THE CONSUMER PERSPECTIVE ON SUSTAINABLE FASHION

A QUANTITATIVE STUDY OF SWEDISH CONSUMERS' PERCEPTIONS OF SUSTAINABLE FASHION AND THE EFFECT OF SUSTAINABLE INFORMATION ON ATTITUDES AND INTENTIONS

ELLA AHLBORG

LOVISA GRANT

Bachelor Thesis

Stockholm School of Economics

2020

The consumer perspective on sustainable fashion: A quantitative study of Swedish consumers' perceptions of sustainable fashion and the effect of sustainable information on attitudes and intentions

Abstract:

The fashion industry is transforming towards more sustainable practices which requires that companies understand the consumer perspective. This quantitative study investigates what sustainable fashion means to Swedish consumers, and how sustainable information about a garment can affect consumers' attitudes, purchase intentions, and Word of Mouth intentions. Data was gathered through an online questionnaire to (1) explore consumers' perceptions of sustainable fashion and (2) conduct an experiment to investigate consumers' reactions to different informational nudges. The experiment provided respondents with sustainable information based on three dimensions: environmental, social, and economic. The findings suggest that Swedish consumers perceive high quality, timeless design, and to prolong the life of garments to be the most important factors of sustainable fashion. Moreover, the informational nudge consisting of all three sustainable dimensions created the most favourable attitudes and the highest WOM intentions.

Authors:

Ella Ahlborg (24118)
Lovisa Grant (24222)

Tutor:

Patric Andersson, Associate Professor, Department of Marketing and Strategy

Examiner:

Hanna Berg, Department of Marketing and Strategy

Bachelor Thesis
Bachelor Program in Business & Economics
Stockholm School of Economics

Contents

Definitions

Nudging: "the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives" (Thaler & Sunstein, 2008)

Attitude: "a person's general feeling of favourableness or unfavourableness toward some stimulus object" (Fishbein & Ajzen, 1975)

Behavioural intention: "a person's intentions to perform various behaviours" (Fishbein & Ajzen, 1975)

Word of Mouth: "oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service" (Arndt, 1967)

Sustainable Development Goals (SDGs): a universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030 (United Nations, [UN], n.d.)

1.   Background

1.1.   Introduction

In line with global guidelines and ambitions, companies across all types of industries are urged to use resources more responsibly to create better sustainable business models. With a $2 trillion market size, the fashion industry is one of the major manufacturing sectors in the world, with a great opportunity for positive disruption. However, the industry as a whole has not yet undertaken the systemic change necessary to keep pace with global climate goals and stakeholder demands (Boston Consulting Group [BCG], 2020). As a result of the increasing pressure on the fashion industry, a shift is seen in companies' sustainability propositions. In 2019, a significant number of fashion brands declared sustainability targets for the very first time, or added more ambitious goals to their current list. Furthermore, fashion companies are taking steps to become more transparent to make sure sustainability targets are met (Fashion United, 2019).

Fashion companies need to understand what consumers perceive as important with sustainable fashion, and be able to communicate effectively. The reason is that consumers are stakeholders that possess great power to have an impact on companies. Consumers have become a co-creating actor and have shown an increased interest in environmental issues and sustainability (Fredriksson et al., 2017). Therefore, companies must work actively to facilitate conscious choices to be done by making choices more accessible or more attractive (Sveriges Konsumenter [SK], n.d.). However, many consumers today think that the information about sustainability presented at websites is insufficient (Regeringskansliet, 2016).

1.1.1.   Sustainable fashion

There is no clear definition of what sustainable fashion is. According to Mistra Future Fashion (n.d.), some express that sustainable fashion is about producing clothes in an environmentally and socio-economically sustainable way. Others express that it is about consuming in a more sustainable way, which includes attitudes and behavioural patterns. Moreover, sustainable fashion is about striving for a circular economy, meaning the possibility of keeping the value chain in a closed cycle by recycling or by using biologically based materials from sustainably managed resources. Sustainable fashion, therefore, involves a responsibility by companies regarding environmental impact and social impact, but it also involves striving towards a more circular economy (Mistra Future Fashion, n.d.). In many cases, consumers buy fast-fashion clothing and only use the garments a few times. Consumers need to adopt a long-term mindset, where quality is prioritized over quantity. According to Handelsrådet (2015), once the clothes are worn out, consumers should either prolong their lives, or recycle them.

One way to simplify the field of sustainability based on what is stated above is to divide it into three dimensions: environmental, social, and economic (Konsumentverket, 2018; Sveriges Konsumenter [SK], n.d.). These areas are also found in the United Nations sustainable development goals (SDGs) from the 2030 agenda (United Nations, [UN], n.d.).

1.1.2. Nudging - A tool to affect consumer behaviour

In the field of behavioural psychology, there have been different ways to affect consumer behaviour, and one method is called "nudging". Nudging is a tool that uses choice architecture to influence consumer choices, without forbidding any options or significantly changing their economic incentives (Thaler & Sunstein, 2008). Nudging has been adopted in areas of sustainable consumption, which gives an implication that it might be a relevant tool to affect consumers to purchase sustainable fashion. This created an interest in investigating how nudging, as a communicative marketing tool, can be used to influence consumers' attitudes and behaviour intentions in relation to fashion.

1.1.3. Background on sustainable fashion and communication

Up until the beginning of this study, research about nudging for sustainable fashion consumption is limited. The authors have primarily searched for previous literature on Google Scholar and Business Source Premier and used the keywords: nudging, nudge, sustainable, sustainability, fashion and marketing. The authors looked for papers that used the three dimensions environmental, social and economic in their nudging. The papers that are found are either not focusing or fashion, or focusing on a narrow subject of sustainability. One paper was found that used informational nudges in an online purchase setting, to inform about garments' positive or negative impact on the environment or workers (de Beer, 2018). However, the majority of the respondents were Dutch, and in this thesis, Swedish consumers are of interest. Moreover, the economic dimension was not taken into account.

Research in the field of sustainable fashion started to make a greater appearance in literature around year 2008. The literature's origin is primarily from Western voices and the four largest research fields cover customer behaviour, supply chain, social retail marketing, and sustainable business models. Research identifies the importance of effective communication concerning sustainable fashion. However, there is a lack of insight into the literature on how successful sustainable fashion brands effectively apply their communication mix (Giau et al., 2016). There has been extensive research looking into green branding and how companies can optimize their "green-marketing", taking the perspective of consumer perceptions, motivations, and contextual factors.

In previous research, it has been suggested that there is a relationship between green attitudes and consumption behaviour (Lee et al., 2012). However, other studies have not been able to support this relationship, which makes the results inconsistent (Joergens, 2006). What has been supported across various studies is a positive relationship between the higher level of environmental concerns and favourable attitudes toward green products (Lee, 2008; Van de Velde, Verbeke, Popp & Van Huylenbroeck, 2010). Furthermore, a few studies in fashion research suggest that consumers' environmental attitudes have an impact on their purchase intentions of green fashion products (Hustvedt & Dickson, 2009; Yoo, Divita & Kim, 2013). Thus, green marketing efforts by fashion companies can encourage a positive brand image and increase purchase intentions from customers who care about environmental issues. Additionally, others look at motivational and contextual factors of sustainable fashion and point out the importance of personal style as a factor that affects sustainable fashion purchases (Bly, Gwozdz & Reisch, 2015). According to Goworek et al. (2012), consumers' existing habits and routines are a proxy for their sustainable behaviour, rather than their awareness of sustainable business practices.

There are several proposals on how to communicate sustainable fashion. Some advocate the need for making sustainable fashion "trendy", create a strong positioning of sustainable fashion, or to use celebrities to inspire consumers (Mukendi, Davies, Glozer & McDonagh, 2019). However, opponents to these suggestions indicate that these tools fail to educate consumers and claim that communication shall aim at the sustainable benefits rather than the attribute of the product (Kim et al., 2012). Therefore, nudging can be interesting to look more into, specifically a nudge that consist of information that can educate consumers about a garment's sustainability.

1.2. Problem formulation

Ultimately, the broad definition of sustainability makes it difficult for companies to communicate effectively towards consumers. This thesis aims to explore what consumers think sustainable fashion is, to understand the consumer's perspective. Furthermore, it is of interest to investigate how consumers react and respond to information about the sustainability of garments through the use of nudging.

Three parts of consumer psychology will be examined to investigate consumers' reactions. Attitudes and behavioural intentions are common concepts to measure within behavioural psychology and marketing. Therefore, these measures are perceived as relevant. In this thesis, purchase intentions and Word of Mouth (WOM) intentions will be measured as a proxy for behaviour (Fishbein & Ajzen, 1975).

Due to the broad definition of sustainable fashion, it seems relevant to explore three different dimensions that are used in various sustainability contexts: environmental,

social, and economic. It will be analysed what effect the three aspects have on attitudes, purchase intentions, and WOM intentions.

1.3. Purpose and research questions

This report aims to create a better understanding of consumers' perceptions of what sustainable fashion is, and to investigate how consumers react to sustainable information about a garment. Two questions will be answered:

1) *What does sustainable fashion mean to consumers?*

2) *How do consumers react to information about garments' sustainability from the perspectives: (1) environmental, (2) social, and (3) economic?*

1.4. Delimitations

The theory of nudging can be interpreted and conducted in many ways. This thesis focuses on informational nudges, which provide consumers with information regarding the sustainability of a garment in a purchase situation. Due to the limited scope of resources, actual behaviour was not measured and the online questionnaire was only distributed to Swedish consumers. Furthermore, to test the attitudes and behavioural intentions of sustainable fashion, a concrete and representative garment was chosen. The authors chose a pair of black jeans and the potential effects of price, style, and brand are excluded. See the motivation of stimuli in section 3.3.

1.5. Expected contribution

The study aims to provide companies with useful insights into (1) how Swedish consumers perceive sustainable fashion and (2) how sustainable information can affect consumers' attitudes and intentions, and by extension, actual consumer behaviour. This can be useful for marketers and strategists to understand how to communicate sustainable fashion more effectively. This study can contribute to filling the research gap that exists today of nudging in combination with sustainable fashion from the three sustainable dimensions.

1.6. Thesis disposition

The thesis will initially present relevant literature and theory that the study and hypotheses are based on. This will be followed by the methodology section, which presents the empirical study. Subsequently, the results are outlined, which is followed by a discussion, implications, limitations and suggestions for future research. The final part of the thesis presents references and Appendix.

2.   Previous literature and theoretical framework

This section presents previous literature and theories that are used in the thesis. Firstly, literature on consumers' perceptions of sustainability is presented, which is followed by the theory of nudging. Secondly, the three different types of "sustainable nudges" will be presented. Lastly, attitudes, purchase intentions, and WOM intentions are explained.

2.1.   Literature on consumers' perceptions of sustainability

There is no consensus in the literature regarding the definition of sustainable fashion and it leaves a broad scope for own interpretations. The literature points out that there is a need to discover a common ground of what sustainable fashion consists of to make it easier for the consumer, and for producers, to make the sustainable choice (Mukendi, Davies, Glozer & McDonagh, 2019). Some researchers have investigated how consumers understand the concept of "sustainability". In one study of Norwegian consumers, they investigated how important the following sustainability dimensions are in consumers' conception of sustainability: the environmental, social, economic, temporal, and developmental dimensions (Hanss & Böhm, 2012). The findings suggested that the environmental, social, and developmental dimensions were particularly outstanding. This made the authors of this thesis interested to investigate the same question on Swedish consumers in a fashion context.

2.2.   Nudging

2.2.1.   The definition of nudging

There are and have been several definitions of nudging (Hansen, 2016). This thesis has taken the perspective from Thaler and Sunstein, who were the first ones to present the theory of nudging in their book *Nudge: Improving Decisions about Health, Wealth and Happiness* (Thaler & Sunstein, 2008). In their book, they introduced the concept of nudging and their specific version of soft paternalism, known as libertarian paternalists. According to Thaler and Sunstein (2008), nudging is defined as: "the choice architecture that alters people's behavior in a predictable way without forbidding any options or significantly changing their economic incentives".

In the theory of nudging, Thaler and Sunstein view humans in line with the Dual Process Cognitive Theory (Hansen, 2016). The theory divides the human brain into two different systems: system 1 refers to automatic decision-making, while system 2 refers to reflective and conscious thinking. The theory anticipates that humans' decisions are not only rational but also influenced by several biases and cognitive boundaries. Due to the nature of humans, it will be possible to influence consumers in a certain direction, without feeling their choice is being constrained (Sunstein, 2017). Nudging aims

primarily to change human behaviour, rather than change attitudes or values. However, there are arguments that the extension of a nudge will affect people's attitudes since a nudge will potentially create new behaviours, which will affect attitudes (Lehner, Mont, & Heiskanen, 2014)

Nudging has been adopted by different authorities and institutions in the process of policy development, but also in the field of marketing and sales. People are exposed to nudging on a daily basis, one example being cigarette packages that have disclosure statements or a picture of the health consequences of smoking (Thaler & Sunstein, 2008). Another famous nudge is the attempt to make urinals at Amsterdam's airport cleaner. By strategically placing a fly in the urinal, they were able to affect people to target the fly, which resulted in 80% less urine outside the urinal.

2.2.2.   The use of nudging in marketing contexts

The increased interest in nudging might be an effect of its low cost and its effectiveness. There are several ways that marketers can use nudging to affect consumer behaviour. A practical adoption is to rearrange how a menu at a restaurant or café is presented, to influence what consumers choose to eat. One example from an online purchase setting is from the retail chain Zalando. They use different labels on garments to attract customers' attention, either to promote a discount or to endorse their sustainable attributes (De Weerd, 2019).

2.2.3.   The use of nudging for sustainable consumption

Thaler and Sunstein propose that nudging can be a tool to encourage people to consume more sustainable (Thaler & Sunstein, 2008) and there are numerous examples when nudging has been used to promote sustainable choices. One example is when the municipality in Copenhagen wanted more people to throw their garbage in garbage bins. To affect consumers, they painted green footsteps to mark the way to the bins. It resulted in almost a 50% reduction of garbage in the streets (Camino Magasin, 2014). Another example is when Fazer, a global food group, teamed up with the organization GreeNudge to test how nudging can affect consumers to choose more healthy food options. They changed the presentation and the labelling of the food, which resulted in consumers choosing more healthy dishes (Fazer, 2016). Thaler and Sunstein (2008) suggest that when there is an increase in better information and disclosure to consumers, there is a possibility to pursue consumers to make choices in favour of more sustainable consumption.

2.2.4.   Nudging through information

There are multiple ways to create a nudge. One way is to simplify and frame information (Lehner, Mont, & Heiskanen, 2014). However, it has been discussed if

providing information is nudging or not. According to Ölander and Thøgersen (2014), if the goal is to simplify information to facilitate better choices, in contrast to maximizing information to the consumer, it can be viewed as nudging. With this standpoint, and that Thaler and Sunstein (2008) suggest that an increase in better information to consumers might affect them to consume more sustainable, short informational nudges will be used in this study.

2.2.5. Criticism of nudging

In the existing research literature, three main concerns with nudging have been discussed. These are ethical concerns, concerns with the underlying Dual Process Cognitive Theory, and concerns whether the experimental effects of nudging are driven by other underlying factors.

The ethical concerns of nudging are mainly attributable to its behavioural intentions of humans and that a nudge can be interpreted as manipulative (Hagman et al., 2019; Lades & Delaney, 2020). Thaler acknowledges this concern and stresses the issue that nudging can be used for less benevolent purposes and discourage behaviour that is in a person's best interest (Thaler, 2018).

As previously mentioned, the theory of nudging categorizes human intellect through Dual Process Cognitive Theory. Cognitive science expresses its criticism to the simplification of the two separate systems: "…there is a long tradition in cognitive science that models unconscious and intuitive judgments by probability theory, inconsistent with System 1 and System 2" (Gigerenzer, 2015). This indicates that there is a need to be mindful of the underlying assumptions when observing data.

The experimental effects of nudging have been explored. One practical example is when the UK coalition government started the Behaviour Insight Team back in 2010, also known as the "nudge unit". The House of Lords raised criticism against the coalition government, due to their strong focus on nudging. In an investigation, the House of Lords found evidence that nudges used in isolation will often not be effective in changing the behaviour of the population. However, they suggested that nudging might be an appropriate complement to other tools to affect behaviour change (House of Lords, 2011). A recent example is the use of nudging during the pandemic of COVID-19. The UK government's initial strategy was to delay a lockdown due to the risk of "behavioural fatigue". Nevertheless, the empirical support of what impact behavioural interventions have during a pandemic is limited. Therefore, many criticized the proposed strategy, and the fact that nudging may not be able to solve human catastrophes (Sodha, 2020).

2.3. Informational nudging based on three sustainability dimensions

As this thesis views sustainability from an environmental, social, and economic dimension, it will be outlined below how each aspect will create an informational nudge that will be used in the experiment.

2.3.1. Environmental dimension

The fashion industry has an apparent impact on the environment. Recent studies show that the environmental impact of the fashion industry corresponds to 8% of the total global environmental impact (Quantis, 2018). The contribution is mainly due to the use of raw materials, water, energy, and chemicals, which results in greenhouse gases and particularly carbon dioxide emissions. Looking further into the value chain, production contributes to 80% of the industry's total impact (Sandin et al., 2019). The profound environmental impact calls for action. Mistra Future Fashion (n.d.) foresees that there is a need for both producers and consumers to contribute to an industry transformation. Producers need to address new innovative production processes and consumers need to change their behaviour. These concerns are addressed globally and the United Nations' SDG 13 urges for climate action (United Nations [UN], n.d.)

The increased pressure on companies creates both challenges and opportunities for marketers. It is suggested that companies shall provide the customer with "green information" to educate and create greater awareness of sustainability. Existing literature emphasizes that green marketing can encourage the consumer to buy sustainable fashion (Shen et al., 2014). An increasing amount of companies are communicating transparent information about their carbon dioxide footprint which is possible when following the independent climate-neutral standard ISO 14021:2016 (Svenska Institutet för Standarder [SIS], 2017). This is one way to be transparent with "green information" to consumers.

Based on this, the "environmental nudge" provides green information to inform respondents about a garment's neutral carbon dioxide footprint.

2.3.2. Social dimension

The fashion industry has received a lot of criticism in media for its poor working conditions at production sites. Many companies have their factories in developing countries and emerging economies and their workers commonly make less than a living wage and have little social protection.

During the last couple of years, initiatives such as "Ethical Fashion Initiative" and "Clean Clothes Campaign" have been created. They want to ensure fair and decent working conditions in the fashion industry. This involves no child labour, payment of a

living wage, safe working conditions as well as reasonable hours of work (Ethical Fashion Initative [EFI]; Clean Clothes Campaign [CCC]). Such initiatives put pressure on companies and governments, and an increasing amount of companies in the fashion industry communicate and market their actions for better working conditions. Companies that address these issues work towards several of the UN's sustainable development goals: SDG 1 for No poverty, SDG 8 for Decent work and economic growth as well as SDG 12 Responsible production and consumption (United Nations [UN], n.d.).

Based on this, the "social nudge" informs that a garment has been produced in a factory with fair living wages, no child labour, and safe working conditions.

2.3.3. Economic dimension

The linear system that many businesses have adopted during decades is being transformed. The Ellen McArthur foundation (2017) states that a new textiles economy, based on circular economy principles, would lead to better outcomes. They propose that a new textile economy relies on four ambitions (1) phasing out substances of concern and microfibre release (2) increasing clothing utilization (3) radically improving recycling and (4) making effective use of resources and moving to renewable inputs. This is crucial for companies, but also for consumers to understand how to consume more sustainable. One of many who agrees with the fact that clothing utilization needs to increase is H. Cavalli-Björkman at Re:newcell (personal communication, January 30th, 2020) who states that "the best thing consumers can do in order to be sustainable is to avoid buying new clothes to a greater extent and to use the garments that they already own for a longer time". This is in line with global standards. The United Nations urge consumers to waste less through prevention, reduction, recycling, and reuse through SDG 12 (United Nations [UN], n.d.). An industry transition is needed where high usage rates require a commitment to design garments that last. This could be advanced through common guidelines, aligned efforts, and increased transparency (Ellen MacArthur Foundation, 2017).

Based on this, the "economic nudge" informs about the quality of a garment, hence that the garment will last for a long time.

2.4.   Theory of Reasoned Action (TRA)

The Theory of Reasoned Action is a well-known framework in the field of behavioural psychology. One of the underlying assumptions is that people are viewed as rational organisms, which means that people make decisions based on available information. The framework is based on five different variables; beliefs, normative beliefs, attitude, subjective norms, and behavioural intention. Beliefs affect attitude and subjective norms, which in turn affect intention which finally affect the outcome behaviour (Fishbein & Ajzen, 1975). This thesis will investigate the relationship between attitude and behavioural intention to further understand how consumers react to sustainable information about garments. The main reason for excluding the other variables is due to constraints to manipulate beliefs, subjective norms, and observing actual behaviour outcome.
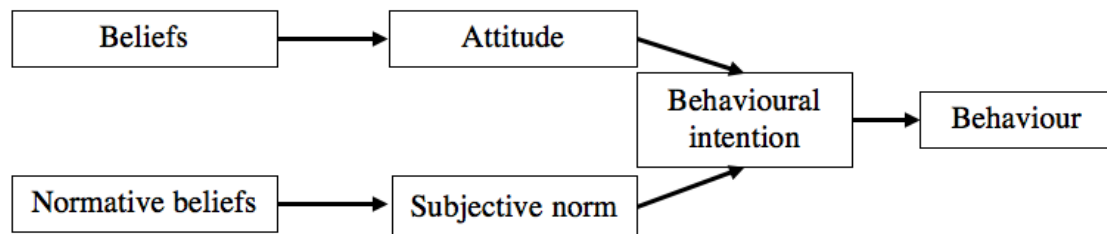
Figure 1. Visualization of the Theory of Reasoned Action

The concept "attitude" has been widely discussed and different definitions exist among psychologists (Eiser, 1980). However, the conceptual definition of attitude in the TRA is defined as; "a person's general feeling of favourableness or unfavourableness toward some stimulus object" (Fishbein & Ajzen, 1975). Behavioural intention is defined as "a person's intentions to perform various behaviours" (Fishbein & Ajzen, 1975).

2.4.1.   Hypotheses based on the TRA and nudging

To answer the research question about the effect of nudging on consumers, relevant measures are needed. In the context of this thesis, a relevant behavioural intention measure is purchase intentions. There is reason to believe that nudging with sustainable information will increase purchase intentions of a sustainable garment, since literature has suggested that increased sustainable information can affect consumers to consume more sustainably (Thaler & Sunstein, 2008).

Attitudes are perceived relevant as this gives an implication of respondents' favourableness towards the garment (Fishbein & Ajzen, 1975). To be noted, the primary goal of nudging is not to affect attitudes. However, there is an indication that changed behaviour due to a nudge will by extension affect attitudes (Lehner, Mont, &

Heiskanen, 2014). Furthermore, in accordance with the TRA, attitudes form the basis for behavioural intentions. Since it is believed that increased sustainable information will affect purchase intentions, it is possible that attitudes will be affected as well.

To test if the relationship between attitudes and purchase intentions holds in accordance with the TRA, the correlation between the two variables will be examined. Ultimately, based on the TRA and the theory of nudging, it is hypothesized:

H1: Information about a garment's sustainability will positively affect attitudes towards the garment, contrary to a garment with no additional information

H2: Information about a garment's sustainability will result in higher purchase intentions for the garment, contrary to a garment with no additional information

H3: Attitudes towards a garment will positively correlate with purchase intentions for the garment

---

2.5.   Word of Mouth (WOM)

One of the most widely accepted notions in consumer behaviour is that WOM communication plays a meaningful role in shaping consumers' attitudes and behaviours (Cheung, Anitsal, & Anitsal, 2007). One of the first pioneers in the field of WOM is Arndt, who defines it as "oral, person-to-person communication between a receiver and a communicator whom the receiver perceives as non-commercial, regarding a brand, product or service" (Arndt, 1967). Two decades later, a broader definition was presented "all informal communications from consumers directed at other consumers about the ownership, usage, or characteristics of particular goods and service or their seller" (Sigala & Gretzel, 2018). WOM is negative, neutral, or positive (Sweeney, Soutar, & Mazzarol, 2005).

Several studies have shown that WOM communication often exerts a strong influence on the judgments of products. Consumers frequently rely on WOM when considering the purchase of a new product or service (Paul, Frank, & Krades, 1991). Furthermore, WOM recommendations are typically generated by consumers who have no personal interest in recommending a particular product or a certain brand. Therefore, these recommendations are perceived to be more credible and receive more considerable attention from other consumers (Cheung, Anitsal, & Anitsal, 2007).

It has been argued that product involvement can motivate a user to talk about his or her purchase, and the positive experience that results from it (Cheung, Anitsal, & Anitsal, 2007; Arndt, 1967). It is suggested that the more interested a consumer is in a given topic, the more likely the consumer is to start a conversation about it. As this thesis investigates whether consumers are affected by nudges that inform about sustainability for a product, there is reason to believe that consumers who are interested in the topic of sustainability will be more willing to talk about the product. Moreover, it has been suggested that in situations with insufficient information search prior to purchasing decisions, negative WOM can occur (Cheung, Anitsal, & Anitsal, 2007). Therefore, not providing consumers with enough sustainable information regarding a product could result in not only a loss in WOM, but also a negative WOM.

Based on this, this thesis explores whether informational nudges about sustainability can have a positive effect on WOM intentions. According to one study, merely asking consumers to engage in WOM had a positive influence on the consumers' WOM activity (Söderlund & Mattsson, 2015). This makes it reasonable to believe that WOM intentions likely will result in behaviour. This thesis will look at the characteristic of WOM from the customers-to-customer perspective and the WOM that is considered to be pre purchase information, acknowledged as input WOM (Buttle, 1998).

Based on this, it is hypothesized:

> **H4**: Information about a garment's sustainability will result in higher WOM intentions for the garment, contrary to a garment with no additional information

3. Method

3.1. Scientific approach

This report aims to create a better understanding of consumers' perceptions of what sustainable fashion is, and to investigate how consumers react to sustainable information about a garment. An explorative approach is used by asking respondents an open question about their perceptions of sustainable fashion. To understand the effects of nudging on consumers, a deductive approach is used to study attitudes, purchase intentions, and WOM intentions (Bryman & Bell, 2015).

For the deductive approach, an experimental design was chosen. An experiment means that individuals are allocated randomly to different groups and get different treatments. Subsequently, the groups' reactions are compared (Söderlund, 2010). As the differences of attitudes and behavioural intentions between the dimensions are of interest, an experiment was considered the most suitable way to investigate the hypotheses. The experiment was carried out through an online self-completion questionnaire. Furthermore, an explorative analysis was made to examine if background variables could have an effect or explanatory value to the dependent variables.

An alternative method that could have been used is the verbal protocol approach (Bryman & Bell, 2015). Instead of distributing an online self-completion questionnaire, the authors would have asked respondents to think out loud about the questions in the questionnaire. This would have constrained the number of participants and questions. However, two open questions were included in the questionnaire, which allowed for some own thoughts in respondents' answers. Initially, the authors had an idea that actual behaviour was going to be measured through qualitative interviews after people purchased a garment. The interviews would have collected more in-depth answers about their attitudes, WOM intentions, and view on sustainable fashion. As the authors concluded that they wanted to investigate how different stimuli affected consumers, a survey with randomized allocation into different groups was seen as most suitable.

3.2. Questionnaire design

3.2.1. Survey flow
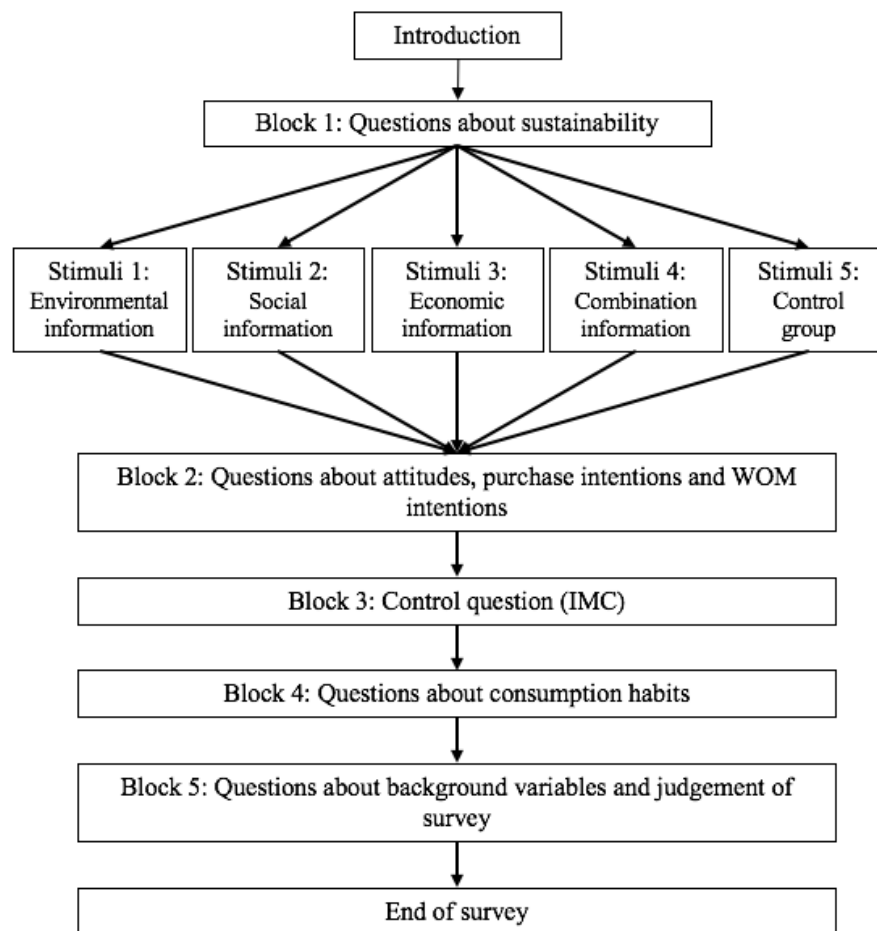
Figure 2. Visualization of the survey flow

3.2.2. Questionnaire

The survey was conducted through a self-completed and anonymous questionnaire, created by the survey-tool Qualtrics. The respondents had a total of 21 questions to complete and the adopted scales were based on Likert scales. The questions were written in Swedish since the questionnaire was addressed to Swedish consumers.

Firstly, the respondents were introduced to the purpose of the questionnaire, estimation of completion time, and anonymity. They were also informed about the donation to Naturskyddsföreningen for their participation in the questionnaire. Then they were introduced to the first block, consisting of questions regarding perceptions of sustainable fashion and self-perceived sustainability concern. The first question was an

open question: *what is sustainable fashion to you?* Subsequently*,* four closed questions regarding self-perceived sustainability concerns were asked.

In block two, respondents were randomly assigned to one of five groups. Depending on what kind of group they were assigned to, they were exposed to different stimuli. Regardless of what group respondents belonged to, the same following questions tested respondents' attitudes, purchase intentions, and WOM intentions.

Block three consisted of an instructional manipulation check (IMC), to moderate control that the manipulation had been registered (Oppenheimer, Meyvis & Davidenko, 2009). The last two blocks collected different background information. The first of the two asked questions about respondents' clothing consumption. The respondents who had purchased clothes within the previous three months were exposed to an open question to specify further details. The final and fifth block collected personal background information of the respondents, further explored as socio-demographic factors. See Appendix 6 for more detailed questionnaire information.

3.3.   Stimuli development

The respondents in the study were randomly assigned to one out of five possible groups. To test the hypotheses, respondents were put in an online purchase scenario of a garment. A pair of black jeans were presented together with relevant information. The main reasons for choosing a pair of jeans were that it is a common garment to own and can be used by both men and women. A straight jeans model was chosen to make them relevant for both genders. To eliminate the risk that personal style preferences, brand and price would interfere with the answers, respondents were asked to disregard the look of the jeans and to consider the price to meet their requirements.

The jeans were displayed with information regarding sizes available, material, colour, country of production, and an "add to basket"-button. What differed between the groups was the additional sustainable information. The control group was not presented with any additional sustainable information, whereas the other groups received different sustainable information.

The design of stimuli that respondents were exposed to is motivated by two factors:

1)   The created scenario needed to be as realistic as possible. Therefore, inspiration was taken from the brand Arket. The motive for this is that Arket is transparent with information about their garments on their website. The authors tried to imitate the webpage displayed to consumers when viewing a pair of jeans as much as possible.

2)   The choice of an online purchase setting is motivated by the fact that the questionnaire was distributed to respondents online. By viewing the stimuli at a

computer or on the phone, it becomes more realistic for respondents to imagine an online purchase scenario. As purchase intentions are measured, being close to a purchase scenario is important.

3.3.1. Treatment group 1: Environmental

Research has suggested that "green marketing" can encourage consumers to buy sustainable fashion. Simultaneously, companies are being increasingly transparent with their climate impact, specifically their carbon dioxide footprint. Therefore, an informative text about carbon dioxide neutrality was used. The respondents in this group were exposed to the following text:

We care about our climate impact – these jeans are produced with a neutral CO_2 impact!

3.3.2. Treatment group 2: Social

An increasing amount of companies communicate and market their actions for their workers. The three most critical aspects, according to initiatives such as the Ethical Fashion Initiative and Clean Clothes Campaign are no child labour, fair living wages, and safe working conditions. The respondents in this group were exposed to the following text:

We care about our workers – These jeans are produced in a factory where we have secured fair living wages, no child labour, and safe working conditions!

3.3.3. Treatment group 3: Economic

The transformation towards a more circular economy and the rising trend of prolonging the life of garments will require companies to design garments that last longer. Therefore, information about a pair of jeans' quality was used. The respondents in this group were exposed to the following text:

These jeans are part of our premium quality collection – timeless design with high-quality materials!

3.3.4. Treatment group 4: Combination of environmental, social and economic

The fourth treatment consisted of a combination of the three perspectives, to test the accumulated impact on consumers. The respondents in this group were exposed to the following text:

We care about our climate impact and our workers – These jeans are produced with a neutral CO_2 impact and are produced in a factory where we have secured fair living wages, no child labour, and safe working conditions.

These jeans are also part of our premium quality collection – timeless design with high-quality materials!

3.3.5. Control group

The control group did not receive any additional sustainable information. This group enabled comparisons with the rest of the groups, to measure the effect of sustainable information on consumers' attitudes and behavioural intentions.

3.4. Insights from the preparatory study

A pre-study was conducted to evaluate the questionnaire. It is seen as a suitable tool for the insight of usability and gives new perspectives on the experiment design (Connelly, 2008). Between the 20th and 23rd of March 2020, a sample of 20 respondents completed the questionnaire. To get important implications, five of the respondents were asked to think out loudly while answering the questions. The implications of this pre-study revealed that the structure of the questions needed to be changed to achieve higher usability. Furthermore, it was suggested that the open question in the beginning might be a threshold for respondents. However, it was important for the study that the respondents' answers to the open question were not influenced by the manipulations and it was therefore necessary to introduce the open question in the first block.

3.5. Main study

3.5.1. Measurements

This thesis explores three different dependent variables; attitudes, purchase intentions, and WOM intentions. The adopted scale for every dependent variable is a 7-point balanced Likert scale. The 7-point scale is suggested because it creates a comparable mean, and the respondents can choose a neutral alternative. However, the choice of being neutral provides an easy escape for respondents. The scale is well-used in marketing research, and one of the main reasons is the ease of use for researchers and high usefulness for respondents. Each of the dependent variables had three statements attributable to their question, which created an index mean for each dependent variable (Clow & James, 2014).

Attitudes

To measure attitudes towards the stimuli, the respondents were to answer three different statements attributable to the question: *based on the information above, what do you think of the jeans?* (Clow & James, 2014). The three different scales ranged from 1 (very bad) to 7 (very good), 1 (dislike a lot) to 7 (like a lot), and 1 (very negative) to 7 (very positive).

Purchase intentions

Purchase intentions were captured by the question: *below are some statements about your purchase intention of the jeans, please indicate to what extent you agree with the statements*. The three statements were based on a purchase intention scale, adapted to an online setting (Chuchinprakarn, 2011). The scale was extended from a 5-point scale to a 7-point scale. The scale ranged from 1 (absolutely not) to 7 (yes, absolutely).

WOM intentions

To explore the respondents' intentions to recommend the jeans, the respondents were exposed to the question: *below are some statements about your propensity to recommend the jeans, please indicate the extent to which you agree with the statements*. (Eisingerich et al., 2015). The scale was shortened from a 9-point scale to a 7-point scale. The scale ranged from 1 (very unlikely) to 7 (very likely).

Self-perceived sustainability concern (SPSC)

A measure of the respondents' SPSC was of interest for an explorative analysis. It was measured through three separate questions that were inspired by a report from Naturvårdsverket (Carlsson, Hammarberg & Hultin 2015). These statements were indexed into the SPSC mean. An additional question was added to test whether the respondents were willing to pay a 10% premium for a sustainable garment (Chan & Wong, 2012). However, this statement was not included into the SPSC mean.

A 5-point Likert-scale was used that ranges from 1 (never) to 5 (often), and 1 (no, not at all) to 5 (yes, absolutely).

Open question

With inspiration from a previous study in Norway (Hanss & Böhm, 2012) that examined what consumers find important with the concept "sustainability", an open question was asked at the beginning of the survey. The respondents were asked: *what is sustainable fashion to you?*, and the answers were coded into the three dimensions that the experiment is based on: environmental, social, and economic. The advantage of the open question is to capture the respondent's level of knowledge, perceptions, and commitment to sustainable fashion to a greater extent. The coding of this question was based on the coding schedule that Hanss and Böhm (2012) used in their study.

3.6.   Data collection and analysis

3.6.1.   Data collection

The questionnaire was distributed between the 23rd of March and the 16th of April 2020, and generated a total of 203 valid responses. It was distributed through Facebook, LinkedIn, and Instagram, which infers a convenience sample. The logic behind the

selected procedure was time efficiency and a high response rate. The main problem with a convenience sample is that it cannot generalize the findings since it is not a representative sample (Bryman & Bell, 2015).

3.6.2. Dropout analysis

In total, 439 people participated in the main study. Initially, those who had not finished the entire questionnaire were excluded, totalling 170 respondents. Looking further into the dropouts, 119 respondents dropped out after only 5 to 20 seconds, indicating that the open question in the beginning might have induced a high threshold. Of those who completed the survey, a dropout of 68 respondents was due to the IMC question and another 9 respondents due to the last control question. Approximately 25% of the completed answers were therefore excluded due to the control questions.

3.6.3. Data analysis

Data was exported from Qualtrics to SPSS where all tests and analyses were performed. Initially, descriptive data of means and standard deviations were summarized, and the open question was coded according to the study by Hanss and Böhm (2012). A one sample t-test was used to explore the significant differences from the mid-point of the dependent variables' Likert scales. Subsequently, tests were conducted to test the hypotheses. When choosing a statistical test for comparing groups, the number of groups and types of scales were taken into account (Söderlund, 2010). In this experiment, the three variables that formed the basis for H1, H2, and H4 are interval scales, and therefore ANOVA was used. Post-Hoc Tukey is applied to compare means between the nudged groups and the control group. To test the relevance of an ANOVA analysis, a Levene's for homogeneity of variances was conducted.

For H3, a Pearson's correlation test was used to measure if there was a significant relationship between attitudes and purchase intentions. Pearson's test was seen as appropriate since the measurements were based on interval scales. The relationship between attitude and purchase intentions is assumed to be linear, which reveals suitability for a Pearson's test. Finally, linear regressions to measure the effects of independent variables such as socio-demographic variables and self-perceived sustainable concerns were analyzed. For all statistical tests, an alpha level of maximum 0.05 was used to determine the significance level, which is suggested by literature (Bryman & Bell, 2015).

3.7. Reliability and validity

3.7.1. Reliability

Reliability refers to the consistency of a measure of a concept (Bryman & Bell, 2015). Internal reliability applies to multi-item measures in which the respondents' answers to each question are aggregated to form an overall score. These items must be coherent, and this can be measured by the use of Cronbach's alpha. This will vary between 0 (no internal reliability) and 1 (perfect internal reliability). A Cronbach's alpha of 0.7 has been suggested to be efficient (Bryman & Bell, 2015). The results of Cronbach's alpha for the dependent variables and SPSC are found in Appendix 1. All but one variable had an alpha above > 0.7. The SPSC variable had an alpha of 0.645. However, since it is not one of the dependent variables and that the measure is inspired by a study that has not tested Cronbach's alpha, it was not seen as a major concern.

3.7.2. Validity

Validity is about whether or not a measure of a concept measures that concept (Bryman & Bell, 2015). Below, validity has been divided into two separate parts that are common in research: internal validity and external validity.

Internal validity

Internal validity refers to the extent to which the treatment explains the participants' reactions in an experiment (Söderlund, 2010). One way to ensure this internal validity is to allocate participants randomly to different groups. By using the tool randomizer in Qualtrics, this random allocation was conducted. Furthermore, measurements from previous studies were used to ensure the quality of the multi-item questions.

To test that participants read the information presented, an instructional manipulation check (IMC) was created. Those who did not read the text in the manipulation check were assumed to be less likely to have read the information in the stimuli. By the end of the survey, an additional control question asked respondents' if the questionnaire was about Italian pasta, to increase internal validity further.

External validity

External validity refers to the extent to which the results of an experiment can be assumed to apply in other situations. In other words, to which extent the results of the experiment can be generalized (Söderlund, 2010). One issue regarding this study's external validity is that the sample of participants is not representative for a population due to a convenience sample (Bryman & Bell, 2015).

The pair of jeans in this experiment is considered to be representative for garments. Therefore, the results could be generalized for other categories of fashion. However, the informational nudges might need to be revised.

3.7.3. Judgement of the survey

At the end of the survey, respondents were asked four questions about their judgment of the questionnaire. This was done to get a better understanding of how respondents perceived the questions in the questionnaire and to secure the validity. It was shown that 85% of the respondents found the portrayed scenario as realistic, 78% thought that the survey was meaningful and 87% considered the formulation of the questions to be clear. Regardless of the different manipulations, 76% of the respondents did not believe that the questions were trying to influence their answers in a certain direction. For details, see Appendix 2.

4.   Results

In this section, the results from the main study are presented. Firstly, descriptive statistics of the respondents are presented, which is followed by the open question about sustainable fashion. Secondly, the relevant tests for the hypotheses are outlined, which reveal whether the hypotheses have empirical support or not. Finally, additional findings are presented.

4.1.   Descriptive statistics

The survey generated a total of 203 valid responses. The average age of the respondents was 32.5 years and there were more women (66.5%) than men (33.5%). Almost half of the respondents were students (47.8%), and the other half were mainly employees (45.3%). Furthermore, more than half of the respondents had a college or university degree (57.6%). Table 1 presents the socio-demographic variables that were of interest in the study.

Table 1. Overview of socio-demographic variables

Variable	N	n	% of total sample
	203		
Gender			
Male		68	33.5%
Female		135	66.5%
Age (years)			
15-25		119	58.6%
26-35		21	10.3%
36-50		31	15.3%
51-65		25	12.3%
>66		7	3.4%
Occupation			
Student		97	47.8%
Employed		92	45.3%
Other		14	6.9%
Education			
Elementary school		9	4.4%
Upper secondary school		67	33%
College or university degree		117	57.6%
Vocational education		6	3%
Doctoral studies		4	2%

4.1.1. Consumption habits

A majority of the respondents (54.2%) had been shopping for new clothes 1-2 times during the previous three months. It was investigated where the respondents had purchased fashion most recently. Most of them (40.9%) had been shopping both online and in a physical store, whereas 38.9% had been shopping only in a physical store and 13% had only shopped online. Furthermore, of those who had purchased clothes during the previous three months (186 respondents), the most common categories of purchased garments were sweater/hoodie, jeans, and jacket/blazer. For more statistics, see Appendix 3.

4.2. Respondents' perception of sustainable fashion

To explore what the respondents were thinking of when asked "*what is sustainable fashion to you?*", the answers were coded into the three dimensions that the experiment is based on; environmental, social, and economic. The coding schedule is described in Table 2, followed by the results in Table 3. Respondents can fall into multiple categories. Thus, if an answer contains both an environmental dimension and an economic dimension, both are counted.

Table 2. Explanation of coding scheme

Code	Sustainability dimension	Code description (if answers contain…)
1	Environmental	nature, environment, recycled materials, water, air, ecologic, energy
2	Social	values, social welfare, fair trade, distribution
3	Economic	quality, economic welfare, circular economy or consumption, long-term thinking
4	Combination	if all dimensions above are mentioned
5	Other	-

Table 3. Results of the coding scheme

| Coding dimension	n	% of total	Example
Environmental	115	56.7%	*"As small environmental impact as possible"*
Social	35	17.2%	*"That the workforce gets reasonably paid and works in a healthy environment"*
Economic	142	70%	*"Quality and how long the clothes last"*
Combination	17	8.4%	*"Decent working conditions, climate-neutral production, long-lasting clothing and minimal transport"*
Other	14	6.9%	-
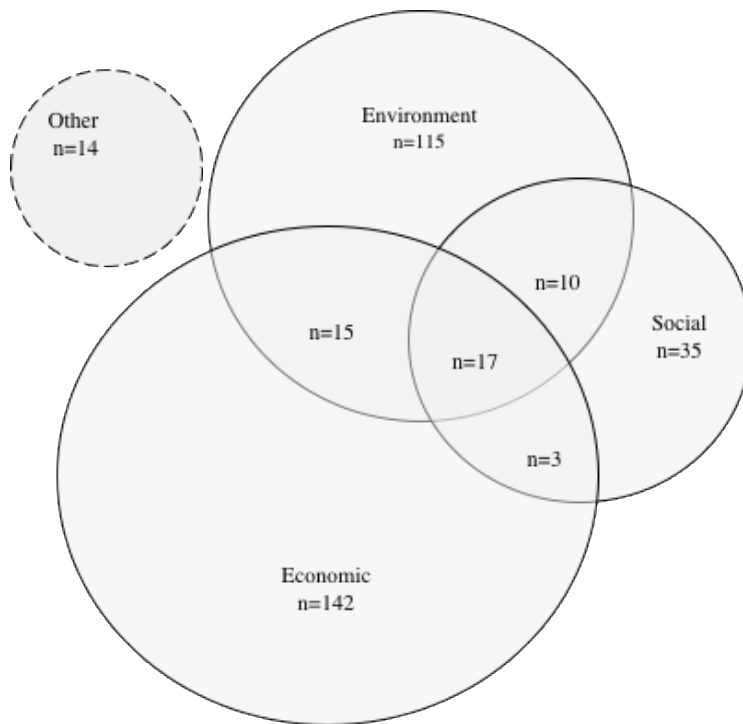
Figure 3. Visualization of responses to open question through a Venn diagram

4.2.1. Self-perceived sustainability concern (SPSC)

The SPSC is based on three different statements: (1) Do you see yourself as a person who is aware of sustainable clothing consumption? (2) How often do you make the actual choice to choose a sustainable garment? (3) Does it happen that you receive a bad conscience when you consume unsustainable fashion? The results indicate that the majority of the respondents viewed themselves as quite conscious of sustainable

clothing consumption and quite often chose a sustainable garment. Moreover, a majority of the respondents received a bad conscience when they consumed unsustainable fashion. A majority of the respondents had a fairly strong willingness to pay a 10% premium for a sustainable garment.

Table 4. Self-perceived sustainability concern (SPSC)

Variable	N	M	SD
	203		
Do you see yourself as a person who is aware of sustainable clothing consumption?		3.77	1.01
How often do you make the actual choice to choose a sustainable garment?		3.57	1.21
Does it happen that you receive a bad conscience when you consume unstainable fashion?		3.35	1.22
SPSC mean		**3.56**	**0.88**
Willingness to pay 10 % premium		4.40	0.73

Note: All metrics based on 5-point Likert Scales

4.3. Experimental data

Outlined below are means and standard deviations of the groups in the experiment, based on the dependent variables: attitudes, purchase intentions, and WOM intentions.
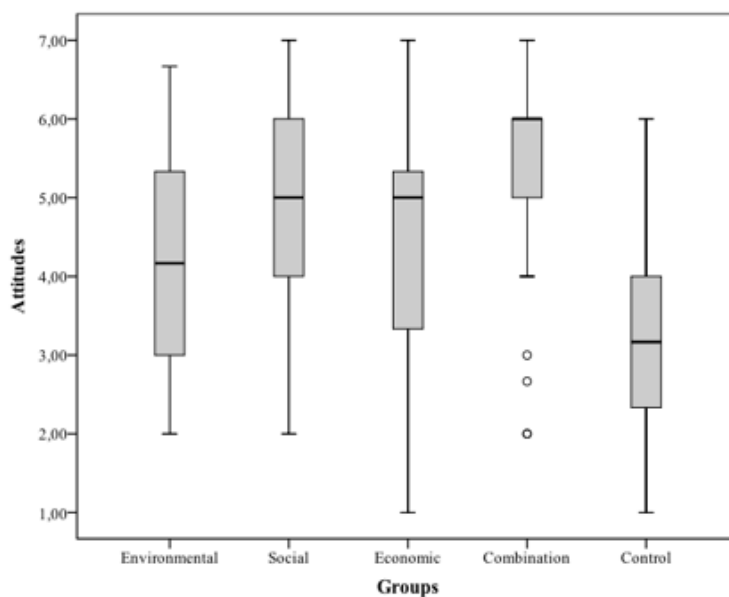

**Figure 4**. Visualization of attitude means for each group
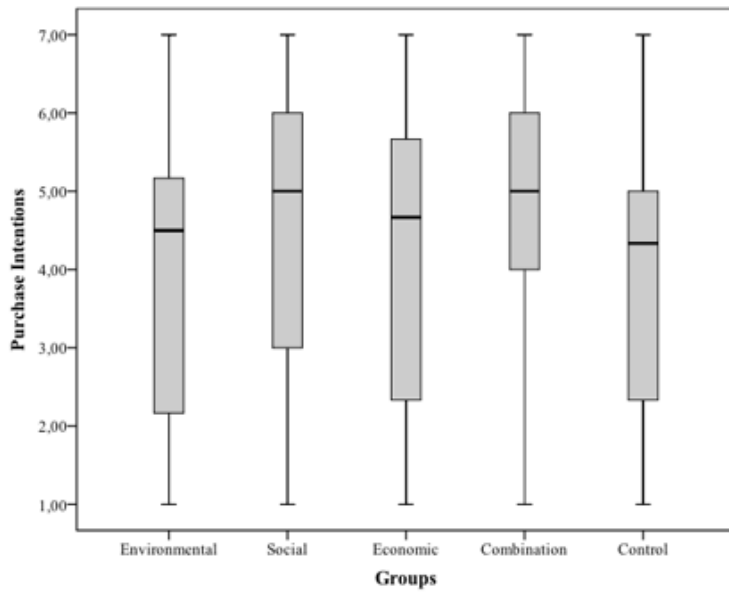
**Figure 5**. Visualization of purchase intention means for each group
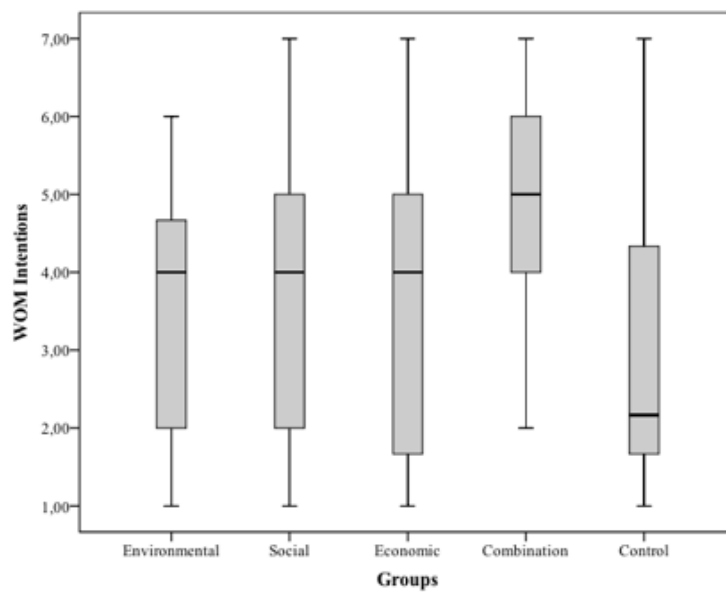
Figure 6. Visualization of WOM intention means for each group

Table 5 specifies the results of means and standard deviations for the dependent variables. A one sample t-test was conducted to explore the differences from the mid-point (=4) of a 7-point Likert scale for each group. The results indicate that:

- Attitudes: the combination group had the highest mean, while the control group had the lowest mean. All nudged groups were above the mid-point, which means that they were more positive than negative towards the garment. However, only social, combination and control significantly differed from the mid-point.

31

- Purchase intentions: most groups were slightly above neutral. However, none of the groups were, according to the t-test, significantly positive or negative in relation to the mid-point except for the significantly positive combination group.

- WOM intentions: all nudging groups except for the combination group stated that it was somewhat unbelievable that they would recommend the jeans. The respondents in the combination group stated it was somewhat believable that they would recommend the jeans. Only the combination group and the control group differed significantly from the mid-point.

Table 5. Overview of differences in mean between stimuli groups in experiment

Variables	Environmental n=28		Social n=46		Economic n=34		Combination n=49		Control n=46	
	M	SD	M	SD	M	SD	M	SD	M	SD
Attitudes	4.21	1.41	4.91a	1.39	4.31	1.56	5.46a	1.17	3.34b	1.17
Purchase intentions	4.06	1.80	4.46	1.75	4.20	1.83	4.86a	1.38	4.02	1.73
WOM Intentions	3.44	1.66	3.78	1.77	3.44	1.75	4.70a	1.49	3.04b	1.69

Note: Lowered a indicates a significant ($p < 0.01$) positive difference from the mid-point of the scale (4). Lowered b indicates a significant ($p < 0.01$) negative difference from the mid-point of the scale (4). One sample t-test can be found in Appendix 3.

4.4. Hypothesis testing

To conduct an ANOVA analysis, a Levene's test for homogeneity of variances was needed since the sample size of the subgroups were not equal (see Appendix 4). The results for each dependent variable indicated that the null hypothesis of equal population variances could be rejected, as $p > 0.05$ for all dependent variables. To test the hypotheses H1, H2, and H4, an ANOVA test was used. Subsequently, to examine what type of nudge that was most effective for each dependent variable, Post-Hoc tests were conducted.

4.4.1. Effects of nudging

The results of the ANOVA tests are summarized in Table 6. Post-Hoc Tukey was used to compare the treatment groups' means with the control group. Corresponding to attitudes, the results show that three informational nudges (social, economic, and combination) differed significantly positive in mean from the control group. Regarding purchase intentions, none of the informational nudges had any significant effect in comparison to the control group. For WOM intentions, the combination group differed positively from the control group on a significant level.

These results indicate that H1 has empirical support (although the environmental group had no significant effect), H2 lack of empirical support and H4 can be considered only partially empirically supported.

Table 6. Overview of mean differences between treatment groups and the control group (Post-Hoc, Tukey)

Treatment group (in relation to control)	Attitude	Purchase intention	WOM intention
Environmental	0.87	0.04	0.40
Social	1.57***	0.44	0.74
Economic	0.97*	0.18	0.40
Combination	1.66***	0.84	1.66***

Note: * The mean difference is significant at the 0.05 level, *** The mean difference is significant at the 0.001 level

4.4.2. Theory of Reasoned Action

To test H3, bivariate Pearson correlations with two-tailed tests for significance were conducted. In Table 7, the correlation of all attitudes with all purchase intentions is summarized, followed by the correlation for each group. All correlations were significant at the 0.01 level. Therefore, H3 has empirical support.

Table 7. Bivariate Pearson correlation coefficients for attitudes and purchase intentions

Correlating variables (AT=attitudes, PI=purchase intentions)	Pearson	
	Coefficient	Strength
All attitudes – All purchase intentions	0.583**	Large
Environmental AT – Environmental PI	0.700**	Large
Social AT – Social PI	0.442**	Medium
Economic AT – Economic PI	0.686**	Large
Combination AT – Combination PI	0.530**	Large
Control AT– Control PI	0.603**	Large

Note: ** Correlation is significant at the 0.01 level. Pallant suggest guidelines of the correlation strength. Small implies r=0.10 to 0.29, medium r=0.30 to 0.49 and large r=0.5 to 1 (Pallant, 2013)

Table 8. Summary of hypotheses

H1	Information about a garment's sustainability will positively affect attitudes towards the garment, contrary to a garment with no additional information	Empirically supported
H2	Information about a garment's sustainability will result in higher purchase intentions for the garment, contrary to a garment with no additional information	Not empirically supported
H3	Attitudes towards a garment will positively correlate with purchase intentions for the garment	Empirically supported
H4	Information about a garment's sustainability will result in higher WOM intentions for the garment, contrary to a garment with no additional information	(Partially) empirically supported

4.5. Additional findings

Besides from investigating the hypotheses and analyzing descriptive data, it was of interest to explore if there were any significant correlations between independent and dependent variables. The most relevant findings are presented below.

4.5.1. Linear regressions for dependent variables

Linear regression analyses were used to explore if any background variables could explain the outcome in attitudes, purchase intentions, and WOM intentions. Tests were conducted for all stimuli groups and were analyzed in six models; two for each dependent variable, one for the nudged groups and one for the control group. This required that dummy variables were created. Background variables that were tested as independent variables were: age, gender, education, occupation, purchase frequency and SPSC. Gender, education, and occupation were transformed into dummy variables. Gender was coded into either women or men. Education was distinguished as either high or low education. If the respondents had a university education or higher, they were categorized into high education. Occupation was subdivided into two groups, one with employees and one with students and others. SPSC and purchase frequency remained as scales. Age was divided into 5 categories as shown in Table 1. Lastly, each experiment group was created as a dummy variable, to measure their explanatory value.

The results in the linear regressions indicate (Appendix 5):

- Attitudes:

  - Model 1: there was a significant positive correlation between all nudged groups and the attitudes towards the jeans.
  - Model 2: the more sustainable the respondents considered themselves to be, the less favourable attitudes the respondents had towards the control jeans. It also showed a significant negative correlation between the control group and attitudes.

- Purchase intentions:

  - Model 3: female respondents had higher purchase intentions than men. Also, a correlation was found between higher purchase frequency and higher purchase intentions towards the jeans. This means that the respondents who had purchased more clothes during the previous three months, also had higher purchase intentions towards the jeans. The only nudged group that had a significant positive correlation with purchase intentions was the combination group.
  - Model 4: no significant correlations were found.

- WOM intentions:

  - Model 5: two nudged groups positively correlated with WOM intentions: social and combination. It was found that age negatively correlated with WOM intentions. This means that the older the respondents were, the less they were willing to recommend the jeans.
  - Model 6: the control group negatively correlated with WOM intentions. The findings suggest that age correlated negatively with WOM intentions.

4.5.2.   Exploring relationships between dependent variables

A further analysis was made to explore correlations between the three dependent variables. In addition to previous results about a relationship between attitudes and purchase intentions, a linear regression for correlations between WOM intentions, attitudes, and purchase intentions was conducted.

The results, shown in Table 9, indicate that there is a positive correlation between attitudes and WOM intentions, as well as between purchase intentions and WOM intentions.

Table 9. Linear regression for WOM intentions' correlation with attitudes and purchase intentions

Variables	Unstandardized B-coefficients	St Error	Adjusted R_2
			0.599
Attitude	0.830***	0.057	0.513
Purchase Intentions	0.682***	0.055	0.432

Dependent variable: WOM intentions
***p < 0.001

4.5.3. Exploration of SPSC and consumption behaviour

Variables that relate to consumption and sustainability were explored to find out if any background variables had an explanatory value to them. Dependent variables for the linear regressions were: SPSC, purchase frequency, online vs physical store shopping and willingness to pay a 10% premium for a sustainable garment. If not used as dependent variable, they were used as independent variables. For all regressions the following background variables were used as independent variables: age, gender, occupation, and education. An additional dummy variable was created: online shopping, whereby physical store shoppers were the reference group. The three statements for SPSC were investigated separately, since the Cronbach's alpha for the statements was below 0.7.

Linear regression for SPSC

The findings suggest that women perceived themselves to be more sustainable according to the SPSC scale, but also that those who are employed in comparison to those who study or have other occupations perceived themselves to be more sustainable. Additionally, the fewer times the respondents had purchased clothes during the last three months, the more sustainable they perceived themselves to be.

Table 10. Linear regression for SPSC

Variables	Unstandardized B-coefficients	St Error	Adjusted R_2
			0.140
Dummy gender (women)	0.609***	0.124	
Age	-0.20	0.057	
Purchase frequency	-0.175*	0.072	
Dummy occupation (employee)	0.306*	0.136	
Dummy education (high)	0.087	0.131	
Dummy online	-0.105	0.128	

Dependent variable: Self-perceived sustainability concern
*p<0.05, ** p < 0.01, *** p < 0.001

Linear regression for purchase frequency

The results show that women had a higher purchase frequency than men, meaning that women had purchased clothes more frequently than men during the previous three months. Furthermore, respondents who had purchased online had purchased more in the previous three months than those that had been shopping in a physical store. Additionally, those that indicated that they "often make the active choice of purchasing a sustainable garment" had been shopping less during the previous three months.

Table 11. Linear regression for purchase frequency

Variables	Unstandardized B-coefficients	St Error	Adjusted R^2
			0.206
Dummy gender (women)	0.344**	0.130	
Age	-0.093	0.055	
Dummy occupation (employee)	0.211	0.136	
Dummy education (high)	0.064	0.129	
Dummy online	0.662***	0.18	
SPSC statement 1	0.065	0.074	
SPSC statement 2	-0.163*	0.063	
SPSC statement 3	-0.042	0.052	

Dependent variable: Purchase frequency in the last three months
* p < 0.05, **p< 0.01, ***p<0.001

Linear regression for online vs physical store shopping

Older respondents had purchased less online compared to younger respondents. Also, respondents who had been shopping more during the previous three months, had purchased more online, which is consistent with the findings above. Respondents who perceived themselves sustainable concerning fashion consumption, bought less online.

Table 12. Linear regression for online shopping

Variables	Unstandardized B-coefficients	St Error	Adjusted R^2
			0.181
Dummy gender (women)	-0.012	0.075	
Age	-0.062*	0.031	
Dummy occupation (employee)	0.028	0.077	
Dummy education (high)	0.041	0.073	
Purchase frequency	0.212***	0.038	
SPSC statement 1	-0.084*	0.041	
SPSC statement 2	0.018	0.036	
SPSC statement 3	0.028	0.030	

Dependent variable: Place of purchase in the previous three months (online)
* p < 0.05, **p< 0.01, ***p<0.001

Linear regression for willingness to pay a 10% premium for a sustainable garment

What was further explored was the relationship between SPSC and the willingness to pay a 10% premium for sustainable garments. The results indicate that the two separate statements, (1) how often the respondents make the active choice of a sustainable garment, and (2) if respondents receive a bad conscience when they consume unsustainable fashion, had a significant positive correlation with the willingness to pay a 10% premium for a sustainable garment.

Table 13. Linear regression for willingness to pay a 10% premium for a sustainable garment

Variables	Unstandardized B-coefficients	St Error	Adjusted R^2
			0.190
Do you see yourself as a person who is aware of sustainable clothing consumption?	0.070	0.060	
How often do you make the actual choice to choose a sustainable garment?	0.109*	0.050	
Does it happen that you receive a bad conscience when you consume unsustainable fashion?	0.181**	0.040	

Dependent variable: Willingness to pay a 10% premium for a sustainable garment
*$p < 0.05$, ** $p < 0.001$

5. Discussion

The purpose of this study was to create a better understanding of consumers' perceptions of what sustainable fashion is, and to investigate how consumers react to sustainable information about a garment. It was shown that a majority of the respondents' perceived sustainable fashion to be mainly about quality, timeless design and to prolong the life of garments. This was followed by the importance of environmentally friendly garments, and lastly, clothes that have been produced under fair working conditions.

Three out of four hypotheses were empirically supported or partially empirically supported. It was investigated what type of sustainable information that had the most substantial effect, since the information was presented in four different ways. For attitudes, nudging in relation to control had an impact, as predicted. It was shown that three out of four nudged groups (social, economic, and combination) were significantly more positive than the control group towards the garment. Contrary to what was predicted, none of the nudged groups had significantly higher purchase intentions than the control group. The hypothesis that the sustainable information could increase WOM intentions was only partially supported, as only the combination of information from the three dimensions had a significant positive difference from the control group.

5.1. Conclusions and implications

5.1.1. Consumers' perceptions of sustainable fashion

To answer the first research question, respondents were asked "*what is sustainable fashion to you?*", to get an understanding of what sustainable fashion means to consumers. The question was inspired by a research paper that asked respondents what came to their minds when they heard "sustainability" (Hanss & Böhm, 2012). This was tested on Norwegian consumers, and the results indicated that the most frequent answer related to the environment or to social aspects. The results of this study indicate a quite different allocation of answers, as the most frequent answer related to quality, timeless design and prolonging the life of garments (n=142). Thereafter, environmental aspects were common (n=115), and the least common answer involved social aspects (n=35). Since the authors of this thesis interpreted the economic dimension to be about quality and a circular economy, the answers might have differed from the Norwegian study that focused on economic welfare. Furthermore, this thesis applied the question in a fashion context, which could have contributed to a difference from the previous paper. Swedish consumers might also think differently from Norwegian consumers due to the differences in values and culture.

The open question was of further interest to compare with the type of sustainable information that worked best in the experiment, to test if the respondents intend to act in line with their values. Seemingly, as quality was perceived important for a majority of the respondents, the quality information (economic) should have generated the most considerable effect on consumers, and the information about fair working conditions (social) should have generated the least impact on consumers in comparison to the control group. However, that was not the case. Hence, the authors argue that consumers do not always intend to act in line with their values in regard to sustainable fashion consumption.

5.1.2. Nudging

In this study, it was investigated if nudging could be a communicative tool for sustainable fashion. A total of 157 respondents were manipulated through nudging using four different types of messages, each informing the respondents about a garment's sustainability. Two underlying criteria of nudging are; (1) respondents shall not feel that their decisions are limited or constrained, and (2) respondents shall be provided with clear and accessible information (Thaler & Sunstein, 2008). Based on the respondents' judgment of the survey, it is implied that the experiment was in line with the two underlying criteria. A majority of the respondents did not believe that they were influenced towards a certain direction and thought that the questions were clearly stated.

It was hypothesized that information about a garment's sustainability would result in more favourable attitudes, higher purchase intentions, and higher WOM intentions. For all three dependent variables, the highest mean was assigned to the combination group, while the lowest mean was assigned to the control group. This reveals information about some kind of pattern related to the two groups. In this study, the combination group had to most favourable attitudes, highest purchase intentions, and the highest willingness to recommend the garment, while the reverse relationship exists for the control group. The combination stimuli delivered a message that consisted of a more complete sustainable information, compared to the other nudged groups. Hence, fashion companies may benefit from obtaining more extensive sustainable information, containing more than merely one dimension. This is also attributable to the fact that there is no clear definition of sustainable fashion, thus, by including several sustainability dimensions, there is a higher probability of reaching a broader segment.

Nudging aims primarily at changing behaviour, and attitude changes can be viewed as an extension (Lehner, Mont, & Heiskanen, 2014). According to the theory, the effect would likely be on purchase intentions and WOM intentions, rather than attitudes. However, the results show no significant impact on purchase intentions, while a significant effect on attitudes and a minor effect on WOM intentions. The results imply that a fictitious purchase scenario might not be able to measure purchase intentions. It is possible that other underlying factors might affect the respondents' intentions to

purchase the garment. Even though respondents were asked not to consider style, price, and a need for a pair of jeans, these factors might be inevitable for respondents not to consider. Previous literature emphasises the importance of personal style for sustainable fashion purchases (Bly, Gwozdz, & Reisch, 2015). The jeans might, for instance, be in more accordance of personal style for female respondents, since women had higher purchase intentions toward the jeans. Hence, purchase intentions as a measure of respondents' reactions in this context, might not have been as suitable as the authors initially thought.

Contrary to what was predicted, there was no empirical support for the effect of sustainable information on the environmental group, in regard to attitudes. Theory advocates that "one nudge does not fit all", and all nudges are not accepted by all consumers (Hagman et al., 2019; Lades & Delaney, 2020). Others may argue that a carbon dioxide neutral statement can be interpreted as greenwashing. Research suggests that if customers discover greenwashing, it will cause negative attitudes and purchase intentions (de Jong, Huluba, & Beldad, 2020).

5.1.3. Theory of Reasoned Action

It was shown in the study that attitudes correlated positively with purchase intentions, as hypothesized. Additionally, a positive correlation between attitudes and WOM intentions was found. This is in accordance with the Theory of Reasoned Action (Fishbein & Ajzen, 1975). Despite the non-significant effect of nudging on purchase intentions, these findings give an implication that more positive attitudes leads to higher purchase intentions and WOM intentions. Therefore, fashion companies shall aim at creating positive attitudes towards their products, because these attitudes will in turn affect purchase intentions and the willingness to recommend their products.

5.1.4. Additional findings

Theory contends that product involvement can motivate a user to recommend a product, which indicates that respondents with higher SPSC score would be more willing to recommend the sustainable jeans (Cheung, Anitsal, & Anitsal, 2007; Arndt, 1967). However, the results indicate that there is no correlation between high SPSC score and positive WOM intentions for the garment with sustainable information, which is divergent from the literature. A possible explanation is that the provided sustainability information was seen as insufficient for respondents with high involvement for sustainability. Additionally, one can argue that respondents need to experience the product to be able to recommend it and have some kind of involvement or interaction, which was not enabled in this study.

In general, respondents perceived themselves to be sustainable in their consumption (SPSC) of clothes (M=4.4/5). Women and those who were employed were the two

groups that considered themselves to be most sustainable. This could give an implication that employed women are particularly interesting to target when communicating sustainable fashion, since they will be more likely to choose sustainable fashion. However, although women perceived themselves to be more sustainable than men, they had purchased more clothes than men during the previous three months. Either these results imply that women had in fact consumed more sustainable fashion or that women overestimated their sustainability behaviour of fashion. That employees perceived themselves to be more sustainable than other occupations could be because employees have a higher disposable income and that sustainable fashion is often more expensive (Singer, 2019).

It was also shown that the more respondents perceived themselves to be sustainable, the less favourable attitudes they had towards the control jeans. However, in contrast to previous theory (Lee, 2008; Van de Velde, Verbeke, Popp & Van Huylenbroeck, 2010), there was no significant positive correlation between perceiving oneself to be sustainable and favourable attitudes towards the garment with sustainable information. In line with the literature, it was shown that most respondents were willing to pay a 10% premium for a sustainable garment (Chan & Wong, 2012). Ultimately, it was interesting that age correlated negatively with the willingness to recommend the garment, no matter sustainable information or not. This could be since older respondents were shopping less online and did not feel as comfortable with the online setting. A practical implication of this is that fashion companies in an online setting that aim at creating positive WOM shall focus on younger segments.

5.2. Summary of key findings

The key findings of this study can be summarized as follows:

Swedish consumers stated that sustainable fashion primarily means high quality, timeless design and to prolong the life of garments. The combination of informing about a garment's positive environmental impact, quality, and social impact created the most favourable attitudes and highest WOM intentions. Therefore, according to the authors of this thesis, nudging could be an effective communicative tool to increase more favourable attitudes and WOM intentions of sustainable fashion.

5.3. Limitations and suggestions for future research

The sample of the study inferred a convenience sample with sample bias and homogeneity of respondents. This could be avoided by reaching out to a random sample and it would be possible if the survey was distributed through different sources and channels. According to Simmons, Nelson, and Simonsohn (2018), a critical number of 50 participants is suggested to ensure statistical power. Therefore, this study has

shortcomings that need to be addressed in future studies. Another limitation of the survey is self-completion. It needs to be considered that respondents tend to be dishonest when they are reporting their behaviours. Regardless of this implication, the authors decided that the method was appropriate due to the limited scope of resources (Bryman & Bell, 2015).

The judgement of the survey indicated that the scenario was interpreted as realistic. However, in the experiment, the respondents were asked to read all details carefully, which is not common for advertising. Customers' natural attention span is far more limited than the pursued experiment scenario. Lastly, the chosen garment can be seen as a limitation. Still, the authors argue that a pair of jeans is a representative garment that the majority of respondents can interpret correctly.

The authors suggest that future research should have a more representative sample than the one in this study to get more generalizable results. This includes a larger sample, and a better geographical spread of consumers. It could be of interest to test a more representative sample of Swedish consumers, but also to apply this study on unexplored foreign markets. An interesting background variable to include is income distribution. This could give an implication if salary correlates with the results that employees perceive themselves to be sustainable, rather than the fact that they were employed. Furthermore, future studies could replicate this study, but instead measure actual behaviour of informational nudges. This could be of interest to measure if actual behaviour is in line with intentions in this study, but also, this is of interest since the primary goal of nudging is to affect behaviour. It could also be interesting to explore the effects of presenting information in different ways from the three dimensions. It is possible that the environmental dimension could be tested in another way than providing information about carbon dioxide neutrality. For instance information on chemicals or water pollution could be relevant to test. In this study, it was concluded that a 10% premium for sustainable garments was considered feasible for respondents. However, it could be interesting to test the limit of a price premium.

Final words

The fashion industry is transforming towards more sustainable practices. To stay relevant and to take part of the transformation, there is a need to understand the consumer perspective.

6. References

Arndt, J. (1967). Role of Product-Related Conversations in the Diffusion of a New Product. *Journal of Marketing Research*, *4*(3), 291–295. https://doi.org/10.2307/3149462

Bly, S., Gwozdz, W., & Reisch, L. (2015). Exit from the high street: an exploratory study of sustainable fashion consumption pioneers. *International Journal of Consumer Studies*, *39*(2), 125–135. https://doi.org/10.1111/ijcs.12159

Boston Consulting Group. (2020). *Financing the Transformation in the Fashion Industry.* Boston Consulting Group and Fashion for Good.

Bryman, A., & Bell, E. (2015). *Business research methods* (4. ed.). Oxford: Oxford Univ. Press.

Carlsson, K., Hammarberg, R., & Hultin, K. (2015). *Allmänheten och klimatförändringen 2015.* Retrieved from the website of Naturvårdsverket: https://www.naturvardsverket.se/upload/miljoarbete-i-samhallet/miljoarbete-i-sverige/klimat/attitydundersokning/klimat-attityd-rapport-20150522.pdf

Chan, T., & Wong, C. (2012). The consumption side of sustainable fashion supply chain. *Journal of Fashion Marketing and Management: An International Journal*, *16*(2), 193–215. https://doi.org/10.1108/13612021211222824

Cheung, M., Anitsal, M., & Anitsal, I. (2007). Revisiting Word-of-Mouth Communications: A Cross-National Exploration. *Journal of Marketing Theory and Practice*, *15*(3), 235–249. https://doi.org/10.2753/MTP1069-6679150304

Chuchinprakarn, S. (2011). Application of the Theory of Reasoned Action to On-line Shopping. *School of Business Administration, Bangkok University*

Clean Clothes Campaign. (n.d.). What we belive in. Retrieved 2020 April 12 from https://cleanclothes.org/about/principles

Clow, K., & James, K. (2014). Marketing Scales. In *Essentials of Marketing Research: Putting Research into Practice*. Thousand Oaks: SAGE Publications, Inc.

Connelly, L. (2008). Pilot Studies. *Medsurg Nursing*, *17*(6), 411–412. Retrieved from http://search.proquest.com/docview/230525260/

Da Giau, A., Macchion, L., Caniato, F., Caridi, M., Danese, P., Rinaldi, R., & Vinelli, A. (2016). Sustainability practices and web-based communication. *Journal of Fashion Marketing and Management*, *20*(1), 72–88. https://doi.org/10.1108/JFMM-07-2015-0061

de Beer, P. (2018). *Fighting Fast Fashion*. (Master's thesis, Leiden University, Netherlands). Retrieved from https://openaccess.leidenuniv.nl/bitstream/handle/1887/65656/Beer_P_de_2017_2018_MIRD.pdf?sequence=1

De Weerd, J. (2019, April 16). Nudge Marketing Examples: How to drive online purchase bahavior. Retrieved from https://blog.crobox.com/article/nudge-marketing

de Jong, M., Huluba, G., & Beldad, A. (2020). Different Shades of Greenwashing: Consumers' Reactions to Environmental Lies, Half-Lies, and Organizations Taking Credit for Following Legal Obligations. *Journal of Business and Technical Communication*, *34*(1), 38–76. https://doi.org/10.1177/1050651919874105

Eiser, R.J. (1980). *Social Psychology: Attitudes, Cognition and Social Behaviour* (1. ed.). Cambridge: Cambridge University press.

Eisingerich, A., Chun, H., Liu, Y., Jia, H., & Bell, S. (2015). Why recommend a brand face-to-face but not on Facebook? How word-of-mouth on online social sites differs from traditional word-of-mouth. *Journal of Consumer Psychology*, *25*(1), 120–128. https://doi.org/10.1016/j.jcps.2014.05.004

Ellen MacArthur Foundation. (2017). *A new textiles economy*. Retrieved from https://www.ellenmacarthurfoundation.org/publications/a-new-textiles-economy-redesigning-fashions-future

Ethical Fashion Initative. (n.d.). Ethics. Retrieved 2020 April 12 from https://ethicalfashioninitiative.org/ethics

Fashion Revolution. (2015). Europe in the World: The garment, textiles & fashion industry. Retrieved 2020 April 11 from https://www.fashionrevolution.org/europe-in-the-world-the-garment-textiles-fashion-industry/

Fashion United. (2019). 2019 recap: is the fashion industry becoming more sustainable? Retrieved 2020 March 28 from https://fashionunited.uk/news/fashion/2019-recap-is-the-fashion-industry-becoming-more-sustainable/2019121046578

Fazer. (2016). The amount of meat decreased by 18% in Fazer Food Services' continued nudging initiative. Retrieved 2020 April 8 from https://news.cision.com/fazer-group/r/the-amount-of-meat-decreased-by-18--in-fazer-food-services--continued-nudging-initiative,c9953692

Fishbein, M., & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

Francis A. Buttle. (1998). Word of mouth: understanding and managing referral marketing. *Journal of Strategic Marketing,* 6(3), 241-254. https://doi.org/10.1080/096525498346658

Fredriksson, C., Svingstedt, A., Bäckström, K., Derwik, P., Fuentes, C., Rehncrona, C. (2017). *Kunniga kunder ställer nya krav på handeln.* Retrieved from the website of Handelsrådet: https://handelsradet.se/wp-content/uploads/2017/03/2017-2-Kunniga-kunder-staller-nya-krav-pa-handeln.pdf

Gigerenzer, G. (2015). On the Supposed Evidence for Libertarian Paternalism. *Review of Philosophy and Psychology*, 6(3), 361–383. https://doi.org/10.1007/s13164-015-0248-1

Goworek, H., Fisher, T., Cooper, T., Woodward, S., & Hiller, A. (2012). The sustainable clothing market: an evaluation of potential strategies for UK retailers. *International Journal of Retail & Distribution Management*, *40*(12), 935–955. https://doi.org/10.1108/09590551211274937

Hagman, W., Erlandsson, A., Dickert, S., Tinghög, G., Västfjäll, D (2019) . Behavioural Public Policy. *The effect of paternalistic alternatives on attitudes toward default nudges*. https://doi.org/10.1017/bpp.2019.17

Handelsrådet. (2015). Hållbar handel med kläder. Retrieved 2020 March 29 from https://handelsradet.se/forskning-och-utveckling/forskningsprojekt/hallbar-butik/atervinning-av-klader/

Hansen, P. (2016). The definition of nudge and libertarian paternalism: Does the hand fit the glove? *European Journal of Risk Regulation*, *7*(1), 155–174. https://doi.org/10.1017/S1867299X00005468

Hanss, D., & Böhm, G. (2012). Sustainability seen from the perspective of consumers. *International Journal of Consumer Studies*, 36(6), 678–687. https://doi.org/10.1111/j.1470-6431.2011.01045.x

House of Lords. (2011). Behaviour Change. London: Authority of the House of Lords.

Hustvedt, G., & Dickson, M. (2009). Consumer likelihood of purchasing organic cotton apparel. *Journal of Fashion Marketing and Management: An International Journal*, *13*(1), 49–65. https://doi.org/10.1108/13612020910939879

Joergens, C. (2006). Ethical fashion: myth or future trend? *Journal of Fashion Marketing and Management: An International Journal*, *10*(3), 360–371. https://doi.org/10.1108/13612020610679321

Kim, H., Lee, E., Hur, W., Ha-Brookshire, J., & Wilson, L. (2012). The Normative Social Influence on Eco-Friendly Consumer Behavior: The Moderating Effect of Environmental Marketing Claims. *Clothing and Textiles Research Journal*, *30*(1), 4–18. https://doi.org/10.1177/0887302X12440875

Konsumentverket. (2018). KO har ordet: Hållbar konsumtion i fokus. Retrieved 2020 March 29 from https://www.konsumentverket.se/aktuella-konsumentproblem/ko-har-ordet/2018/ko-har-ordet-hallbar-konsumtion-i-fokus/

Lades, L., & Delaney, L. (2020). Nudge FORGOOD. *Behavioural Public policy*, 1-20. https://doi.org/10.1017/bpp.2019.53

Lee, K. (2008). Making Environmental Communications Meaningful to Female Adolescents: A Study in Hong Kong. *Science Communication*, *30*(2), 147–176. https://doi.org/10.1177/1075547008324364

Lee, N., Choi, Y., Youn, C., Lee, Y., Ha-Brookshire, J., & Wilson, L. (2012). Does Green Fashion Retailing Make Consumers More Eco-friendly?: The Influence of Green Fashion Products and Campaigns on Green Consciousness and Behavior. *Clothing and Textiles Research Journal*, *30*(1), 67–82. https://doi.org/10.1177/0887302X12446065

Lehner, M., Mont, O., & Heiskanen, E. (2014). T., Smith, W. *Nudging ett verktyg för hållbara beteenden*? Retrieved from https://www.naturvardsverket.se/Documents/publikationer6400/978-91-620-6642-0.pdf?pid=14231

Mistra Future Fashion. (n.d.). Hållbart mode. Retrieved 2020 March 29 from
    http://mistrafuturefashion.com/sv/hallbart-mode/

Mukendi, A., Davies, I., Glozer, S., McDonagh, P. (2019). Sustainable fashion: current
    and future research directions. *European Journal of Marketing*. doi:
    https://doi.org/10.1108/EJM-02-2019-0132

Ölander, F., & Thøgersen, J. (2014). Informing Versus Nudging in Environmental
    Policy. *Journal of Consumer Policy*, *37*(3), 1–16. https://doi.org/10.1007/s10603-
    014-9256-2

Oppenheimer, D., Meyvis, T., & Davidenko, N. (2009). Instructional manipulation
    checks: Detecting satisficing to increase statistical power. *Journal of Experimental
    Social Psychology*, *45*(4), 867–872. https://doi.org/10.1016/j.jesp.2009.03.009

Pallant, J. (2013). *Spss Survial Manual* (5. ed.). Sydney, Australia: Open University
    Press.

Paul, M.H., Frank, R., Krades, J.A. (1991). Effects of Word-of-Mouth and Product-
    Attribute Information on Persuasion: An Accessibility-Diagnosticity
    Perspective, *Journal of Consumer Research*, 17(4), 454-462.
    https://doi.org/10.1086/208570

Petersson, C. Camino Magasin. (2014). Nudging ska få oss att välja rätt. Retrieved 2020
    April 8 from https://www.caminomagasin.se/nyheter/2014/02/12/nudging-ska-fa-oss-
    att-valja-ratt

Quantis. (2018). *Measuring Fashion: Environmental Impact of the Global Apparel and
    Footwear Industries Study*. Retrieved from https://quantis-intl.com/wp-
    content/uploads/2018/03/measuringfashion_globalimpactstudy_full-
    report_quantis_cwf_2018a.pdf

Regeringskansliet. (2016). Strategi för hållbar konsumtion. Retrieved 2020 March 29
    from https://www.regeringen.se/artiklar/2016/10/strategi-for-hallbar-konsumtion/

Sandin, G., Roos, S., Spak, B., Zamani, B., Peters, G. (2019). *Environmental
    assessment of Swedish clothing consumption – six garments, sustainable future*.
    Retrieved from http://mistrafuturefashion.com/wp-
    content/uploads/2019/08/G.Sandin-Environmental-assessment-of-Swedish-clothing-
    consumption.MistraFutureFashionReport-2019.05.pdf

Shen, B., Zheng, J.H., Chow, P.A., Chow, K.Y. (2014). Perceptions of sustainable
    fashion in online community. *Journal of the Textile Institute , 5* (9), 971-979.
    https://doi.org/10.1080/00405000.2013.866334

Simmons, J., Nelson, L., & Simonsohn, U. (2018). False-Positive
    Citations. *Perspectives on Psychological Science*, *13*(2), 255–259.
    https://doi.org/10.1177/1745691617698146

Singer, L. (2019, June 8). Why consumer still not buying ethical fashion. *The Sydney
    Morning Herald.* Retrieved from https://www.smh.com.au/lifestyle/fashion/why-
    most-consumers-are-still-not-buying-ethical-fashion-20190606-p51v31.html

Söderlund, M. (2010). *Experiment med människor*. Malmö: Liber.

Söderlund, M., & Mattsson, J. (2015). Merely asking the customer to recommend has an impact on word-of-mouth activity. *Journal of Retailing and Consumer Services*, *27*, 80–89. https://doi.org/10.1016/j.jretconser.2015.07.009

Sodha, S. (2020, 26 April) Nudge theory is a poor substitute for hard science in matters of life or death. *The Guardian.* Retrieved from https://www.theguardian.com/commentisfree/2020/apr/26/nudge-theory-is-a-poor-substitute-for-science-in-matters-of-life-or-death-coronavirus

Sunstein, Cass R. (2017). *Misconceptions About Nudges*. Harvard Law School; Harvard University - Harvard Kennedy School (HKS), http://dx.doi.org/10.2139/ssrn.303

Svenska Institutet för Standarder. (2017). Miljömärkning och miljödeklarationer- Egna miljöuttalanden. Retrieved 2020 April 11 from https://www.sis.se/produkter/ledningssystem-e07b0fe8/ledningssystem-for-miljo/ss-en-iso-140212017/

Sveriges Konsumenter. (n.d.). Hållbar konsumtion. Retrieved 2020 March 28 from https://www.sverigeskonsumenter.se/vad-vi-gor/hallbar-konsumtion/

Sweeney, J.C., Soutar, G.N., & Mazzarol, T. (2005). The Differences Between Positive And Negative Word-Of-Mouth -Emotion As A Differentiator? *ANZMAC Conference: Consumer Behaviour*

Thaler, R. H. (2018). *Nudge, not sludge*. Science, 361 (6401), 431. https://doi.org/10.1126/science.aau9241

Thaler, R., & Sunstein, C. (2008). Nudge : *improving decisions about health, wealth, and happiness*. New Haven: Yale University Press.

United Nations. (n.d.). Sustainable Development Goals. Retrieved March 29 from https://sustainabledevelopment.un.org/?menu=1300

Van de Velde, L., Verbeke, W., Popp, M., & Van Huylenbroeck, G. (2010). The importance of message framing for providing information about sustainability and environmental aspects of energy. *Energy Policy*, *38*(10), 5541–5549. https://doi.org/10.1016/j.enpol.2010.04.053

Yoo, J., Divita, L., & Kim, H. (2013). Environmental awareness on bamboo product purchase intentions: do consumption values impact green consumption? *International Journal of Fashion Design, Technology and Education*, *6*(1), 27–34. https://doi.org/10.1080/17543266.2012.758318

Zou, S. (2018). Marianna Sigala and Ulrike Gretzel (eds.): Advances in social media for travel, tourism and hospitality: new perspectives, practice and cases". *Information Technology & Tourism*, *18*(1), 187–189. https://doi.org/10.1007/s40558-017-0102-7

7. Appendix

Appendix 1 – Cronbach's alpha

Table 14. Summary of Cronbach's alphas for the dependent variables

Variable	Cronbach's alpha	n	Number of items
Self-perceived sustainability*	0.645	203	3
Attitude (Environmental)**	0.940	28	3
Attitude (Social)**	0.954	46	3
Attitude (Economic)**	0.968	34	3
Attitude (Combo)**	0.876	49	3
Attitude (Control)**	0.852	46	3
Purchase intentions (Environmental)**	0.980	28	3
Purchase intentions (Social)**	0.979	46	3
Purchase intentions (Economic)**	0.976	34	3
Purchase intentions (Combo)**	0.928	49	3
Purchase intentions (Control)**	0.970	46	3
WOM-intentions (Environmental)**	0.924	28	3
WOM-intentions (Social)**	0.961	46	3
WOM-intentions (Economic)**	0.972	34	3
WOM-intentions (Combo)**	0.941	49	3
WOM-intentions (Control)**	0.955	46	3

Note: *5-point Likert scale, **7 point Likert scale

Appendix 2 – Judgement of Survey

Table 15. Judgement of Survey, Mean and Standard deviations

	N	M	Min	Max	SD
The questions were clearly formulated	203	4.22	1	5	0.853
The scenario was realistic	203	4.15	1	5	0.857
The survey was meaningful	203	4.08	1	5	0.782
The survey questions tried to influence you in a certain direction	203	1.97	1	5	1.002

Note: Based on a 5-point Likert scale

Table 16. Judgement of survey, distribution of answers in %

	No, absolutely not	No, basically not	Doubtful	Yes basically	Yes, absolutely
The questions were clearly formulated	1.5	3.4	8.4	41.9	44.8
The scenario was realistic	0.5	6.4	7.9	37.4	47.8
The survey was meaningful	0	2.5	19.2	32.5	45.8
The survey questions tried to influence you in a certain direction	38.4	37.4	15.8	2.5	5.9

Appendix 3 - Descriptives

Table 17. Overview of consumption habits of respondents

Variable	n	% of total sample
Purchase frequency (previous three months)		
Nothing	17	8.4%
1-2 times	110	54.2%
3-4 times	51	25.1%
5-6 times	18	8.9%
>6 times	7	3.4%
Place of purchase (previous three months)		
Physical store	79	38.9%
Online	28	13.8%
Physical store and online	83	40.9%
Nothing	13	6.4%
Latest purchase, category of garment*		
Sweater/hoodie	35	18.1%
Jeans	28	14.5%
Jacket/blazer/vest	22	11.4%
Shoes	20	10.4%
Shirt/blouse	18	9.3%
Dress/skirt	17	8.8%
T-shirt/top	16	8.3%
Pants	15	7.8%
Other	22	11.4%

* % of total sample is based on frequency, which in total is 193

Table 18. One sample t-test (middle value=4)

Groups		df	t	M.dif	p-value
Attitudes (environmental)	27	0.81	0.21	0.428	
Attitudes (social)		45	4.41	0.91	0.000
Attitudes (economic)		33	1.17	0.31	0.249
Attitudes (combo)		48	8.72	1.46	0.000
Attitudes (control)		45	-3.81	-0.66	0.000
Purchase intentions (environmental)		27	0.18	0.60	0.862
Purchase intentions (social)		45	1.79	0.46	0.080
Pruchase intentions (economic)		33	0.62	0.20	0.537
Purchase intentions (combo)		48	4.37	0.86	0.000
Purchse intentions (control)		45	0.09	0.02	0.933
WOM intentions (environmental)		27	-1.78	-0.56	0.086
WOM intentions (social)		45	-0.83	-0.22	0.410
WOM intentions (economic)		33	-1.86	-0.56	0.072
WOM intentions (combo)		48	3.30	0.70	0.002
WOM intentions (control)		45	-3.87	-0.96	0.000

Appendix 4 – Levene's test

Table 19. Levene's test for homogeneity of variances

Dependent variables	Levene statistic	p-value
Attitudes	1.825	0.125
Purchase Intentions	2.146	0.077
WOM Intentions	1.108	0.354

Appendix 5 – Linear regressions

Table 20. Linear regression for attitudes

Variables	Unstandardized B-coefficients	St Error	Adjusted R^2
Model 1 (Nudging)			0.256
Dummy Gender (women)	0.069	0.212	
Age	-0.072	0.091	
Self-perceived sustainable mean	-0.214	0.115	
Dummy Education (high)	0.120	0.214	
Dummy Occupation (employee)	-0.284	0.221	
Purchase Frequency	0.101	0.109	
Dummy (environmental)	0.935**	0.317	
Dummy (economic)	0.882**	0.302	
Dummy (social)	1.580***	0.276	
Dummy (combo)	2.074***	0.272	
Model 2 (Control)			0.185
Dummy Gender (women)	0.038	0.221	
Age	-0.077	0.094	
Self-perceived sustainable mean	-0.267*	0.120	
Dummy Education (high)	0.033	0.220	
Dummy Occupation (employee)	-0.216	0.231	
Purchase Frequency	0.063	0.114	
Dummy (control)	-1.465***	0.232	

Dependent variable: Attitudes
* $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$

Table 21. Linear regression for purchase intentions

Variables	Unstandardized B-coefficients	St Error	Adjusted R^2
Model 3 (Nudging)			0.087
Dummy Gender (women)	0.521*	0.262	
Age	-0.162	0.113	
Self-perceived sustainable mean	-0.123	0.143	
Dummy Education (high)	-0.161	0.265	
Dummy Occupation (employee)	-0.294	0.274	
Purchase Frequency	0.285*	0.135	
Dummy (environmental)	0.168	0.392	
Dummy (economic)	-0.008	0.375	
Dummy (social)	0.434	0.342	
Dummy (combo)	0.841*	0.338	
Model 4 (Control)			0.072
Dummy Gender (women)	0.494	0.264	
Age	-0.162	0.112	
Self-sustainable mean	-0.157	0.143	
Dummy Education (high)	-0.207	0.263	

Variables			
Dummy Occupation (employee)	-0.249	0.276	
Purchase Frequency	0.259	0.136	
Dummy (control)	-0.417	0.276	

Dependent variable: Purchase intentions
* p < 0.05

Table 22. Linear regression for WOM intentions

Variables	Unstandardized B-coefficients	St Error	Adjusted R2
Model 5 (Nudging)			0.153
Dummy Gender (women)	0.283	0.261	
Age	-0.277*	0.113	
Self-perceived sustainable mean	-0.176	0.142	
Dummy Education (high)	0.076	0.264	
Dummy Occupation (employee)	-0.083	0.273	
Purchase Frequency	0.239	0.135	
Dummy (environmental)	0.530	0.391	
Dummy (economic)	0.209	0.373	
Dummy (social)	0.775*	0.340	
Dummy (combo)	1.613***	0.336	
Model 6 (Control)			0.092
Dummy Gender (women)	0.228	0.270	
Age	-0.283*	0.115	
Self-perceived sustainable mean	-0.230	0.146	
Dummy Education (high)	0.029	0.269	
Dummy Occupation (employee)	-0.015	0.282	
Purchase Frequency	0.198	0.139	
Dummy (control)	-0.868**	0.283	

Dependent variable: WOM intentions
* p < 0.05, ** p < 0.01, *** p < 0.001

Models for Linear Regressions of dependent variables

$Model\ 1: Attitudes\ toward\ the\ garment\ =\ \beta 0\ +\ \beta 1\ Gender +\ \beta 2\ Age + \beta 3\ SPSC\ +$
$\beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency\ + \beta 7\ Environmental$
$+\ \beta 8\ Economic\ +\ \beta 9\ Social +\ \beta 10\ Combo + u_i$

$Model\ 2: Attitudes\ toward\ the\ garment\ =\ \beta 0\ + \beta 1\ Gender +\ \beta 2\ Age + \beta 3\ SPSC\ +$
$\beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency\ + \beta 7\ Control\ +\ u_i$

$Model\ 3: Purchase\ intentions\ toward\ the\ garment\ =\ \beta 0\ + \beta 1\ Gender +\ \beta 2\ Age +$
$\beta 3\ SPSC + \beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency\ +$
$\beta 7\ Environmental +\ \ \beta 8\ Economic\ +\ \beta 9\ Social + \beta 10\ Combo + u_i$

$Model\ 4: Purchase\ intentions\ toward\ the\ garment\ =\ \beta 0\ + \beta 1\ Gender +\ \beta 2\ Age +$
$\beta 3\ SPSC + \beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency\ + \beta 7\ Control + u_i$

$Model\ 5: WOM\ intentions\ toward\ the\ garment\ =\ \beta 0\ + \beta 1\ Gender +\ \beta 2\ Age +$
$\beta 3\ SPSC + \beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency\ +$
$\beta 7\ Environmental +\ \ \beta 8\ Economic\ +\ \beta 9\ Social + \beta 10\ Combo +\ u_i$

$Model\ 6: WOM\ intentions\ toward\ the\ garment\ =\ \beta 0\ + \beta 1\ Gender +\ \beta 2\ Age +$
$\beta 3\ SPSC + \beta 4\ Education + \beta 5\ Occupation + \beta 6\ Purchase\ frequency$
$+\beta 7\ Control + u_i$

Appendix 6 – Detailed Questionnaire (in Swedish)

Hej!

Till att börja med - STORT tack för att du tar din tid för att besvara denna enkät som ligger till grund för en kandidatuppsats på Handelshögskolan i Stockholm. Syftet med undersökningen är att vi vill skapa en större förståelse för hur du och andra konsumenter tänker kring hållbarhet vid köp av kläder. Vi hoppas och tror att detta kommer kunna vara till underlag för hur företag inom modebranschen ska tänka för att kommunicera sin hållbarhet i framtiden. För varje deltagare som är med i undersökning skänker vi **2 kr till Naturskyddsföreningens klimatarbete** som verkar för en mer hållbar värld.

DIN MEDVERKAN GÖR SKILLNAD!

Svaren är **anonyma**, och kommer behandlas konfidentiellt. Enkäten tar ungefär **6 minuter** att genomföra.

Vid frågor maila gärna oss.

Allt gott!

Ella Ahlborg - 24118@student.hhs.se

Lovisa Grant - 24222@student.hhs.se

Vad innebär hållbart mode för dig? Svara gärna kortfattat

Ser du dig själv som en person som är medveten om hållbar konsumtion när det kommer till kläder?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Händer det att du får dåligt samvete när du konsumerar ohållbart när det kommer till kläder?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Är du villig att betala 10% mer för klädesplagg som är mer hållbara?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

---

Tänk dig att du är i behov av ett par nya jeans. Du går in på en hemsida med kläder och letar efter ett par svarta, raka jeans. Du klickar in på ett par som faller dig i smaken och som dessutom uppfyller ditt priskrav, och får upp följande information. Vänligen läs och studera informationen som presenteras noga:

Environmental   **Social**   **Economic**

Combination   **Control**

Baserat på informationen som du har tagit del av ovan, vad tycker du om jeansen?

- Mycket dåligt
- Ganska dåligt
- Något dåligt
- Varken dåligt eller bra
- Något bra
- Ganska bra
- Mycket bra

- Ogillar mycket
- Ogillar i stort sett
- Ogillar något
- Varken ogillar eller gillar
- Gillar något
- Gillar i stort sett
- Gillar mycket

- Mycket negativt
- Ganska negativt
- Något negativt
- Varken negativt eller positivt
- Något positivt
- Ganska positivt
- Mycket positivt

Nedan följer några påståenden om din köpintention av jeansen, vänligen ange i vilken grad du håller med om påståendena

1) Jag har för intention att köpa jeansen som liknar de ovan
2) Jag tror jag kommer att köpa jeansen som likar de ovan
3) Sannolikheten att jag kommer köpa jeansen som liknar de ovan är hög

- Nej absolut inte
- Nej, i stort sett inte
- Nej, i viss grad inte
- Tveksam
- Ja, i viss grad
- Ja, i stort sett
- Ja, absolut

Nedan följer några påståenden om din benägenhet att rekommendera jeansen, vänligen ange i vilken grad du håller med om påståendena

1) Det är troligt att jag kommer säga positiva saker om jeansen för andra personer
2) Det är troligt att jag kommer uppmana vänner och bekanta att köpa jeansen
3) Det är troligt att jag kommer rekommendera jeansen för andra personer

- Väldigt otroligt
- Ganska otroligt
- Något otroligt
- Varken troligt eller otroligt
- Något troligt
- Ganska troligt
- Väldigt troligt

För att säkerställa att du läser instruktionerna och informationen i enkäten så vill vi testa din uppmärksamhet. Nedan står det i versaler att du ska klicka på fyrkanten, men vi vill att du ignorerar detta och klickar på cirkeln istället. Klicka därmed gärna i det alternativ som illustrerar en cirkel för att ta dig vidare i enkäten.

KLICKA PÅ FYRKANTEN

○ ▢

○ ◯

○ △

Vid hur många tillfällen har du handlat nya kläder under de senaste tre månaderna?

- Ingen gång
- 1-2 gånger
- 3-4 gånger
- 5-6 gånger
- Mer än 6 gånger

Vart har du handlat nya kläder under de senaste tre månaderna?

- I fysisk butik
- Online
- Både i fysisk butik och online
- Har inte handlat kläder under de senaste tre månaderna

Vad var ditt senaste mode inköp?

Vad identifierar du dig som?

- Man
- Kvinna
- Annat

Hur gammal är du? Skriv i siffor, t.ex. 33

Vad är din högsta avslutade utbildning?

- Grundskola
- Gymnasium
- Universitet- eller högskoleutbildning
- Yrkesutbildningar eller motsvarande
- Forskarutbildning eller motsvarande

Vad är din huvudsakliga sysselsättning?

- Studerar
- Arbetar
- Tjänstledig
- Föräldraledig
- Arbetslös
- Pensionär
- Sjukskriven
- Annat

Avslutningsvis ber vi dig att svara på följande frågor om webbenkäten och undersökningen

Var undersökningen meningsfull?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Upplevde du scenarios med jeansen i början av webenkäten som realistiskt?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Var webenkätens frågor tydligt formulerade?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Anser du att frågorna försökte påverka dina svar i någon riktning?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Undersöker webenkäten attityder och köpintentions till hållbart mode?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

Undersöker webenkäten olika pastarätter?

Nej, inte alls   Nej knappast   Vet ej   Ja, kanske   Ja, absolut

---