.	0.589	0.347	-0.642	0.000

The results of the regression analysis show that there is a relationship between consumers' general attitude towards sustainability and how interested they are in the origin of garments. The level of the significance is presented in Table 5 above, which shows that the relationship between these two variables is statistically significant. This implies that consumers' clothing purchases are affected by their general attitude towards sustainability. The regression analysis shows that consumers' general attitude towards sustainability (independent variable) has a positive statistical impact on their interest towards the country of origin of the garment

(dependent variable). The Pearson's  $r$  indicates that there is a strong correlation between the two variables. According to Bryman and Bell (2015), the closer the correlation coefficient is to the value 1 the stronger the relationship is between the variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers who tend to be interested in sustainability, are more likely to look at the country of origin before a purchasing decision.

The result from the regression analysis shows that consumers' general attitude towards sustainability (independent variable) has a positive statistical impact on their preferences regarding the clothing style (dependent variable). This is shown in Table 5, where the level of significance is presented. This implies that consumers' preferences of clothing style are affected by their general attitude towards sustainability. The B coefficient shows that there is a positive effect between the variables. This means that consumers who are interested in sustainability, are more likely to purchase clothing which they can use for a long period of time.

The regression analysis tested whether there is a relationship between consumers' general attitude towards sustainability and if they prefer quality over quantity in their clothing purchases. The level of the significance is presented in Table 5 above, which shows that the relationship between these two variables is statistically significant. This implies that consumers' clothing purchases are affected by their general attitude towards sustainability. Further, the analysis shows that consumers' general attitude towards sustainability (independent variable) has a statistical impact on consumers' preferences about the quality of clothing (dependent variable). The B coefficient shows that there is a negative effect between the variables, however, the effect is positive due to the structure how the statement was formulated. This means that consumers who tend to be interested in sustainability, are more likely to buy fewer clothes with better quality.

The results from the regression analysis show that consumers' general attitude towards sustainability (independent variable) has a positive statistical impact on how interested they are in the clothing production (dependent variable). This is shown in Table 5, where the level of significance is presented. This implies that consumers' interest in the clothing production is affected by their general attitude towards sustainability. The B coefficient shows that there is a negative effect between the variables, however, the effect is positive due to the structure how the statement was formulated. This means that consumers who tend to be interested in sustainability are more likely to be interested in where and how their clothes are made.

The results from the regression analysis show that there is no statistically significant relationship between the two factors of clothing purchasing, price and brand, and consumers' general attitude towards sustainability (See Table 6 below). This implies that there is no relationship between how sustainable consumers see themselves and how they value price and brand in their clothing purchases. Therefore, statistical correlation and interpretations about their connections cannot be made.

Table 6. Regression analysis - Important factors when purchasing clothes

<b>Independent variable – Q5 – I reflect on sustainability (environmental and social impact) when shopping clothes.</b>					
<b>Dependent variables:</b>		<b>R</b>	<b>R Square</b>	<b>B Coefficient</b>	<b>Significance</b>
8. Rate the following factors, how important they are when you are buying clothes.	Price	0.078	0.006	-0.078	0.108
	Fashionable	0.097	0.010	-0.093	0.045
	Brand	0.018	0.000	0.018	0.707
	Material	0.333	0.111	0.345	0.000
	Wash & Care	0.281	0.079	0.304	0.000
	Country of origin	0.548	0.300	0.516	0.000
	Eco-label	0.636	0.404	0.622	0.000
	Ethical production	0.676	0.458	0.701	0.000
	Style	0.158	0.025	0.163	0.001
	Fit	0.165	0.027	0.166	0.001
	Quality	0.254	0.064	0.252	0.000
	Durability/ Timeless design	0.300	0.090	0.306	0.000

The regression analysis shows that there is a significant relationship between consumers' general attitude towards sustainability and ten out of twelve factors of clothing: fashionable, material, wash & care, country of origin, eco-label, ethical production, style, fit, quality and durability/times design. The level of the significance and Pearson's  $r$  are presented in Table 6 above, which shows that the relationships between these ten factors and consumers' general attitude towards sustainability are statistically significant. This implies that consumers' favourable attitude towards sustainability affects their clothing purchases. The Pearson's  $r$  indicates that there is a strong relationship between consumers' favourable attitude towards sustainability and three out of twelve factors: country of origin, eco-label, and ethical production. The B coefficient shows that there is a positive impact on all factors and consumers' general attitude towards sustainability. This means that consumers who are interested in sustainability are more likely to pay more attention to the country of origin, eco-labels, and ethics in production.

### **Consumers' awareness and knowledge of sustainability**

The results from the regression analysis show that consumers' awareness of sustainability (independent variable) has a positive statistical impact on how interested they are in which material a garment is made of (dependent variable). This is shown in Table 7, where the level of significance is presented. This implies that consumers' interest towards textile materials is affected by their awareness and knowledge of sustainability. The B coefficient shows that there is a positive effect between the variables. This means that consumers who are aware and have more knowledge about sustainability in the apparel industry are more likely to check the material of the garment before buying it.

Table 7. Regression analysis – Awareness and knowledge of sustainability

<b>Independent variable – Q12 – I am a person who pays attention to apparel companies who communicate about their sustainability practices.</b>				
<b>Dependent variables:</b>	<b>R</b>	<b>R Square</b>	<b>B Coefficient</b>	<b>Significance</b>
Q6 – I look at the material that the garment is made of before I buy it.	0.468	0.219	0.487	0.000
Q7 – I check the country of origin of the garment before I buy it.	0.572	0.327	0.603	0.000
Q13 – I have searched for information about the environmental impact of an apparel product.	0.619	0.383	0.625	0.000
Q14 – I have searched for information on where (in which country) the apparel company manufactures its products.	0.578	0.335	0.618	0.000
Q15 – I have visited an apparel company's website and read about sustainability.	0.616	0.380	0.748	0.000
Q16 – I have asked about an apparel company's sustainability practices in store.	0.428	0.184	0.360	0.000

According to the analysis, there is a relationship between consumers' awareness of sustainability and how interested they are about the origin of the garment. The level of the significance is presented in Table 7 above, which shows that the relationship between these two variables is statistically significant. This implies that consumers' clothing purchases are affected by their awareness and knowledge of sustainability. The regression analysis shows that consumers' knowledge of sustainability (independent variable) has a positive statistical impact on their interest towards the country of origin of the garment (dependent variable). The Pearson's  $r$  indicates that there is a strong relationship between the two variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers who tend to be aware of sustainability in the apparel industry are more likely to look at the country of origin before a purchasing decision.

Consumers' awareness of sustainability (independent variable) has a positive statistical impact on if they have searched information about an apparel product's environmental impact (dependent variable). This is shown in Table 7, where the level of significance is presented. This implies that consumers' habit to search information about the environmental impact of the apparel product is affected by their awareness and knowledge of sustainability. The Pearson's  $r$  indicates that there is a strong relationship between the two variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers who are aware and have more knowledge about sustainability, are more likely to search actively for information about the environmental impact of apparel products.

According to the analysis, there is a relationship between consumers' awareness about sustainability and if they have searched for information about where an apparel company manufactures its products. The level of the significance is presented in Table 7 above, which shows that the relationship between these two variables is statistically significant. This implies that consumers' interest towards where apparel products are made is affected by their awareness and knowledge of sustainability. Consumers' awareness and knowledge of sustainability (independent variable) have a statistical impact on consumers' interest where apparel products are made (dependent variable). The Pearson's  $r$  indicates that there is a strong relationship

between the two variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers with higher awareness and knowledge about sustainability, are more likely to search actively for information about where apparel products are made.

There is a relationship between consumers' awareness of sustainability and if they have visited a sustainability section of an apparel company's website. The level of the significance is presented in Table 7 above, which shows that the relationship between these two variables is statistically significant. This implies that consumers' habit to read about companies' sustainability practice is affected by their awareness and knowledge of sustainability. The regression analysis shows that consumers' awareness of sustainability (independent variable) has a positive statistical impact on their interest towards the apparel companies' sustainable business practices (dependent variable). The Pearson's  $r$  indicates that there is a strong relationship between the two variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers who tend to be aware of sustainability in the apparel industry, are more likely to visit the sustainability section of an apparel company's website.

Consumers' awareness of sustainability (independent variable) has a positive statistical impact on if they have asked about an apparel company's sustainability practices in the retail store environment (dependent variable). This is shown in Table 7, where the level of significance is presented. This implies that consumers' habit to ask about companies' sustainability practice is affected by their awareness and knowledge of sustainability. The B coefficient shows that there is a positive effect between the variables. This means that consumers who are aware and have more knowledge about sustainability, are more likely to ask about companies' sustainability practices in the retail store environment.

### **Consumers' perception of sustainability**

The results show that there is a relationship between how consumers perceive sustainability and how aware they are of companies who are selling Fairtrade or environmentally friendly products. The regression analysis shows that consumers' perception of sustainability (independent variable) has a positive statistical impact how aware they are of Fairtrade or environmentally friendly apparel products (dependent variable). This is shown in Table 8, where the level of significance is presented. This implies that consumers' recognition and awareness of sustainable apparel products are affected by their perception of sustainability. The Pearson's  $r$  indicates that there is a strong relationship between these two variables. The B coefficient shows that there is a positive effect between the variables. This means that consumers who have a "right" perception of sustainability, are more likely to be aware of the companies who offer Fairtrade and environmentally friendly products.

There is a relationship between how consumers perceive sustainability and eight out of nine factors of clothing: environmentally friendly material, organic material, water-savvy production methods, reducing textile waste, environmentally friendly packaging, repair & recycling, high quality/ times design and second hand. The level of the significance is presented in Table 8 below, which shows that the relationship between these eight factors and consumers' perception of sustainability is statistically significant. However, the Pearson's  $r$  indicates that there is a small relationship between the variables. This implies that consumers' favourable perception of sustainability does not affect which factors they see as important in sustainability.

Table 8. Regression analysis – Perception of sustainability

<b>Independent variable – Q17 – I am aware of the apparel brands' sustainability practices in the apparel industry.</b>					
<b>Dependent variables:</b>		<b>R</b>	<b>R Square</b>	<b>B Coefficient</b>	<b>Significance</b>
Q18 – I know clothing companies that have Fairtrade or environmentally friendly products.		0.571	0.326	0.725	0.000
Q21 – According to you, what does the concept of sustainability in the apparel industry mean?	Environmentally friendly materials	0.249	0.062	0.278	0.000
	Organic materials	0.174	0.030	0.183	0.000
	Water-savvy production methods	0.258	0.067	0.296	0.000
	Reducing textile waste	0.244	0.060	0.289	0.000
	Environmental friendly packaging	0.193	0.037	0.225	0.000
	Repair & Recycling	0.251	0.063	0.291	0.000
	High quality / Timeless design	0.176	0.031	0.199	0.000
	Second hand	0.187	0.035	0.217	0.000

The results from the regression analysis show that there are no statistically significant relationship between recycled materials and how consumers perceive sustainability (See Table 8 above). This implies that there is no relationship between how consumers perceive sustainability and how important they see recycled materials in the concept of sustainability. Therefore, statistical correlation and interpretations about their connections cannot be made.

### **Consumers' perception of transparency**

The results from the regression analysis show that consumers' attitude towards transparent business practices (independent variable) has a positive statistical impact on how interested they are in the clothing production (dependent variable). This is shown in Table 9, where the level of significance is presented. This implies that consumers' interest in the clothing production is affected by their attitude towards transparency. The B coefficient shows that there is a negative effect between the variables, however, the effect is positive due to the structure how the statement was formulated. This means that consumers who tend to be interested in sustainability and transparent businesses are more likely to be interested in where and how their clothes are made.

Consumers' attitude towards transparent business practices (independent variable) has a positive statistical impact if they have searched information about where an apparel company manufactures its products. The level of the significance shows, presented in Table 9 below, that the relationship between these two variables is statistically significant. This implies that consumers' interest towards where apparel products are made is affected by their attitude towards transparent businesses. The regression analysis shows that consumers' attitude towards transparent business practices (independent variable) has a statistical impact on consumers' interest in where apparel products are made (dependent variable). The B coefficient shows that there is a positive effect between the variables. This means that consumers who tend to be

interested in transparent businesses are more likely to actively search information about where apparel products are made.

Table 9. Regression analysis – Perception of transparency

<b>Independent variable – Q22 – I appreciate clothing companies that are open to their values, production and origin.</b>					
<b>Dependent variables:</b>		<b>R</b>	<b>R Square</b>	<b>B Coefficient</b>	<b>Significance</b>
Q11 – I'm NOT interested in where and how my clothes are made. The main thing is that I like the garment.		0.402	0.162	-0.511	0.000
Q23 – I have searched information about where apparel company manufactures its products.		0.436	0.190	0.623	0.000
Q24 – I have asked from the apparel company about under which working conditions the garments are manufactured.		0.234	0.055	0.243	0.000
Q25 – What are you interested in to know when shopping for clothing?	Country of origin	0.393	0.155	0.503	0.000
	Suppliers names	0.286	0.082	0.335	0.000
	Certificates which suppliers have	0.401	0.161	0.480	0.000
	Photo or video of production	0.348	0.121	0.396	0.000
	Price structure of the garment	0.372	0.138	0.481	0.000
	Environmental impact	0.478	0.228	0.333	0.000

According to the analysis, there is a relationship between consumers' attitude towards transparent business practices and if they are interested in under which conditions garments are made. The relationship between these two variables is statistically significant. This implies that consumers' interest towards manufacturing conditions is affected by their attitude and perception of transparency. The regression analysis shows that consumers' attitude towards transparency (independent variable) has a positive statistical impact on their interest towards under which conditions apparel products are made (dependent variable). The B coefficient shows that there is a positive relationship between the variables. This means that consumers who tend to be interested in transparent businesses are more likely to ask under which conditions apparel companies produce their products.

The regression analysis shows that there is a relationship between consumers' attitude towards transparent businesses and six factors of transparency: country of origin, suppliers' names, suppliers' certificates, the visual material of production, price structure and environmental impact. The level of the significance is presented in Table 9 above, which shows that the relationship between these six factors and consumers' attitude towards transparent businesses are statistically significant. This implies that consumers' favourable attitude towards transparent businesses affects how much they are willing to get information on apparel manufacturing. The B coefficient shows that there is a positive effect on all factors and consumers' attitude towards transparent businesses. This means that consumers who are interested in sustainability and transparent businesses are more likely to want to know more about the manufacturing process and the product's environmental impact.

## 5 Discussion

*This chapter discusses and reflects the results in relation to the previously presented theoretical framework. The chapter is organised into sections based on the four main themes of consumers and sustainability. Further, the chapter includes answers to the research question.*

### **Consumers' attitude towards sustainability**

As previous discussed, consumers show favourable attitude and a growing interest towards sustainability (Cheah and Phau, 2011; Hill and Lee, 2012). Moreover, Siegel and Stec (2016) stated that consumers want to know that also apparel brands care about environmental and social issues. This is confirmed by the results of this study, which show that there is a certain interest where the garments are made among consumers (Question 11). Furthermore, the consumers in this study expressed that they appreciate apparel brands who are open with their values, production and origin (Question 22). This proves that consumers are generally concerned about environmental issues in the apparel industry.

McNeill and Moore (2015), as well as Ulosoy and Barretta (2016), have concluded that consumers' positive attitudes towards sustainability do not often apply to their actual purchasing behaviour. This phenomenon is also visible in the results of this study, which shows that most of the respondents do not reflect on sustainability when shopping for clothes (Question 5). While, the results of this study show a correlation between consumers' favourable attitude towards sustainability and their purchasing behaviour, the relationship between them is strong only in a few cases. This implies that consumers' favourable attitude affects the purchasing intentions only in part. This corresponds to Ajzen's (1991) theory of planned behaviour, which describes that a person's intention might differ from actual behaviour.

Previous studies show that consumers seldom attend to new information at the point of purchase when shopping for clothes (Ritch, 2015). The results of this study show that the consumers do not check a country of origin before buying a garment (Question 7). Instead, consumers tend to look at the material before a purchasing decision (Question 6). Thus, this information in a wash and care label can be seen as basic information of the sustainability communication. As a solution, the wash and care label could be used to include some more information about the company's sustainability practices, as the consumers already pay attention to this label when checking the material.

Style, colour, fit and price have been found to be the most dominant factors in consumers' clothing purchasing decisions (Ritch, 2015). This implies that consumers' clothing purchases are more irrational than rational. The results of this study provide strength to these previous findings by showing that consumers value more the esthetical factors, such as style, fit, and quality in their clothing purchases (Question 8). Additionally, durability and price were also valued as important factors. Furthermore, the results show that brand, country of origin, eco-labels and ethical production are the least important factors for consumers when they are buying clothes.

In summary, based on the results of this study that consumers' favourable attitudes towards sustainability transfer to their actual purchasing behaviour occasionally the first hypothesis can be confirmed: *When consumers purchase apparel, they do not pay attention to sustainability.*

## **Consumers' awareness and knowledge of sustainability**

Even though consumers' knowledge about sustainability practices in the apparel industry is slowly increasing (Simpson and Radford, 2012), a low level of knowledge of sustainability is a dominating theme in the existing literature (Hiller Connell, 2010; Niinimäki, 2010; Bhaduri and Ha-Brookshire, 2011, Hill and Lee, 2012; McNeill and Moore, 2015). The results of this study show that consumers are not aware of apparel brands' sustainability practices (Question 17). This implies that consumers do not have enough information about the apparel brands' environmental and social good practices. The reason behind the lack of knowledge varies, but it can be interpreted that the companies' communication may not reach the consumers, or they just do not pay attention to it. This means that the apparel companies should consider improving their method of providing information about their sustainability practices. There is a need for a better way to make the information accessible to the consumers, but also a chance to spark their interest for the topic and help them become more aware of the urgency of sustainability in the apparel industry.

In addition to a low level of knowledge, the term 'sustainability' seems to be often misunderstood and mainly focused on environmental aspects among consumers (Simpson and Radford, 2012). The results of this study support this view. An environmental impact was the most valued out of the five factors which imply transparency in the apparel industry (Question 25). Furthermore, the respondents included the environmental aspect more often in the concept of sustainability (Question 21).

Consumers seem to be more knowledgeable about sustainability related to the food sector (Ritch, 2015). Although consumers' knowledge about sustainability in the food industry was not investigated in this study, the results imply a higher knowledge in that area. The results of this study show that the Nordic Swan Ecolabel and the Fairtrade mark were the most recognised labels among consumers. These labels are commonly used in food products. The eco-labels related to the textile and apparel field were less recognised, except for the OEKO-TEX® label (Question 19). The OEKO-TEX® has been on the market since 1992 while GOTS has been launched to the market in 2006 (Global organic textile standard, 2017) and the BCI principles and criteria were published for the first time in 2010 (Better Cotton Initiative, n.d.). From the results, it can be interpreted that it takes a longer time to get an eco-label well-known in the apparel industry.

To summarize, based on the results of this study, consumers have a general interest towards sustainability, but they consider themselves not aware of apparel companies' sustainability practices, and thus the second hypothesis can be confirmed: *When consumers purchase apparel, they do not look at sustainability information.*

## **Consumers' perception of sustainability**

As mentioned earlier, consumers focus more on the environmental impact than social issues in the apparel industry (Simpson and Radford, 2012; Hiller Connell, 2010). This affects consumers' perception of sustainability. The results of this study demonstrate that consumers focus on environmental issues more when asked what sustainability means for them. The distribution of responses was quite heterogeneous; however, the results show that consumers value more environmental friendliness, high quality, and environmentally friendly materials (Question 21). Further, consumers expressed a higher interest towards environmental impact than other aspects of transparency (Question 25). This implies that consumers are most

interested in the environmental impact of clothing, but also gives an idea how they perceive the concept of sustainability.

The results present that consumers value high quality and timeless design as the most important attribute in the concept of sustainability. This corresponds to Simpson and Radford (2012) who stated that for consumers sustainability implies durability, quality and reliability at the product level. The consumers in Simpson's and Radford's (2012) study consider long-lasting garments are more sustainable than conventional products. Furthermore, the results show that consumers prefer to use garments a long period of time and value quality over quantity if the cost of the products is the same (Question 10). This denotes that consumers want apparel products to be made to hold over time instead of using them just a short period of time.

In brief, based on the results of this study, consumers' perception of sustainability is focused on environmental impact, thus the third hypothesis can be confirmed: *When consumers purchase apparel, they are not aware what sustainability means.*

### **Consumers' perception of transparency**

In line with the fact that consumers have a positive attitude towards sustainability in general, they have a favourable attitude towards transparent businesses and transparency in the apparel industry (Bhaduri and Ha-Brookshire, 2011). This was confirmed by the results of this study, which show that most of the consumers appreciate clothing companies that are open to their values, production and origin (Question 22). These are the central elements of transparency and therefore, the results imply a positive attitude towards transparency. However, previous studies have shown that positive attitude does not transfer into actual purchasing intention regarding products from transparent businesses (Bhaduri and Ha-Brookshire, 2011). This phenomenon is also shown in the results of this study.

As mentioned, the respondents expressed a favourable attitude towards transparency. But, when it comes to the facts consumers are truly willing to consider when purchasing clothes, their interest in the transparent business is low. The results of this study show that consumers are mainly interested in the environmental impact of the garment (Question 25). Other aspects of the transparency; country of origin, suppliers' names, suppliers' certificates, visual material from production or price structure were not interesting to consumers. The results of this study differ from the working research paper by Mohan (Buell and John, 2014) who stated that cost transparency increases consumers' willingness to buy products.

In conclusion, based on the results of this study, consumers show a favourable attitude towards transparency, but at the point of purchase different aspects of the transparency are not important to them, and thus the fourth hypothesis can be confirmed: *When consumers purchase apparel, they do not focus on transparency.*

### **Answer to the research question**

Analysis of the consumer survey provides an answer to the research question, which was *How Swedish and Finnish consumers perceive sustainability in the apparel industry and how it affects their purchasing behaviour?*

The results of this study show that consumers do not pay attention to sustainability and apparel companies' sustainability communication, even though there is a lot of information available through product labelling, websites, and advertising etcetera. The results of this study show that

most of the consumers do not pay attention to sustainability communication (Question 12). Furthermore, the results imply that consumers do not actively search sustainability information (Question 13 – Question 16). Most of the respondents had not visited the sustainability section of an apparel company’s website nor searched for information about the environmental impact of an apparel product. This indicates that a lot of available sustainability information does not reach consumers.

In particular, the sustainability communication at the point of purchase seems to get no attention. This is shown by the results of this study as well as in Ritch’s (2015) study. This proves that sustainability communication does not affect consumers clothing purchasing behaviour. Instead, the results of this study present that consumers mainly look at the material information before the purchasing decision, but they do not tend to pay attention to the country of origin (Question 6 & 7). Furthermore, most respondents had not asked about apparel brands’ sustainability practices at the in-store environment. These results imply that consumers do not pay attention to apparel products’ labelling nor to the sustainability communication performed in the retail store environment.

As mentioned earlier, this study shows that consumers feel that they are not aware of apparel companies’ sustainability practices in general (see Question 17). This means that consumers do not receive apparel companies’ communication of their environmental and social good practices. In this stage, it can just be assumed why consumers do not find the available information. It might be caused by the fact that sustainability communication does not raise consumers’ interest, or it is not performed in a preferred way.

The relation between the previously presented theoretical framework and hypotheses are discussed earlier in this chapter. Also, the research question is answered, and the results are discussed. Table 10 below provides a short summary of the study results.

Table 10. Summary of study findings

<b>Hypothesis</b>	<b>Result</b>	<b>Short Interpretation</b>
<i><b>H1</b> When consumers purchase apparel, they do not pay attention to sustainability.</i>	Confirmed	Consumers’ clothing purchasing decision is driven by aesthetical attributes such as style and fit. At the point of purchase, consumers do not pay attention to sustainability communication.
<i><b>H2</b> When consumers purchase apparel, they do not look at sustainability information.</i>	Confirmed	Consumers might look at the material information when purchasing clothes, but they are not interested in another type of information. Consumers do not actively search information about sustainability practices in the apparel industry.
<i><b>H3</b> When consumers purchase apparel, they are not aware what sustainability means.</i>	Confirmed	Consumers’ perception of sustainability is focused on environmental impact.
<i><b>H4</b> When consumers purchase apparel, they do not focus on transparency.</i>	Confirmed	Consumers seem to appreciate transparent clothing companies. However, they are not interested in receiving this type of information.

## 6 Conclusion and future research

*This final chapter, Conclusion and future research, presents the general conclusions of this study and discusses scientific and practical contributions. Moreover, suggestions for future research are proposed.*

### 6.1 Conclusion

The purpose of this study was to explore consumers' perception of sustainability in the apparel industry and in which extent it affects their clothing purchasing intentions. Consumers' attitude towards sustainability in the apparel industry and their clothing purchasing behaviour was mapped out with a web-based self-completion questionnaire. Collected data was analysed and discussed through four themes; consumers' attitude towards sustainability, consumers' awareness and knowledge of sustainability, consumers' perception of sustainability and consumers' perception of transparency. Overall, this study provided insights into how consumers reflect upon sustainability when shopping for clothes and how actively they search for sustainability information.

In conclusion, the results show that consumers have generally a positive attitude towards sustainability in the apparel industry, but this attitude seldom transfers into their purchasing behaviour. Consumers value style, fit, quality and durability in their clothing purchases over eco-labels and ethical production. This means that sustainability is not the main reason to buy a garment, it is more of an additional attribute which is becoming more meaningful for the consumers.

The consumers of this study expressed that they are not aware of apparel brands' sustainability practices. This means that consumers do not know what sustainability implies in the apparel industry or they do not receive information about companies' sustainable business practices. Previous studies have concluded that consumer education about sustainability is needed. Therefore, the apparel industry needs to investigate further into how they could improve their sustainability communication.

Furthermore, the results show that consumers do not pay attention to the sustainability communication by the apparel industry. The consumers of this study do not actively search information about the environmental impact of the apparel product or apparel companies' sustainable business practises. Particularly the communication performed at the point of purchase does not reach the consumers. By considering this the apparel industry needs to think more about how to provide information with easy access but also in a way that makes consumers interested. Currently, the apparel companies, as well as other stakeholders, share extensive information, but it seems that consumers do not adequately perceive this information.

### 6.2 Implications

#### **Theoretical implications**

The main emphasis in existing literature is on the environmentally conscious consumer and his consumer behaviour. While this study focused on exploring how sustainability is perceived among "regular" consumers in Sweden and in Finland. This study applies a comprehensive understanding of consumers' perception of sustainability and provides insights into consumers' clothing purchasing behaviour. Furthermore, this study aimed to identify how consumers pay

attention to sustainability and sustainability communication in the apparel industry. These insights can be used as a foundation for future research.

### **Practical implications**

Sustainability is one of the most discussed topics in the apparel industry. This study remarks that consumers are not aware of sustainability and have misperceptions related to the concept of sustainability. By considering this, the importance of consumer education increases as previous studies have concluded. Furthermore, given insights of consumers' knowledge of sustainability and their apparel purchasing behaviour are valuable for the companies. The results of this study can be a base for apparel brands who want to improve their marketing communication and talk to their consumers in a meaningful manner.

### **6.3 Future research**

There are many interesting topics to examine related to the relationship between consumers and sustainability. By extending this study to cross-cultural perspective, it could be investigated how the perception of sustainability differs by the country and how it can be taken into account in apparel companies' marketing communication. Also, an investigation of differences between gender and age groups would provide interesting information how to communicate about sustainability to a specific target group.

Furthermore, a qualitative study addressing the same perspective would provide more in-depth information about consumers' perception of sustainability communication. Also, an experimental research of how consumers perceive and understand performed marketing actions would provide the needed information about the effectiveness of sustainable marketing communication. This would help the apparel companies to communicate in a more meaningful and understandable manner in the future.

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# Translation of conducted web-based questionnaire

## Purchasing behaviour – Apparel purchases

**Thank you for participating in the survey!**

The survey takes approximately five to ten minutes to complete. You will get 25 questions and statements to answer which are related to your habits and your attitude towards apparel purchases.

### Gender

- Male
- Female

### How old are you?

- 19 years
- 20–29 years
- 30–39 years
- 40–59 years
- 60– years

### Education, highest completed education

Elementary school  
Upper secondary school  
Vocational school  
College / university

### Current position

Student  
Job applicant  
Employee, part-time  
Employee, full-time  
Retiree

### Your consumption of clothes

#### 1. Approximately how often do you shop for clothes?

Every week  
Every month, but not every week  
Every year, but not every month  
Almost never or almost not at all

#### 2. Where do you mainly buy clothes?

Shop & department store  
Internet  
Second hand  
Outlet, markets & sales





## Take a stand to the statements

17. I am aware of the apparel brand's sustainability practices in the apparel industry.

	1	2	3	4	5	6	
Strongly disagree	<input type="radio"/>	Strongly agree					

18. I know clothing companies that have Fairtrade or environmentally friendly products.

	1	2	3	4	5	6	
Strongly disagree	<input type="radio"/>	Strongly agree					

19. Which of the following logos do you recognise? You are able to choose more than one option.

						
A	B	C	D	E	F	G
<input type="checkbox"/>	<input type="checkbox"/>					

20. I shop for clothes that are labelled with any of the following logos.

						
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- 1 Strongly disagree
- 2
- 3
- 4
- 5
- 6
- I don't know



## Results of the web-based questionnaire – Frequency analysis

Statement	Mean	Std. Deviation	Frequency %					
			Strongly disagree 1	2	3	4	5	Strongly agree 6
5. I reflect on sustainability (environmental and social impact) when shopping clothes.	3.46	1.44	10.9	17.3	19.4	28.8	14.9	8.7
6. I look at the material that the garment is made of before I buy it.	4.41	1.609	6.1	11.8	9.5	15.4	22	35.2
7. I check the country of origin of the garment before I buy it.	3.05	1.633	22.2	22	17.3	15.4	13.7	9.5
8. Rate the following factors, how important they are when you are buying clothes.								
Price	3.92	1.439	3.1	18.7	16.5	23.2	22	16.5
Fashionable	3.11	1.377	13.2	23.6	23.6	22.2	12.8	4.5
Brand	2.67	2.667	27.7	22	19.9	19.6	8.3	2.6
Material	4.13	1.492	2.4	17.7	13.9	20.8	21	24.1
Wash & Care	3.13	1.557	17	24.1	19.4	15.1	16.5	7.8
Country of origin	2.55	1.355	25.5	31.4	18.4	14.7	6.9	3.1
Eco-label	2.63	1.408	26	27.2	19.9	15.8	7.1	4
Ethical production	2.79	1.492	22.9	28.1	16.8	16.8	9.7	5.7
Style	4.67	1.479	0.7	13.7	11.3	7.8	25.1	41.4
Fit	4.94	1.45	0	11.6	11.3	4.7	16.5	55.8
Quality	4.51	1.431	0	15.1	11.6	13.2	27.4	32.6
Duralibity/ Timeless design	4.23	1.473	1.7	16.8	15.1	13.5	29.1	23.9
9. I prefer to buy classic-style clothes that I intend to use for a long period of time.	5.02	1.162	1.4	3.3	6.1	13.7	31.4	44
10. I prefer to buy three T-shirts of a little simpler quality than one T-shirt of better quality if the cost was the same.	2.6	1.524	31.9	23.4	17.3	13	9.2	5.2
11. I am NOT interested in where and how my clothes are made. The main thing is that I like the garment.	3.24	1.569	17	19.4	20.1	18.7	15.6	9.2
12. I am a person who pays attention to apparel companies who communicate about their sustainability practices.	3.61	1.548	11.6	16.3	16.8	22	21.7	11.6
13. I have searched for information about the environmental impact of an apparel product.	2.32	1.562	44.4	21.5	10.9	9.7	8	5.4

14. I have searched for information on where (in which country) the apparel company manufactures its products.	2.55	1.654	39.5	18.9	12.5	12.3	9.5	7.3
15. I have visited an apparel company's website and read about sustainability.	2.7	1.878	43	14.9	8.5	10.4	9	14.2
16. I have asked about an apparel company's sustainability practices in store.	1.79	1.3	62.4	17.7	8.3	5.7	2.1	3.8
17. I am aware of the apparel brands' sustainability practices in the apparel industry.	2.88	1.438	23.6	18.2	22.5	21	11.6	3.1
18. I know clothing companies that have fair trade or environmentally friendly products.	3.52	1.825	20.3	15.8	12.3	13.9	18	19.6
21. According to you, what does the concept of sustainability in the apparel industry mean?								
Environmentally friendly materials	4.23	1.607	5.4	15.8	10.2	16.8	22.2	29.6
Organic materials	3.84	1.516	8.3	15.4	13.5	24.3	23.9	14.7
Water-savvy production methods	3.93	1.648	9.4	16.5	11.6	18.2	22.7	21.5
Reducing textile waste	4.04	1.7	9.2	15.6	12.5	15.1	19.9	27.7
Environmental-friendly packaging material	4.17	1.682	7.3	17	8.5	15.8	20.8	30.5
Repair & Recycle	4.14	1.67	7.8	16.8	7.6	17.5	22	28.4
High quality & Timeless design	4.42	1.621	5.7	13.7	7.1	16.5	20.3	36.6
Second hand	4.01	1.667	9.7	14.9	11.6	16.5	23.4	23.9
22. I appreciate clothing companies that are open with their values, production and origin.	5.1	1.236	2.1	3.8	5.4	11.3	25.1	52.2
23. I have searched information about where apparel company manufactures its products.	2.88	1.766	32.9	18.2	11.3	15.1	10.9	11.6
24. I have asked from the apparel company about under which working conditions the garments are manufactured.	1.8	1.284	61.5	18.4	7.8	5.9	3.8	2.6
25. What are you interested in to know when shopping for clothing?								
Country of origin	3.05	1.58	18.7	26.5	17.5	14.7	14.2	8.5
Suppliers' names	2.45	1.448	35.2	23.2	17.7	13.7	5.9	4.3
Certificates which suppliers have	2.57	1.479	31.2	25.1	15.4	16.1	8	4.3
Photo or video of the production	2.41	1.409	33.6	27.7	17.7	10.2	7.3	3.5
Price structure of the garment	2.89	1.599	25.5	22.9	16.3	14.7	13.7	6.9
Environmental impact	3.5	1.665	14.2	21.3	13	17.5	20.1	13.9



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