



# SUSTAINABLE FASHION

*An evaluation of potential strategies to positively influence the Dutch students' purchase behaviour of sustainable clothes*



*Vivienne Westwood:  
"buy less, choose well, and make it last"*

A.H.M. Barnhoorn  
Dr B. Piquera Fiszman  
Dr K.A. Poldner  
22-1-2018

## Sustainable fashion

*An evaluation of potential strategies to positively influence the Dutch students' purchase behaviour of sustainable clothes*

### Personal details

Author: A.H.M Barnhoorn

Student number: 930915035050

E-mail: amy.barnhoorn@wur.nl

Educational program: Management, Economics and Consumer Studies

Specialisation: Marketing and Consumer Behaviour

Educational institution: Wageningen University & Research

### Thesis information

Master thesis

Code: MCB-80433

Supervisor: Dr B. Piquera Fiszman

Second reader: Dr K.A. Poldner

Date: 22-01-2018

Place: Wageningen

## Abstract

**Purpose** – The purpose of this Thesis is to investigate different strategies that may positively influence the actual purchase behaviour of sustainable clothes. These different strategies are based on solutions for barriers that arise when consumers consider purchasing sustainable clothes. These strategies are empirically tested by examining whether they positively influence constructs that may positively influence the actual purchase behaviour.

**Design/methodology/approach** – This Thesis's first method is a literature research to find the barriers that prevent consumers from purchasing sustainable clothes and their solutions, and to analyse models that explain how behaviour is influenced. This Thesis's second method is a two-part questionnaire to collect quantitative data. The sample of the first questionnaire consisted of 165 Dutch students and the sample of the second questionnaire consisted of 143 Dutch students.

**Findings** – In line with purchasing sustainable clothes, this Thesis's findings argue a positive relationship between the attitude, perceived norm and personal agency, and the perceived customer value. Moreover, a positive relationship is established between the perceived customer value and the purchase intention. However, this Thesis's findings argue no relationship between the purchase intention and actual purchase behaviour. In addition, the suggested strategies do not influence constructs that influence the purchase intention statistically significant. Consequently, the suggested strategies do not influence the purchase intention statistically significant. Additionally, the suggested strategies do not influence the actual purchase behaviour statistically significant.

**Originality/value** – This Thesis contributes to previous studies by shedding light on consumers' purchase behaviour of sustainable clothes. It analyses whether solving some of the barriers that arise when consumers consider purchasing sustainable clothes, contributes to an improvement in the Dutch students' purchase behaviour of sustainable clothes. Increasing the sales of sustainable clothes is important as the consequences of fast fashion are troubling.

**Keywords** Sustainable, sustainability, environment, green, social, ethical, slow fashion, fast fashion, barrier(s), solution(s), fashion, clothes, clothing, apparel, behaviour, consumer, Dutch, The Netherlands and student(s).

**Paper type** Master thesis

## Table of Contents

Sustainable fashion .....	i
Personal details .....	i
Thesis information.....	i
Abstract .....	ii
Table of Contents .....	iii
Figures .....	vii
Tables .....	vii
1    Introduction.....	1
2    Literature background.....	4
2.1    Fast fashion .....	4
2.1.1    The fast fashion industry's development .....	4
2.1.2    The fast fashion industry's socially unsustainable nature and its consequences .....	5
2.1.3    The fast fashion industry's environmentally unsustainable nature and its consequences .....	5
2.1.4    The fast fashion industry's economically sustainable nature and its consequences .....	6
2.2    Sustainable fashion .....	6
2.2.1    The sustainable fashion industry's development.....	7
2.2.2    The sustainable fashion industry's social sustainable nature and its consequences.....	7
2.2.3    The sustainable fashion industry's environmentally sustainable nature and its consequences .....	8
2.2.4    The sustainable fashion industry's economically (un)sustainable nature and its consequences .....	8
2.3    Barriers and solutions.....	9
2.3.1    Lack of knowledge and awareness, and its solutions.....	9
2.3.2    Negative perception, and its solutions.....	10
2.3.3    Lack of availability, and its solution.....	11
2.3.4    Higher price, and its solution.....	11
2.3.5    Motivations .....	12
3    Conceptual framework.....	13
3.1    Theory of reasoned action (TRA).....	13
3.2    Theory of planned behaviour (TPB).....	14
3.3    Integrated behavioural model (IBM).....	15
3.4    Sustainable fashion consumption .....	16
3.4.1    Solutions for the lack of knowledge and awareness, and their influenced constructs.	18

3.4.1.1	Education, and its influenced constructs .....	18
3.4.1.2	Sustainable logo, and its influenced constructs .....	19
3.4.2	Solutions for the negative perception, and their influenced constructs .....	19
3.4.2.1	Showing the actual appearance of sustainable clothes, and its influenced constructs 19	
3.4.2.2	Mainstreaming sustainable clothes, and its influenced constructs .....	20
3.4.3	Solution for lack of availability, and its influenced construct .....	20
3.4.4	Solutions for the higher price, and their influenced constructs.....	20
3.4.5	Solutions for the barriers, and their indirect influenced constructs .....	20
3.5	Proposed framework.....	21
3.5.1	Attitude.....	22
3.5.2	Perceived norm .....	23
3.5.3	Personal agency.....	23
3.5.4	Perceived customer value .....	23
3.5.4.1	Including the perceived customer value construct .....	23
3.5.4.2	The resulting hypotheses .....	24
3.5.4.3	The trade-off among the strategies' influence on the perceived customer value....	24
3.5.5	Intention .....	25
3.5.6	Actual purchase behaviour .....	25
4	Materials and methods .....	26
4.1	Participants.....	26
4.2	Design .....	26
4.3	Procedure .....	26
4.4	Manipulations and variables .....	27
4.4.1	Manipulations.....	27
4.4.1.1	Information condition .....	27
4.4.1.2	Social norms condition .....	28
4.4.1.3	Information and social norms condition .....	29
4.4.1.4	Control condition.....	30
4.4.2	Measures .....	30
4.4.2.1	The intention survey.....	30
4.4.2.2	The purchase survey.....	31
5	Results .....	33
5.1	Descriptive information.....	33
5.1.1	Filtering out invalid responses.....	33
5.1.2	Background of participants .....	33

5.1.2.1	Intention survey .....	33
5.1.2.2	Purchase survey.....	34
5.1.3	Attention check .....	35
5.2	Data analysis.....	36
5.2.1	The influence of a text that includes information on the attitude .....	37
5.2.2	The influence of the text that includes social norms on the perceived norm .....	38
5.2.3	The influence of the barriers' solutions on the personal agency.....	39
5.2.3.1	Information.....	40
5.2.3.2	Social norms .....	41
5.2.3.3	Style .....	41
5.2.3.4	Sustainable logo .....	42
5.2.3.5	Personal agency.....	42
5.2.4	The influence of the attitude, perceived norm and personal agency on the perceived customer value .....	43
5.2.4.1	The influence of the attitude on the perceived customer value.....	43
5.2.4.2	The influence of the perceived norm on the perceived customer value .....	43
5.2.4.3	The influence of the personal agency on the perceived customer value .....	43
5.2.5	The influence of a text that includes information versus a text that includes social norms on the perceived customer value .....	44
5.2.6	The influence of the perceived customer value on the purchase intention .....	45
5.2.7	The influence of the purchase intention on the actual purchase behaviour .....	46
5.2.8	Control question.....	48
6	General discussion.....	51
6.1	Short summary of Thesis .....	51
6.2	Main Findings .....	51
6.2.1	Consumers experience barriers when they consider purchasing sustainable clothes .	51
6.2.2	Solutions for barriers exist .....	51
6.2.3	A text that includes information does not influence the attitude and its sub-constructs	52
6.2.4	A text that includes social norms does not influence the perceived norm and its sub-constructs .....	52
6.2.5	A text that includes information does not influence the personal agency and its sub-constructs .....	52
6.2.6	The attitude, perceived norm and personal agency positive influence the perceived customer value .....	52
6.2.7	Only one strategy influences only one perceived customer value's sub-construct.....	52
6.2.8	The perceived customer value positively influences the purchase intention.....	53

6.2.9	The purchase intention does not influence the actual purchase behaviour .....	53
6.3	Other findings .....	53
6.3.1	Combinations of Thesis' strategies influence the personal agency and its sub-constructs .....	53
6.3.2	The attitude has a larger positive influence on the perceived customer value than the perceived norm and personal agency .....	54
6.3.3	The strategies do not influence the intention to purchase sustainable clothes.....	54
6.3.4	The strategies do not influence the actual purchase behaviour of sustainable clothes	54
6.3.5	The reasons for purchasing sustainable and fast fashion differentiate .....	55
6.4	Implications .....	55
6.5	Limitations and future research .....	55
7	Conclusions.....	57
	References.....	58
	Appendix.....	65
	Survey .....	65
	Perceived norm .....	65
	Personal agency.....	65
	Attitude.....	66
	Perceived customer value .....	66
	Purchase intention .....	67
	Control question.....	67

## Figures

Figure 1, theory of reasoned action (Ajzen & Fishbein, 1980, p. 8).....	13
Figure 2, theory of planned behaviour (Ajzen, 1991, p. 182).....	14
Figure 3, integrated behavioural model (Glanz et al., 2015, p. 104).....	15
Figure 4, the proposed model .....	21
Figure 5, social and environmental consequence of fast fashion (Morgan & Ross, 2015) .....	28
Figure 6, Emma Watson wearing sustainable clothes (The Press Tour, 2017) .....	29
Figure 7, Emma Watson and the social and environmental consequences of fast fashion (Morgan & Ross, 2015; The Press Tour, 2017) .....	30

## Tables

Table 1, the barriers that prevent consumers from purchasing sustainable clothes and their solutions, together with the solutions' influenced IBM constructs.....	17
Table 2, chi-square of homogeneity table of the background of participants in the intention survey	34
Table 3, chi-square of homogeneity table of the background of participants in the purchase survey	35
Table 4, ANOVA table with the means and items of the attitude construct .....	37
Table 5, ANOVA table with the means and items of the perceived norm construct.....	38
Table 6, ANOVA table with the means and items of the personal agency construct .....	39
Table 7, regression table with the equations and propositions of variations of the attitude, personal agency and perceived norm construct on the perceived consumer value construct.....	44
Table 8, ANOVA table with the means and items of the perceived customer value construct.....	44
Table 9, regression table with the equations and propositions of variations of the perceived customer value construct on the intention construct.....	46
Table 10, ANOVA table with the means and items of the purchase intention construct.....	46
Table 11, chi-square test of independence table with the significance and association rate of the purchase intention construct on the actual purchase behaviour construct.....	47
Table 12, ANOVA table with the means and items of the actual purchase behaviour construct.....	47
Table 14, chi-square of homogeneity table of the reasons behind the participants' purchase(s) among the conditions.....	48
Table 13, chi-square of homogeneity table of the reasons behind the participants' purchase(s) among the groups .....	49



## 1 Introduction

Until the 1980s, the fashion industry was built on standardised, low cost mass production (Bhardwaj & Fairhurst, 2010; Tartaglione & Antonucci, 2013) with a long turnaround time (Cachon & Swinney, 2011), approximately six months (Mihm, 2010; Sull & Turconi, 2008). As a result, the industry consisted of only two seasons (Sull & Turconi, 2008; The Ethical Fashion Forum, n.d.): the Spring/Summer and Autumn/Winter season (Mihm, 2010; The Ethical Fashion Forum, n.d.). Furthermore, consumers preferred basic and functional clothes, and cared less about being fashionable (Bhardwaj & Fairhurst, 2010; Tartaglione & Antonucci, 2013).

However, since the 1990s, a new trend emerged in the fashion industry (Bhardwaj & Fairhurst, 2010). The fashion industry changed into a 'fast fashion' system (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Joy, Sherry, Venkatesh, Wang, & Chan, 2012; Rohwedder & Johnson, 2008; Sull & Turconi, 2008). With fast fashion is meant the following: retailers try to copy the fashion trends (Joy et al., 2012) that are seen in luxurious fashion shows (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011), and sell them in their stores as cheap (Sull & Turconi, 2008) and as fast as possible (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Mehrjoo & Pasek, 2015; Sull & Turconi, 2008). In other words, fast fashion makes high fashion affordable for the general consumer (Sull & Turconi, 2008). To achieve this, the fast fashion system is based on low costs (Morgan & Ross, 2015; Sull & Turconi, 2008) and a short lead time (Barnes & Lea-Greenwood, 2006; Bruce & Daly, 2006; Christopher, Lawson, & Peck, 2004; Fletcher, 2008; Hearson, 2006; Sull & Turconi, 2008; Tartaglione & Antonucci, 2013). In addition, this system increases the number of seasons (Bruce & Daly, 2006; Christopher et al., 2004; The Ethical Fashion Forum, n.d.). Examples of retailers who make use of the fast fashion system are H&M and Inditex, the parent company of Zara (Mehrjoo & Pasek, 2015; Mihm, 2010; Rohwedder & Johnson, 2008; Sull & Turconi, 2008).

This fast fashion system is highly unsustainable (Cherny-Scanlon & Agnes, 2016; Morgan & Ross, 2015). Sustainability can be described as the development that "seeks to meet the needs and aspirations of the present without compromising the ability to meet those of the future" (Brundtland, 1987). It includes a social, an environmental (Bly, Gwozdz, & Reisch, 2015; Fletcher, 2008; Goworek, Fisher, Cooper, Woodward, & Hiller, 2012; Jung & Jin, 2016) and an economic dimension, which are also called the 'triple bottom line' of people, planet and profit (Jung & Jin, 2016). While fast fashion is economically sustainable, it is socially and environmentally unsustainable. Fast fashion is economically sustainable because the turnover of fast fashion companies can be large (Goworek et al., 2012; Sull & Turconi, 2008). The prices of fast fashion are low (Kozlowski, Searcy, & Bardecki, 2016; Sull & Turconi, 2008), which consumers prefer (Ertekin & Atik, 2015; Goworek et al., 2012); at the same time, the costs of fast fashion are low (Morgan & Ross, 2015; Sull & Turconi, 2008). Nonetheless, fast fashion is socially unsustainable for a couple of reasons. The consumers' demand of cheap clothes is one of them. Those reasons cause labour rights to be overlooked (Hearson, 2006; Morgan & Ross, 2015), which results in unsafe working environments (Hearson, 2006; Morgan & Ross, 2015; Raworth, 2004; Remy, Speelman, & Swartz, 2016; Westervelt, 2015; Yardley, 2013) and long working hours without any breaks (Hearson, 2006; Raworth, 2004; Yardley, 2013). Next to being socially unsustainable, fast fashion is environmentally unsustainable. Currently, the fashion industry is the second highest polluting industry in the world (Cherny-Scanlon & Agnes, 2016). For instance, natural resources are exploited (Christopher et al., 2004), such as the intensification of pesticide (Goworek et al., 2012; Morgan & Ross, 2015) and water (Remy et al., 2016) used in the cotton production. These socially and environmentally unsustainability should be combatted. In order to do so, all stakeholders have to contribute by limiting their unsustainable behaviour, which means that there should be a change in how clothes are produced and consumed (Kozlowski et al., 2016). In other words, the fast fashion system should be changed as a whole (Fletcher, 2008).

Currently, a system is on the rise that tries to eliminate the unsustainable consequences of fast fashion, which is called 'sustainable fashion' (Hasanspahic, 2016). With sustainable fashion is meant "clothing

which incorporates one or more aspects of social or environmental sustainability” (Goworek et al., 2012). Regarding the three dimensions of sustainability, while it is debatable whether this system is economically sustainable (Jung & Jin, 2016), it is social and/or environmental sustainable (Bly et al., 2015; Goworek et al., 2012; Harris, Roby, & Dibb, 2016). Sustainable clothes are questioned to be economic sustainable. On the one hand, these clothes are not economic sustainable because the demand for those clothes might be less than for fast fashion clothes. Since in comparison to fast fashion clothes, sustainable clothes are most of the time more expensive, produced in lower quantity and taken longer to produce, which causes retailers to fall behind on trends (Jung & Jin, 2016). On the other hand, sustainable clothes can be economic sustainable if the perceived customer value of those clothes is high; then, consumers want to pay a premium (Jung & Jin, 2016). Furthermore, sustainable clothes can be socially sustainable, for example, their retailers can slow down the production cycle, which causes forced overtime to be less of an issue (Fletcher, 2008). In addition, those clothes can be environmentally sustainable, for instance, their retailers can produce clothes made of recycled or durable fabrics (Kozlowski et al., 2016).

Still, the current fashion market is dominated by fast fashion (Kozar & Connell, 2013), hence, the sustainable fashion market has room to grow. This Thesis tries to contribute to an enlargement in the sustainable fashion market by focussing on consumers, precisely consumer behaviour of sustainable clothes. As consumers can make a substantial difference; they can push retailers towards behaviour that is more sustainable (Pal, 2016; Raworth, 2004; Strong, 1997). Put differently, if retailers worship a positive relationship with the consumers who are interested in sustainable fashion, retailers should shift towards a more sustainable friendly supply chain (Kozlowski et al., 2016). The consumers’ power to change the industry into a more sustainable industry progressively enlarges. As the popularity of social media rises, which makes it easier for stakeholders to let their voice be heard (Joy et al., 2012; Kozlowski et al., 2016), and consumers find sustainability increasingly important when deciding which product to purchase (Cherny-Scanlon & Agnes, 2016; Goworek et al., 2012).

However, despite the fact that the interests in sustainable fashion may have risen (Jung & Jin, 2016), the number of consumers that are interested in (Harris et al., 2016; Hasanspahic, 2016) and actually buy sustainable fashion is still small (Kozar & Connell, 2013). This research investigates how the consumers’ actual purchase behaviour of sustainable clothes can be enlarged. While there is already a considerable number of research completed with regard to the consumer’s intention to purchase sustainable fashion (Han & Chung, 2014; Jung & Jin, 2016; Kang, Liu, & Kim, 2013), research with regard to the actual purchase behaviour falls behind (Hasanspahic, 2016; Koszewska, 2016). It is important that the actual purchase behaviour is measured, since the consumer’s intention to purchase and the actual purchase behaviour are often not in line (Goworek et al., 2012; Shaw, Shiu, Hassan, Bekin, & Hogg, 2007). This deviation can be explained by the integrated behavioural model (Glanz, Rimer, & Viswanath, 2015), which will be explained in Section 3.3. Besides this, researchers who did discuss the actual purchase behaviour examined consumers who already purchase sustainable clothes (Hasanspahic, 2016; Koszewska, 2016). They did not examine how non-purchasers of sustainable clothes can be changed into purchasers of those clothes. Furthermore, as mentioned in the third paragraph of this section, sustainability includes the following three dimensions: environmental, social and economic. Nonetheless, a great deal of research only focussed on the environmental (Bonini & Oppenheim, 2008; Connell, 2010; Follows & Jobber, 2000; Hasanspahic, 2016; Kang et al., 2013; Mcneill & Moore, 2015; Moon, Lai, Lam, & Chang, 2015) and/or the social dimension of sustainable clothes (Ertekin & Atik, 2015; Fletcher, 2008; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Kozar & Connell, 2013; Mcneill & Moore, 2015; Shaw et al., 2007). As a result, research with regard to the economic dimension of sustainable clothes falls behind (Jung & Jin, 2016). This Thesis contributes by filling in these gaps.

This Thesis fills in these gaps by identifying the different barriers consumers experience when they consider buying sustainable clothes in order to understand why consumers do not purchase sustainable clothes. As this Thesis wants to contribute to an increase in the sustainable fashion market,

it also analyses the possible solutions for removing these barriers. The first barrier is lack of knowledge and awareness of the unsustainable consequences of fast fashion, and the solution for these consequences, namely sustainable fashion (Birtwistle & Moore, 2007; Connell, 2010; Ertekin & Atik, 2015; Goworek et al., 2012; Harris et al., 2016; Koszewska, 2016; Mcneill & Moore, 2015; Moon et al., 2015). This barrier's suggested solutions are education (Beard, 2008; Ertekin & Atik, 2015; Goworek et al., 2012; Moon et al., 2015) and a sustainable logo (Moon et al., 2015). The second barrier is the negative perception of sustainable clothes (Connell, 2010; Harris et al., 2016; Moon et al., 2015), which may be solved by showing the actual appearance of sustainable clothes (Connell, 2010; Connell & Kozar, 2012), and by mainstreaming sustainable clothes (Harris et al., 2016). The third barrier is lack of availability (Bly et al., 2015; Connell, 2010; Ertekin & Atik, 2015; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007), and its suggested solution is an enlargement of the retailers' collection (Bly et al., 2015). The fourth barrier is the high price of sustainable clothes (Bly et al., 2015; Connell, 2010; Goworek et al., 2012; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007), which may be solved by an improvement in the perceived customer value (Jung & Jin, 2016). Altogether, this leads to the aim of this Thesis: to investigate whether different strategies, which are based on the above stated solutions, positively influence the actual purchase behaviour of sustainable fashion. This is done by empirically testing whether these strategies positively influence constructs that influence the actual purchase behaviour of sustainable fashion.

Moreover, this Thesis specifically centres on Dutch students. Students are part of Generation Y; this generation prefers fast fashion clothes. In contrast, Baby Boomers prefer fewer higher quality clothes (Bhardwaj & Fairhurst, 2010; Crewe & Davenport, 1992). Therefore, students are among the consumers whose behaviour should be changed from purchasing fast fashion to purchasing sustainable fashion. In addition, young consumers are still in their development stage of their beliefs and attitudes, and they play an important role in the future market (Kang et al., 2013).

This Thesis is relevant because environmental unfriendly behaviour endangers the environment (Ertekin & Atik, 2015; Moon et al., 2015), and unsocial behaviour lowers the quality of life of future generations (Ertekin & Atik, 2015). Therefore, fast fashion should be replaced by a more sustainable alternative. As this Thesis looks at the consumers' side; it examines how consumers can be persuaded to buy more sustainable clothes, policy-makers and activists can use this information to influence consumers. Besides this, as a result of the competition among retailers (Barnes & Lea-Greenwood, 2006; Bhardwaj & Fairhurst, 2010; Tartaglione & Antonucci, 2013), and the increasing number of consumers who dislike the unsustainable consequences of fast fashion (Cherny-Scanlon & Agnes, 2016; Goworek et al., 2012), it is important for companies to comply with a more sustainable supply chain. In addition, this Thesis gives retailers valuable insights with regard to the barriers consumers' experience, which retailers have to take into account and solve if they are going to sell sustainable clothes.

The structure of this Thesis is as follows: a literature research is done to collect important background information with regard to the development of fast fashion and sustainable fashion, and their (un)sustainable consequences. Then, an overview is given of the barriers consumers' experience when they consider buying sustainable clothes and their possible solutions. Followed by different models and theories that are being explored to develop the theoretical framework. Subsequently, the Thesis's method is explained and the framework is empirically tested. Lastly, conclusions and limitations are discussed.

## 2 Literature background

In this chapter some background knowledge with regard to the development of fast fashion and the (un)sustainable sides of this system is provided. Moreover, the development of sustainable fashion and its (un)sustainable consequences are discussed. Lastly, the different barriers that prevent consumers from purchasing sustainable fashion as well as its solutions are mentioned.

### 2.1 Fast fashion

Since the 1990s, the fashion industry has changed towards a 'fast fashion' system (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Joy et al., 2012; Rohwedder & Johnson, 2008; Sull & Turconi, 2008). With fast fashion is meant that retailers try to copy the fashion trends (Joy et al., 2012) that are seen on luxurious runways (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011), and sell them in their stores as cheap (Sull & Turconi, 2008) and as fast as possible (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Mehrjoo & Pasek, 2015; Sull & Turconi, 2008). In other words, making high fashion affordable for the general consumer (Sull & Turconi, 2008).

This section is divided into four sections: Section 2.1.1, which discusses the development of the fast fashion industry, and Sections 2.1.2, 2.1.3 and 2.1.4, which all explain in detail one of the following three reasons why fast fashion is socially, environmentally and economically (un)sustainable, and its consequences.

#### 2.1.1 The fast fashion industry's development

The fast fashion system is a reaction to a couple of developments; starting with the rise in competition in the fashion market place (Barnes & Lea-Greenwood, 2006; Bhardwaj & Fairhurst, 2010; Tartaglione & Antonucci, 2013) and the consumer's interest in fashion (Barnes & Lea-Greenwood, 2006). As a result, the fashion industry has transformed into a buyer-driven market (Bhardwaj & Fairhurst, 2010; Fletcher, 2008; Tartaglione & Antonucci, 2013), which means that the consumers' needs are from now on the point of focus (Tartaglione & Antonucci, 2013). Flexibility of adapting (Bhardwaj & Fairhurst, 2010; Christopher et al., 2004) to the continuously evolving (Bruce & Daly, 2006; Christopher et al., 2004; Sull & Turconi, 2008) and uncertain (Cachon & Swinney, 2011) consumers' needs, satisfying the consumers' needs for uniqueness (Barnes & Lea-Greenwood, 2006) and responding quickly to new fashion trends (Bhardwaj & Fairhurst, 2010; Cachon & Swinney, 2011; Christopher et al., 2004; Sull & Turconi, 2008; Tartaglione & Antonucci, 2013), all have gained in importance. In other words, if retailers want to survive, having clothes in the shop while it is still trendy (Barnes & Lea-Greenwood, 2006; Christopher et al., 2004) and the 'speed of market' approach; having trends faster in store than your competitors (Bhardwaj & Fairhurst, 2010; Bruce & Daly, 2006; Christopher et al., 2004), have become increasingly important.

Therefore, a short lead time, the lead time means "the time that elapses between the moment of the conception and design to the moment of sale to the final consumer" (Tartaglione & Antonucci, 2013, p. 3), is essential (Bruce & Daly, 2006). This short lead time together with retailer's demand for selling more (The Ethical Fashion Forum, n.d.), has eventually led to a large expansion of seasons. In turn, this expansion has led to more orders (Barnes & Lea-Greenwood, 2006; Bruce & Daly, 2006; Sull & Turconi, 2008) in reduced quantities (Barnes & Lea-Greenwood, 2006; Christopher et al., 2004; Hearson, 2006) and has pressured the lead time even more (Barnes & Lea-Greenwood, 2006; Fletcher, 2008; Sull & Turconi, 2008; Tartaglione & Antonucci, 2013).

Furthermore, the globalisation of the fashion industry (Bhardwaj & Fairhurst, 2010; Mihm, 2010) has created new sourcing opportunities (Lu, 2014). As a result of the sourcing opportunities and the consumer's need for cheap clothes because of their constant desire for shopping (Morgan & Ross, 2015), retailers have started to send manufacturing and processes to offshore low wage countries (Bruce & Daly, 2006; Silva, Davies, & Naudé, 2002), such as Asian countries (Silva et al., 2002). This intensifies the complication of retailers' supply chains because multiple countries, continents and actors are now involved (Cherny-Scanlon & Agnes, 2016; Christopher et al., 2004).

Although, sending manufacturing and processes offshore to Asian countries brings cost advantages in comparison to their competitors (Bruce & Daly, 2006; Christopher et al., 2004), it eliminates the positive effects of the speed of market approach (Barnes & Lea-Greenwood, 2006; Christopher et al., 2004). Therefore, the retailers have felt the pressure to fasten their supply chain. Some retailers have started to develop a new supply chain system; they produce standard clothes in Asian countries and trend sensitive clothes closer to home, such as Italy, Portugal and Turkey (The Ethical Fashion Forum, n.d.).

Examples of retailers who make use of the fast fashion system are H&M and Inditex, the parent company of Zara (Mehrjoo & Pasek, 2015; Mihm, 2010; Rohwedder & Johnson, 2008; Sull & Turconi, 2008).

### 2.1.2 The fast fashion industry's socially unsustainable nature and its consequences

The fast fashion industry is socially unsustainable (Cherny-Scanlon & Agnes, 2016). In 2013 in Bangladesh, a factory named Rana Plaza collapsed because of the factory's poor condition. 1,134 People died following the collapse, and it can be said that these poor conditions are partially caused by the consumer's demand for cheap clothes (Westervelt, 2015). This disaster enlarged the debate with regard to the fast fashion industry's socially unsustainable nature tremendously (Westervelt, 2015; Yardley, 2013). With socially unsustainable is meant: low wages (Hearson, 2006; Morgan & Ross, 2015; Remy et al., 2016; Yardley, 2013), unsafety and unhealthy levels (Hearson, 2006; Morgan & Ross, 2015; Raworth, 2004; Remy et al., 2016; Westervelt, 2015; Yardley, 2013), child labour (Raworth, 2004; Remy et al., 2016) and other poor working conditions, such as no breaks and long working hours (Hearson, 2006; Raworth, 2004; Yardley, 2013), no sick or maternity leave (Hearson, 2006; Raworth, 2004) and dealing with abusive supervisors (Morgan & Ross, 2015; Yardley, 2013).

Aside from the consumer's demand for cheap clothes, another major cause for this industry's non-social nature is the power of retailers (Raworth, 2004). Retailers desire to maximize their turnover (Strong, 1997), which they achieve by demanding low costs and short lead time, and by threatening to move to cheaper and faster countries (Morgan & Ross, 2015) or factories (Hearson, 2006). As third world countries and factories all want to bring in large retailers; they bring a substantial number of working opportunities with them (Morgan & Ross, 2015), it causes high competition among third world countries (Morgan & Ross, 2015; Raworth, 2004) and factories (Hearson, 2006). This decreases the production costs tremendously and contributes to disregarding labour rights by governments and factories (Hearson, 2006; Morgan & Ross, 2015). The following statement explains why factories perform non-social behaviour: "Buyers pressure factories to deliver quality products with ever-shorter lead times. Most factories just don't have the tools and expertise to manage this effectively, so they put the squeeze on the workers. It's the only margin they have to play with" (Raworth, 2004, p. 51).

An additional cause, retailers say they are not responsible for the non-social behaviour performed by the fabric owners towards their fabric workers. Retailers hire factories to produce their clothes and do not own the factories. This implies that workers are not officially employed by the retailers, but are employed by the factories owners. Whereas, the retailers may not officially employ those workers, they are definitely responsible for these terrible working conditions (Morgan & Ross, 2015). Besides this, working in poor conditions in the fashion industry is not only a problem in third world countries. Poor working conditions is also in problem in Europe (Hoskins T, 2014; Johannisson, 2016).

### 2.1.3 The fast fashion industry's environmentally unsustainable nature and its consequences

While the fashion industry already had a significant influence on the environment, the fast fashion system has raised the consequences on the environment even more (Bly et al., 2015; Cherny-Scanlon & Agnes, 2016). Now, after the oil industry, the fashion industry is the highest polluting industry in the world (Cherny-Scanlon & Agnes, 2016). Some explanations for this non-environmental nature will be mentioned. For a start, fast fashion clothes are low priced (Kozłowski et al., 2016), which causes bad quality and alters consumer buying behaviour (Fletcher, 2008). For the same price consumers can buy

more clothing items. Therefore, the number of clothing items bought by an individual consumer increased (Hearson, 2006; Koszewska, 2016; Kozlowski et al., 2016; Remy et al., 2016).

Besides this, the small quantities fast fashion items are produced in. Impulse purchases are intensified, because consumers do not know whether it is sold out the next morning (Bhardwaj & Fairhurst, 2010; Mehrjoo & Pasek, 2015; Mihm, 2010).

Moreover, natural resources are exploited. A result of the increased purchase behaviour and the significant number of natural resources needed during the production of clothes (Christopher et al., 2004). For example, growing cotton needs a substantial amount of water (Remy et al., 2016) and farmers use a significant amount of pesticide; the intensification of pesticide used in the cotton production is up to 11 percent of the world's pesticide consumption (Goworek et al., 2012; Morgan & Ross, 2015).

Additionally, the fast fashion's primary goal is even more based on obsolescence than fashion already was (Joy et al., 2012). The rapid shift in trends has been a trigger. Clothes transformed to perishable goods (Ertekin & Atik, 2015; Mehrjoo & Pasek, 2015), which means: "The usefulness, value or functionality of perishable products is gradually reduced or even lost and cannot be regained if they are not used or sold within a specific time frame" (Mehrjoo & Pasek, 2015, p. 28). To put it another way, a certain clothing style is only fashionable for a short period of time. This together with the low price and quality of fast fashion items (Fletcher, 2008; Koszewska, 2016), increases the amount of consumers who buy a clothing item with the thought of simply wearing it a couple times and then replacing it with a new item (Birtwistle & Moore, 2007; Goworek et al., 2012; Hearson, 2006). This leads to a high throwaway of clothes (Goworek et al., 2012; Kozlowski et al., 2016). In 2005, UK consumers sent more than one million tonnes of clothing to landfills (The Ethical Fashion Forum, n.d.). Clothes are mostly made of non-decomposable materials (Morgan & Ross, 2015; The Ethical Fashion Forum, n.d.), in addition to decomposable woollen materials that produces methane, which contributes to global warming. As a consequence, the high throwaway of clothes causes problems in the landfills (The Ethical Fashion Forum, n.d.).

Lastly, globalization reduces the transparency of the supply chain (Kozlowski et al., 2016; Mihm, 2010). Simultaneously with the weak environmental regulation, this system heads towards polluting behaviour (Kozlowski et al., 2016).

#### 2.1.4 The fast fashion industry's economically sustainable nature and its consequences

Fast fashion is highly profitable, thereby economically sustainable (Jung & Jin, 2016). For instance, in 2016, the boss of Inditex; the parent company of Zara, was the richest man of the world for a couple of days (Hooker, 2016). Fast fashion is economically sustainable due to bringing the latest trends to the market very quick (Jung & Jin, 2016), which is prerequisite for success (Christopher et al., 2004).

In addition, retailers sell their clothes very cheap (Jung & Jin, 2016), which consumers prefer (Ertekin & Atik, 2015; Goworek et al., 2012). Fast fashion clothes can be sold very cheap as the clothes' production costs are very low (Section 2.1.1 and 2.1.2). Besides this, fast fashion retailers produce in large quantities. By doing so they can profit from economy of scales (Jung & Jin, 2016). Eventually, retailers can earn money as consumers are expected to purchase more than one item at a time, to throw these items away very quickly, and to purchase new ones (Jung & Jin, 2016).

## 2.2 Sustainable fashion

In recent years, sustainable fashion has gained in popularity. There are numerous definitions for sustainable fashion, this Thesis uses the following: "clothing which incorporates one or more aspects of social or environmental sustainability" (Goworek et al., 2012). This section explains sustainable fashion. This section is divided into three sections; it starts with Section 2.2.1, which discusses the emergence of sustainable fashion, followed by Sections 2.2.2, 2.2.3 and 2.2.4, which each explain the socially, environmentally and economically unsustainable consequences.



### 2.2.1 The sustainable fashion industry's development

The last decade, the awareness and concern by key stakeholders, such as the government, media and activists regarding the social and environmental consequences of fast fashion, increased (Birtwistle & Moore, 2007; Connell & Kozar, 2012; Kozlowski et al., 2016). In turn, the consumer's awareness and concern increased (Birtwistle & Moore, 2007). The fashion industry responded by improving their production process (Kozlowski et al., 2016). However, all stakeholders have to make a contribution to limit their unsustainable behaviour. In other words, the way clothes are produced and consumed have to be changed (Kozlowski et al., 2016); the fast fashion system has to be changed as a whole (Fletcher, 2008).

A new fashion system, 'sustainable fashion', has arisen (Hasanspahic, 2016). Langenwater (2009) mentions some important sustainable principles: respect for people throughout all levels of the organization, the community, and its supply chain; respect for the planet and understanding that resources are limited; and making profits by following these principles. However, there are many different terms used for sustainable fashion, such as environmental, ecological, green, ethical, recycled and organic. As a result, consumers are confused (Bly et al., 2015; Thomas, 2008). Aside from this, sustainable fashion covers numerous different practices (Aakko & Koskennurmi-Sivonen, 2013; Gurova & Morozova, 2016). Aakko and Koskennurmi-Sivonen (2013) divide these practices into the following: take and return (e.g. slow fashion), sourcing materials (e.g. recycled materials), treatment of fabrics (e.g. dyeing), production methods (e.g. handcrafting), societal implications (e.g. fair working conditions), saving resources (e.g. local resources), information transparency (e.g. logos) and attachment and appreciation (e.g. quality). A considerable number of articles focussed on the practice slow fashion instead of sustainable fashion (Ertekin & Atik, 2015; Jung & Jin, 2016; Pookulangara, Shephard, & Mestres, 2011). For clarification, slow fashion is sustainable fashion, yet, sustainable fashion can be more than slow fashion.

While the fashion industry is still dominated by fast fashion (Kozar & Connell, 2013), the consumer's interest in sustainable fashion is rising (Jung & Jin, 2016). Besides this, an increasing number of brands move along with this sustainable fashion trend (Goworek et al., 2012; Kahn, 2009; Pal, 2016). For instance, some large companies take part in a recycling program (H&M group, n.d.-a; Zara, n.d.), improve their supply chain (C&A, n.d.) or have a separate line of sustainable clothes (Goworek et al., 2012), such as H&M who developed the 'conscious' line (H&M group, n.d.-b). In addition, small sustainable retailers are gaining in popularity, for example, the German retailer Hessnatur (Wagner & Mark-Herbert, 2016) and Armed Angels (Armed Angels, n.d.).

### 2.2.2 The sustainable fashion industry's social sustainable nature and its consequences

Sustainable fashion tries to deal with the negative social side effects of fast fashion (Aakko & Koskennurmi-Sivonen, 2013; Fletcher, 2008). This fashion takes into account labour standards and good working conditions (Aakko & Koskennurmi-Sivonen, 2013). For instance, sustainable fashion may take into account one or more Fair Trade principles of the World Fair Trade Organization (2013) (Fletcher, 2008; Goworek et al., 2012):

- Opportunities for economically disadvantaged producers
- Transparency and accountability
- Fair trade practices
- Payment of a fair price
- Ensuring no child labour and forced labour
- Commitment to non-discrimination, gender equity and women's economic empowerment, and freedom of association
- Ensure good working conditions
- Providing capacity building
- Promote fair trade
- Respect for the environment

For example, since producing cotton is related to numerous social and health issues, poor labour's rights and bad working conditions, the retailer could produce clothes made of Fair Trade cotton (Fletcher, 2008).

Sustainable fashion can eliminate socially unsustainable consequences. The first example is slowing down the production process. Then, retailers can plan orders and forecast how many workers are needed. As a result, forced overtime is less of an issue (Fletcher, 2008). The second example is focussing on local culture and resources. This contributes to community development (Jung & Jin, 2016) as it creates jobs (Fletcher, 2008). Community development also shortens the distance between producers and consumers (Joy et al., 2012; Jung & Jin, 2016), which makes the supply chain more transparent (Jung & Jin, 2016).

### 2.2.3 The sustainable fashion industry's environmentally sustainable nature and its consequences

Sustainable clothes can also be environmentally sustainable as retailers are promoted to think about a sustainable production (Jung & Jin, 2016). For instance, the production of clothes made from recycled fabrics (Aakko & Koskennurmi-Sivonen, 2013; Kozłowski et al., 2016), such as recycled polyester (Hasanspahic, 2016), or from durable fabrics (Kozłowski et al., 2016). Durable fabrics can be organic and low-chemical cotton, hemp and lyocell. Their benefits can be less pesticides and water use in the production process (Connell, 2010; Fletcher, 2008; Goworek et al., 2012). Other durable fabrics are biodegradable fibres, such as wool and materials made from corn starch. Their benefit can be that the industry is less dependent on oil (Fletcher, 2008). Another improvement is shorten the supply chain (Section 2.2.2). A shorter supply chain contributes to the environment as less transportation is needed between countries (Jung & Jin, 2016).

Another practice can be slowing down the production cycle and the consumption cycle (Hasanspahic, 2016; Jung & Jin, 2016). When the production cycle is slowed down, labours can work longer on each clothing item, which increases the quality. When the consumption cycle is slowed down, consumers are encouraged to think about the clothes they purchase. Consumers are endorsed to buy fewer and higher quality items; this not only indicate the quality of the materials, but also how much the item is focussed on trends. Consequently, those clothes can be worn longer (Jung & Jin, 2016). This together with the encouragement to keep their clothes longer (Jung & Jin, 2016) lead to a decrease in the easiness of throwing away clothes (Hasanspahic, 2016). A positive outcome as throwing away clothes causes problems on the landfills (Section 2.1.3). Concluding, this sustainable fashion's practice promotes moving away from quantity to quality by producers and consumers (Fletcher, 2008; Hasanspahic, 2016; Jung & Jin, 2016; Pal, 2016).

### 2.2.4 The sustainable fashion industry's economically (un)sustainable nature and its consequences

Sustainable fashion is economically unsustainable as sustainable clothes are most of the time more expensive than fast fashion clothes (Bly et al., 2015; Connell & Kozar, 2012; Goworek et al., 2012; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007), which consumers dislike (Ertekin & Atik, 2015; Goworek et al., 2012). The higher price of sustainable clothes is a result of the severe social rules (Koszewska, 2016), and/or the eco-friendly materials and processes (Moon et al., 2015). These rules, materials and processes enlarge the costs and the selling price if the retailer does not accept a smaller margin. An example is organic cotton, an environmental friendly material. This material is more expensive than "normal" cotton, because it is available in limited supply as fewer farmers produce it. In addition, sustainable fashion is mainly produced in small quantities, therefore, it cannot compete with the price of fast fashion retailers who use the economy of scale strategy (Jung & Jin, 2016).

Furthermore, consumers prefer to buy clothes that are trendy at the moment (Barnes & Lea-Greenwood, 2006; Christopher et al., 2004). However, the lead time of sustainable clothes is longer,



which causes retailers to fall behind on trends (Jung & Jin, 2016), and thereby decreases the consumer's demand (Barnes & Lea-Greenwood, 2006; Christopher et al., 2004).

While the above mentioned may indicate that sustainable fashion is not economically sustainable, an answer on the question whether consumers are willing to pay more for sustainable clothes is not as clear cut as it may seem. Moon et al. (2015) state that consumers are not willing to pay more for social and environmental friendly clothes. Then again, Kahn (2009) highlights that consumers are mostly willing to pay more for environmentally sustainable products, and Pookulangara, Shephard and Mestres (2011) say this also holds for socially sustainable clothes. Aside from this, Jung and Jin (2016) agree with that consumers are willing to pay extra when the perceived customer value is high, which will be explained further in Section 2.3.4.

In addition, how much consumers are willing to pay more if they are willing to pay a premium is ambiguous. Auger, Burke, Devinney and Louviere (2003) found that consumers are willing to pay 28% more for a \$10,- eco-friendly product, and 15% extra for a \$100,- eco-friendly product. Besides this, according to Bhaduri and Ha-Brookshire (2011), consumers are willing to pay 15 to 20 percent more for environmentally and socially sustainable clothes. However, they are sceptic with regard to the transparency of retailers. Furthermore, millennials are the most willing to pay a premium (Nielsen, 2015), as they are the most sustainability-conscious generation (Saussier, 2017). As a result, a debate is going on with regard to how economically sustainable, sustainable fashion is.

## 2.3 Barriers and solutions

Bonini and Oppenheim (2008) found out that while people care about social and environmental impacts of the products they buy, it is not displayed in their consumptions. Furthermore, while people intent to buy sustainable products, they do not actually buy these product. This may be a result of barriers that prevent people from purchasing them. Also worth noticing, people will only change their behaviours if all barriers are eliminated. Besides this, how important each barrier is, is influenced by the product (Bonini & Oppenheim, 2008). Therefore, this Thesis searches for barriers specifically for social and environmental sustainable clothes. Previous studies find a lot of barriers (Beard, 2008; Birtwistle & Moore, 2007; Bly et al., 2015; Connell, 2010; Connell & Kozar, 2012; Ertekin & Atik, 2015; Fletcher, 2008; Goworek et al., 2012; Harris et al., 2016; Hasanspahic, 2016; Jung & Jin, 2016; Kim & Damhorst, 1998; Koszewska, 2016; Kozar & Connell, 2013; Mcneill & Moore, 2015; Moon et al., 2015; Pookulangara et al., 2011; Shaw et al., 2007). This Thesis focusses on the following four barriers: lack of knowledge and awareness, negative perception, lack of availability and high price. These barriers and their suggested solutions are stated in the next section.

### 2.3.1 Lack of knowledge and awareness, and its solutions

The first barrier consumers experience when purchasing social and environmental friendly clothes is the lack of knowledge and awareness (Birtwistle & Moore, 2007; Connell, 2010; Ertekin & Atik, 2015; Goworek et al., 2012; Harris et al., 2016; Koszewska, 2016; Mcneill & Moore, 2015; Moon et al., 2015). With knowledge is meant, consumers who are familiar with the consequences of unsustainable fashion. With awareness is implied, consumers who comprehend the knowledge and can implement this knowledge in their behaviour (Koszewska, 2016). Therefore, knowledge is needed in order to act sustainably (Bly et al., 2015).

To start with knowledge, most consumers agree that fast fashion clothes have a negative impact on the environment. Yet, they cannot mention why specifically, or the mentioned reasons are incorrect (Connell, 2010). Consumer's limited knowledge of the unsustainable consequences of fast fashion (Goworek et al., 2012) can also cause an indifferent or even a negative consumer's perception towards the concern of unsustainable clothes (Connell, 2010). The consequences of a negative perception will be discussed in Section 2.3.2. Hence, with the intention of making better decisions, potential consumers should gain in knowledge with regard to how fast fashion and sustainable clothes are produced and their consequences (Connell, 2010; Moon et al., 2015).

Educating consumers can increase this knowledge (Beard, 2008; Ertekin & Atik, 2015; Goworek et al., 2012; Moon et al., 2015). A sustainable logo can also increase this knowledge as it provides valuable information about the production process of an clothing item (Connell, 2010; Goworek et al., 2012; Koszewska, 2016). According to Connell (2010), consumers who have more pro-environmental knowledge about clothes, purchase more sustainable clothes. Moreover, Fletcher (2008), Goworek et al. (2012) and Pookulangara et al. (2011) say that when consumers' knowledge with regard to the unsocial side of the clothing industry increases, consumers would adjust their buying behaviour. However, at the same time, consumers who recognize some of the consequences, still do not purchase more sustainable clothes (Connell & Kozar, 2012; Goworek et al., 2012; Jung & Jin, 2016; Kim & Damhorst, 1998). For the reason that the consequences do not have a direct impact on the consumers (Jung & Jin, 2016).) Thus, while increasing the knowledge of consumers is of importance (Connell, 2010; Goworek et al., 2012; Kozar & Connell, 2013), apparently it is not always sufficient to persuade consumers to purchase more sustainable clothes (Goworek et al., 2012).

Followed by awareness, a consequence for unawareness is that consumers want to behave more sustainably but do not know how (Bonini & Oppenheim, 2008); they are unfamiliar with a possible solution for fast fashion, namely sustainable fashion (Connell, 2010; Hasanspahic, 2016; Moon et al., 2015). Moreover, consumers are not aware of where those clothes can be bought (Connell, 2010; Goworek et al., 2012; Hasanspahic, 2016; Moon et al., 2015). Seeing that consumers do not always recognize the retailers who sell sustainable clothes (Goworek et al., 2012) and/or experience problems when differentiating the fast fashion clothes from the sustainable clothes (Koszewska, 2016). Besides this, consumers find sustainable fashion difficult to understand (Bly et al., 2015; Moon et al., 2015). Building on the aforementioned, valuable sustainable information about clothes is hard to find, which is mostly caused by the modernization and globalization; both lower the transparency (Bly et al., 2015). Additionally, sustainable product websites that provide helpful information is lacking (Moon et al., 2015). In conclusion, people who want to buy sustainable clothes face restricted assistance (Moon et al., 2015). Besides this, they have limited time to figure out which clothing is sustainable (Beard, 2008; Bly et al., 2015; Koszewska, 2016), which enlarges the problems caused by restricted assistance even more.

The problem of unawareness of how to act more sustainable and the existence of sustainable clothes can be solved by education (Moon et al., 2015). Additionally, the unawareness problem of where to buy sustainable clothes can be solved by a sustainable logo (Hasanspahic, 2016; Kozar & Connell, 2013). As it makes recognizing and purchasing sustainable clothes easier (Bonini & Oppenheim, 2008). Such a logo creates some transparency as it contains relevant information (Bly et al., 2015). While a logo has some limitations, potential consumers can easily recognize it and thereby, it is one of the best way to show whether an item is sustainable (Koszewska, 2016). As long as the producers of these logos are independent, like scientists or environmental groups, otherwise consumers do not trust these logos (Bonini & Oppenheim, 2008; Goworek et al., 2012).

### 2.3.2 Negative perception, and its solutions

Connell (2010), Harris et al. (2016) and Moon et al. (2015) found a crucial barrier, the negative perception of sustainable clothes. This barriers has several origins. The first, consumers think that social and environmental sustainable fashion do not look the same as fast fashion (Connell, 2010; Harris et al., 2016), and thereby, they do not fit with the wardrobe's needs (Moon et al., 2015). Additionally, environmentally sustainable clothes are perceived as unstylish and unattractive in comparison to fast fashion clothes (Connell, 2010; Connell & Kozar, 2012; Moon et al., 2015). This is a critical aspect since the perceived style of clothes is very important for consumers (Hasanspahic, 2016). Furthermore, environmental and social sustainable clothes are perceived as less fashionable (Connell, 2010; Moon et al., 2015; Shaw et al., 2007). For instance, consumers believe that when those clothing items are made from eco-friendly materials, they are not consistent with the latest trends (Hasanspahic, 2016).

A solution that possibly corrects the wrongful opinion regarding the attributes and characteristics of social and environmentally sustainable clothes can be showing the consumers that sustainable clothing items are well-fitting, stylish (Connell, 2010) and high quality (Connell & Kozar, 2012). In other words, showing the actual appearance of sustainable clothes. Showing that there is a substantial amount of variation may also help (Connell, 2010).

The second, discouraging dominant stigma and stereotypes are related to sustainable clothes (Harris et al., 2016). Some people think that these clothes are not socially accepted in some situation (Connell, 2010; McNeill & Moore, 2015). Ertekin and Atik (2015) state that on the one hand, environmental friendly clothes are seen as compatible with the hippie movement, and on the other hand, they are associated with luxury. Therefore, both times eco-friendly clothes are seen as only available for a small specific group of consumers (Ertekin & Atik, 2015). Consequently, consumers might see these clothes as inconsistent with their wardrobe's self-image (Moon et al., 2015). As social pressure often determines the consumers' purchase decision (Koszewska, 2016) and fashion is a way to express yourself; it shows your uniqueness and social agreement (Bly et al., 2015), whether a clothing item is socially acceptable weights high when buying clothes.

The solution mainstreaming sustainable fashion; saying that sustainable clothes are socially accepted, possibly limits the problems of negative stigma and stereotypes regarding these clothes (Harris et al., 2016). For example, showing celebrities in advertisements can be used to enlarge the perceived acceptance. Besides this, celebrities have the power of making sustainable fashion more common (Pookulangara et al., 2011). As a result, consumers may recognize the lifestyle sustainable fashion belongs to easier (Beard, 2008).

### 2.3.3 Lack of availability, and its solution

A problem that occurs when buying sustainable clothes is the limited availability in shops (Bly et al., 2015; Connell, 2010; Connell & Kozar, 2012; Ertekin & Atik, 2015; Koszewska, 2016; Moon et al., 2015). There is a lack in variation of social and environmental friendly clothes (Beard, 2008; Connell, 2010; Ertekin & Atik, 2015; Shaw et al., 2007). Connell (2010) mentions that most retailers only produce for a specific consumer group and not for the mainstream consumer. Beard (2008) and Connell (2010) say that retailers solely create casual clothes, and not formal clothes. Besides this, many social and environmental friendly clothes do not have the preferred design (Koszewska, 2016), such as the wrong fit, size (Connell, 2010) and/or colour (Joy et al., 2012). A bad design is a significant problem as consumers are mostly looking for pieces of clothes that look good and sit well, instead of finding it important that a piece is sustainable (Connell, 2010; Harris et al., 2016). All in all, there seems to be a gap between the supply and demand (Moon et al., 2015). Consequently, when consumers think they have limited options, they can decide to make no decision (Ertekin & Atik, 2015). The problem lack of availability could be eliminated if retailers increase their sustainable clothing options (Bly et al., 2015; Connell, 2010).

### 2.3.4 Higher price, and its solution

Sustainable clothes are usually more expensive as a reaction to the rising costs (Bly et al., 2015; Connell, 2010; Goworek et al., 2012; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007), which is explained in Section 2.2.4. A higher price, also called a premium price, is a problem as cheap clothes are preferred by consumers (Ertekin & Atik, 2015; Goworek et al., 2012), especially by the young generation (Bhardwaj & Fairhurst, 2010). However, Kahn (2009) highlights that most consumers are willing to pay more for environmental friendly products. Connell (2010) explains that while some consumers are willing to pay more, they say cannot do this on a daily basis. Another paper goes even further and mentions that consumers are not willing to pay more for eco-friendly clothes (Moon et al., 2015). Regarding social friendly products, Kahn (2009) and Pookulangara et al., (2011) mention that consumers are often willing to pay more for social sustainable clothes. To sum up, there is no coherent answer on whether consumers are willing to pay more for sustainable clothes.

Aside from this, Harris et al. (2016) says that a higher price can be compensated by extra value. Examples of recommendations that may compensate for the larger prices are a strong brand, better style and higher quality (Harris et al., 2016; Joy et al., 2012; Koszewska, 2016). Jung and Jin (2016) agree with this statement, they mention that consumers are willing to pay something extra if the perceived customer value is enlarged. That paper also found four values that influence the perceived customer value, namely emotional, social, quality and price value. With emotional value is meant the feelings resulting from the perceived product utility (Jung & Jin, 2016; Sweeney & Soutar, 2001); with social value is meant the social benefit associated with a product (Sheth, Newman, & Gross, 1991); with quality value is meant the perceived performance (costs/benefits) derived from functional factors of the product; and with price value is meant the monetary value that defines the cost in comparison to the product utility (Jung & Jin, 2016; Sweeney & Soutar, 2001).

### 2.3.5 Motivations

Bly et al. (2015) found next to social and environmental motivation, three other motivations to purchase sustainable clothes. The first motive is sustainability's antithesis, which implies a resistance to buying fast fashion. The second motive is sustainable fashion as a facilitator of style. When buying sustainable clothes, consumers can express themselves; they can show their values and create individuality. The third motivation is sustainable fashion as a source of pleasure and well-being. For instance, sustainable fashion promotes the well-being since it includes a better way of living. Furthermore, Ertekin and Atik (2015) discovered a motivation similar to the first motivation mentioned by Bly et al. (2015), namely avoiding negative feelings triggered by buying fast fashion. For example, those negative feeling are caused by the constituent pressure to purchase, the homogenization and lost in meaning of new fast fashion clothes (Ertekin & Atik, 2015).

This Thesis focusses on removing the barriers and does not focus on the motivation to buy sustainable. However, this Thesis suggests that solving the barriers facilitates some motivations. A reason behind this suggestion is that barriers can hinder motivations to perform a behaviour (Bly et al., 2015).

### 3 Conceptual framework

The Thesis's aim is to investigate different strategies by analysing whether solving these barriers positively influence the consumers' actual purchase behaviour of sustainable clothes. In order to achieve a positive influence of the actual behaviour of these clothes, why people behave a certain way and how this behaviour can be influenced is important. A significant number of models are developed to explain just that; why consumers perform a certain behaviour or not, and how this behaviour can be influenced (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein, 2008; Fishbein & Ajzen, 2010; Glanz et al., 2015; Kang et al., 2013; Koszewska, 2016). These models show a simplified representation of real consumer behaviour. Therefore, these models have quite some limitations and assumptions (Koszewska, 2016). This research is built on Ajzen and Fishbein's (1980) theory of reasoned action model (TRA), Ajzen's (1991) theory of planned behaviour (TPB), and Glanz et al.'s (2015) integrated behavioural model (IBM). While there is some critique on the TRA and TPB models, there is empirical evidence that changing constructs in these models can lead to changes in behaviours (Fishbein, 2008; Fishbein & Ajzen, 2010; Glanz et al., 2015; Han & Chung, 2014; Kang et al., 2013; Koszewska, 2016; Kozar & Connell, 2013; McNeill & Moore, 2015; Shaw et al., 2007). This chapter explains these important models, and focusses on developing this Thesis's model by combining the information from Section 2.3 and the three models.

#### 3.1 Theory of reasoned action (TRA)

Ajzen and Fishbein (1980) suggest that humans perform different kinds of behaviour somewhat similar. Besides this, an identical narrow set of constructs and theories can form together one single theoretical framework, which can be used to forecast, explain and influence any sort of human behaviour (Fishbein & Ajzen, 2010). Given that the constructs are similar in time, context, action and target (Fishbein, 2008). The framework is called the theory of reason action (from now on TRA) (Ajzen & Fishbein, 1980) and is built on the principle that people take into account possible consequences of their behaviour, before they decide to behave a certain way or not (Ajzen & Fishbein, 1980). This does not necessarily mean that those beliefs are rational, they can be biased or inaccurate (Fishbein, 2008).

TRA says that *attitude towards the behaviour* construct and *subjective norm* construct influence the *intention* construct, which, in its turn, influence the *behaviour* construct (Ajzen & Fishbein, 1980). The TRA model is showed in the figure below, Figure 1.

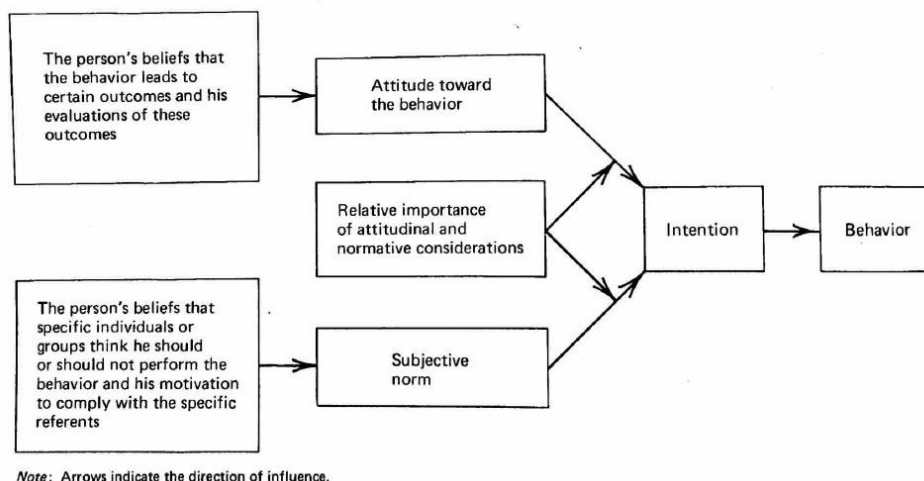


Figure 1, theory of reasoned action (Ajzen & Fishbein, 1980, p. 8)

An attitude towards the behaviour is formed by *behavioural beliefs* (Ajzen & Fishbein, 1980; Glanz et al., 2015); those beliefs are individuals' beliefs that performing a certain behaviour leads to a specific outcome, which are weighted by the *evaluation* of that outcome (Glanz et al., 2015). This means that if an individual believes that behaving a certain way contributes to generally beneficial outcomes, a positive attitude towards that behaviour is formed, and the other way around (Ajzen & Fishbein, 1980).

A subjective norm is shaped by *normative beliefs* (Ajzen & Fishbein, 1980); those beliefs originate from the (dis)approval of behaving a certain way by important people, which are weighted by the individual's motivation to *conform* with their opinions (Glanz et al., 2015). Thus, if important others pressure people to perform a certain behaviour, it increases the subjective norm to comply, and the other way around (Ajzen & Fishbein, 1980).

Intention captures motivational factors (Ajzen, 1991). It can predict *behaviour* with considerable accuracy (Fishbein, 2008), provided that humans have fully volitional control of performing a certain behaviour (Ajzen, 1991; Glanz et al., 2015).

The TRA model does not mention factors such as personal characteristics, demographic variables, social roles and status. It recognizes that there is enough evidence that those factors are important. Yet, those factors are seen as external variables that can influence the TRA constructs: beliefs, attitudes and subjective norms, can change over time and may differ among groups (Ajzen & Fishbein, 1980).

### 3.2 Theory of planned behaviour (TPB)

Ajzen (1991) developed a new model, which is built on the TRA model. This model is named the theory of planned behaviour (from now on TPB) and is shown in figure 2 below.

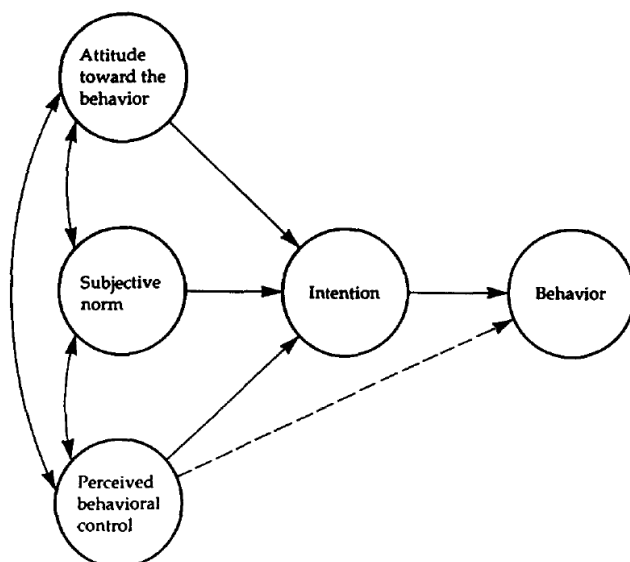


Figure 2, theory of planned behaviour (Ajzen, 1991, p. 182)

According to this model, the intention to perform a certain behaviour can be predicted by the attitude towards the behaviour construct and subjective norm construct, but also by the *perceived behavioural control* construct. These constructs can have an impact on each other as well. Aside from this, the actual behaviour can be influenced not only by the intention construct, but also by the perceived behavioural control construct (Ajzen, 1991).

Situations where humans do not completely have volitional control over their behaviour, are taken into account when including the perceived behavioural control (Glanz et al., 2015). This control is based on Bandura (1982) self-efficacy concept, which takes into account the individual's confidence in his/her ability to perform a specific behaviour. The perceived behavioural control is affected by *control belief*; how easy humans perceive actually behaving a certain way. The word 'perceive' is important, since it is not the actual control people have over their behaviour, but the control they think they have over a particular behaviour. Control beliefs are influenced by the behaviour's past experience, second-hand information, experiences of associates and other factors that affect the perceived complexity (Ajzen, 1991). Alongside this, the *perceived power*, the pressure of a specific control belief, determine the perceived behavioural control (Glanz et al., 2015).



Since the perceived behavioural control varies in different situations and actions, this model can predict and explain human behaviour in specific contexts (Ajzen, 1991). This model can also explain the difference in actual behaviour among humans as it takes into account the individual's confidence (Ajzen, 1991; Bandura, 1982).

In summary, the more positive an individual's attitude towards behaviour, subjective norm and perceived behavioural control is, the higher an individual's intention to behave a certain way is, and thereby the more likely an individual actual behaves a certain way. The relative importance of all these constructs, are determined by the behaviour and context (Ajzen, 1991).

### 3.3 Integrated behavioural model (IBM)

The integrated behavioural model (from now on IBM) is based on the TRA and TPB model, as well as other theories of behaviour (Fishbein, 2008; Glanz et al., 2015). In the last couple of years, the support for IBM increased (Fishbein, 2008; Glanz et al., 2015). This model can be used for measuring and recognizing factors that influence behaviours, and for understanding interventions that change behaviours. The IBM is shown in Figure 3.

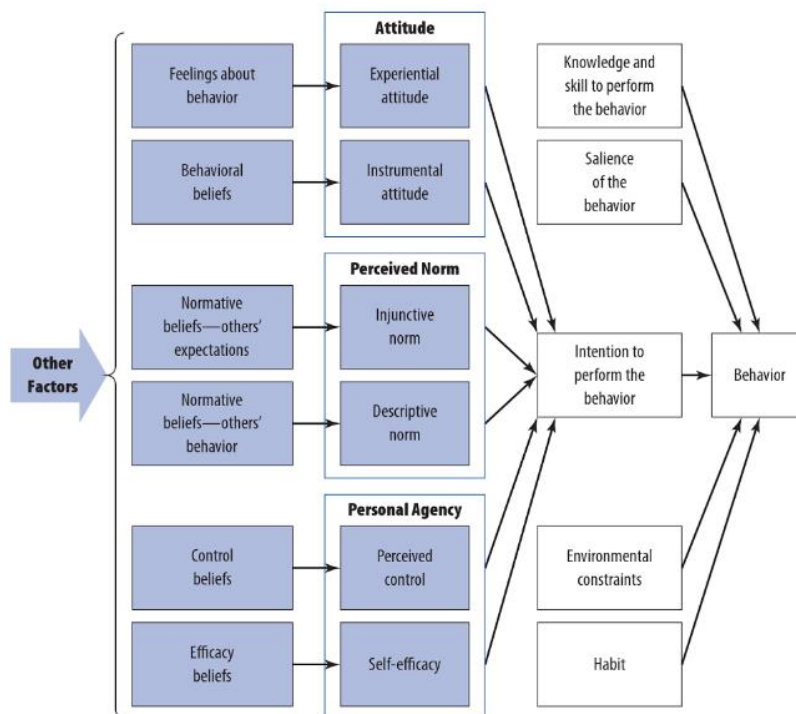


Figure 3, integrated behavioural model (Glanz et al., 2015, p. 104)

The TPB model assumes that the perceived behavioural control is congruent with the actual behavioural control. This is not always the case. For example, if information with regard to the behaviour is lacking, available resources are altered or the situation has changed (Ajzen, 1991). Therefore, the IBM deletes the TPB's suggestion that the perceived behavioural control has a direct influence on the behaviour. Instead, the IBM includes next to the intention, four extra constructs that influence the behaviour, which are based on actual behavioural control. The first construct is *knowledge and skill to perform the behaviour* (Fishbein, 2008; Glanz et al., 2015); the (in)capability to perform that behaviour. This depends on the knowledge and skill of an individual (Fishbein, 2008). The second construct is *saliency of the behaviour*; the noticeability of the option to perform a specific behaviour (Glanz et al., 2015). The third construct is *environmental constraints*; unanticipated barriers (Fishbein, 2008) that determines whether an individual actually can perform the behaviour (Fishbein, 2008; Glanz et al., 2015). The last construct is *habit*; the frequency of performing a specific behaviour.

In other words, when an individual performs a behaviour often, the behaviour is easier to perform (Glanz et al., 2015).

Aside from this, this model further develops the three constructs that influence the intention according to the TRA and TPB framework. First, the attitude construct is divided into an *experiential* and *instrumental attitude* construct (Glanz et al., 2015). Experiential attitude is the affect (Fishbein & Ajzen, 2010); the emotional reaction of the thought of behaving a certain way. Instrumental attitude is congruent with the TRA's and TPB's definition of the attitude. As it is cognitive and based on the costs and benefits of performing a behaviour (Glanz et al., 2015).

Second, the TRA's and TPB's subjective norm construct is replaced by the *perceived norm* construct, which consists of an *injunctive* and *descriptive norm* construct. The subjective norm covers only one part of the IBM's *perceived norm*, namely *injunctive norm* (Fishbein, 2008; Glanz et al., 2015). Both include the motivation to obey to the (dis)approval of performing a specific behaviour by others (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 2010; Glanz et al., 2015). The *descriptive norm* (Fishbein, 2008; Glanz et al., 2015) is the perception that others perform a specific behaviour or not (Fishbein & Ajzen, 2010; Glanz et al., 2015).

Third, while the theory of planned behaviour says that the perceived behavioural control concept is interchangeable with self-efficacy concept, the IBM deviates those concepts into two constructs. As mentioned before, *self-efficacy* is the individual's confidence that his/her capacity is enough to behave a certain way (Ajzen, 1991). Moreover, *perceived control* is the perceived external factors that have an impact on the easiness of behaving a certain way (Glanz et al., 2015).

As the TRA already mentioned, there are external factors that influence beliefs (Ajzen & Fishbein, 1980). The IBM framework also takes them into account and calls them *other factors* (Glanz et al., 2015).

### 3.4 Sustainable fashion consumption

As mentioned in the introduction of Section 3, this Thesis's aim is to investigate different strategies that positively influence the actual purchase behaviour of sustainable clothes. Analysing the TRA model, the TPB model and the IBM is important to achieve a positive influence of the actual behaviour of these clothes as these models explain how behaviour can be influenced. The TRA and TPB models have been successful in explaining consumers' behaviour in the fields of (sustainable) fashion. For example, Mcneill and Moore (2015) confirm that Ajzen and Fishbein's (1980) statement of attitude and subjective norms being key influencers of behaviour (change), is also correct regarding sustainable fashion consumption. Building on the aforementioned, Kang et al. (2013) argue that positive young consumers' attitudes and subjective norms towards purchasing environmentally sustainable clothes, influence the purchase intentions for environmentally sustainable clothes. However, they have not found evidence for this intention being influenced by the perceived behavioural control towards purchasing environmentally sustainable clothes. However, Shaw et al. (2007) argue that a negative perceived behavioural control, as well as a negative attitude and subjective norm towards purchasing sweatshop clothes, lead to an intention to avoid purchasing sweatshop clothes. Moreover, Koszewska's (2016) findings reveal a positive correlation between attitude and willingness to pay a premium towards purchasing sustainable clothes, which measures the same as the intention (Fishbein & Ajzen, 2010; Koszewska, 2016). Besides this, these findings reveal a positive correlation between this willingness to pay a premium and the actual purchase of sustainable clothes. To sum up, when solutions positively influence TRA or TPB model's constructs, these solutions positively influence the actual purchase behaviour of sustainable clothes.

The Thesis mainly focusses on the IBM. ICM can be suggested to be used instead of the TRA and TPB models in the fields of sustainable fashion, because IBM is the improved version (Glanz et al., 2015) of the already in sustainable fashion successful TRA and TPB models. To conclude, when solutions



positively influence IBM's constructs, these solutions positively influence the actual purchase behaviour of sustainable clothes.

The solutions that are suggested to influence IBM's constructs are education, sustainable logo, showing actual appearance of sustainable clothes, showing an equal number of sustainable and fast fashion clothes, and increasing the perceived customer value. These solutions are explained in detail in Section 2.3. That same section mentions the barriers that are solved by the solutions: the lack of knowledge and awareness, negative perception, lack of availability and the premium price of sustainable clothes. The next sections briefly state the barriers and their solutions, and analyse the IBM constructs that may be influenced by these solutions. Table 1 gives an overview of these sections.

The solutions are suggested to influence the purchase intention, knowledge and skills, salience of the behaviour, environmental constraints and habit constructs. Consequently, the actual purchase behaviour is expected to be influenced by the solutions (Glanz et al., 2015). Through which construct this influence runs, may not matter as the eventual solutions' influence on the actual behaviour is suggested to be the same. As this Thesis focusses on influencing the constructs that influence the intention construct and thereby, the actual behaviour construct, the other four constructs will be left on the side. However, this is done after the following two paragraphs below, which briefly state why these constructs are suggested to be influenced by the solutions.

Specifically the knowledge and skills, salience and environmental constraints constructs may be directly influenced. For example, the knowledge and skill construct may be positively influenced by education, because this construct covers the actual individual's knowledge and skill (Section 3.3). Another example, the environmental constraints may be influenced by providing a sustainable logo. Nowadays, there are (perceived) limited and untrusted logos. While there are some sustainable logos, such as the Fairtrade Cotton (Fairtrade Foundation, n.d.) and the Global Organic Textile Standards (GOTS) logo (Global Organic Textile Standard, n.d.), there is no standardized, independent logo (Connell, 2010). For instance, H&M developed its own sustainable logo; Conscious (H&M group, n.d.-c). Yet, consumers do not always trust logos of companies (Bonini & Oppenheim, 2008). Moreover, consumers are not aware of the logos or think that retailers do not provide sufficient information about the production process of clothes on the tags (Goworek et al., 2012).

The habit construct may be influenced indirectly. Only a few consumers are actually buying sustainable clothes (Bly et al., 2015; Connell, 2010), which is especially true for younger consumers (Bhardwaj & Fairhurst, 2010). Therefore, buying sustainable clothes cannot be assumed to be a habit for them yet. When the solutions succeed in increasing buying sustainable clothes, the number of Dutch students who are buying a larger amount of sustainable clothes increases. As a result, buying these clothes can become a new habit for more of them. While these solutions may contribute to an increased habit, creating a new habit needs time (Clear, 2014; Lally, Van Jaarsveld, Potts, & Wardle, 2010).

**Table 1, the barriers that prevent consumers from purchasing sustainable clothes and their solutions, together with the solutions' influenced IBM constructs**

Barriers:	Solutions:	Constructs:
<b>Lack of knowledge and awareness (Section 3.4.1)</b>	Education (Section 3.4.1.1)	Attitude (Injunctive and descriptive)
		Personal agency (Perceived control and self-efficacy)
	Sustainable logo (Section 3.4.1.2)	Attitude (Injunctive and descriptive)
		Personal agency (Perceived control and self-efficacy)

<b>Negative perception</b> (Section 3.4.2)	Showing the actual appearance of sustainable clothes (Section 3.4.2.1)	Attitude (Injunctive and descriptive)
		Personal agency (Perceived control and self-efficacy)
	Mainstreaming sustainable clothes (Section 3.4.2.2)	Perceived norm (Injunctive and descriptive)
		Intention
<b>Lack of availability</b> (Section 3.4.3)	Showing the availability of sustainable clothes (Section 3.4.3)	Personal agency
<b>Higher price</b> (Section 3.4.4)	The perceived customer value: <ul style="list-style-type: none"> <li>- Price value</li> <li>- Emotional value</li> <li>- Quality value</li> <li>- Social value</li> </ul> (Section 3.4.4)	Intention

### 3.4.1 Solutions for the lack of knowledge and awareness, and their influenced constructs

Section 2.3.1 state the first barrier for purchasing sustainable clothes, lack of knowledge and awareness. For instance, consumers have limited knowledge of the unsustainable consequences of fast fashion (Goworek et al., 2012) and are not always aware of the presence of sustainable clothes (Hasanspahic, 2016). That same section also state two solutions: education and providing a sustainable logo. The constructs that may be influenced by these solutions, are focussed on in Section 3.4.1.1 and 3.4.1.2.

#### 3.4.1.1 Education, and its influenced constructs

The first solution for the lack of knowledge and awareness is education (Section 2.3.1). Education may positively influence the attitude and the personal agency construct.

First of all, education may positively influence the attitude construct. Dickson (2000) and Mcneill and Moore (2015) state that attitude towards sustainable fashion depends among other things, on the concern. This concern increases when the knowledge about social and environmental issues increases (Dickson, 2000). Furthermore, attitude can be divided into instrumental and experiential attitude (Section 3.3), and educating consumers is expected to have a positive influence on both. Regarding this Thesis's subject, the instrumental attitude depends on the cost and benefit analysis towards purchasing sustainable fashion. In fact, Han and Chung's (2014) findings suggest a positive relationship between the perceived benefits and the attitude. For instance, as a result of education, consumers' knowledge increases. Increased knowledge enables consumers to compare ecological footprints of various fibres (Connell, 2010). Consequently, the benefits of sustainable fashion may increase. Regarding this Thesis's subject, the experiential attitude depends on the feelings towards purchasing sustainable fashion. For example, as a result of education, consumers' knowledge regarding the sustainable fashion's good working conditions for labourers may increase. This increased knowledge may positively influence consumers' feelings towards sustainable fashion.

Second of all, education is also suggested to positively influence the personal agency construct by positively influencing the perceived control and the self-efficacy (Section 3.3). Regarding this Thesis's subject, the perceived control depends on the easiness to purchase sustainable clothes. As a result of education, consumers receive the right information, which make purchasing sustainable fashion easier (Moon et al., 2015). Regarding this Thesis's subject, the self-efficacy depends on the confidence of

purchasing sustainable clothes. As education makes purchasing easier, consumers' confidence level may rise.

#### 3.4.1.2 Sustainable logo, and its influenced constructs

The second solution for the lack of knowledge and awareness may be providing consumers a sustainable logo (Section 2.3.1). A sustainable logo can contribute to knowledge as it provides relevant information (Bly et al., 2015), which may positively influence the attitude and the personal agency construct.

First of all, as mentioned in Section 3.4.1.1, knowledge influences the attitude. Consequently, a sustainable logo may positively influence the attitude. Providing a sustainable logo may also positively influence its sub-constructs (Section 3.3). For example, due to a sustainable logo that states Fairtrade, consumers know that the clothing item is made under good working conditions. Consequently, the perceived benefits may increase, which may positively influence the instrumental attitude (Han and Chung, 2014). Another example, due to a sustainable logo that mentions that the clothing item is made from organic cotton. This cotton has less of an impact on the environment. As a result, positive feelings may be generated, which may positively influence the experiential attitude.

Second of all, a sustainable logo may also positively influence the personal agency construct by its sub-constructs (Section 3.3). Providing a logo makes it easier to identify sustainable clothes (Bonini & Oppenheim, 2008). This may positively influence the consumer's perceived control of buying these clothes. As a logo makes recognizing sustainable clothes simpler, consumers' confidence of buying these clothes may rise. This may have positively influence the self-efficacy.

#### 3.4.2 Solutions for the negative perception, and their influenced constructs

Section 2.3.2 states the second barrier, the negative perception of sustainable clothes. This barrier originates from two reasons. The first reason is the consumers' perception that sustainable fashion clothes do not have the same appearance as fast fashion clothes (Connell, 2010; Harris et al., 2016). The second reason is the negative stigma and stereotypes related to sustainable clothes (Harris et al., 2016). The same section also provides a solution for each reason: showing the actual appearance of sustainable clothes and mainstreaming sustainable clothes. The influenced constructs are mentioned in Section 3.4.2.1 and 3.4.2.2.

##### 3.4.2.1 Showing the actual appearance of sustainable clothes, and its influenced constructs

The first solution is showing the actual appearance of sustainable clothes; a range of well-fitting, stylish, comfortable and high quality sustainable clothes (Connell, 2010; Connell & Kozar, 2012). This solution eliminates the negative perception that sustainable clothes do not look the same as fast fashion clothes (Section 2.3.2). This solution is expected to positively influence the attitude and personal agency construct.

First of all, showing the appearance of sustainable clothes is expected to positively influence the attitude. After seeing the actual appearance, consumers' needs and wants may be satisfied, which will positively influence the attitude (Connell, 2010). Both sub-construct are expected to be influenced (Section 3.3). The instrumental attitude is expected to be positively influenced, because the sustainable clothes' benefits may be greater after consumers see that sustainable clothes are consist with their needs. The experiential attitude is expected to be positively influenced, because consumers' feelings may increase after consumers see that sustainable clothes are consist with their wants.

Second of all, showing the appearance of sustainable clothes is expected to positively influence the personal agency and its sub-constructs (Section 3.3). For instance, consumers think that sustainable clothes are unstylish (Connell, 2010; Connell & Kozar, 2012; Moon et al., 2015). This makes purchasing stylish sustainable clothes not easy and thereby, decreases the consumers' confidence level of purchasing these clothes. Showing that sustainable clothes can be stylish, makes purchasing stylish sustainable clothes easier and increases the consumers' confidence level of purchasing these clothes.

In other words, the perceived behavioural control and self-efficacy are expected to be positively influenced.

#### 3.4.2.2 Mainstreaming sustainable clothes, and its influenced constructs

The second solution is mainstreaming sustainable clothes, which eliminates the negative stigma and stereotypes related to sustainable clothes (Section 2.3.2). This intervention can directly shape the perceived norm construct.

Both aspects of the perceived norm construct, the injunctive and descriptive norms (Section 3.3), are suggested to be influenced. Regarding this Thesis's subject, the injunctive norm depends on the purchase acceptance of sustainable clothes by peers. Some consumers think that purchasing these clothes is not always accepted by their peers (Connell, 2010; Mcneill & Moore, 2015). Mainstreaming sustainable clothes can be done by saying that sustainable clothes are socially accepted (Connell, 2010). This is suggested to positively influence the injunctive norm. Regarding this Thesis's subject, the descriptive norm depends on the actual purchase behaviour of sustainable clothes by others. Some consumers also think that purchasing sustainable clothes is only for a specific kind of consumer (Ertekin & Atik, 2015). When these clothes are widely available, a lot of consumers buy them (Connell, 2010; Harris et al., 2016). This is suggested to positively influence the descriptive norm.

#### 3.4.3 Solution for lack of availability, and its influenced construct

Section 2.3.3 states the third barrier, the limited availability in shops. That same section also provides the solution for this barrier, retailers should enlarge their collection (Bly et al., 2015). However, the availability cannot easily be modified in real life. Nevertheless, retailers will boost their sustainable supply when the demand rises. The demand of this Thesis's participants may be positively influenced as a result of this experiment, and thereby influence the supply in the long-term.

In this Thesis the availability will be the same for sustainable and fast fashion clothes, to examine whether consumers will purchase sustainable clothes when those clothes are as effortlessly available to them as unsustainable clothes. The personal agency and its sub-constructs may be positively influenced by the availability in supply. The perceived control may be influenced, because a risen availability of sustainable fashion makes buying sustainable clothes easier. As buying sustainable clothes becomes easier, consumers' confidence in buying these clothes may be increased. In other words, the self-efficacy may be influenced.

#### 3.4.4 Solution for the higher price, and its influenced construct

Section 2.3.4 states the last barrier, the higher price of sustainable fashion in comparison to fast fashion. A higher price is a big barrier (Bly et al., 2015; Connell, 2010; Goworek et al., 2012; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007), as according to Moon et al. (2015), consumers are not willing to pay something extra for sustainable clothes. However, according to Jung and Jin (2016), consumers are willing to pay more when the perceived customer value is enlarged. The perceived customer value will be enlarged when at least one of the following values of the perceived customer value: price, emotional, quality and social value, increases.

As a consequence of the higher price tag of sustainable clothes, specifically the price value is lowered. As this value is a trade-off between monetary costs and the other three values: emotional, social and quality value (Widmer, 2012), these three values for sustainable clothes should be enlarged to compensate for the higher price. Consequently, this enlargement may positively influence the price value, and thereby may positively influence the perceived customer value. An enlargement in the perceived customer value positively influences the intention construct (Jung & Jin, 2016).

#### 3.4.5 Solutions for the barriers, and their indirect influenced constructs

This Thesis suggests that the above mentioned solutions may also indirectly influence the intention and actual behaviour construct. These solutions may have an influence on the attitude, perceived norm and personal agency construct (Section 3.4.1, 3.4.2 and 3.4.3). According to the models, these constructs have an influence on the intention construct (Section 3.1, 3.2 and 3.3). For instance, the

intention may be influenced by education and a sustainable logo as they increase the consumers' knowledge. This can be backed up by Birtwistle and Moore (2007). They argue that when consumers' knowledge about the unsustainable consequences of fashion increases, the consumers mention that they may change their fashion consumption. In other words, their purchase intention may change.

Moreover, these solutions may influence constructs (Section 3.4.1, 3.4.2, 3.4.3 and 3.4.4), which according to the models, have an influence on the actual behaviour construct (Section 3.1, 3.2 and 3.3). For instance, the actual behaviour may be influenced by education and a sustainable logo. This can be backed up by Fletcher (2008) and Goworek et al. (2012). They argue that knowledge can positively influence consumers' actual purchase behaviour of sustainable fashion, as consumers can make decisions that are more informed (Connell & Kozar, 2012). Nevertheless, consumers who recognize some of the consequences, still do not purchase more sustainable clothes (Connell & Kozar, 2012; Goworek et al., 2012; Jung & Jin, 2016). While increasing the knowledge is important (Connell, 2010; Goworek et al., 2012; Kozar & Connell, 2013), it is not enough to motivate consumers to shop for more sustainable items (Goworek et al., 2012). The information provided in Section 3.4 contributes to the proposed framework mentioned in the next section.

### 3.5 Proposed framework

The three models: the TRA model, TPB model and IBM, but mainly the IBM, together with the results from Section 3.4, created seven hypotheses. These hypotheses helped developing the proposed model displayed below (Figure 4).

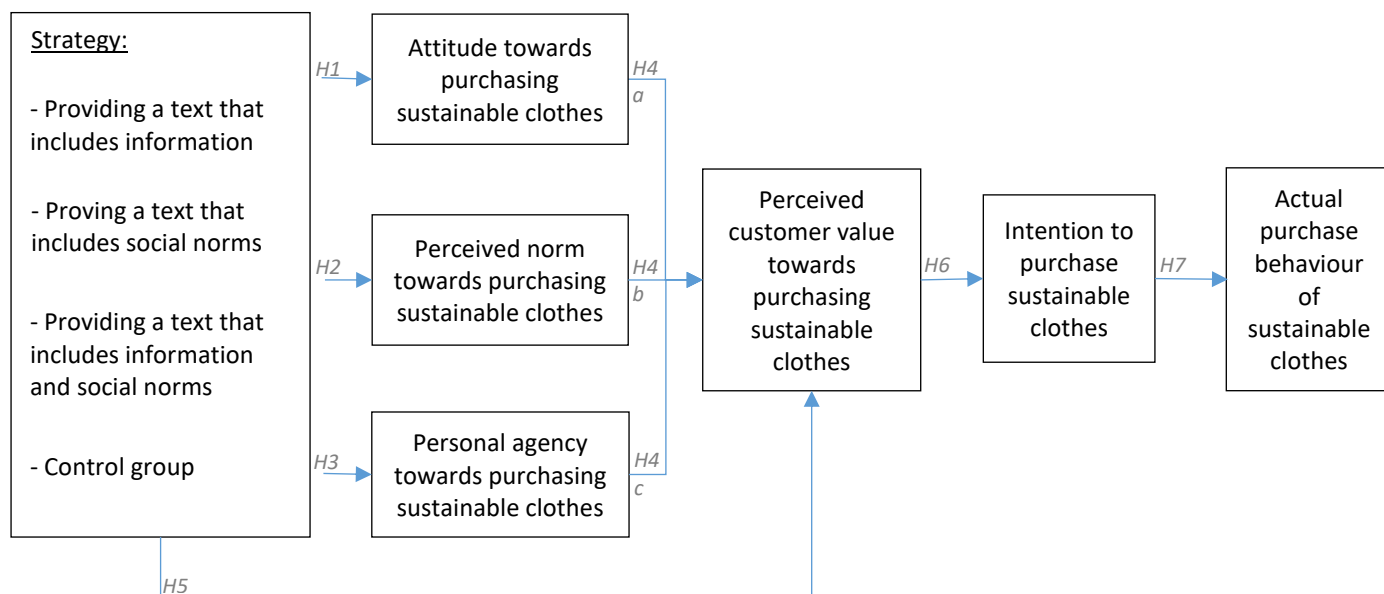


Figure 4, the proposed model

The aim of this Thesis is to investigate different strategies that influence the actual purchase behaviour of sustainable clothes. This is achieved by analysing whether solving these barriers positively influence constructs that eventually positively influence the consumers' actual purchase behaviour of these clothes. In order to answer the aim, different hypotheses are created. These hypotheses are based on the strategies that (in)directly influence different constructs of the TRA, TPB model and IBM. Bonini and Oppenheim (2008) state that all barriers ought to be solved to have an impact. As a lot of barriers prevent consumers from purchasing sustainable clothes (Section 2.3), solving all barriers is not possible. Nonetheless, this Thesis tries to solve a combination of five barriers. However, to statistically test all these barriers' solutions to see whether there is a difference between the manipulated and the control condition becomes too complex. Therefore, this Thesis focusses on statistically testing two

solutions and a combination of these solutions, and their influenced constructs against a control condition.

This Thesis chooses to centre on testing the solutions education, mainstreaming sustainable clothes and a combination of these solutions. This Thesis's education strategy will be: providing participants a text that includes information. This text shortly explains the unsustainable consequences of fast fashion and its solution, sustainable fashion. Furthermore, this text shortly explains how sustainable fashion tries to limit these unsustainable consequences. Additionally, two pictures are included, which visualise a social and an environmental consequence of fast fashion. The two strategies that include this informative text are: 'providing a text that includes information' (information condition) and 'providing a text that includes information and social norms' (information and social norms condition).

Besides this, this Thesis's mainstreaming strategy will be: a text that includes social norms. In this text a celebrity, Emma Watson, briefly states her acceptance of (injunctive norm) and actual behaviour of (descriptive norm) buying sustainable clothes. Thereby, this text includes both sub-constructs of the perceived norm construct. The text is supported by one picture that shows Emma Watson wearing sustainable clothes. This Thesis chooses a celebrity, because they are a powerful reference group who influence consumer behaviour (Joung & Park-Poaps, 2013). The two strategies that include this social norms text are: 'providing a text that includes social norms' (social norms condition) and 'providing a text that includes information and social norms' (information and social norms condition).

The other three barriers' solutions can be seen as self-evident when purchasing sustainable fashion, and therefore, they are implemented in every condition. Consequently, these strategies' influence is not statistically tested against a control condition. Firstly, that consumers have to see whether a clothing item is sustainable when making a sustainable purchase, is found logic. The expected solution that takes care of this is a sustainable logo (Section 2.3.1). This Thesis's sustainable logo strategy will be a clear logo that is green and states: 'sustainable'. Logos have to be clear, because otherwise consumers are even more confused (Bonini & Oppenheim, 2008).

Secondly, the goal of this Thesis is to investigate whether the strategies positively influence the actual purchase behaviour of sustainable clothes. Therefore, the fact that participants have to see the sustainable clothes when making a purchase decision, makes sense. The expected solution that takes care of this is showing the sustainable clothes' availability (Section 2.3.3). This solution can be merged together with another solution, the actual appearance of sustainable clothes (Section 2.3.2). This created the last strategy: showing an equal amount of sustainable and fast fashion clothes similar in style. Consequently, this strategy may influence the constructs that are suggested to be influenced by at least one of these two solutions (Section 3.4.2.1 and 3.4.3).

Each of the next sections focusses on one TRA, TPB and IBM construct, the strategies that possibly have an impact on that construct and the resulting hypothesis / hypotheses.

### 3.5.1 Attitude

First, this Thesis's education strategy: providing a text that includes information, may positively influence the attitude and its sub-constructs, the experiential and instrumental attitude (Section 3.4.1). The two conditions that are shown this text are the information condition, and the information and social norms condition. The following hypothesis is created to test whether these conditions have a positively influenced attitude:

*H1: Participants who receive a text that includes information, the information condition, and the information and social norms condition, have a positively influenced attitude towards purchasing sustainable clothes.*

Secondly, the following two strategies: providing a sustainable logo and showing an equal amount of sustainable and fast fashion clothes similar in style, may positively influence the attitude construct and its sub-constructs (Section 3.4.2.1 and 3.4.2.1). Nonetheless, as mentioned in this section's



introduction, these strategies are provided to every condition and therefore, they are not statistically tested against a control condition.

### 3.5.2 Perceived norm

This Thesis's mainstreaming strategy: providing a text that includes social norms, may positively influence the perceived norm and its sub-constructs, the injunctive and descriptive norm (Section 3.4.2.2). The two conditions that are shown this text are the social norms condition, and the information and social norms condition. The following hypothesis is going to test whether these conditions have a positively influenced perceived norm:

*H2: Participants who receive a text that includes social norms, the social norms condition, and information and social norms condition, have a positively influenced perceived norm towards purchasing sustainable clothes.*

### 3.5.3 Personal agency

To start with this Thesis's education strategy: the text that includes information, which may positively influence the personal agency construct and its sub-constructs, the perceived control and self-efficacy construct (Section 3.4.1.1). The two conditions that were shown this text are the information condition, and the information and social norms condition. The next hypothesis tries to determine whether these conditions have a positively influenced personal agency:

*H3: Participants who receive a text that includes information, the information condition, and the information and social norms condition, have a positively influenced personal agency towards purchasing sustainable clothes.*

Followed by the next two strategies: sustainable logo and showing an equal amount of sustainable and fast fashion clothes similar in style, which may positively influence the personal agency and its sub-constructs (Section 3.4.1.2 and 3.4.2.1). As mentioned in this section's introduction, these strategies are provided to every condition and therefore, they are not statistically tested against a control condition.

### 3.5.4 Perceived customer value

First, why this Thesis includes a perceived customer value construct is explained (Section 3.5.4.1). Secondly, the resulting hypotheses are going to be mentioned (Section 3.5.4.2). Thirdly and last, a trade-off is made between the influence of the text that includes information, the influence of the text that includes social norms, and the influence of a combination of these texts (Section 3.5.4.3).

#### 3.5.4.1 Including the perceived customer value construct

This Thesis includes a new construct between the attitude, perceived norm and personal agency construct, and the intention construct. This new construct is called the perceived customer value construct and consists of four values: social, emotional, quality and price value. This Thesis suggests that including the perceived customer value is important as this value indicates whether there is a price barrier (Section 3.4.4). This barrier is worthy to measure, because when it is present, consumers experience problems when shopping for sustainable clothes (Bly et al., 2015; Connell, 2010; Goworek et al., 2012; Harris et al., 2016; Jung & Jin, 2016; Koszewska, 2016; Moon et al., 2015; Shaw et al., 2007). This barrier is lowered when the perceived customer value is enlarged (Section 2.3.4).

This Thesis suggests that the perceived customer value construct should be placed before the intention construct. According to Jung and Jin (2016), the intention is significantly influenced by the perceived customer value. This Thesis also suggests that the perceived customer value construct should be placed after the attitude, perceived norm and personal agency construct. When the attitude, perceived norm or personal agency construct is positively influenced, at least one of the four values of the perceived customer value is suggested to be positively influenced. Consequently, the perceived customer value is positively influenced. At least one example is given for each value, which explains why this value increases as a result of at least one of these constructs.

An example for the social value, when the perceived norm is positive, it means people acceptance that behaviour and/or others behave that way (Fishbein & Ajzen, 2010; Glanz et al., 2015). A positively influenced perceived norm may lead to a positively influenced social value, because this value takes these social aspects into account (Jung & Jin, 2016; Sweeney & Soutar, 2001).

The first example for the emotional value is that when the experiential attitude is positive, it indicates a positive emotional reaction (Glanz et al., 2015). Due to a positively influenced experiential attitude, the emotional value may be positively influenced too, because this value depends on feelings (Jung & Jin, 2016; Sweeney & Soutar, 2001). The second example for the emotional value is that when the perceived norm is positive, it indicates that others accept your behaviour (Fishbein & Ajzen, 2010; Glanz et al., 2015), which may create positive feelings. Due to a positively influenced perceived norm, the emotional value may positively influenced.

The first example for the quality value is that when the instrumental attitude is positive, it entails a decrease in the perceived costs and/or an increase in the perceived benefits (Glanz et al., 2015). When the instrumental attitude is positively influenced, the quality value may be also positively influenced, because this value depends on these costs and benefits (Jung & Jin, 2016; Sweeney & Soutar, 2001). The second example for the quality value is that when the perceived behavioural control is positive, it entails that behaving a certain way is easy (Glanz et al., 2015), which may increase the benefits. According to this, a positively influenced perceived behavioural control may lead to a positively influenced quality value.

The price value can be positively influenced by constructs that positively influence the other three values. As the price value depends on whether consumers agree that the product is in monetary value worth its price (Sweeney & Soutar, 2001). In other words, this value is a trade-off between monetary costs and the other three values (Widmer, 2012). Since the monetary costs for sustainable fashion are higher than for fast fashion (Section 2.2.4), the other three constructs should be enlarged to achieve a positive price value for sustainable fashion.

#### 3.5.4.2 The resulting hypotheses

Building on the aforementioned section, three hypotheses can be formulated. Starting with a hypothesis that measures the influence of the attitude construct on the perceived customer value construct. The following hypothesis is going to test this statement:

*H4a: A positively influenced attitude towards sustainable fashion will lead to a positively influenced perceived customer value towards purchasing these clothes.*

Followed by a hypothesis that examines the influence of the perceived norm construct on the perceived customer value construct. The following hypothesis is going to examine this statement:

*H4b: A positively influenced perceived norm towards sustainable fashion will lead to a positively influenced perceived customer value towards purchasing these clothes.*

Ending with a hypothesis that determines the influence of the personal agency construct on the perceived customer value construct. The next hypothesis is going to test this statement:

*H4c: A positively influenced personal agency towards sustainable fashion will lead to a positively influenced perceived customer value towards purchasing these clothes.*

#### 3.5.4.3 The trade-off among the strategies' influence on the perceived customer value

This Thesis suggests that there is a difference in the strategies' influence on the perceived customer value. Norms weigh high when buying clothes as social pressure often determines the clothing item(s) the consumer decides to purchase (Koszevska, 2016). Aside from this, fashion is a way to express yourself; it shows your uniqueness and social agreement (Bly et al., 2015). Hence, the assumption is that this Thesis's mainstreaming strategy: providing a text that includes social norms, positively



influences the perceived customer value towards purchasing sustainable clothes more than this Thesis's education strategy: providing a text that includes information.

Building on the aforementioned, this Thesis proposes that combining the two above mentioned strategies is the most efficient strategy to positively influence the perceived customer value towards purchasing these clothes. This is based on Bonini and Oppenheim's (2008) proposal that every barrier has to be solved in order to change consumers' behaviour. Given these points, the next hypothesis is created:

*H5: Participants who receive a text that includes information and social norms, the information and social norms condition, have the largest positively influenced perceived customer value towards purchasing sustainable clothes, followed by participants who receive a text that solely includes social norms; the social norms condition.*

### 3.5.5 Intention

Section 3.5.4.1 implies that the perceived customer value influences the intention. The next hypothesis is going to test this statement:

*H6: A positively influenced perceived customer value towards purchasing sustainable clothes, will lead to a positively influenced consumer's intention to purchase these clothes.*

### 3.5.6 Actual purchase behaviour

Section 3.4.5 implies that the purchase intention towards sustainable clothes influences the actual purchase behaviour of these clothes. This results in the following hypothesis:

*H7: A positive influence in the consumer's intention to purchase sustainable clothes, will lead to a positive influence in the actual purchase behaviour of these clothes.*

## 4 Materials and methods

This chapter introduces the methods used in this Thesis. First, this Thesis describes the participants who joined this Thesis's experiment, what the experiment looked like and why this Thesis made use of two separate surveys. Subsequently, the data collection is clarified. Lastly, it mentions the two different surveys and their questions.

### 4.1 Participants

Social media was used to recruit the participants. For each condition around 40 Dutch students were included from different ages, gender, studies and cities. Since the second survey was sent to the participants around one week later, this survey had fewer participants (around 35 Dutch students). Possible reasons for this could be that the participants did not see the second survey or did not want to respond anymore. As participants were only eligible for a chance of winning a VVV-voucher worth 15 euros when they filled in both surveys, the second reason was tried to be eliminated.

To ensure the sample representativeness, the participants were randomly assigned to one of the four conditions. After filling in the survey, the similarity of the groups was checked. This was possible as sociodemographic questions were asked in the first survey.

### 4.2 Design

The experiment consisted of two surveys, and it was conducted via Qualtrics. Participants were randomly distributed across the conditions. Questions were asked on a 7-point Likert scale, ranging from 1 = strongly disagree to 7 = strongly agree or 1 = never true to 7 = always true. These four conditions:

1. The information condition
2. The social norms condition
3. The information and social norms condition
4. The control group condition

### 4.3 Procedure

A short introduction was given, before the first survey's questions were asked. This introduction briefly explained the survey's subject and its goal; to contribute to existing knowledge. Besides this, it clarified the procurement of this survey and how the participants could be eligible for the prize. Lastly, it mentioned the confidentiality of their input and the e-mail address they could contact if they had any remaining questions. After this introduction, sociodemographic questions were asked. Among which a question regarding whether (s)he was a Dutch student. As this Thesis exclusively focussed on Dutch students, solely when the respondent was a Dutch student (s)he could fill in the survey.

The first survey's goal was to measure the difference in the intention to purchase sustainable clothes among the four conditions. These conditions were all shown a different text and the content of these texts are further explained in Section 4.4.1. Subsequently, participants were shown various clothing items with their prices. In fact, for each fast fashion item, a sustainable item similar in style was provided. The sustainable clothes could be differentiated from the fast fashion clothes by a sustainable logo. Followed by questions that measured the perceived norm, personal agency, attitude, perceived customer value and purchase intention. These questions were asked to determine whether these texts, and showing an equal amount of sustainable (with a sustainable logo) and fast fashion clothes (without a sustainable logo) similar in style, led to a more positive personal agency, perceived norm and attitude, and thereby to a more positive perceived customer value and purchase intention. The first survey ended with a question regarding the participants' e-mail addresses. Hence, the second survey could be sent to them.

The second survey was sent to the participants around one week after they finished the first survey. The purpose of sending it one week later was that participant would be less influenced by the information presented in the first survey and the answers they had given. Consequently, actual

behaviour was more likely to be measured. A short introduction was given, before the second survey's questions were asked. This introduction mentioned the time it takes to finish the survey, the confidentiality of their input and the e-mail address they could contact if they had any remaining questions. Subsequently, their gender was asked again to establish which clothes were shown, women's or men's clothes.

The second survey's goal was to examine the difference in the actual purchase of sustainable clothes among the four conditions. With that intention, an equal amount of sustainable (with a sustainable logo) and fast fashion clothes (without a sustainable logo) similar in style was shown. These clothes were the same clothes as the clothes that were shown in the intention survey. Participants could choose the clothing item(s) they would purchase when they could spend 70 euros. Followed by a control question that asked the reasons behind the participants' decisions. This question tested whether the examined barriers were indeed eliminated. The second survey ended with a question regarding the participants' e-mail addresses. Hence, one winner could be chosen and the answers from the first and second survey could be matched. The exact questions can be read in the Appendix.

#### 4.4 Manipulations and variables

This section is divided into two sections. The first section explains the different conditions and the corresponding texts. The second section will dive into the different variables and how they are measured.

##### 4.4.1 Manipulations

In this experiment, the participants are divided into four conditions. In three of these conditions, the respondents are manipulated by three different texts (Section 4.4.1.1, 4.4.1.2 and 4.4.1.3). In one condition, the respondents are not manipulated (Section 4.4.1.4).

###### 4.4.1.1 Information condition

A suggested solution for the lack of knowledge and awareness barrier is education (2.3.1). This Thesis's education tool was an informative text. This condition's participants saw a text that briefly explained the unsustainable consequences of fast fashion and its solution, sustainable fashion. Furthermore, it shortly clarified how sustainable fashion tries to limit these unsustainable consequences. The sources that were used for the text are: Aakko and Koskenurmi-Sivonen (2013), Bhardwaj and Fairhurst (2010), Birtwistle and Moore (2007), Cachon and Swinney (2011), Cherny-Scanlon and Agnes (2016), Christopher et al. (2004), Fletcher (2008), Goworek et al. (2012), Hasanspahic (2016), Hearson (2006), Joy et al. (2012), Koszewska (2016), Kozar and Connell (2013), Kozłowski et al. (2016), Mehrjoo and Pasek (2015), Mihm (2010), Morgan and Ross (2015), Raworth (2004), Remy et al. (2016), Rohwedder and Johnson (2008), Sull and Turconi (2008), The Ethical Fashion Forum (n.d.), Westervelt (2015) and Yardley (2013), and the text stated the following:

**Please read carefully the following text before going to the questions:**

*Currently, the fashion market is dominated by 'fast fashion', which is based on copying and selling as cheap and as fast as possible the fashion trends seen on the runway. Examples of fast fashion retailers are Zara and H&M. This system is highly unsustainable, as it contributes to social- and environmental problems.*

*Fast fashion is socially unsustainable since it ignores labour rights, which results in low wages, no sick and maternity leave, long working hours without any breaks, and poor working conditions. Labour rights are being overlooked because of the consumer's demand for cheap clothes with a short lead time, and the power of the retailers. To achieve the retailers' demands, countries and factories see no other option than to exploit its workers. Another explanation is that retailers say they are not responsible for the non-social behaviour performed by the fabric owners, as the retailers do not own but hire the fabrics to produce their clothes.*

*Additionally, the fashion industry is now the second highest polluting industry in the world. Firstly, this is caused by the exploitation of natural resources, as for example; the intensification of water and pesticide used in the cotton production. Secondly, the consumer's purchase, use, and disposal behaviour towards fast fashion are environmental unfriendly. For instance, people throw away their clothes very easily and in large quantities, which leads to difficulties in the landfills.*

*These unsustainable consequences of fast fashion are unwanted and should be combatted by changing the way we produce and consume clothes. A system that tries to eliminate those consequences is called 'sustainable fashion'. For instance, the production cycle is slow downed, causing forced overtime to be less of an issue. Furthermore, the retailers are encouraged to think about sustainable production, such as producing clothes made of recycled fabrics.*

Lastly, the participants were shown two pictures that visualised a social and an environmental consequence of fast fashion. The source of the two pictures is: Morgan and Ross (2015), and the pictures are shown in Figure 5:



Figure 5, social and environmental consequence of fast fashion (Morgan & Ross, 2015)

#### 4.4.1.2 Social norms condition

A suggested solution for the negative perception barrier is mainstreaming sustainable clothes (Section 2.3.2). This Thesis's mainstreaming sustainable clothes tool was a social norm text. This condition's participants saw a text that includes social (injunctive and descriptive) norms. Emma Watson, a famous actress who is well known to Dutch students, sets these norms. The text mentioned that she promotes (injunctive norm) and wears (descriptive norm) sustainable clothes. The sources that were used for the text are Abramson (2015), Astrum People (n.d.) CNN (2016), Mamamia (2017), Martinko (2017), People Tree (2010), Saramowicz (2015), Smith (2015), Spedding (n.d.) and Wikipedia (n.d.), and the text is displayed below:

**Please read carefully the following text before going to the questions:**

*Celebrities speak their minds about the importance of sustainable fashion, such as Emma Watson; an actress who is best known for playing the character of Hermione in Harry Potter. The first Potter film came out when she was only nine years old. For her appearance in all eight Harry Potter films she earned multiple awards and worldwide fame. According to Time Magazine she is one of the "100 Most Influential People", this title she mainly received because of her activism. She fights for women's rights as she is involved in promoting girls' education, to do so she visited Bangladesh and Zambia, and she was appointed as an UN Women Goodwill Ambassador in 2014. That same year she launched the UN Women campaign HeForShe, which promotes gender equality. Her HeForShe speech went viral.*

*As mentioned before, she also uses her fame to promote sustainable fashion, for instance, by designing an eco-friendly line with Alberta Ferretti. She also created a fair trade collection together with People Tree. Moreover, in 2015 she signed up to the Green Carpet Challenge, which indicates that she only wears sustainable fashion on the red carpet from now on. So, did she wear a Calvin Klein dress made out of recycled plastic bottles and organic silk to the Met Gala, which is the most important fashion*

*event of the year. Furthermore, she recorded all her sustainable outfits for her Beauty & The Beast tour on Instagram. The purpose of this Instagram account is to let people think about how and where clothes are made, as well as to show that you can be stylish while wearing sustainable clothes. She said "I want to look good, I want to feel good, and I want to do good". Besides that, she highlights the power consumers have, and stresses the importance of buying sustainable clothes.*

Lastly, the participants were shown two pictures that visualised Emma Watson who wears sustainable clothes. The source of the picture is: The Press Tour (2017), and is shown in Figure 6:



Figure 6, Emma Watson wearing sustainable clothes (The Press Tour, 2017)

#### 4.4.1.3 Information and social norms condition

A suggested solution for the lack of knowledge and awareness, and negative perception barrier is a combination of education (Section 2.3.1) and mainstreaming sustainable clothes (Section 2.3.2). This Thesis's education tool was an informative text and its mainstreaming sustainable clothes tool was a social norm text. This condition's participants saw a text that included information and social norms. In the text Emma Watson explained the fast fashion consequences and its solution. The sources that were used for the text are Aakko and Koskennurmi-Sivonen (2013), Bhardwaj and Fairhurst (2010), Birtwistle and Moore (2007), Cachon and Swinney (2011), Cherny-Scanlon and Agnes (2016), Christopher et al. (2004), Fletcher (2008), Goworek et al. (2012), Hasanspahic (2016), Hearson (2006), Joy et al. (2012), Koszewska (2016), Kozar and Connell (2013), Kozlowski et al. (2016), Mehrjoo and Pasek (2015), Mihm (2010), Morgan and Ross (2015), Raworth (2004), Remy et al. (2016), Rohwedder and Johnson (2008), Spedding (n.d.), Sull and Turconi (2008), The Ethical Fashion Forum (n.d.), Westervelt (2015) and Yardley (2013), and the text can be read below:

**Please read carefully the following text before going to the questions:**

*Emma Watson stresses the importance of sustainable fashion. She says that "Currently, the fashion market is dominated by 'fast fashion', which is based on copying and selling as cheap and as fast as possible the fashion trends seen on the runway. Examples of fast fashion retailers are Zara and H&M. This system is highly unsustainable, as it contributes to social- and environmental problems.*

*Fast fashion is socially unsustainable since it ignores labour rights, which results in low wages, no sick and maternity leave, long working hours without any breaks, and poor working conditions. Labour rights are being overlooked because of the consumer's demand for cheap clothes with a short lead time, and the power of the retailers. To achieve the retailers' demands, countries and factories see no other option than to exploit its workers. Another explanation is that retailers say they are not responsible for the non-social behaviour performed by the fabric owners, as the retailers do not own but hire the fabrics to produce their clothes.*



*Additionally, the fashion industry is now the second highest polluting industry in the world. Firstly, this is caused by the exploitation of natural resources, as for example; the intensification of water and pesticide used in the cotton production. Secondly, the consumer's purchase, use, and disposal behaviour towards fast fashion are environmental unfriendly. For instance, people throw away their clothes very easily and in large quantities, which leads to difficulties in the landfills.*

*These unsustainable consequences of fast fashion are unwanted and should be combatted by changing the way we produce and consume clothes. A system that tries to eliminate those consequences is called 'sustainable fashion'. For instance, the production cycle is slow downed, causing forced overtime to be less of an issue. Furthermore, the retailers are encouraged to think about sustainable production, such as producing clothes made of recycled fabrics".*

Lastly, the participants were shown three pictures that visualised Emma Watson who wears sustainable clothes, and a social and an environmental consequence of fast fashion. The sources of the three pictures are: Morgan and Ross (2015) and The Press Tour (2017), and the pictures can be seen in Figure 7:



Figure 7, Emma Watson and the social and environmental consequences of fast fashion (Morgan & Ross, 2015; The Press Tour, 2017)

#### 4.4.1.4 Control condition

This condition's participants were not shown an information and/or social norms text and were only showed the following:

*Please click next to continue with the survey".*

#### 4.4.2 Measures

Various constructs were measured for the purpose of this Thesis. This section explains the scales that were used to measure these constructs. In addition, it is divided into two sections, one section focusses on the intention survey and the other section focusses on the purchase survey.

##### 4.4.2.1 The intention survey

**Sociodemographic.** The intention questionnaire started with some sociodemographic questions, specifically Dutch student, gender (male or female), in which city (s)he studies and his/her field of study.

**Attitude.** This Thesis proposed that the attitude is positively influenced by different barriers' solutions: the informative text, the sustainable logo and the available similar style of (un)sustainable clothes. As mentioned in Section 3.5.1, this Thesis decided to only calculate the influence of the information text on the attitude towards sustainable fashion (*H1*). The two dimension scale HED/UT that consists of ten items, was used (Voss et al., 2003). On a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree), participants were asked to rate the level of their agreement with utilitarian dimension's statements such as "Purchasing sustainable clothes is not helpful", and hedonic dimension's statement such as "Purchasing sustainable clothes is fun" (Appendix).

**Perceived norm.** This Thesis examined whether the solution showing a social norm text positively influenced the perceived norm (*H2*). As the perceived norm consists of an injunctive and descriptive norm, the survey included two dimensions. The first dimension assessed the injunctive norm. This dimension was based on items mentioned by Shaw, Shiu and Clarke (2000) and Shaw, Shiu, Hassan, Bekin and Hogg (2007). Together they consisted of three items, one of which was “Most people who are important to me think I should purchase sustainable clothes”. The other dimension assessed the descriptive norm. This dimension also contained three items and was based on items stated by Ajzen (2010) and Glanz et al. (2015). An example of a statement was “Most people like me purchase sustainable clothes”. All these items were graded on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree). The exact items can be read in the Appendix.

**Personal agency.** This experiment looked whether the three solutions, information in a text, logo and/or showing the style of the clothes led to a more positive personal agency. As mentioned in Section 3.5.3, this Thesis decided to solely calculate the influence of the information text on the personal agency towards sustainable fashion (*H3*). The scale for calculating the personal agency consisted of four items, which included measurements for the perceived behavioural control (Shaw et al., 2007) and self-efficacy (Glanz et al., 2015). The effect of every construct that could influence the personal agency was determined according to these four items. An item for the calculating the impact of the increase of information said: “Purchasing sustainable clothing is easy because I have enough information”. Besides this, an item for determining the impact of the perceived norm said: “I have the ability to purchase sustainable clothes since I like the social norm”. An item for measuring the impact of the style said: “If I want to I could easily purchase sustainable clothes now because of their good style”, and for evaluating the impact of the logo an item said: “There is likely to be little sustainable logo barrier for me to purchase sustainable clothing items”. Participants could rate the value of the information in a text, style and logo on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) (Appendix).

**Perceived customer value.** This Thesis examined whether a more positive attitude (*H4a*), perceived norm (*H4b*) and/or personal agency (*H4c*) resulted in a more positive emotional, quality, price and/or social value, and thereby resulted in a more positive perceived customer value. This was calculated by using the PERVAL scale by Sweeney and Soutar (2001), which consisted of all four dimensions that examined the perceived customer value, namely quality, emotional, price and social value. Moreover, it took into account 19 items (Sweeney & Soutar, 2001) and for each dimension an example is given. For quality value an item stated: “Sustainable fashion is well made”, for emotional value an item stated: “Sustainable fashion would give me no pleasure”, for price value an item stated: “Sustainable fashion is a good product for the price”, and for social value an item stated: “Sustainable fashion would make a bad impression on other people”. The participants were asked to evaluate these statements based on a 7-point Likert scale (1 = strongly disagree to 7 = strongly agree) (Appendix). Moreover, with this output, whether giving respondents a positive perceived norm had a more encouraging impact on the consumer’s perceived value, than providing respondents (un)sustainable information was examined. In addition, whether combining these two solutions led to an even better perceived customer value was examined (*H6*).

**Intention.** Whether a more positive perceived customer value had, in its turn, a positive influence on the intention to purchase sustainable clothes was determined (*H5*). Intention was measured with the help of the 5-item scale by Spears and Singh (2004). These items were assessed on a 7-point Likert scale ranging from 1 = strongly disagree to 7 = strongly agree. Participants had to say in what degree, they agreed with statements like “The next time I am going shopping for clothes, I definitely buy sustainable clothes” (Appendix).

#### 4.4.2.2 The purchase survey

**Purchase behaviour.** The second survey measured mainly whether a more positive intention to purchase sustainable clothes resulted in an increase in the actual purchase behaviour of sustainable

clothes (H7). This was done by asking the respondents which clothing item(s) they would buy for €70,- . This could range, for example, from one sustainable item, a couple of fast fashion items or a mix of these items. The different clothing items that were showed were similar as the ones showed in the intention survey.

**Control question.** Whether the barriers were indeed eliminated by the solutions, was checked by asking the respondents what the reasons were behind their purchases. All the causes for not purchasing sustainable clothes were a possible option for answering this question:

- Socially sustainable
- Environmentally sustainable
- Sustainable logo
- Style
- Socially accepted
- Consistent with my lifestyle
  - \* Stereotypes regarding that clothing item.
- Availability
  - \* Examples are the colour, size and fit.
- Price
- Other,...



## 5 Results

This section is divided into two sections. The first section dives into the descriptive information; invalid responses were filtered out, the background of participants were analysed and an attention check was done. The second section analyses the data. First, the reliability of the items were measured to determine which items formed together a (sub-)construct, then, for every (sub-)construct the mean was calculated. Subsequently, a one-way ANOVA or a chi-square test of homogeneity, to establish whether there was a difference among conditions, or a simple linear regressions, to establish whether there was a relation among (sub-)constructs, was performed.

### 5.1 Descriptive information

#### 5.1.1 Filtering out invalid responses

This Thesis only includes the participants who completed at least the first part of the survey. Besides this, 143 out of the 165 participants who completed the first part of the questionnaire, did also complete the second part of the questionnaire. When an analysis used output from both parts of the questionnaire, solely the output of the participants who completed both parts of the questionnaire was included. As a result, there were no missing values, yet, this does not mean that they all filled in the questionnaire with care. Some participants were outliers on certain items, then, one analysis with and one without the outlier(s) was conducted. Nonetheless, these participants were not outliers on all items. Therefore, they were solely excluded from the analysis, when the analysis that excluded them was significant different from the analysis that included them. Moreover, the questionnaire asked which item(s) the participants would purchase if they had €70,-. Some participants exceeded this price barrier. However, this is not a significant problem as this question was only asked to determine the percentage of sustainable clothes that were chosen. Hence, these participants' answers were not excluded.

#### 5.1.2 Background of participants

##### 5.1.2.1 Intention survey

Only Dutch students could complete the questionnaire (Section 4.3). Moreover, a total of 165 respondents did complete the first part of the questionnaire. These participants were randomly assigned to either the information ( $n = 41$ ), social norms ( $n = 41$ ), information and social norms ( $n = 41$ ) or control condition ( $n = 42$ ). 73,3% Of these participants were female and 26,7% were male. This difference in percentage is not necessarily an issue because women shop more as they also buy on behalf of others, like boyfriends (Brennan, 2013). The percentages of females in each condition are displayed in Table 2. Looking at the results, the difference in representation of gender ( $p = .832$ ) among the conditions was not significant.

In addition, most participants study in Wageningen, 79,4% versus 20,6%. Wageningen University & Research ranked third in most sustainable universities of the world and scored especially high on education, increasing the students' concern with sustainability (WUR, 2017). Hence, the outcomes may be biased. The specific percentages of study cities in each condition are displayed in Table 2. Looking at the results, the difference in representation of study city ( $p = .863$ ) among the conditions was not significant.

Besides this, participants from different studies participated in this experiment. The specific percentages of these studies in each condition are displayed in Table 2. Looking at the results, the difference in representation of field of study ( $p = .724$ ) among the conditions was not significant.

Table 2, chi-square of homogeneity table of the background of participants in the intention survey

		Conditions				Total (N = 165)	Sign.
		Information (N = 41)	Social norms (N = 41)	Information and social norms (N = 41)	Control (N = 42)		
<b>Gender</b>	<i>Male</i>	29,3%	29,3%	26,8%	21,4%	26,7%	.832
	<i>Female</i>	70,7%	70,7%	73,2%	78,6%	73,3%	
<b>Study city</b>	<i>Amsterdam</i>	7,3%	2,4%	2,4%	2,4%	3,6%	.863
	<i>Delft</i>	2,4%	0,0%	2,4%	2,4%	1,8%	
	<i>Groningen</i>	0,0%	0,0%	2,4%	0,0%	0,6%	
	<i>Leiden</i>	0,0%	7,3%	2,4%	0,0%	2,4%	
	<i>Maastricht</i>	2,4%	2,4%	2,4%	0,0%	1,8%	
	<i>Nijmegen</i>	2,4%	2,4%	0,0%	2,4%	1,8%	
	<i>Rotterdam</i>	2,4%	2,4%	0,0%	2,4%	1,8%	
	<i>Tilburg</i>	2,4%	2,4%	7,3%	7,1%	4,8%	
	<i>Utrecht</i>	0,0%	4,9%	0,0%	2,4%	1,8%	
	<i>Wageningen</i>	80,5%	75,6%	80,5%	81,0%	79,4%	
<b>Field of study</b>	<i>Arts</i>	2,4%	0,0%	0,0%	2,4%	1,2%	.724
	<i>Humanities</i>	4,9%	2,4%	0,0%	0,0%	1,8%	
	<i>Social sciences</i>	46,3%	36,6%	41,5%	40,5%	41,2%	
	<i>Natural sciences</i>	19,5%	34,1%	31,7%	31,0%	29,1%	
	<i>Applied sciences</i>	17,1%	7,3%	17,1%	14,3%	13,9%	
	<i>Other,</i>	9,8%	19,5%	9,8%	11,9%	12,7%	

#### 5.1.2.2 Purchase survey

In addition, a total of 143 out of the 165 respondents who completed the first part of the questionnaire, did also complete the second part of the questionnaire. These participants were randomly assigned to either the information (n = 33), social norms (n = 35), information and social norms (n = 36) or control condition (n = 39). 75,5% Of these respondents were female and 24,5% were male. As mentioned in the paragraph above, this is not a considerable issue. The percentages of females in the different conditions are shown in Table 3. Looking at the results, the difference in representation of gender ( $p = .907$ ) among the conditions was not significant.

Furthermore, many participants study in Wageningen, 79,4% versus 20,6%. As mentioned in the paragraph above, this can be a problem. The percentages of study cities in the different conditions are

shown in Table 3. Looking at the results, the difference in representation of study city ( $p = .833$ ) among the conditions was not significant.

Besides this, participants from different studies participated in this experiment. The percentages of these studies in the different conditions are shown in Table 3. Looking at the results, the difference in representation of field of study ( $p = .567$ ) among the conditions was not significant.

**Table 3, chi-square of homogeneity table of the background of participants in the purchase survey**

		Conditions				Total (N = 143)	Sign.
		Information (N = 33)	Social norms (N = 35)	Information and social norms (N = 36)	Control (N = 39)		
<b>Gender</b>	<i>Male</i>	21,2%	28,6%	25,0%	23,1%	24,5%	.907
	<i>Female</i>	78,8%	71,4%	75,0%	76,9%	75,5%	
<b>Study city</b>	<i>Amsterdam</i>	9,1%	2,9%	2,8%	0,0%	3,5%	.833
	<i>Delft</i>	3,0%	0,0%	2,8%	0,0%	1,4%	
	<i>Groningen</i>	0,0%	0,0%	2,8%	0,0%	0,7%	
	<i>Leiden</i>	0,0%	0,0%	2,8%	0,0%	0,7%	
	<i>Maastricht</i>	0,0%	2,9%	2,8%	0,0%	1,4%	
	<i>Nijmegen</i>	3,0%	2,9%	0,0%	2,6%	2,1%	
	<i>Rotterdam</i>	3,0%	2,9%	0,0%	2,6%	2,1%	
	<i>Tilburg</i>	3,0%	2,9%	8,3%	7,7%	5,6%	
	<i>Utrecht</i>	0,0%	5,7%	0,0%	2,6%	2,1%	
	<i>Wageningen</i>	78,8%	80,0%	77,8%	84,6%	79,4%	
<b>Field of study</b>	<i>Arts</i>	0,0%	0,0%	0,0%	2,6%	0,7%	.567
	<i>Humanities</i>	6,1%	2,9%	0,0%	0,0%	2,1%	
	<i>Social sciences</i>	42,4%	37,1%	47,2%	43,6%	42,7%	
	<i>Natural sciences</i>	18,2%	40,0%	27,8%	30,8%	29,4%	
	<i>Applied sciences</i>	21,2%	5,7%	16,7%	12,8%	14,0%	
	<i>Other,</i>	12,1%	14,3%	8,3%	10,3%	11,2%	

### 5.1.3 Attention check

For each (sub-)construct in the intention and purchase survey one item was changed into a positive item when the other items were negative, or one item was changed into a negative item when the other items were positive. This was done to check whether the participants were paying attention to the questions. Looking at the output, these changed items were not always coherent with the other items, which may indicate that some participants did not carefully read the questions. Nonetheless,

only when there was no reliability between the changed item and the other items, the changed item was excluded. In addition, the participants who possibly read the item wrong were solely excluded when they were outliers.

## 5.2 Data analysis

This section analyses all the data by performing simple linear regressions, chi-square tests of independence, one-way ANOVA's and chi-square tests of homogeneity. For the purpose of these analyses, the (sub-)constructs' means were calculated. Before calculating these means, in order to investigate whether items could form together a (sub-)construct, reliability analyses were carried out for the constructs and if applicable, their sub-constructs. The items formed together a (sub-)construct when the Cronbach's alpha was  $> .65$ . If the Cronbach's alpha was  $< .65$ , then, the item with a negative and/or lowest Pearson Correlation was excluded.

Before performing a simple linear regression, seven assumptions had to be tested, such as: whether there were linear relationship, independence of observations, no unusual points, homoscedasticity and normality. To start with the visual inspection of a scatterplot that determined linearity. Followed by a Durbin-Watson statistic, which value should be around two. This statistic determined whether there is an independence of observation. Then, the Casewise Diagnostics table determined whether unusual points were present. When there were unusual, two analysis were performed, one analysis with and one analysis without unusual points. Only when the difference in outputs was significant among the two analyses, the output of the analysis without the unusual points was used. Besides this, a visual inspection of a plot of standardized residuals versus standardized predicted values determined whether there was homoscedasticity. Ending with histogram and the Normal P-P Plot that determined whether there was normality of the residuals (Laerd Statistics, n.d.-e).

Before performing a chi-square test of independence, four assumptions had to be tested. For example, whether the expected counts were greater than or similar to five (Laerd Statistics, n.d.-b). When the expected counts lower than five were above 20%, some of the categories were regrouped (Laerd Statistics, n.d.-c).

Before performing a one-way ANOVA, six assumptions had to be tested, such as: whether there were no outliers, and whether there was normality and homogeneity of variance (Laerd Statistics, n.d.-d). To start with a boxplot that assessed whether there were outliers. When there were outliers, two analysis were performed, one analysis with and one analysis without outliers. Only when the difference in outputs was significant among the two analyses, the output of the analysis without outliers was used. Followed by a Shapiro-Wilk's test,  $p > .05$ , that assessed whether the data was normally distributed. The methods that are based on visual inspections were not used. These methods are not recommended to use when the sample size is small,  $N < 100$  (Laerd Statistics, n.d.-f; Samuels, Reviewer, & Lahmar, n.d.), which was the case in this Thesis. When the data was not normally distributed, one analysis with the 'normal' scores and one analysis with the 'transformed' scores was completed. Only when the difference in outputs was significant among the two analyses, the output of the analysis with the transformed scores was used. Ending with using the Welch's test when there was no homogeneity of variance,  $p < .05$ .

Before performing a chi-square test of homogeneity, four assumptions had to be tested. For example, whether the expected counts were greater than or similar to five. When the expected counts lower than five were above 20%, a Fisher's exact test was conducted (Laerd Statistics, n.d.-a).

All the above was analysed for the purpose of giving an answer on this Thesis's aim: to investigate whether different strategies positively influences consumers to buy sustainable clothes. This is achieved by analysing whether the strategies positively influence constructs that eventually positively influence the consumers' actual buying behaviour of these clothes. In order to provide an answer, the

different hypotheses had to be answered first. The next sections focus on providing an answer on these hypotheses.

### 5.2.1 The influence of a text that includes information on the attitude

According to the prediction, participants who receive a text that includes information, the information condition, and the information and social norms condition, have a positively influenced attitude towards purchasing sustainable clothes, *H1*. To test whether *H1* was true, a one-way ANOVA was performed for the attitude construct and its sub-constructs. A summary of the output can be found in Table 4.

Table 4, ANOVA table with the means and items of the attitude construct

	Conditions				Total (N = 165)	Sign.	$\eta^2$
	Information (N = 41)	Social norms (N = 41)	Information and social norms (N = 41)	Control (N = 42)			
<b>Attitude</b> (Cronbach's $\alpha = .784$ )	4.81(.73)	4.82(.67)	4.62(.65)	4.73(.71)	4.74(.69)	.555	.013
Instrumental attitude (Cronbach's $\alpha = .700$ )	5.18(.82)	5.17(.79)	5.06(.72)	5.03(.92)	5.11(.81)	.794	.006
1. Purchasing sustainable clothes is effective 2. Purchasing sustainable clothes is helpful 3. Purchasing sustainable clothes is functional 4. Purchasing sustainable clothes is necessary 5. Purchasing sustainable clothes is practical							
Experiential attitude (Cronbach's $\alpha = .803$ )	4.43(.93)	4.47(.89)	4.19(.87)	4.42(.80)	4.38(.87)	.439	.017
1. Purchasing sustainable clothes is fun 2. Purchasing sustainable clothes is exciting 3. Purchasing sustainable clothes is delightful 4. Purchasing sustainable clothes is thrilling 5. Purchasing sustainable clothes is enjoyable							

**Attitude; instrumental attitude.** As can be seen in Table 4, the items formed together the instrumental attitude,  $\alpha > .65$ . Besides this, the information condition had a higher mean score than the social norms condition and control condition, which was expected. Nonetheless, the information and social norms condition was not expected to have a lower mean score than the social norms condition. However, the differences among these conditions were not statistically significant,  $F(3, 161) = .343$ ,  $p = .794$ ,  $\eta^2 = .006$ .

**Attitude; experiential attitude.** As can be seen in Table 4, the items formed together the experiential attitude,  $\alpha > .65$ . Furthermore, the information condition, and information and social norms condition did not have a higher mean score than the other two conditions, which was unexpected. Besides this, the differences among these conditions were not statistically significant,  $F(3, 161) = .908$ ,  $p = .439$ ,  $\eta^2 = .017$ .

**Attitude.** As can be seen in Table 4, the items formed together the attitude,  $\alpha > .65$ . The information condition, and information and social norms condition did not have a higher mean score than the other two conditions, which was unexpected. Furthermore, the differences among these conditions were not statistically significant,  $F(3, 161) = .697$ ,  $p = .555$ ,  $\eta^2 = .013$ .

In conclusion, *H1* was not confirmed.

### 5.2.2 The influence of the text that includes social norms on the perceived norm

According to the prediction, participants who receive a text that includes social norms, the social norms condition, and information and social norms condition, have a positively influenced perceived norm towards purchasing sustainable clothes, *H2*. To test whether *H2* was correct, a one-way ANOVA was performed for the perceived norm construct and its sub-constructs. An overview of the output can be found in Table 5.

Table 5, ANOVA table with the means and items of the perceived norm construct

	Conditions				Total (N = 165)	Sign.	$\eta^2$
	Information (N = 41)	Social norms (N = 41)	Information and social norms (N = 41)	Control (N = 42)			
<b>Perceived norm</b> (Cronbach's $\alpha = .492$ )	3.46(1.22)	3.41(1.03)	3.34(1.10)	3.10(1.34)	3.33(1.12)	.453	.016
Injunctive norm (Cronbach's $\alpha = .475$ )	3.41(1.41)	3.59(1.34)	3.49(1.29)	3.07(1.45)	3.39(1.38)	.351	.020
1. Most people who are important to me think I should purchase sustainable clothes. *2. Most people who are important to me would approve of purchasing sustainable clothes. *3. Please indicate below how likely it is that the following groups think you should purchase sustainable clothes. a. Friends b. Family c. Sustainable producers d. Famous people e. Ethical organisations (e.g. charities, environmental groups, etc.) f. Multinationals g. Retailers who stock sustainable clothing items							
<b>Descriptive norm</b> (Cronbach's $\alpha = .420$ )	3.51(1.52)	3.24(1.18)	3.20(1.38)	3.12(1.45)	3.27(1.38)	.600	.012
1. Most people like me purchase sustainable clothes. *2. Most people do <u>not</u> perform the behaviour of buying sustainable clothes. *3. Please indicate below how likely it is that the following groups purchase sustainable clothes. a. Friends b. Family c. Famous people d. Ethical organisations (e.g. charities, environmental groups, etc.)							

**Perceived norm; injunctive norm.** As can be seen in Table 5, the items did not form together the injunctive norm,  $\alpha < .65$ , even after eliminating some items. Therefore, only one item was used; the item that was thought to capture this sub-construct the best, item 1. Besides this, the information and social norms condition, and social norms condition unsurprisingly scored the highest mean scores. Nevertheless, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.099$ ,  $p = .351$ ,  $\eta^2 = .020$ .

**Perceived norm; descriptive norm.** As can be seen in Table 5, the items did not form together the descriptive norm,  $\alpha < .65$ , even after eliminating some items. Therefore, only one item was used; the item that was thought to capture this sub-construct the best, item 1. Moreover, the information condition surprisingly scored the highest mean score, nonetheless, the differences among these conditions were not statistically significant,  $F(3, 161) = .625$ ,  $p = .600$ ,  $\eta^2 = .012$ .



**Perceived norm.** As can be seen in Table 5, the items that formed the injunctive and descriptive norm, formed together the perceived norm. Consequently, the latter consisted of two items with  $\alpha < .65$ . However, these items were kept together. As eliminating one item was not preferred as then, one sub-construct was not taken into account. Besides this, the information condition surprisingly scored the highest mean score. Then again, the differences among these conditions were not statistically significant,  $F(3, 161) = .879, p = .453, \eta^2 = .0.16$ .

In conclusion,  $H2$  was not confirmed.

### 5.2.3 The influence of the barriers' solutions on the personal agency

According to the prediction, participants who receive a text that includes information, the information condition, and the information and social norms condition, have a positively influenced personal agency towards purchasing sustainable clothes,  $H3$ . In order to determine whether this hypothesis is correct, a one-way ANOVA was performed for the personal agency construct and its sub-constructs.

In contrast to what this hypothesis indicates, the influence of the other strategies: social norms, sustainable logo and style was examined as well. As then, whether the various strategies influence the personal agency and its sub-constructs differently among conditions could be established. In other words, whether the strategies influence each other could be established. As a result, separate scales were created for each strategy; personal agency, information; personal agency, social norms; personal agency, style and personal agency, logo. As  $H3$  mentioned, not the text that included social norms, but the text that included information was expected to influence the personal agency and its sub-constructs. Therefore, the conditions that receive the text that included information were expected to have higher mean scores on every scale, except on the personal agency, social norms scale. On this scale, the conditions that receive the text that included social norms were expected to have higher mean scores. A summary of the output can be seen in Table 6.

**Table 6, ANOVA table with the means and items of the personal agency construct**

	Conditions				Total (N = 165)	Sign.	η <sup>2</sup>
	Information (N = 41)	Social norms (N = 41)	Information and social norms (N = 41)	Control (N = 42)			
Personal agency (Cronbach's α = .784)	4.09(.66)	4.26(.44)	4.14(.67)	3.82(.69)	4.08(.64)	.016	.065
Perceived behavioural control (Cronbach's α = .686)	3.93(.71)	4.29(.48)	4.19(.69)	3.82(.69)	4.06(.67)	.004	.057
Self-efficacy (Cronbach's α = .475)	4.37(.93)	4.20(.72)	4.06(.77)	3.81(.91)	4.11(.85)	.022	.058
Information (Cronbach's α = .816)	3.39(1.31)	3.01(1.18)	3.17(1.14)	2.90(1.19)	3.12(1.21)	.286	.023
Perceived behavioural control (Cronbach's α = .594)	3.23(1.28)	2.95(1.26)	3.16(1.21)	2.82(1.24)	3.04(1.25)	.420	.017
1. If I want to I could easily purchase sustainable clothes now because I have enough information. *2. There is likely to be no information barrier for me when I want to purchase sustainable clothing items. 3. Purchasing sustainable clothing is easy because I have enough information.							
Self-efficacy	3.71(1.65)	3.12(1.44)	3.20(1.29)	3.07(1.39)	3.27(1.45)	.170	.031

<i>1. I have the ability to purchase sustainable clothes since I have enough information.</i>							
Social norms (Cronbach's $\alpha = .726$ )	4.57(1.20)	4.86(.97)	4.56(.95)	4.49(.92)	4.62(1.02)	.360	.020
Perceived behavioural control (Cronbach's $\alpha = .207$ )	4.49(1.32)	5.08(.89)	4.55(.88)	4.55(.98)	4.66(1.05)	.021	.014
<i>1. If I want to I could easily purchase sustainable clothes now because of their positive social norm.</i> <i>*2. There is likely to be a little social norms barrier for me when I want to purchase sustainable clothing items.</i> <i>3. Purchasing sustainable clothing is easy because the social norms speaks to me.</i>							
Self-efficacy	4.73(1.29)	4.56(1.25)	4.46(1.25)	4.38(1.17)	4.53(1.23)	.606	.011
<i>1. I have the ability to purchase sustainable clothes since I like the social norms.</i>							
Style (Cronbach's $\alpha = .787$ )	4.07(.95)	4.21(1.12)	4.44(.98)	4.05(1.07)	4.20(1.03)	.283	.023
Perceived behavioural control (Cronbach's $\alpha = .662$ )	3.98(.96)	4.46(.79)	4.51(.96)	4.07(1.06)	4.25(.97)	.025	.057
<i>1. If I want to I could easily purchase sustainable clothes now because their good style.</i> <i>2. There is likely to be no style barrier for me when I want to purchase sustainable clothing items.</i> <i>3. Purchasing sustainable clothing is easy because the style speaks to me.</i>							
Self-efficacy	4.32(1.21)	4.24(1.32)	4.24(1.26)	4.00(1.29)	4.20(1.26)	.686	.009
<i>1. I have the ability to purchase sustainable clothes since I like the style.</i>							
Sustainable logo (Cronbach's $\alpha = .868$ )	4.42(1.05)	4.96(.92)	4.48(1.48)	3.73(1.48)	4.38(1.24)	.007	.000
Perceived behavioural control (Cronbach's $\alpha = .640$ )	4.17(1.20)	4.63(1.32)	4.30(1.38)	3.70(1.49)	4.20(1.38)	.020	.059
<i>1. If I want to I could easily purchase sustainable clothes now because of the sustainable logo.</i> <i>*2. There is likely to be no sustainable logo barrier for me when I want to purchase sustainable clothing items.</i> <i>3. Purchasing sustainable clothing is easy because of the sustainable logo.</i>							
Self-efficacy	4.71(1.29)	4.89(1.44)	4.34(1.46)	3.79(1.65)	4.42(1.51)	.004	.078
<i>1. I have the ability to purchase sustainable clothes since a sustainable logo is provided.</i>							

### 5.2.3.1 Information

**Personal agency; perceived behavioural control.** As can be seen in Table 6, the items did not did not have a high reliability,  $\alpha < .65$ . After eliminating item 2, these remaining items formed together this control,  $\alpha > .65$ . Additionally, the information condition, and information and social norms condition had the highest mean scores, which was expected to happen. Nonetheless, the differences among these conditions were not statistically significant,  $F(3, 161) = 0.945$ ,  $p = .420$ ,  $\eta^2 = 0.017$ .

**Personal agency; self-efficacy.** As can be seen in Table 6, the self-efficacy only consisted of one item. The information condition, and information and social norms condition had the highest mean scores, which was expected to happen, but the differences among these conditions were not statistically significant,  $F(3, 161) = 1.696$   $p = .170$ ,  $\eta^2 = 0.031$ .

**Personal agency.** As can be seen in Table 6, the items that formed the perceived behavioural control and self-efficacy, formed together the personal agency. Consequently, the latter consisted of three items with  $\alpha > .65$ . Besides this, the information condition, and information and social norms condition had the highest mean score, which was expected to happen. Although, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.271$ ,  $p = .286$ ,  $\eta^2 = 0.023$ .

In conclusion, while the information, and information and social norms condition had the highest mean scores,  $H3$  was not confirmed as the differences were not significant.

#### 5.2.3.2 Social norms

**Personal agency; perceived behavioural control.** As can be seen in Table 6, the items did not have a high reliability,  $\alpha < .65$ , even after eliminating item 2. Nonetheless, item 1 and 3 formed together this control as a combination of these items was expected to better measure this control than only one item. Furthermore, the social norms condition scored a high mean, which was unsurprising. In contrast, the information and social norms condition did not score a higher mean than the control condition, which was surprising. Building on the aforementioned, differences among the conditions were statistically significant, Welch's  $F(3, 87.746) = 3.409, p = .021, \eta^2 = 0.014$ . Additionally, the Games-Howell post hoc revealed that the mean increase from the information and social norms condition ( $M = 4.55, SD = .88$ ) to the social norms condition ( $M = 5.08, SD = .89$ ), was statistical significant ( $p = .046, MD = .53, SE = .20$ ). This was surprising.

**Personal agency; self-efficacy.** As can be seen in Table 6, the self-efficacy only consisted of one item. The information condition scored the highest mean score, which was surprising. Yet, the differences among these conditions were not statistically significant,  $F(3, 161) = .615, p = .606, \eta^2 = 0.011$ .

**Personal agency.** As can be seen in Table 6, the items that formed the perceived behavioural control and self-efficacy, formed together the personal agency. Consequently, the latter consisted of three items with  $\alpha > .65$ . Moreover, the social norms condition scored a high mean, which was unsurprising. In contrast, the information and social norms condition did not score as high, which was surprising. However, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.079, p = .360, \eta^2 = 0.020$ .

To summarize, only one statistically significant difference was found. The perceived behavioural control mean score was significantly higher for the social norms condition in comparison to the information and social norms conditions. This was surprising.

#### 5.2.3.3 Style

**Personal agency; perceived behavioural control.** As can be seen in Table 6, the items formed together the perceived behavioural control,  $\alpha > .65$ . In addition, the information and social norms condition scored high, which was expected. Nonetheless, the information condition scored the lowest mean, which was unexpected. The differences among these conditions were statistically significant,  $F(3, 157) = 3.192, p = .025, \eta^2 = 0.057$ . However, the Tukey post hoc did not reveal that the mean increased from one condition to another condition ( $p < .05$ ).

**Personal agency; self-efficacy.** As can be seen in Table 6, the self-efficacy only consisted of one item. The information condition scored high, which was expected. However, the information and social norms condition, and social norms condition scored equally high, which was unexpected. The differences among these conditions were not statistically significant,  $F(3, 161) = .495, p = .686, \eta^2 = 0.009$ .

**Personal agency.** As can be seen in Table 6, the items that formed the perceived behavioural control and self-efficacy, formed together the personal agency. Consequently, the latter consisted of four items with  $\alpha > .65$ . In addition, the information and social norms condition scored high, which was expected. Whereas, the information condition scored lower than the social norms condition, which was unexpected. Nevertheless, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.280, p = .283, \eta^2 = 0.023$ .

To conclude, no statistically significant difference was found.

#### 5.2.3.4 Sustainable logo

**Personal agency; perceived behavioural control.** As can be seen in Table 6, the items did not have a high reliability,  $\alpha < .65$ . After eliminating item 2, item 1 and 3 did form together this control,  $\alpha > .65$ . Moreover, the social norms condition scored the highest mean score, which was unexpected, besides, the differences among these condition were statistically significant,  $F(3, 161) = 3.389, p = .020, \eta^2 = .059$ . The Tukey post hoc revealed that the mean increase from the control condition ( $M = 3.70, SD = 1.49$ ) to the social norm condition ( $M = 4.63, SD = 1.32$ ) was statistically significant ( $p = .011, MD = .93, SE = .30$ ). This was unexpected.

**Personal agency; self-efficacy.** As can be seen in Table 6, the self-efficacy only consisted of one item. The social norms condition scored the highest mean score, which was unexpected. Besides this, differences among these condition were statistically significant,  $F(3, 161) = 4.530, p = .004, \eta^2 = .078$ . The Tukey post hoc revealed that the mean increase from the control condition ( $M = 3.79, SD = 1.65$ ) to the information condition ( $M = 4.71, SD = 1.29$ ) as well as to the social norm condition ( $M = 4.34, SD = 1.46$ ) were statistically significant ( $p = .025, MD = .92, SE = .32; p = .005, MD = 1.09, SE = .32$ ). This was partly unexpected.

**Personal agency.** As can be seen in Table 6, the items that formed the perceived behavioural control and self-efficacy, formed together the personal agency. Consequently, the latter consisted of three items with  $\alpha > .65$ . Additionally, the social norms condition scored the highest mean score, which was unexpected. Differences among these conditions were statistically significant, Welch's  $F(3, 83.634) = 6.712, p = .000, \eta^2 = .144$ . Moreover, the Games-Howell post hoc revealed that the mean statistically significantly increase from control condition ( $M = 3.73, SD = 1.48$ ) to all the other condition: to the information condition ( $M = 4.48, SD = .99, MD = .81, SE = .27, p = .020$ ), to the social norms condition ( $M = 4.96, SD = .92, MD = 1.23, SE = .27, p = .000$ ), and to the information and social norms condition ( $M = 4.54, SD = .92, MD = .75, SE = .28, p = .045$ ). This was partly unexpected.

To summarize, statistically significant differences were found. The perceived behavioural control mean score was significantly higher for the social norms condition in comparison to the control condition. The self-efficacy mean score was significantly higher for the social norms condition and the information condition in comparison to the control condition. The personal agency mean score was significantly higher for the information condition, social norms condition, and information and social norms condition in comparison to the control condition

#### 5.2.3.5 Personal agency

**Personal agency; perceived behavioural control.** As can be seen in Table 6, the items that formed the perceived behavioural control for the personal agency, information; personal agency, social norms; personal agency, style and personal agency, logo, formed together the overall perceived behavioural control,  $\alpha > .65$ . Moreover, the social norms condition surprisingly had a higher mean score. To build on the aforementioned, one difference among these conditions was statistically significant,  $F(3, 156) = 4.629, p = .004, \eta^2 = 0.082$ . The Tukey post hoc revealed that the mean increased from the control condition ( $M = 3.82, SD = .69$ ) to the social norms condition ( $M = 4.29, SD = .48$ ) was statistical significant ( $p = .008, MD = .47, SE = .15$ ). This was surprising.

**Personal agency; self-efficacy.** As can be seen in Table 6, the items that formed the self-efficacy for the following scales: personal agency, information; personal agency, social norms; personal agency, style and personal agency, logo, did not have a high reliability,  $\alpha < .65$ . Nonetheless, all these items formed the overall self-efficacy as otherwise one scale was not taken into account. Moreover, the social norms condition surprisingly had a higher mean score. One difference among these conditions was statistically significant,  $F(3, 161) = 3.292, p = .022, \eta^2 = 0.058$ . The Tukey post hoc revealed that the mean increased from control condition ( $M = 3.81, SD = .91$ ) to the information condition ( $M = 4.37, SD = .93$ ) was statistical significant ( $p = .015, MD = .56, SE = .18$ ). This was not surprising.

**Personal agency.** As can be seen in Table 6, the items that formed the overall perceived behavioural control and overall self-efficacy, formed together the personal agency,  $\alpha > .65$ . The social norms condition surprisingly had a higher mean score. In addition, the differences among these conditions was statistically significant,  $F(3, 154) = 3.565$ ,  $p = .016$ ,  $\eta^2 = 0.65$ . The Tukey post hoc revealed that mean increased from control condition ( $M = 3.82$ ,  $SD = .69$ ) to the social norms condition ( $M = 4.25$ ,  $SD = .44$ ) was statistical significant ( $p = .012$ ,  $MD = .44$ ,  $SE = .14$ ). This was surprising.

To summarize, statistically significant differences were found. The overall perceived behavioural control mean score was significantly higher for the information condition in comparison to the control condition. Besides this, the overall self-efficacy's and personal agency's mean scores were significantly higher for the social norms condition in comparison to the control condition.

#### 5.2.4 The influence of the attitude, perceived norm and personal agency on the perceived customer value

This section is divided into three sections, each section dives into one construct that is suggested to influence the perceived customer value according to Section 3.5.4.1 and 3.5.4.2.

##### 5.2.4.1 The influence of the attitude on the perceived customer value

According to the prediction, a positively influenced attitude towards sustainable fashion will lead to a positively influenced perceived customer value towards purchasing these clothes, *H4a*. To test whether the *H4a* was accurate, a simple linear regression was carried out for the attitude construct and the perceived customer value construct. An overview of the output can be seen in Table 7.

**Attitude on perceived customer value.** The prediction equation was: perceived customer value =  $2.456 + *.497$ . Attitude statistically significantly predicted perceived customer value,  $F(1, 163) = 86.602$ ,  $p < .000$ , accounting for 34,7% of the variation in perceived customer value with adjusted  $R^2 = 34,3\%$ , a large size effect according to (Cohen, 1988). One increase in the attitude led to a .497 increase,  $SE = .053$ , in perceived customer value.

To summarize, when the attitude was positively influenced, the perceived customer value was also positively influenced, which confirmed *H4a*. In addition, the attitude accounted for a very large amount of the variation in the perceived customer value.

##### 5.2.4.2 The influence of the perceived norm on the perceived customer value

According to the prediction, a positively influenced perceived norm towards sustainable fashion will lead to a positively influenced perceived customer value towards purchasing these clothes, *H4b*. To test whether the *H4b* was accurate, a simple linear regression was carried out for the perceived norm construct and the perceived customer value construct. An overview of the output can be seen in Table 7.

**Perceived norm on perceived customer value.** The prediction equation was: perceived customer value =  $4.472 + *.102$ . Perceived norm statistically significantly predicted perceived customer value,  $F(1, 163) = 6.604$ ,  $p < .011$ , accounting for 3,9% of the variation in perceived customer value with adjusted  $R^2 = 3,3\%$ , a very small size effect according to Cohen (1988). An increase in perceived norm led to a .102 increase,  $SE = .040$ , in perceived customer value.

To sum up, when the perceived norm was positively influenced, the perceived customer value was positively influenced too. Consequently, *H4b* was confirmed. Still, only a small part of the variation of the perceived customer value could be explained by the perceived norm.

##### 5.2.4.3 The influence of the personal agency on the perceived customer value

According to the prediction, a positively influenced personal agency will lead to a positively influenced perceived customer value towards purchasing these clothes, *H4c*. To test whether the *H4c* was accurate, a simple linear regression was carried out for the personal agency construct and the perceived customer value construct. An overview of the output can be seen in Table 7.

**Personal agency on perceived customer value.** The prediction equation was: perceived customer value =  $4.021 + *.195$ . Personal agency statistically significantly predicted perceived customer value,  $F(1, 163) = 10.159$ ,  $p < .002$ , accounting for 5,9% of the variation in perceived customer value with adjusted  $R^2 = 5,3\%$ , a very small size effect according to Cohen (1988). An increase in personal agency led to a .195 increase,  $SE = .061$ , in perceived customer value.

In conclusion, when the personal agency was positively influenced, the perceived customer value was positively influenced as well. In other words,  $H4c$  was confirmed. Nonetheless, only a small part of the variation of the perceived customer value could be explained by the personal agency.

**Table 7, regression table with the equations and propositions of variations of the attitude, personal agency and perceived norm construct on the perceived consumer value construct**

	Equation	Sign.	$R^2$	Adjusted $R^2$
<b>Attitude x perceived consumer value</b>	$Y = 2.456 + *.497$	.000	.347	.343
<b>Perceived norm x perceived consumer value</b>	$Y = 4.472 + *.102$	.011	.039	.033
<b>Personal agency x perceived consumer value</b>	$Y = 4.021 + *.195$	.002	.059	.053

### 5.2.5 The influence of a text that includes information versus a text that includes social norms on the perceived customer value

According to the prediction, participants who receive a text that includes information and social norms, the information and social norms condition, have the largest positively influenced perceived customer value towards purchasing sustainable clothes, followed by participants who receive the text that solely includes social norms; the social norms condition,  $H5$ . In order to answer this hypothesis, a one-way ANOVA was conducted for the perceived customer value construct and its sub-constructs. A summary of the output is displayed in Table 8.

**Table 8, ANOVA table with the means and items of the perceived customer value construct**

	Conditions				Total ( $N = 165$ )	Sign.	$\eta^2$
	Information ( $N = 41$ )	Social norms ( $N = 41$ )	Information and social norms ( $N = 41$ )	Control ( $N = 42$ )			
<b>Perceived customer value</b> (Cronbach's $\alpha = .831$ )	4.94(.47)	4.87(.50)	4.72(.66)	4.72(.66)	4.811(.58)	.234	.026
Quality value (Cronbach's $\alpha = .871$ )	5.31(.71)	5.01(.81)	5.14(.81)	5.06(.79)	5.13(.78)	.337	.021
1. Sustainable clothes have consistent quality 2. Sustainable clothes are well made 3. Sustainable clothes have an acceptable standard of quality 4. Sustainable clothes have good workmanship 5. Sustainable clothes would last a long time 6. Sustainable clothes would perform consistently							



Emotional value (Cronbach's $\alpha = .864$ )	5.40(.78)	5.52(.73)	5.18(.86)	5.18(.95)	5.32(.84)	.160	.031
1. Sustainable clothes are things that I would enjoy 2. Sustainable clothes would make me want to use it 3. Sustainable clothes are things that I would feel relaxed about using 4. Sustainable clothes would make me feel good 5. Sustainable clothes would give me pleasure							
Price value (Cronbach's $\alpha = .657$ )	4.45(.83)	4.44(.82)	4.33(.93)	4.46(.85)	4.42(.85)	.933	.004
1. Sustainable clothes are reasonably priced 2. Sustainable clothes offer value for money 3. Sustainable clothes are a good product for the price 4. Sustainable clothes would be economical							
Social value (Cronbach's $\alpha = .623$ )	4.31(.88)	4.07(1.18)	3.65(1.30)	3.64(1.32)	3.91(1.21)	.008	.019
1. Sustainable clothes would help me to feel acceptable 2. Sustainable clothes would improve the way I am perceived *3. Sustainable clothes would make a bad impression on other people 4. Sustainable clothes would give its owner social approval							

**Perceived customer value; quality.** As can be seen in Table 8, the items formed together the quality value,  $\alpha > .65$ . The information condition scored the highest mean, which was surprising. Nonetheless, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.135, p = .337, \eta^2 = 0.021$ .

**Perceived customer value; emotional.** As can be seen in Table 8, the items formed together the emotional value,  $\alpha > .65$ . The information and social norms condition was expected to score the highest mean, and therefore, the output was surprising. Nonetheless, the social norms condition scored the second highest mean, which was not surprising. The differences among these conditions were not statistically significant,  $F(3, 161) = 1.744, p = .160, \eta^2 = 0.031$ .

**Personal costumer value; price.** As can be seen in Table 8, the items formed together the price value,  $\alpha > .65$ . The information and social norms condition was expected to score the highest mean, followed by the social norms condition and therefore, the output was surprising. However, the differences among these conditions were not statistically significant,  $F(3, 161) = .198, p = .897, \eta^2 = 0.004$ .

**Personal costumer value; social.** As can be seen in Table 8, the items did not form together the social value,  $\alpha < .65$ . After eliminating item 3, these remaining items formed together this value,  $\alpha > .65$ . Moreover, the information condition scored the highest mean, which was surprising. Besides this, one difference among these conditions was statistically significant, Welch's  $F(3, 86.947) = 3.490, p = .019, \eta^2 = 0.054$ . Additionally, the Games-Howell post hoc revealed that the mean increase from the control condition ( $M = 3.64, SD = 1.32$ ) to the information condition ( $M = 4.31, SD = .88$ ) was statistical significant ( $p = .048, MD = .66, SE = .25$ ). This was surprising

**Perceived customer value.** As can be seen in Table 8, the items that formed the quality, emotional, price and social value formed together the perceived customer value  $\alpha > .65$ . Consequently, the latter consisted of eighteen items. Besides this, the information condition scored the highest mean, which was surprising. Nevertheless, the differences among these conditions were not statistically significant,  $F(3, 161) = 1.438, p = .234, \eta^2 = 0.026$ .

To sum up, hypothesis 5 was not confirmed.

### 5.2.6 The influence of the perceived customer value on the purchase intention

According to the prediction, a positively influenced perceived customer value towards purchasing sustainable clothes, will lead to a positively influenced consumer's intention to purchase these clothes,

*H6*. To test whether the *H6* was accurate, a simple linear regression was carried out for the perceived customer value construct and the intention construct. An overview of the output can be seen in Table 9.

Table 9, regression table with the equations and propositions of variations of the perceived customer value construct on the intention construct

	Equation	Sign.	$R^2$	Adjusted $R^2$
Perceived consumer value x purchase intention	$Y = -.830 + *1.014$	.000	.301	.297

**Perceived customer value on purchase intention.** The prediction equation was: intention =  $-.830 + *1.014$ . Perceived customer value statistically significantly predicted intention,  $F(1, 163) = 70.305$ ,  $p < .000$ , accounting for 30,1% of the variation in purchase intention with adjusted  $R^2 = 29,7\%$ , a large size effect according to Cohen (1988). One increase in the perceived customer value led to a 1.014 increase,  $SE = .121$ , in purchase intention.

Therefore, when the perceived customer value was positively influenced, the intention was positively influenced as well. As a result, *H6* was confirmed. Additionally, a large amount of the variation of the intention could be explained by the perceived customer value.

The perceived customer value and its sub-constructs, had no statistically significant different mean scores among the conditions. As a relationship could be established between the perceived customer value and purchase intention, this intention was also expected to have no statistically significant different mean scores among the conditions. A one-way ANOVA was conducted to determine whether this was indeed correct. An overview of the output is shown in Table 10. As can be seen in that same Table, the items formed together the purchase intention,  $\alpha > .65$ . Besides this, the differences among these conditions were not statistically significant,  $F(3, 161) = 3.490$ ,  $p = 1.412$ ,  $\eta^2 = 0.026$ .

Table 10, ANOVA table with the means and items of the purchase intention construct

	Conditions				Total ( $N = 165$ )	Sign.	$\eta^2$
	Information ( $N = 39$ )	Social norms ( $N = 41$ )	Information and social norms ( $N = 41$ )	Control ( $N = 42$ )			
<b>Purchase intention</b> (Cronbach's $\alpha = .866$ )	<b>4.28(1.09)</b>	<b>4.13(.97)</b>	<b>3.98(1.10)</b>	<b>3.82(1.13)</b>	<b>4.05(1.07)</b>	<b>.241</b>	<b>.026</b>
1. The next time I am going shopping for clothes, I definitely purchase sustainable clothes. 2. The next time I am going shopping for clothes, I definitely intend to buy sustainable clothes. 3. The next time I am going shopping for clothes, my purchase interest of sustainable clothes is high. 4. The next time I am going shopping for clothes, I definitely buy sustainable clothes. 5. The next time I am going shopping for clothes, I probably buy sustainable clothes.							

### 5.2.7 The influence of the purchase intention on the actual purchase behaviour

According to the prediction, a positive influence in the consumer's intention to purchase sustainable clothes, will lead to a positive influence in the actual purchase behaviour of these clothes, *H7*. To test whether the *H7* was accurate, chi-square test of independence was carried out for the purchase intention construct and the actual behaviour construct.

As 100% of the expected cell counts were lower than five, the participants' purchase intention scores were grouped. The 'unsustainable group' consisted of participants whose intention was to purchase more fast fashion clothes (scores ranging from 0 to 3.99), the 'neutral group' consisted of participants whose intention was to purchase an equal amount of fast fashion and sustainable clothes (scores equal to 4). The 'sustainable group' consisted of participants whose intention was to purchase more sustainable clothes (scores ranging from 4.01 to 7.00). The participants' actual purchase behaviour scores were grouped as well. The 'unsustainable' group, consisted of participants who chose more fast fashion clothes (scores < 50%). The 'neutral' group consisted of participants who chose an equal number of sustainable and unsustainable clothes (scores equal to 50%). The 'sustainable' group, consisted of participants who chose mostly sustainable clothes (scores > 50%). Although, the expected counts below five were still above 20% (Laerd Statistics, n.d.-f), this output was used. An overview of the output can be seen in Table 11.

**Table 11, chi-square test of independence table with the significance and association rate of the purchase intention construct on the actual purchase behaviour construct**

		Purchase intention			Total (N = 143)	Sign.	Cramer's V
		Unsustainable (N = 58)	Neutral (N = 8)	Sustainable (N = 77)			
Actual purchase behaviour	Unsustainable	21	21	13	36	.077	.172
	Neutral	9	2	10	21		
	Sustainable	28	4	54	86		

**Purchase intention on the actual purchase behaviour.** There was not a statistically significant association between purchase intention and actual purchase behaviour,  $\chi^2(4) = 8.437, p = .655$ . additionally, the association was small (Cohen, 1988), Cramer's V = .172.

Therefore, the purchase intention surprisingly did not significantly predict the actual behaviour and therefore, H7 was not confirmed. Additionally, a small amount of the variation of the intention could be explained by the perceived customer value.

No relationship could be established between the purchase intention and the actual purchase behaviour. In other words, this intention did not explain this behaviour. Therefore, whether the actual purchase behaviour had also no statistically significant different mean score among the conditions could not be determined. Therefore, a one-way ANOVA was conducted for the actual purchase behaviour construct. An overview can be seen in Table 12. As can be seen in this table, the differences among these conditions were not statistically significant,  $F(3, 139) = .919, p = .433, \eta^2 = 0.019$ .

**Table 12, ANOVA table with the means and items of the actual purchase behaviour construct**

	Conditions				Total (N = 143)	Sign.	$\eta^2$
	Information (N = 33)	Social norms (N = 35)	Information and social norms (N = 36)	Control (N = 39)			
Actual purchase behaviour	65.70 (28.84)	68.00 (30.77)	62.22 (29.81)	57.44 (27.25)	63.14 (29.13)	.433	.019

### 5.2.8 Control question

As mentioned in Section 4.4.2.2, one question was created to determine whether the barriers were indeed eliminated by the solutions. This was achieved by asking the participants what their reasons were behind their purchases. The participants in the information condition, and information and social norms condition were suggested to answer 'yes' on the sustainably and environmentally sustainable reason, statistically significant more than participants in the social norms condition and control condition. Additionally, participants in the social norms condition, and information and social norms condition were suggested to answer 'yes' on the socially accepted reason, statistically significant more than participants in the social norms condition and control condition.

For this chi-square tests of homogeneity, solely the 'sustainable' group were selected. Chi-square was conducted between 'conditions' and 'reasons' were performed to examine whether the reasons were equal in every condition. Not all expected cell counts were greater than five, when the amount of counts that were below five was more than 20%, a Fisher's exact test was conducted (Laerd Statistics, n.d.-a). The differences in in representation of the reasons behind their purchase(s) among the conditions, were not significant. An overview of the output can be seen in Table 14.

**Table 13, chi-square of homogeneity table of the reasons behind the participants' purchase(s) among the conditions**

		Conditions				Total (N = 165)	Sign.
		Information (N = 41)	Social norms (N = 41)	Information and social norms (N = 41)	Control (N = 42)		
<b>Socially sustainable</b>	Yes	31,6%	28,0%	13,6%	10,0%	20,9%	.240
	No	68,4%	75,0%	86,4%	90,0%	79,1%	
<b>Environmentally sustainable</b>	Yes	36,8%	60,0%	36,4%	40,0%	44,2%	.303
	No	63,2%	40,0%	63,6%	60,0%	76,9%	
<b>Sustainable logo</b>	Yes	26,3%	32,0%	36,4%	40,0%	33,7%	.820
	No	73,7%	68,0%	63,6%	60,0%	66,3%	
<b>Style</b>	Yes	89,5%	84,0%	77,3%	95,0%	86,0%	.389
	No	10,5%	16,0%	22,7%	5,0%	14,0%	
<b>Socially accepted</b>	Yes	15,8%	12,0%	13,6%	10,0%	12,8%	.972
	No	84,2%	88,0%	86,4%	90,0%	87,2%	
<b>Consistent with my lifestyle</b>	Yes	52,6%	44,0%	59,1%	20,0%	44,2%	.064
	No	47,4%	56,0%	40,9%	80,0%	55,8%	
<b>Availability</b>	Yes	5,3%	16,0%	0,0%	10,0%	8,1%	.233
	No	94,7%	84,0%	100%	90,0%	91,9%	
<b>Price</b>	Yes	52,6%	68,0%	72,7%	70,0%	66,3%	.542
	No	47,4%	32,0%	27,3%	30,0%	33,7%	
<b>Other,..</b>	Yes	0,0%	0,0%	4,5%	0,0%	1,2%	.709

	No	100%	100%	95,5%	100%	98,8%	
--	----	------	------	-------	------	-------	--

Nonetheless, this was not unexpected. Section 5.2.7 found no different actual purchase behaviour's mean scores among the conditions. Together this indicates that the following two strategies: a text that includes information, and a text that includes social norms, did not have an influence on this behaviour as these strategies do not influence the reasons.

Although these strategies did not influence the participants' actual purchase behaviour, some participants' actual purchase behaviour was already sustainable. Consequently, whether there were different reasons for purchasing fast fashion and sustainable clothes could be determined. Due to this, a distinction had to be made among the participants. The same groups as in Section 5.2.7 were made. A chi-square test of homogeneity was conducted for the 'actual purchase behaviour' and 'reasons', which was possible as more than 80% of all expected cell counts were higher than five. When this was not the case, a Fisher's exact test was conducted (Laerd Statistics, n.d.-a). The output can be seen in Table 13.

**Table 14, chi-square of homogeneity table of the reasons behind the participants' purchase(s) among the groups**

		Actual purchase behaviour			Total (N = 165)	Sign.
		Unsustainable (N = 36)	Neutral (N = 21)	Sustainable (N = 86)		
<b>Socially sustainable</b>	Yes	2,8%	9,5%	20,9%	14,7%	.027
	No	97,2%	90,5%	79,1%	85,3%	
<b>Environmentally sustainable</b>	Yes	5,6%	28,6%	44,2%	32,2%	.000
	No	94,4%	71,4%	55,8%	67,8%	
<b>Sustainable logo</b>	Yes	16,7%	23,8%	33,7%	28,0%	.144
	No	83,3%	76,2%	66,3%	72,0%	
<b>Style</b>	Yes	100%	90,5%	86,0%	90,2%	.146
	No	0,0%	9,5%	14,0%	9,8%	
<b>Socially accepted</b>	Yes	13,9%	0,0%	12,8%	11,2%	.259
	No	86,1%	100%	87,2%	88,8%	
<b>Consistent with my lifestyle</b>	Yes	33,3%	38,1%	44,2%	40,6%	.522
	No	66,7%	61,9%	55,8%	59,4%	
<b>Availability</b>	Yes	16,7%	0,0%	8,1%	9,1%	.091
	No	83,3%	100%	91,9%	90,9%	
<b>Price</b>	Yes	80,6%	52,4%	66,3%	67,8%	.080
	No	19,4%	47,6%	33,7%	32,2%	
<b>Other,..</b>	Yes	0,0%	0,0%	1,2%	0,6%	1.000
	No	100%	100%	98,8%	99,4%	

Two statistically significant differences were found. First of all, the three multinomial probability distributions were not equal among the groups on the question whether socially sustainable was a reason behind their purchase,  $\chi^2(2) = 7.198$ ,  $p = .027$ . Post hoc analysis involved pairwise comparisons using multiple z-tests of two proportions with a Bonferroni correction. Statistical significance was accepted at  $p < .025$ . There was a statistically significant difference in the proportion of neutral group compared to sustainable group who answered 'yes' ( $n = 2$ , 9.5% versus  $n = 18$ , 20.9%) and in the proportion of unsustainable group compared to sustainable group who answered 'yes' ( $n = 1$ , 2.8% versus  $n = 18$ , 20.9%),  $p < .025$ .

Second of all, the three multinomial probability distributions were not equal among the groups on the question whether environmentally sustainable was a reason behind their purchase,  $\chi^2(2) = 17.502$ ,  $p = .000$ . Post hoc analysis involved pairwise comparisons using multiple z-tests of two proportions with a Bonferroni correction. Statistical significance was accepted at  $p < .025$ . There was a statistically significant difference in the proportion of neutral group compared to unsustainable group who answered 'yes' ( $n = 6$ , 28.6% versus  $n = 2$ , 5.6%) and in the proportion of 'sustainable' participants compared to 'unsustainable' participants who answered 'yes' ( $n = 38$ , 44.2% versus  $n = 2$ , 5.6%),  $p < .025$ .

To summarize, two different reasons for purchasing sustainable and fast fashion among the groups exist. For the participants who purchased mostly sustainable clothes, two reasons were socially and environmentally sustainable. These were not reasons for participants who purchased mostly fast fashion. Another striking conclusion could be made from the output shown in Table 1; looking at the unsustainable group's mean scores, the reasons that scored the highest were 'style' and 'price'.



## 6 General discussion

### 6.1 Short summary of Thesis

This Thesis's aim was to investigate whether different strategies, which were based on barriers' solutions, positively influence consumers to purchase sustainable clothes. This was achieved by analysing whether these strategies positively influence the attitude, perceived norm and personal agency constructs, and whether these three constructs positively influence constructs that eventually influence the actual purchase behaviour construct. This Thesis used two methods to collect data. The first method was a literature research to determine the barriers that prevent consumers from purchasing sustainable clothes and their solutions, and to analyse behavioural models. The second method was a two-part questionnaire to collect quantitative data, where participants evaluated the above stated constructs.

### 6.2 Main Findings

The fashion industry is currently dominated by fast fashion. Fast fashion is highly environmentally and socially unsustainable, yet economically sustainable (Section 2.1). A counter movement is on the rise, sustainable fashion. Sustainable fashion can be environmentally and/or socially sustainable (Section 2.2). However, whether it is economically sustainable is debatable as few consumers actually purchase sustainable clothes. This is due to barriers consumers experience when they consider purchasing sustainable clothes (Connell, 2010; Harris et al., 2016). The barrier this Thesis focused on are mentioned in the next section.

#### 6.2.1 Consumers experience barriers when they consider purchasing sustainable clothes

This Thesis focussed on four barriers that consumers experience when they consider purchasing sustainable clothes: the lack of knowledge and awareness of the unsustainable consequences of fast fashion, and its solution sustainable fashion, and the negative perception, lack of availability and the high price of sustainable clothes (Section 2.3). Different barriers' solutions exist, which are stated in the following section.

#### 6.2.2 Solutions for barriers exist

Possible solutions for the in Section 6.1 mentioned barriers exist. For the lack of knowledge barrier, the suggested solutions are education and a sustainable logo. For the negative perception of sustainable clothes barrier, the suggested solutions are showing the actual appearance of sustainable clothes, and mainstreaming these clothes. For the lack of availability barrier, the suggested solution is increasing the retailers' collection. For the high price of sustainable clothes barrier, the suggested solution is an improvement in the perceived customer value (Section 2.3).

This Thesis's education strategy was a text that included information. The text briefly explained the unsustainable consequences of fast fashion and its solution, sustainable fashion. This text also briefly explained how sustainable fashion tries to limit the unsustainable consequences of fast fashion. This text was supported by two pictures. One picture visualised a social consequence of fast fashion and the other picture visualised an environmental consequence of fast fashion. This Thesis's mainstreaming strategy was a text that included social norms. In this text Emma Watson briefly stated her acceptance of and actual behaviour of buying sustainable clothes. This text was supported by one picture. In this picture Emma Watson wears sustainable clothes. This Thesis's sustainable logo strategy was providing the participants with a logo that stated 'sustainable', which was written in green. This Thesis's last strategy combined two solutions: showing the actual appearance of sustainable clothes, and increasing the retailers' collection, by showing the participants an equal number of sustainable as fast fashion clothes similar in style. To build on the aforementioned, these strategies were proposed to positively influence constructs that positively influence the purchase behaviour in the long run. The last two strategies: providing a sustainable logo and showing an equal amount of sustainable and fast fashion clothes, are implemented in every condition. In other words, these strategies are not tested against a control condition. Whereas the first two strategies: providing a text that includes information

and providing a text that includes social norms, are tested against a control condition. These two strategies' influences are examined in the next sections.

#### 6.2.3 A text that includes information does not influence the attitude and its sub-constructs

Providing a text that includes information was suggested to positively influence the attitude construct and its sub-constructs: experiential and instrumental attitude, *H1*. A positive attitude is formed by an individual who believes that behaving a certain way contributes to generally beneficial outcomes (Ajzen & Fishbein, 1980) and information was suggested to increase the knowledge about the positive outcomes of buying sustainable clothes (Section 3.4.1.1). In contrast to Dickson (2000), *H1* was not confirmed; the informative text does not positively influence the attitude and its sub-constructs statistically significant. This is consistent with Kang et al. (2013), they also find no correlation between the consumer knowledge and attitude. An explanation can be that when consumers shop for clothes, they are indifferent towards the issue of sustainability (Solomon & Rabolt, 2004). Moreover, according to McNeill and Moore (2015), consumers who purchase fashion can be divided into three groups with different attitudes: 'Self' consumers, who seek pleasure; 'Social' consumers, who care about their social image and 'Sacrifice' consumers, who care about sustainability. Consequently, increasing the knowledge may only increase the attitudes of the last consumer group. Lastly, according to Niinimäki (2010), not guilt, but desire is the main driver for a change in purchase behaviour.

#### 6.2.4 A text that includes social norms does not influence the perceived norm and its sub-constructs

Providing a text that includes social norms was suggested to positively influence the perceived norm construct and its sub-constructs: injunctive and descriptive norm, *H2*. This text mentioned that sustainable clothes are approved and bought by others, to put it another way, it included positive injunctive and descriptive norms (Fishbein, 2008; Fishbein & Ajzen, 2010; Glanz et al., 2015). Nevertheless, *H2* was not confirmed; the social norm text does not positively influence the perceived norm and its sub-constructs statistically significant. A reason could be that the participants did not have a strong enough social connection with Emma Watson. They may not relate to her as she is a wealthy actress, not Dutch and not a student. When people do not have a strong social connection with the person that states the social norms, people are not influenced by these norms (Goldstein, Cialdini, & Griskevicius, 2008).

#### 6.2.5 A text that includes information does not influence the personal agency and its sub-constructs

Providing a text that includes information was suggested to positively influence the personal agency construct and its sub-constructs: perceived behavioural control and self-efficacy, *H3*. In contrast to Moon et al. (2015), *H3* was not confirmed; the informative text does not positively influence the personal agency and its sub-constructs statistically significant. This may be explained by Hassan, Shaw, Shiu, Walsh and Parry (2013) who state that additional information contributes to already difficult and insufficient knowledge, which creates uncertainty. The latter makes choosing the 'right' choice difficult.

#### 6.2.6 The attitude, perceived norm and personal agency positive influence the perceived customer value

This Thesis does find statistically significant evidence for the relationships between the attitude, perceived norm and personal agency construct on the one hand, and the perceived customer value construct on the other hand. Additionally, these relationships are positive, which entails that when the attitude, perceived norm or personal agency towards purchasing sustainable clothes positively increases, the perceived customer value towards purchasing these clothes positively increases as well. Given these points, hypotheses 4a, 4b and 4c can be accepted.

#### 6.2.7 Only one strategy influences only one perceived customer value's sub-construct

Furthermore, this Thesis fails to statistically significant prove that combining two strategies of this Thesis: providing participants with a text that includes information and social norms, increases the

perceived customer value more than providing the participants only one strategy or no strategy. Therefore, *H5* was not confirmed. This can be explained by Section 6.2.3, 6.2.4, 6.2.5 and 6.2.6. The strategies do not influence the constructs that influence the perceived customer value. These sections also give possible reasons for why these strategies may not have an influence. Nevertheless, one surprising statistically significant difference was found; the social value mean increase from the control condition to the information condition is statistically significant.

#### 6.2.8 The perceived customer value positively influences the purchase intention

Moreover, in support of *H6*, this Thesis's findings confirm that when the perceived customer value towards purchasing sustainable clothes positively increase, the intention to purchase sustainable clothes positively increases as well. This is consistent with the previous study of Jung and Jin (2016).

#### 6.2.9 The purchase intention does not influence the actual purchase behaviour

In contrast to the TRA model (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein, 2008; Glanz et al., 2015), TPB model (Ajzen, 1991; Fishbein & Ajzen, 2010), IBM model (Fishbein, 2008; Glanz et al., 2015) and another study (Koszevska, 2016), this Thesis did not find an association between the intention to purchase sustainable clothes and the actual purchase behaviour of sustainable clothes. Therefore, *H7* was not confirmed. Ajzen (1991) and Fishbein and Ajzen (2010) argue that the intention influences the actual behaviour. Nevertheless, the perceived behavioural control may explain why *H7* was not confirmed. As they argue that the perceived behavioural control does not only influence the actual behavioural indirectly by influencing the intention, it influences the actual behaviour directly too.

Fishbein (2008) and Glanz et al. (2015) also argue that the intention influences the actual behaviour. On the other hand, they argue that four other constructs influence the actual behaviour construct: the knowledge and skill to perform the behaviour, salience of the behaviour, environmental constraints and habit. This Thesis did take them into account by suggesting that the first three constructs were directly influenced by this Thesis's strategies. Regarding the habit, this Thesis did also recognize its importance. The habit was suggested to be indirectly influenced by this Thesis's strategies, but recognized that creating a habit needed time (Clear, 2014; Lally et al., 2010). Nonetheless, these strategies were suggested to already influence the intention construct. Consequently, providing the same solution after the intention was already formed was suggested to change the behaviour not differently than the intention already did. However, this Thesis did not statistically test whether this was true. Aside from the strategies' influence, this Thesis did not take into account the influence of these four constructs. For instance, McNeill and Moore (2015) state that habit is a barrier that prevents consumers from purchasing sustainable clothes. Therefore, the knowledge and skill, salience, environmental constraints and habit may explain why no intention-actual behaviour relationship could be established.

Another explanation, Shaw et al. (2007) highlight the importance of plan as a volitional stage towards behaviour. They state that in a situation where there are barriers to perform a behaviour, taking steps towards performing the behaviour beyond forming the intention is logical. By way of contrast, Fishbein and Ajzen (2010) state that plan and intention measure the same underlying construct. They mention another explanation, the intention may have changed when performing the actual behaviour.

### 6.3 Other findings

#### 6.3.1 Combinations of Thesis' strategies influence the personal agency and its sub-constructs

As mentioned in Section 5.2.3, this Thesis only created a hypothesis for the influence of the information strategy on the personal agency and its sub-construct. Nonetheless, the influence of the other strategies on the personal agency and its sub-construct was also analysed. As then, whether the strategies influence each other could be established. Statistically significant differences were found.

Regarding to the social norm strategy's, the social norms condition, and the information and social norms condition were expected to have the highest two perceived behavioural control's mean scores. However, the social norms condition had a statistically significant higher mean score than the

information and social norms condition. An explanation can be that while the name would suggest otherwise, the information and social norms condition did not receive exactly the same text that included social norms as the social norms condition. The participants from the social norms condition received a very elaborate text that included social norms, both injunctive and descriptive norms. In contrast, the information and social norms condition received only a brief statement that said that Emma Watson thinks sustainable fashion is important. After that, they received a text that included information similar to the information condition. The only difference was that the text was written from Watson's point of view.

Regarding to the sustainable logo's strategy, the information condition, and the information and social norms condition were expected to have the two highest personal agency's and its sub-constructs' mean scores. The information condition had a statistically significant higher self-efficacy's and personal agency's mean score than the control condition, and the information and social norms condition had a statistical significant higher personal agency's mean score than the control condition. Besides this, the social norm condition had a statistically significant higher perceived behavioural control's, self-efficacy's and personal agency's mean score than the control condition. To summarize, the combination of a sustainable logo and the text that includes information and/or social norms makes purchasing sustainable clothes easier and/or rises consumers' confidence. Bonini and Oppenheim (2008) argue that more barriers have to be solved to have an influence. Therefore, that these barriers' solutions influence each other is not surprising.

Combining all strategies, the information condition, and information and social norms condition were expected to have the highest two personal agency's and its sub-constructs' mean scores. The perceived behavioural control mean score was significantly higher for the information condition in comparison to the control condition. However, the social norms condition had statistical significant higher overall personal agency's and its sub-constructs' mean scores than the control condition. While social norms were not expected to influence the personal agency and its sub-constructs, these findings suggest otherwise. These findings can be partly backed up by Ajzen (1991). They argue that the subjective norms can influence the perceived behavioural control.

### 6.3.2 The attitude has a larger positive influence on the perceived customer value than the perceived norm and personal agency

In comparison to the perceived norm and personal agency, the attitude has the largest positive size effect on the perceived customer value, and thereby on the purchase intention. While not being determined by this Thesis's findings, the intention has a positive influence on the actual behaviour according to previous studies (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein, 2008; Glanz et al., 2015; Koszewska, 2016). Therefore, when influencing the purchase behaviour, influencing the attitude is more important than influencing the perceived norm and personal agency. Consequently, future research should focus on how to positively influence the attitude towards purchasing sustainable clothes.

### 6.3.3 The strategies do not influence the intention to purchase sustainable clothes

This Thesis examined whether the purchase intention was positively influenced by the strategies. This Thesis's findings argued that the strategies do not influence the purchase intention statistical significant different. This is coherent with the main findings. A relationship was established between the perceived customer value and the purchase intention (Section 6.2.8), and the perceived customer value was not influenced by the strategies (Section 6.2.7). Explanations for why these strategies may not have the preferred influence are mentioned in Section 6.2.

### 6.3.4 The strategies do not influence the actual purchase behaviour of sustainable clothes

This Thesis examined whether the actual behaviour was positively influenced by the strategies. This Thesis's findings argued that the strategies do not influence the actual purchase behaviour statistical significant different. The control question's output showed the same findings. The difference in in

representation of the reasons behind their purchase(s) among the conditions was not significant. In other words, the strategies did not have an influence.

In contrast to Fletcher (2008), Goworek et al. (2012) and Connell and Kozar (2012), Hassan, Shaw, Shiu, Walsh and Parry (2013) state that additional information does not stimulate the consumption of ethical clothes as it makes choosing the 'right' choice difficult. Besides this, this Thesis suggested that information increased the knowledge and thereby, increased the negative emotions. However, according to Ertekin and Atik (2015), and Kollmuss and Agyeman (2002), even while consumers experience negative emotions regarding the environmental consequences of fast fashion, they can deny to recognize the problems, can think that they cannot change the situation or can distance themselves from negative emotions. Consequently, consumers still do not purchase sustainable clothes.

An explanation for why a text that includes social norms may not work, when the social norm is to buy sustainable clothes, some consumers may even move away from buying these clothes, because a motivation for consumer who to buy them is uniqueness (Bly et al., 2015).

### 6.3.5 The reasons for purchasing sustainable and fast fashion differentiate

This Thesis' findings suggests that the following two reasons for purchasing sustainable fashion: socially and environmentally sustainable, were not reasons for purchasing fast fashion. Besides this, style and price were high scoring reasons for purchasing sustainable and fast fashion. This indicates that participants who purchase sustainable fashion and participants who purchase fast fashion prefer different styles and prices. Therefore, sustainable retailers should adjust the style and price of their clothes to also satisfy the participants who purchase fast fashion.

## 6.4 Implications

This Thesis's findings provide various implications for policymakers and activists. These findings give insights for creating effective communication strategies for Dutch students to have a more positive attitude, perceived norm, personal agency and perceived customer value towards purchasing sustainable clothes, and a higher intention to purchase and actual purchase behaviour of sustainable clothes. Changing Dutch students' purchase behaviour is very important as they play an important role in the future market, but currently favour unsustainable fast fashion (Kang et al., 2013).

In addition, this Thesis's findings give valuable insights for retailers. As an increasing amount of consumers are not in favour of the unsustainable consequences of fast fashion (Cherny-Scanlon & Agnes, 2016; Goworek et al., 2012), fast fashion retailers should move towards a more sustainable supply chain. Besides this, consumers experience difficulties when purchasing sustainable clothes. Sustainable retailers should be aware of these barriers and try to eliminate them to increase the sales of sustainable clothes.

## 6.5 Limitations and future research

Some observations can be made regarding the Thesis's methodological approach. For a start, most predictions about the influence of the strategies: a text that includes information, a text that includes social norms, and providing a combination of these text, cannot be confirmed. Hence, it seems that the suggested strategies are not the right tools to influence the attitude, perceived norm, personal agency, perceived customer value, intention and the actual behaviour construct. However, what strategies are the right tool remains unclear. Fishbein (2008), and Birtwistle and Moore (2007) state that limited research is conducted that determines how to successfully create communications or other types of intervention that influence the factors that influence the attitude, perceived norm and personal agency construct. Future research can build on this Thesis by shedding light on these and other strategies that may influence these factors. For instance, this Thesis's text that includes information focused more on the unsustainable consequences of fast fashion than on the sustainable consequences of sustainable fashion. Future research can examine whether focusing on the sustainable consequences of sustainable fashion may be a better tool.

Besides this, as mentioned in Section 6.2.2, the strategies: providing a sustainable logo and showing similar sustainable, were implemented in each condition. As a result, these strategies' influences on the constructs was not determined. Future research can statistically significantly test these strategies' influences against a control condition.

In addition, this Thesis focussed on solving the following barriers: lack of knowledge and awareness, negative perception, lack of availability and the higher price, nonetheless, consumers experience more barriers when they consider purchasing sustainable clothes (Bonini & Oppenheim, 2008; Ertekin & Atik, 2015; Kollmuss & Agyeman, 2002). Future research should examine the remaining barriers and their solutions, and whether implementing these solutions positively influence this Thesis's examined (sub-)constructs. Aside from barriers that prevent consumers from purchasing sustainable fashion, studies mention motivations for purchasing these clothes. For instance, Bly et al. (2015) and Ertekin and Atik (2015) mention individuality as an important motivation. Future research can examine whether focussing on motivations will positively influence consumers' purchase behaviour

Moreover, the consumer can engage in three different sustainable clothing practices: acquisition, laundering and disposal (Kozlowski et al., 2016). This Thesis only focused on the acquisition of clothes, and only the acquisition of newly produced clothes. Future research can dive into the other practices or other forms of acquisition. For instance, a similar study can be conducted that focuses on positively influencing the purchase behaviour of second hand clothes, which may be a solution for students who cannot afford newly produced sustainable clothes.

Furthermore, this Thesis contributes to research with regard to the actual purchase behaviour of sustainable clothes. Investigating actual behaviour is important as research with regard to actual purchase behaviour is still limited (Hasanspahic, 2016). Due to time limits, this Thesis examined actual behaviour on the basis of self-reports by letting participants fill in a questionnaire. Nonetheless, a questionnaire has to cope with the socially desirability bias, which affects the validity of an experiment (Nederhof, 1985). A suggestion for further research would be to measure the actual purchase behaviour by direct observations; measure this behaviour in real life by asking participants how many sustainable clothes they bought during a specific time frame.

Finally, this Thesis had a lot of participants who study at the Wageningen University & Research. This can lead to biased outcomes as Wageningen University & Research ranks third in most sustainable universities of the world. The university scores especially high on education, increasing the students' concern with sustainability (WUR, 2017). Further research should examine whether this Thesis's findings also holds when the participants are equally divided over various study cities. Besides this, this Thesis focussed on Dutch students. To successfully develop this model, the next step for future researches would be to examine how this model is applied to other countries.



## 7 Conclusions

This Thesis proposed a model that aimed to explain how the actual purchase behaviour of sustainable clothes is formed and thereby, how it can be influenced. Positive relationships are established between the attitude, perceived norm and personal agency, and the perceived customer value. Moreover, a positive relationship is established between the perceived customer value and the purchase intention, yet, the relationship between the purchase intention and the actual purchase seems less straightforward.

These findings contribute to the existing knowledge that the TRA model, TPB model and IBM can be used for explaining the purchase intention of sustainable fashion (Kang et al., 2013; Koszewska, 2016). While the three models state that there is a relationship between the intention to purchase and the actual purchase behaviour (Ajzen, 1991; Ajzen & Fishbein, 1980; Glanz et al., 2015), in this Thesis this relationship is not found.

Moreover, the following strategies were suggested to positively influence the attitude, perceived norm and personal agency: a text that included information, a text that included social norms and a combination of these text. Thereby, these strategies were suggested to positively influence the perceived customer value, intention to purchase and actual purchase behaviour. Aside from a few exceptions, these strategies do not have a statistically significant influence on these constructs and its sub-constructs.

These findings provide support for the increasing body of literature that points out that the factors that influence the attitude, perceived norm and personal agency are still unknown (Birtwistle & Moore, 2007; Fishbein, 2008). Future research should investigate these factors in order to increase the intention to purchase sustainable fashion. When a relationship between the purchase intention and actual purchase behaviour is established, these factors also increase the actual purchase behaviour of sustainable clothes.

## References

- Aakko, M., & Koskennurmi-Sivonen, R. (2013). Designing Sustainable Fashion: Possibilities and Challenges. *Research Journal of Textile and Apparel*, 17(1), 13–22. <https://doi.org/10.1108/RJTA-17-01-2013-B002>
- Abramson, J. (2015). Emma Watson. Retrieved December 7, 2017, from <http://time.com/collection-post/3823057/emma-watson-2015-time-100/>
- Ajzen, I. (1991). The theory of planned behavior. *Organizational Behavior and Human Decision Processes*, 50(2), 179–211. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I. (2010). Constructing a theory of planned behavior questionnaire. *Biofeedback and Selfregulation*, 17, 1–7. [https://doi.org/10.1016/0749-5978\(91\)90020-T](https://doi.org/10.1016/0749-5978(91)90020-T)
- Ajzen, I., & Fishbein, M. (1980). Understanding attitudes and predicting social behavior. *EnglewoodCliffs NY Prentice Hall*, 278, 278. <https://doi.org/Z>
- Armed Angels. (n.d.). Philosophy. Retrieved July 21, 2017, from <https://www.armedangels.de/en/philosophy/>
- Astrum People. (n.d.). Emma Watson Biography: Success Story of Actress, Model, and Activist. Retrieved December 7, 2017, from <https://astrumpeople.com/emma-watson-biography/>
- Auger, P., Burke, P., Devinney, T. M., & Louviere, J. J. (2003). What will Consumers Pay for Social Product Features? *Journal of Business Ethics*, 42(3), 281–304. <https://doi.org/10.1023/A:1022212816261>
- Bandura, A. (1982). Self-efficacy mechanism in human agency. *American Psychologist*, 37(2), 122–147. <https://doi.org/10.1037/0003-066X.37.2.122>
- Barnes, L., & Lea-Greenwood, G. (2006). Fast Fashioning the supply chain: shaping the research agenda. *Journal of Fashion Marketing and Management*, 10(3), 259–271. <https://doi.org/10.1108/13612020610679259>
- Beard, N. D. (2008). The branding of ethical fashion and the consumer: A luxury niche or mass-market reality? *Fashion Theory - Journal of Dress Body and Culture*, 12(4), 447–468. <https://doi.org/10.2752/175174108X346931>
- Bhaduri, G., & Ha-Brookshire, J. (2011). Consumers willing to pay more for sustainable apparel if business is transparent, study finds. Retrieved July 20, 2017, from <https://www.sciencedaily.com/releases/2011/08/110817120235.htm>
- Bhardwaj, V., & Fairhurst, A. (2010). Fast fashion: response to changes in the fashion industry. *The International Review of Retail, Distribution and Consumer Research*, 20(1), 165–173. <https://doi.org/10.1080/09593960903498300>
- Birtwistle, G., & Moore, C. M. (2007). Fashion clothing – where does it all end up? *International Journal of Retail & Distribution Management*, 35(3), 210–216. <https://doi.org/10.1108/09590550710735068>
- Bly, S., Gwozdz, W., & Reisch, L. A. (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>
- Bonini, S., & Oppenheim, J. (2008). Cultivating the green consumer. *Stanford Social Innovation Review*, 6(4), 56–61. Retrieved from <http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=34705924&site=ehost-live>
- Brennan, B. (2013). The Real Reason Women Shop More Than Men. Retrieved December 9, 2017, from <https://www.forbes.com/sites/bridgetbrennan/2013/03/06/the-real-reason-women->

shop-more-than-men/#7c501f9e74b9

- Bruce, M., & Daly, L. (2006). Buyer behaviour for fast fashion. *Journal of Fashion Marketing and Management: An International Journal*, 10(3), 329–344.  
<https://doi.org/10.1108/13612020610679303>
- Brundtland, G. H. (1987). Our Common Future. *Oxford Paperbacks*. <https://doi.org/10.2307/633499>
- C&A. (n.d.). Material Impacts. Retrieved April 26, 2017, from <http://www.c-and-a.com/uk/en/corporate/company/sustainability/>
- Cachon, G. P., & Swinney, R. (2011). The Value of Fast Fashion: Quick Response, Enhanced Design, and Strategic Consumer Behavior. *Management Science*, 57(4), 778–795.  
<https://doi.org/10.1287/mnsc.1100.1303>
- Cherny-Scanlon, X., & Agnes, K. (2016). Time for a Responsible Fashion Council? *Green Fashion*, 123–150. Retrieved from [http://link.springer.com/chapter/10.1007/978-981-10-0245-8\\_4](http://link.springer.com/chapter/10.1007/978-981-10-0245-8_4)
- Christopher, M., Lowson, R., & Peck, H. (2004). Creating agile supply chains in the fashion industry. *International Journal of Retail & Distribution Management*, 32(8), 367–376.  
<https://doi.org/10.1108/09590550410546188>
- Clear, J. (2014). How Long Does It Actually Take to Form a New Habit? *Huffington Post*.  
<https://doi.org/10.1002/ejsp.674/abstract>
- CNN. (2016). Emma Watson dons dress made of this (Met Gala 2016). Retrieved December 7, 2017, from <https://www.youtube.com/watch?v=t2j4hsQdMs0>
- Cohen, J. (1988). *Statistical power analysis for the behavioral sciences*. NY: Psychology Press. (2nd ed.). New York. Retrieved from <https://statistics.laerd.com/premium/spss/lr/linear-regression-in-spss-22.php>
- Connell, K. Y. H. (2010). Internal and external barriers to eco-conscious apparel acquisition. *International Journal of Consumer Studies*, 34(3), 279–286. <https://doi.org/10.1111/j.1470-6431.2010.00865.x>
- Connell, K. Y. H., & Kozar, J. (2012). Sustainability knowledge and behaviors of apparel and textile undergraduates. *International Journal of*. Retrieved from <http://www.emeraldinsight.com/doi/abs/10.1108/14676371211262335>
- Crewe, L., & Davenport, E. (1992). The Puppet Show - Changing Buyer-Supplier Relationships within Clothing Retailing. *Transactions of the Institute of British Geographers*, 17(2), 183–197.  
<https://doi.org/10.2307/622545>
- Dickson, M. a. (2000). Personal Values, Beliefs, Knowledge, and Attitudes Relating to Intentions to Purchase Apparel from Socially Responsible Businesses. *Clothing and Textiles Research Journal*, 18(1), 19–30. <https://doi.org/10.1177/0887302X0001800103>
- Ertekin, Z. O., & Atik, D. (2015). Sustainable Markets: Motivating Factors, Barriers, and Remedies for Mobilization of Slow Fashion. *Journal of Macromarketing*, 1, 53–69.  
<https://doi.org/10.1177/0276146714535932>
- Fairtrade Foundation. (n.d.). Buying Fairtrade cotton. Retrieved April 4, 2017, from <http://www.fairtrade.org.uk/en/buying-fairtrade/cotton>
- Fishbein, M. (2008). A reasoned action approach to health promotion. *Medical Decision Making : An International Journal of the Society for Medical Decision Making*, 28(6), 834–44.  
<https://doi.org/10.1177/0272989X08326092>
- Fishbein, M., & Ajzen, I. (2010). *Predicting and changing behaviour: The reasoned action approach*. New York: Psychology Press. <https://doi.org/10.4324/9780203937082>

- Fletcher, K. (2008). *Sustainable Fashion and Textiles: Design Journeys*. *Sustainable Fashion and Textiles: Design Journeys*. <https://doi.org/10.4324/9781315857930>
- Follows, S. B., & Jobber, D. (2000). Environmentally responsible purchase behaviour: a test of a consumer model. *European Journal of Marketing*, 34(5/6), 723–746. <https://doi.org/10.1108/03090560010322009>
- Glanz, K., Rimer, B. K., & Viswanath, K. (2015). *Health behavior : theory, research, and practice* (5th ed.). John Wiley & Sons. Retrieved from [https://books.google.nl/books?hl=nl&lr=&id=9BQWCgAAQBAJ&oi=fnd&pg=PA95&dq=theory+of+reasoned+action+AND+Ajzen+AND+Fishbein&ots=ecPb9fsMd6&sig=irVfZOZxHbJgmV9MrMzrVaRf\\_9c#v=onepage&q=theory of reasoned action AND Ajzen AND Fishbein&f=false](https://books.google.nl/books?hl=nl&lr=&id=9BQWCgAAQBAJ&oi=fnd&pg=PA95&dq=theory+of+reasoned+action+AND+Ajzen+AND+Fishbein&ots=ecPb9fsMd6&sig=irVfZOZxHbJgmV9MrMzrVaRf_9c#v=onepage&q=theory of reasoned action AND Ajzen AND Fishbein&f=false)
- Global Organic Textile Standard. (n.d.). The Standard. Retrieved April 8, 2017, from <http://www.global-standard.org/the-standard.html>
- Goldstein, N. J., Cialdini, R. B., & Griskevicius, V. (2008). A Room with a Viewpoint: Using Social Norms to Motivate Environmental Conservation in Hotels. *Journal of Consumer Research*, 35(3), 472–482. <https://doi.org/10.1086/586910>
- 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>
- Gurova, O., & Morozova, D. (2016). A critical approach to sustainable fashion: Practices of clothing designers in the Kallio neighborhood of Helsinki. *Journal of Consumer Culture*. Retrieved from <http://journals.sagepub.com/doi/abs/10.1177/1469540516668227>
- H&M group. (n.d.-a). Recycle your clothes. Retrieved April 26, 2017, from <http://about.hm.com/en/sustainability/get-involved/recycle-your-clothes.html>
- H&M group. (n.d.-b). The way to sustainable fashion. Retrieved April 26, 2017, from <http://about.hm.com/en/sustainability/get-involved/the-way-to-sustainable-fashion.html>
- H&M group. (n.d.-c). The way to sustainable fashion.
- Han, T. I., & Chung, J. E. (2014). Korean Consumers' Motivations and Perceived Risks Toward the Purchase of Organic Cotton Apparel. *Clothing and Textiles Research Journal*, 32(4), 235–250. <https://doi.org/10.1177/0887302X14538116>
- Harris, F., Roby, H., & Dibb, S. (2016). Sustainable clothing: Challenges, barriers and interventions for encouraging more sustainable consumer behaviour. *International Journal of Consumer Studies*, 40(3), 309–318. <https://doi.org/10.1111/ijcs.12257>
- Hasanspahic, M. (2016). Sustainable Fashion-practices, strategies, and meanings. Retrieved from <http://lup.lub.lu.se/student-papers/record/8879292>
- Hassan, L., Shaw, D., Shiu, E., Walsh, G., & Parry, S. (2013). Uncertainty in ethical consumer choice: A conceptual model. *Journal of Consumer Behaviour*, 12(3), 182–193. <https://doi.org/10.1002/cb.1409>
- Hearson, M. (2006). Who Pays for Cheap Clothes? 5 questions the low-cost retailers must answer. *Labour Behind the Label*. Norwich, Clean Clothes. Retrieved from <https://cleanclothes.org/resources/national-cccs/06-07-who-pays-for-cheap-clothes.pdf>
- Hooker, L. (2016). How Zara's founder became the richest man in the world - for two days. Retrieved July 20, 2017, from <http://www.bbc.com/news/business-37317369>
- Hoskins T. (2014). Luxury brands: higher standards or just a higher mark-up? *The Guardian*. Retrieved from <https://www.theguardian.com/sustainable-business/2014/dec/10/luxury-brands-behind->

- Johannisson, F. (2016). Hidden child labour: how Syrian refugees in Turkey are supplying Europe with fast fashion. *The Guardian, January*. Retrieved from [https://scholar.google.nl/scholar?hl=en&q=Hidden+child+labour%3A+how+Syrian+refugees+in+Turkey+are+supplying+Europe+with+fast+fashion&btnG=&as\\_sdt=1%2C5&as\\_sdt=1](https://scholar.google.nl/scholar?hl=en&q=Hidden+child+labour%3A+how+Syrian+refugees+in+Turkey+are+supplying+Europe+with+fast+fashion&btnG=&as_sdt=1%2C5&as_sdt=1)
- Joung, H. M., & Park-Poaps, H. (2013). Factors motivating and influencing clothing disposal behaviours. *International Journal of Consumer Studies*, 37(1), 105–111. <https://doi.org/10.1111/j.1470-6431.2011.01048.x>
- Joy, A., Sherry, J. F., Venkatesh, A., Wang, J., & Chan, R. (2012). Fast fashion, sustainability, and the ethical appeal of luxury brands. *Fashion Theory - Journal of Dress Body and Culture*, 16(3), 273–295. <https://doi.org/10.2752/175174112X13340749707123>
- Jung, S., & Jin, B. (2016). Sustainable development of slow fashion businesses: Customer value approach. *Sustainability (Switzerland)*, 8(6). <https://doi.org/10.3390/su8060540>
- Kahn, J. (2009). Luxury-Goods Makers Embrace Sustainability.
- Kang, J., Liu, C., & Kim, S. H. (2013). Environmentally sustainable textile and apparel consumption: The role of consumer knowledge, perceived consumer effectiveness and perceived personal relevance. *International Journal of Consumer Studies*, 37(4), 442–452. <https://doi.org/10.1111/ijcs.12013>
- Kim, H.-S., & Damhorst, M. L. (1998). Environmental Concern and Apparel Consumption. *Clothing and Textiles Research Journal*, 16(3), 126–133. <https://doi.org/10.1177/0887302X9801600303>
- Kollmuss, A., & Agyeman, J. (2002). Mind the Gap: Why do people act environmentally and what are the barriers to pro-environmental behavior? *Environmental Education Research*, 8(3), 239–260. <https://doi.org/10.1080/13504620220145401>
- Koszewska, M. (2016). Understanding consumer behavior in the sustainable clothing market: Model development and verification. *Green Fashion*. Retrieved from [http://link.springer.com/chapter/10.1007/978-981-10-0111-6\\_3](http://link.springer.com/chapter/10.1007/978-981-10-0111-6_3)
- Kozar, J. M., & Connell, K. Y. H. (2013). Socially and environmentally responsible apparel consumption: knowledge, attitudes, and behaviors. *Social Responsibility Journal*, 9(2), 315–324. <https://doi.org/10.1108/SRJ-09-2011-0076>
- Kozlowski, A., Searcy, C., & Bardecki, M. (2016). Innovation for a Sustainable Fashion Industry: A Design Focused Approach Toward the Development of New Business Models (pp. 151–169). [https://doi.org/10.1007/978-981-10-0245-8\\_5](https://doi.org/10.1007/978-981-10-0245-8_5)
- Laerd Statistics. (n.d.-a). Chi-square test of homogeneity in SPSS Statistics. Retrieved January 10, 2018, from <https://statistics.laerd.com/premium/spss/cstoh2xc/chi-square-test-of-homogeneity-2xc-in-spss-10.php>
- Laerd Statistics. (n.d.-b). Chi-square test of independence in SPSS Statistics. Retrieved January 9, 2018, from <https://statistics.laerd.com/premium/spss/cstoirxc/chi-square-test-of-independence-rcx-in-spss-3.php>
- Laerd Statistics. (n.d.-c). Chi-square test of independence in SPSS Statistics. Retrieved January 10, 2018, from <https://statistics.laerd.com/premium/spss/cstoirxc/chi-square-test-of-independence-rcx-in-spss-11.php>
- Laerd Statistics. (n.d.-d). One-way ANOVA in SPSS Statistics, Assumptions. Retrieved December 10, 2017, from <https://statistics.laerd.com/premium/spss/owa/one-way-anova-in-spss-7.php>
- Laerd Statistics. (n.d.-e). Simple linear regression in SPSS Statistics, Assumptions I. Retrieved

- December 10, 2017, from <https://statistics.laerd.com/premium/spss/lr/linear-regression-in-spss-7.php>
- Laerd Statistics. (n.d.-f). Testing for normality in SPSS Statistics. Retrieved December 9, 2017, from <https://statistics.laerd.com/premium/spss/tfn/testing-for-normality-in-spss.php>
- Lally, P., Van Jaarsveld, C. H. M., Potts, H. W. W., & Wardle, J. (2010). How are habits formed: Modelling habit formation in the real world. *European Journal of Social Psychology*, 40(6), 998–1009. <https://doi.org/10.1002/ejsp.674>
- Langenwater, G. (2009). Planet First. *Industrial Management*, 51(4), 10–13.
- Lu, S. (2014). US Fashion Industry Benchmarking Study: Department of Textiles. *Fashion Merchandising and Design*, University of.
- Mamamia. (2017). Emma Watson shows that sustainable is stylish. Retrieved December 7, 2017, from <https://www.youtube.com/watch?v=913Qr6ojwz8>
- Martinko, K. (2017). Emma Watson promotes ethical, sustainable fashion in new Instagram account. Retrieved December 7, 2017, from <https://www.treehugger.com/sustainable-fashion/emma-watson-promotes-ethical-sustainable-fashion-new-instagram-account.html>
- Mcneill, L., & Moore, R. (2015). Sustainable fashion consumption and the fast fashion conundrum: Fashionable consumers and attitudes to sustainability in clothing choice. *International Journal of Consumer Studies*, 39(3), 212–222. <https://doi.org/10.1111/ijcs.12169>
- Mehrjoo, M., & Pasek, Z. J. (2015). Risk assessment for the supply chain of fast fashion apparel industry: a system dynamics framework. *International Journal of Production Research*, 7543(May), 1–21. <https://doi.org/10.1080/00207543.2014.997405>
- Mihm, B. (2010). Fast Fashion In A Flat World: Global Sourcing Strategies. *International Business & Economics Research Journal (IBER)*, 9(6), 55–64. <https://doi.org/10.19030/iber.v9i6.585>
- Moon, K. K.-L., Lai, C. S.-Y., Lam, E. Y.-N., & Chang, J. M. T. (2015). Popularization of sustainable fashion: barriers and solutions. *The Journal of The Textile Institute*, 106(9), 939–952. <https://doi.org/10.1080/00405000.2014.955293>
- Morgan, A., & Ross, M. (2015). *The True Cost*. Japan. Retrieved from <https://www.netflix.com/watch/80045667?trackId=13752289&tctx=0%2C0%2Ce12c4fe2d6b4627ea00f9576676d2698cd5ab075%3A2caa0eccc4f7b646386ee35af73c52fc1b8807d>
- Nederhof, A. J. (1985). Methods of coping with social desirability bias: A review. *European Journal of Social Psychology*, 15(3), 263–280. <https://doi.org/10.1002/ejsp.2420150303>
- Nielsen. (2015). The Sustainability Imperative - New Insights On Consumer Expectation. Retrieved from The
- Niinimäki, K. (2010). Eco-Clothing, consumer identity and ideology. *Sustainable Development*, 18(3), 150–162. <https://doi.org/10.1002/sd.455>
- Pal, R. (2016). Sustainable value generation through post-retail initiatives: an exploratory study of slow and fast fashion businesses. *Green Fashion*. Retrieved from [http://link.springer.com/chapter/10.1007/978-981-10-0111-6\\_6](http://link.springer.com/chapter/10.1007/978-981-10-0111-6_6)
- People Tree. (2010). PEOPLE TREE - Emma Watson & Safia Minney interview. Retrieved December 7, 2017, from <https://www.youtube.com/watch?v=NdLfqk--JLc>
- Pookulangara, S., Shephard, A., & Mestres, J. (2011). University community's perception of sweatshops: A mixed method data collection. *International Journal of Consumer Studies*, 35(4), 476–483. <https://doi.org/10.1111/j.1470-6431.2010.00950.x>
- Raworth, K. (2004). Trading away our rights: Women working in global supply chains. *Oxfam Policy*

- and Practice: Private Sector*. Retrieved from <http://www.ingentaconnect.com/content/oxpp/oppps/2004/00000001/00000001/art00001>
- Remy, N., Speelman, E., & Swartz, S. (2016). Style that's sustainable: A new fast-fashion formula. Retrieved March 11, 2017, from <http://www.mckinsey.com/business-functions/sustainability-and-resource-productivity/our-insights/style-thats-sustainable-a-new-fast-fashion-formula>
- Rohwedder, C., & Johnson, K. (2008). Pace-setting Zara seeks more speed to fight its rising cheap-chic rivals. *The Wall Street Journal*, 20. Retrieved from [http://faculty.haas.berkeley.edu/mefford/ugba178\\_files/Pace\\_Setting\\_Zara.pdf](http://faculty.haas.berkeley.edu/mefford/ugba178_files/Pace_Setting_Zara.pdf)
- Samuels, P., Reviewer, E. M., & Lahmar, J. (n.d.). Checking normality for parametric tests in SPSS. Retrieved from [https://www.sheffield.ac.uk/polopoly\\_fs/1.579181!/file/stcp-marshallsamuels-NormalityS.pdf](https://www.sheffield.ac.uk/polopoly_fs/1.579181!/file/stcp-marshallsamuels-NormalityS.pdf)
- Saramowicz, C. (2015). Emma Watson Has Been Named One Of TIME's 100 Most Influential People. Retrieved December 7, 2017, from <https://graziadaily.co.uk/fashion/shopping/emma-watson-time-100-influential-people/>
- Saussier, J. (2017). Millennials Drive Sustainability. Retrieved July 20, 2017, from <https://www.credit-suisse.com/microsites/next/en/entrepreneurism/articles/millennials-drive-sustainability.html>
- Shaw, D., Shiu, E., & Clarke, I. (2000). The Contribution of Ethical Obligation and Self-Identity to the Theory of Planned Behaviour: An Exploration of Ethical Consumers. *Journal of Marketing Management*, 16, 879–894. <https://doi.org/10.1362/026725700784683672>
- Shaw, D., Shiu, E., Hassan, L., Bekin, C., & Hogg, G. (2007). Intending to be ethical: An examination of consumer choice in sweatshop avoidance. In *Advances in Consumer Research* (Vol. 34, pp. 31–38). <https://doi.org/Proceeding>
- Sheth, J. N., Newman, B. I., & Gross, B. L. (1991). Why we buy what we buy: A theory of consumption values. *Journal of Business Research*, 22(2), 159–170. [https://doi.org/10.1016/0148-2963\(91\)90050-8](https://doi.org/10.1016/0148-2963(91)90050-8)
- Silva, R. Da, Davies, G., & Naudé, P. (2002). Assessing customer orientation in the context of buyer/supplier relationships using judgmental modelling. *Industrial Marketing Management*. Retrieved from <http://www.sciencedirect.com/science/article/pii/S0019850100001371>
- Smith, J. (2015). Emma Watson, Actress, Humanitarian, Equal Rights Activist. Retrieved December 7, 2017, from <http://thepublicslate.com/2015/04/emma-watson-actress-humanitarian-equal-rights-activist/>
- Solomon, M. R., & Rabolt, N. J. (2004). *Consumer Behavior: In Fashion*. Prentice-Hall. Retrieved from <https://www.pearson.com/us/higher-education/product/Solomon-Consumer-Behavior-In-Fashion/9780130811226.html>
- Spears, N., & Singh, S. N. (2004). Measuring Attitude toward the Brand and Purchase Intentions. *Journal of Current Issues & Research in Advertising*, 26(2), 53–66. <https://doi.org/10.1080/10641734.2004.10505164>
- Spedding, E. (n.d.). Emma Watson's Stylish Guide to Shopping Sustainably. Retrieved December 7, 2017, from <http://www.whowhatwear.co.uk/emma-watson-ethical-fashion>
- Strong, C. (1997). The problems of translating fair trade principles into consumer purchase behaviour. *Marketing Intelligence & Planning*, 15(1), 32–37. <https://doi.org/10.1108/02634509710155642>
- Sull, D., & Turconi, S. (2008). Fast fashion lessons. *Business Strategy Review*, 19(2), 4–11. <https://doi.org/10.1111/j.1467-8616.2008.00527.x>



- Sweeney, J., & Soutar, G. (2001). Consumer perceived value: the development of a multiple item scale. *Journal of Retailing*, 77(2), 203–220. [https://doi.org/10.1016/S0022-4359\(01\)00041-0](https://doi.org/10.1016/S0022-4359(01)00041-0)
- Tartaglione, A. M., & Antonucci, E. (2013). Value Creation Process in the Fast Fashion Industry: Towards a Networking Approach. Retrieved from [https://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2342259](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2342259)
- The Ethical Fashion Forum. (n.d.). Fast fashion, &quot;value&quot; fashion. Retrieved March 8, 2017, from <https://www.ethicalfashionforum.com/the-issues/fast-fashion-cheap-fashion>
- The Press Tour. (2017). the\_press\_tour. Retrieved December 7, 2017, from [https://www.instagram.com/p/BQ6THc9AXDZ/?hl=en&taken-by=the\\_press\\_tour](https://www.instagram.com/p/BQ6THc9AXDZ/?hl=en&taken-by=the_press_tour)
- Thomas, S. (2008). From “green blur” to ecofashion: Fashioning an eco-lexicon. *Fashion Theory - Journal of Dress Body and Culture*, 12(4), 525–540. <https://doi.org/10.2752/175174108X346977>
- Voss, K. E., Voss, K. E., Spangenberg, E. R., Spangenberg, E. R., Grohmann, B., & Grohmann, B. (2003). Measuring the Hedonic and Utilitarian Dimensions of Consumer Attitude. *Journal of Marketing Research*, XL(August), 310–321. <https://doi.org/10.1509/jmkr.40.3.310.19238>
- Wagner, E., & Mark-Herbert, C. (2016). Relationship Marketing in Green Fashion—A Case Study of hessnatur. *Green Fashion*. Retrieved from [http://link.springer.com/chapter/10.1007/978-981-10-0245-8\\_2](http://link.springer.com/chapter/10.1007/978-981-10-0245-8_2)
- Westervelt, A. (2015). Two years after Rana Plaza, have conditions improved in Bangladesh’s factories. *The Guardian*. Retrieved from <https://www.theguardian.com/sustainable-business/2015/apr/24/bangladesh-factories-building-collapse-garment-dhaka-rana-plaza-brands-hm-gap-workers-construction>
- Widmer, B. (2012). How to use Product Bundling to make more money in eCommerce. Retrieved January 17, 2018, from <https://blog.boldcommerce.com/how-to-use-product-bundling>
- Wikipedia. (n.d.). Emma Watson. Retrieved from [https://en.wikipedia.org/wiki/Emma\\_Watson](https://en.wikipedia.org/wiki/Emma_Watson)
- World Fair Trade Organization. (2013). 10 PRINCIPLES OF FAIR TRADE. Retrieved July 27, 2017, from <http://wfto.com/fair-trade/10-principles-fair-trade>
- WUR. (2017). Wageningen University & Research ranks third in most sustainable universities worldwide. Retrieved December 9, 2017, from <https://www.wur.nl/en/newsarticle/Wageningen-University-Research-ranks-third-in-most-sustainable-universities-worldwide.htm>
- Yardley, J. (2013). Report on deadly factory collapse in Bangladesh finds widespread blame. *New York Times*. Retrieved from <https://classnet.wcdsb.ca/sec/StD/Gr12/Religion/anderson/Shared Documents/open level/Summative culminating article Report on Deadly Factory Collapse in Bangladesh Finds Widespread Blame.docx>
- Zara. (n.d.). Kledinginzameling-Join Life. Retrieved April 26, 2017, from [https://www.zara.com/nl/nl/join-life/kledinginzameling-c861007.html#utm\\_referrer=https://www.google.nl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwif\\_K278HTAhWDOhoKHatTAfgQFggzMAI&url=https%3A%2F%2Fwww.zara.com%2Fus%2Fen%2Fjoin-life%2Fclothes-col](https://www.zara.com/nl/nl/join-life/kledinginzameling-c861007.html#utm_referrer=https://www.google.nl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=0ahUKEwif_K278HTAhWDOhoKHatTAfgQFggzMAI&url=https%3A%2F%2Fwww.zara.com%2Fus%2Fen%2Fjoin-life%2Fclothes-col)

## Appendix

### Survey

The following Section provides the questions that were asked in the questionnaire and mentions the literature on which these questions were based.

### Perceived norm

The perceived norm consists of two dimensions.

Dimension 1: the injunctive norm consists of three items (Shaw et al., 2000, 2007):

1. Most people who are important to me think I should purchase sustainable clothes.
2. Most people who are important to me would disapprove of purchasing sustainable clothes.
3. Please indicate below how likely it is that the following groups think you should purchase sustainable clothes.
  - a. Friends
  - b. Family
  - c. Sustainable producers
  - d. Famous people
  - e. Ethical organisations (e.g. charities, environmental groups, etc.)
  - f. Multinationals
  - g. Retailers who stock sustainable clothing items

Dimension 2: descriptive norm consists of three items (Ajzen, 2010; Glanz et al., 2015).

4. Most people like me purchase sustainable clothes.
5. Most people do not perform the behaviour of buying sustainable clothes.
6. Please indicate below how likely it is that the following groups purchase sustainable clothes.
  - a. Friends
  - b. Family
  - c. Famous people
  - d. Ethical organisations (e.g. charities, environmental groups, etc.)

Rating from a 7-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

### Personal agency

The personal agency consists of four scales (Glanz et al., 2015; Shaw et al., 2007):

For the information, the personal agency consists of four items (Glanz et al., 2015; Shaw et al., 2007):

1. If I want to I could easily purchase sustainable clothes now because I have enough information.
2. There is likely to be a little information barrier for me when I want to purchase sustainable clothing items.
3. Purchasing sustainable clothing is easy because I have enough information.
4. I have the ability to purchase sustainable clothes since I have enough information.

For the social norms, the personal agency consists of four items (Glanz et al., 2015; Shaw et al., 2007):

1. If I want to I could easily purchase sustainable clothes now because of their positive social norm.
2. There is likely to be a little social norms barrier for me when I want to purchase sustainable clothing items.
3. Purchasing sustainable clothing is easy because the social norms speaks to me.
4. I have the ability to purchase sustainable clothes since I like the social norms.

For the style, the personal agency consists of four items (Glanz et al., 2015; Shaw et al., 2007):

5. If I want to I could easily purchase sustainable clothes now because their good style.

6. There is likely to be a little style barrier for me when I want to purchase sustainable clothing items.
7. Purchasing sustainable clothing is easy because the style speaks to me.
8. I have the ability to purchase sustainable clothes since I like the style.

For the sustainable logo, the personal agency consists of (Glanz et al., 2015; Shaw et al., 2007):

9. If I want to I could easily purchase sustainable clothes now because of the sustainable logo.
10. There is likely to be a little sustainable logo barrier for me when I want to purchase sustainable clothing items.
11. Purchasing sustainable clothing is easy because of the sustainable logo.
12. I have the ability to purchase sustainable clothes since a sustainable logo is provided.

Choosing from a 7-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

### Attitude

With the help of the HED/UT scale (Voss et al., 2003), the following two dimensions are created:

#### Dimension 1: Utilitarian

1. Purchasing sustainable clothes is effective
2. Purchasing sustainable clothes is not helpful
3. Purchasing sustainable clothes is functional
4. Purchasing sustainable clothes is necessary
5. Purchasing sustainable clothes is practical

#### Dimension 2: hedonic

6. Purchasing sustainable clothes is fun
7. Purchasing sustainable clothes is not exciting
8. Purchasing sustainable clothes is delightful
9. Purchasing sustainable clothes is thrilling
10. Purchasing sustainable clothes is enjoyable

Respondents can rate from a 7-point Likert scale 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

### Perceived customer value

The perceived customer value of sustainable fashion is evaluated with the help of the PERVAL scale (Sweeney & Soutar, 2001):

#### Dimension 1: quality consists of six items:

1. Sustainable clothes have consistent quality
2. Sustainable clothes are well made
3. Sustainable clothes have an acceptable standard of quality
4. Sustainable clothes have poor workmanship
5. Sustainable clothes would not last a long time
6. Sustainable clothes would perform consistently

#### Dimension 2: emotional consists of five items:

1. Sustainable clothes are things that I would enjoy
2. Sustainable clothes would make me want to use it
3. Sustainable clothes are things that I would feel relaxed about using
4. Sustainable clothes would make me feel good
5. Sustainable clothes would give me no pleasure

#### Dimension 3: price consists of four items:

1. Sustainable clothes are reasonably priced

2. Sustainable clothes offer value for money
3. Sustainable clothes are a good product for the price
4. Sustainable clothes would **not** be economical

Dimension 4: social consists of four items:

1. Sustainable clothes would help me to feel acceptable
2. Sustainable clothes would improve the way I am perceived
3. Sustainable clothes would make a **bad** impression on other people
4. Sustainable clothes would give its owner social approval

Rating from 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

### Purchase intention

The 5-items, based on Spears & Singh (2004), asked in this survey are:

1. The next time I am going shopping for clothes, I definitely purchase sustainable clothes.
2. The next time I am going shopping for clothes, I definitely intend to buy sustainable clothes.
3. The next time I am going shopping for clothes, my purchase interest of sustainable clothes is **low**.
4. The next time I am going shopping for clothes, I definitely buy sustainable clothes.
5. The next time I am going shopping for clothes, I probably buy sustainable clothes.

Respondents can choose between 1 = strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neither agree nor disagree, 5 = somewhat agree, 6 = agree, and 7 = strongly agree.

### Control question

To check whether indeed the barriers were solved, a question was asked with regard to the reason(s) behind their purchase. The options are:

- Socially sustainable
- Environmentally sustainable
- Sustainable logo
- Style
- Socially accepted
- Consistent with my lifestyle
  - \* Positive stereotypes regarding that clothing item.
- Availability
  - \* Examples are the colour, size and fit.
- Price
- Other,...