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REPORT

Survey results on fashion consumption and sustainability among young consumers in Germany, the Netherlands, Sweden, the UK and the US in 2014

MISTRA FUTURE FASHION

By Andrea Farsang, Wencke Gwozdz,
Tina Mueller, Lucia A. Reisch & Sarah Netter

Illustration: Emma Cowlam

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MISTRA FUTURE FASHION
Project 7: Sustainable Consumption and Consumer Behaviour

Authors: Andrea Farsang, Wencke Gwozdz,Tina Mueller, Lucia A. Reisch & Sarah Netter

Contact details:
Wencke Gwozdz
Copenhagen Business School
Department of Intercultural Communication and Management
Centre for Corporate Social Responsibility
Porcelænshaven 18A
2000 Frederiksberg
Denmark

wg.ikl@cbs.dk | (+45) 3815 3391

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Executive summary

Sustainable choices and behaviours are becoming ever more important in our daily lives in all domains of consumption. This report focuses specifically on the consumption of textile fashion by young consumers in five different countries by focusing on two consumption phases, the purchase phase and the discard phase, in addition to examining sustainability issues. The five countries are Germany, the Netherlands, Sweden, the UK and the US.

The purpose of this report is twofold:

a) To describe the current fashion consumption of young consumers and sustainability related attitudes and knowledge; and

b) To compare attitudes, knowledge and behaviour between consumers with different levels of awareness and commitment towards sustainability using a 2014 survey comprising 6,388 consumers, 16-35 years of age, in five countries.

Young consumers' purchasing behaviour

Female consumers are more likely to purchase clothing more frequently (except for mail orders and swapping, where the frequency is the same for male and female respondents) and 46% of young women (16-35 years of age) buy clothes at least monthly. At the same time, there is no visible difference in purchasing patterns between genders in the UK and the US. Frequency decreases with age, with consumers under the age of 20 representing 43% of monthly buyers and consumers 31–35 years of age representing 34% of these buyers. Not surprisingly, income level has a substantial effect on purchase frequency. For example 35% of low-income respondents buy clothes at least once a month, while over 60% of high-income respondents do. In the country comparison, the UK shows a significantly higher share of consumers who buy even more frequently, with more than 10% of UK consumers buying new clothes weekly (a minimum of 52 items per year) and an additional 40% who buy monthly.

Online purchase of clothing is the most frequently used acquisition channel among young consumers, while shopping malls and supermarkets – both equally frequently used – come next on the list. The survey shows that second-hand shops and swaps, which represent the most sustainable routes, are the least commonly used shopping channels.

Respondents in Sweden reported significantly lower usage of online shopping and supermarkets than the other four countries in our study, with shopping malls being the preferred venue for young Swedish consumers. In

the UK, there is a substantially higher acquisition frequency online and on the high street than the average. In Germany, supermarkets are indisputably the most commonly used way to purchase clothing, followed by online shopping and shopping malls. All three acquisition channels are used much more often in Germany than in any other country. Young consumers in the US use all of the acquisition channels at an average rate, with the exception of high street shopping. Respondents from the Netherlands reported high street shopping as the most frequent, followed by shopping malls and online shopping.

The average monthly spending on clothing was SEK 453, with a modest difference among male (SEK 448) and female (SEK 457) consumers. In the US (due to lower prices) and in the Netherlands young consumers spend less than in the other countries.

Purchasing behaviour:

- The average consumer prefers shopping malls
- Female consumers purchase clothes more frequently
- Average monthly expenditures are about SEK 448 for males and SEK 457 for females
- 46% of female respondents buy clothing at least monthly
- Online purchase of clothing is the most frequently used acquisition channel for young consumers
- After online shopping, shopping malls and supermarkets are with almost equal frequency
- Acquisition channels vary across countries

Purchasing behaviour and values

Women value the hedonic aspects of clothes shopping more than men, while there is no difference in utilitarian shopping motives (i.e. rational, functional shopping). Consumers with higher income levels also affected by hedonic shopping motives more than others. When comparing countries, hedonic shopping values differ significantly. In the UK and in the US clothing has a higher importance regarding the fashion function and expressing individuality, while these factors have less influence in the Netherlands. Fashionability and individuality as functions of clothing receive greater attention among people who tend to buy clothes more frequently.

While materialistic values do not significantly differ between male and female consumers, they do decrease slightly with age. Possessions as defining success are rated significantly lower in Sweden and in the Netherlands,

which indicates that clothes are not as important there for showing social status or position. Acquisition as a way of pursuing happiness is higher in the UK and in the US.

At the same time, consumers who follow the latest fashion trends and who view clothing as a status symbol are also more frequent buyers, but their average monthly spending does not differ from utilitarian or less materialistic consumers. The difference might rather be found in the quality (price) and the quantity of the items purchased.

Purchasing behaviour and values:

- **In the UK and in the US fashion and individuality functions of clothing have greater importance for young consumers**
- **Materialistic values play a smaller roll with age**
- **Fashion and individuality functions of clothing exert less influence in the Netherlands compared to the UK and the US**
- **Consumers who follow the latest fashion trends and view clothing as a status symbol are also more frequent buyers, but their average monthly spending does not differ from utilitarian or less materialistic consumers**
- **A gap exists between environmental and social awareness and purchasing behaviour**

Purchasing behaviour and the environment

The highest level of environmental concern was measured in the US, followed by Sweden and was the lowest in the Netherlands. Women and older age groups are more concerned about environmental issues. Respondents with a high income and higher education also reported a greater level of concern about the environment. Surprisingly, people who buy clothes more frequently are also more conscious about the environment. Environmentally conscious consumers are more likely to choose unique and less mainstream clothing to express their individuality.

The majority of young consumers in the five countries have the perception that sustainable clothing is not yet widely available, which indicates that currently the spread and mainstreaming of sustainable clothing must not only be promoted more strongly to increase consumer trust and confidence in manufacturers, products and labelling, but also to make it more available, accessible and affordable.

The awareness score for label use and knowledge is below the midpoint values in all five countries, which indicates that sustainability labels are not well known or understood and are therefore often not taken into consi-

deration when making a purchasing decision. Label use alone was above the midpoint, however, in Sweden and in the UK, which indicates that consumers who are aware of labels take them into account when purchasing clothes. In the other three countries labels generally do not influence purchasing decisions.

People who purchase clothes more frequently are more likely to take environmental issues into consideration during the decision phase. The environmental and/or social impacts of clothing are considered 'often' or 'always' by approximately 12% of young consumers, 'sometimes' by 33% and 'never' by 26%. While there is no correlation with age in our survey, consumers with a high income and/or higher education take the environmental and/or social impacts into consideration to a significantly higher degree. In the Netherlands over 40% of young consumers never think about (un)sustainable clothing, which is in significant contrast to the other four countries, where approximately 20% do. With regard to average monthly spending and taking environmental and/or social impacts into consideration, Sweden spends less the more frequently the impacts are considered, whereas spending increases in Germany, the UK and the US.

While collaborative consumption has yet to take hold in the mainstream fashion industry, initiatives based on sharing, lending, borrowing and other forms of collective use have mushroomed in recent years. The frequency of sharing is related to sustainable apparel consumption. In Sweden and the Netherlands the correlation between the two is rather week, while in the US and in the UK the association is moderate/strong, which indicates that in these two countries acquisition is more often substituted with sharing. In the UK, the frequency of sharing is higher for consumers who are aware of and take labels into account during purchasing decisions.

Reuse, recycle and discard

The discard phase covers consumer attitudes towards recycling/discarding, channels frequently used for discarding, and motives for discarding clothes. Despite the high awareness of environmental and social issues in the purchasing process, this awareness does not seem to translate into the discard phase. When it comes to the disposal of clothing, the average consumer has a positive attitude towards donating clothing and usually passes it on to family and friends or donates it to charity.

The majority of consumers think that textile recycling is important, but the level of usage of disposal methods shows that recycling textiles is not really popular. Women are more interested in and committed to recycling, which is also the case for older age groups (within the studied age group of 16-35 years) and those with a higher income. Frequent buyers are less interested

in recycling, the majority of them viewing it as a hassle. Garage sales and swapping are only rarely used, as is the case for in-store recycling. Charity donations are more widely used in the UK and in the US, as are garage sales. Compared to the other countries, the reuse and modification of textiles is more common in Germany. In general, consumers in the UK and in the US use more disposal channels.

The reasons why people discard clothes in certain ways vary slightly between countries. In almost all countries the most frequently mentioned reason for disposal was "clothing was not wasted. Approximately 50% of consumers mentioned charity reasons and around 20% mention initial costs. These results indicate there is a need to raise awareness in order to expand the reuse of clothing.

- The existing level of environmental/social concerns does not translate into reusing or recycling clothing
- The average consumer has a positive attitude about donating clothes
- The most popular form of disposal is passing clothing on to family and friends or to charity
- Women, older consumers and higher income groups are more interested in and committed to recycling
- Frequent buyers are less interested and the majority of them think recycling is a hassle

Stages of change

Finally, the survey presents an alternative approach to consumer segmentation using a concept we call "stages of change", which divides consumers into four groups to gain insight into their level of awareness, knowledge and action regarding sustainable fashion consumption. These four stages are (1) pre-contemplation, where people have no intention to change their behaviour; (2) contemplation, where people are aware of the problem but have not made the commitment to change; (3) preparation, where people intend to take action when it is convenient and have already made some effort to do so; and (4) action & maintenance, where people have modified their behaviour and environment to fulfil their commitment and to work towards maintaining that commitment.

Almost 30% of consumers do not take sustainability issues into account (stage 1), another 40% are aware, but find it difficult and time consuming to behave accordingly (stage 2), while 26% already make an effort if it is easy (stage 3) and about 6% consume fashion sustainably (stage 4).
In the highest stage group (stage 4: action & maintenance), male and female consumers are equally represented. In terms of income and age, distri-

bution follows general patterns and does not differ from other stage groups. At the same time, the share of people who work full-time is slightly lower and there is a larger number of stay-at-home consumers. The role of individuality and style consciousness is also more prominent for this group. Stage 4 consumers are more environmentally conscious and take sustainability aspects more into consideration when purchasing clothes, their knowledge of labels is also higher than of those in other stage groups. Compared to the other countries in our survey, Germany is slightly overrepresented with 9% of consumers in the stage 4 group compared to 6%.

The obtained results and information create the impression that the stage 4 action & maintenance group comprises highly conscious and actively purchasing consumers who follow an individualistic style and for whom purchasing sustainable clothing signals a certain social position. We can also call this group early adopters and both policymakers and businesses could use and treat them as ambassadors for sustainable clothing. This highly engaged group, defined by high frequency shopping and a high-level of commitment to environmental issues even when purchasing items, is relatively small. Regarding attitudes and habits, the group shows significant variance compared to the total population in terms of openness towards textile recycling, sharing products and environmentally conscious and environmentally friendly behaviour in general. At the same time, they are frequent and hedonic shoppers.

Stage 4: Action & maintenance:
People in stage 4, i.e. consumers with exceptionally high levels of awareness, knowledge and action regarding sustainable consumption:

- **Are similar to all other groups socio-demographically**
- **Comprise 6% of all young consumers**
- **Are more environmentally conscious and take sustainability aspects more into consideration when purchasing clothing**
- **Have a greater knowledge about labels than the stage 1-3 groups**
- **Have a higher than average income and an overrepresentation of highly educated people**
- **Vary significantly compared to the entire population in terms of openness to textile recycling, sharing products and environmentally conscious and environmentally friendly behaviour in general.**

Point of departure

In this report we present findings from a consumer survey carried out in four European countries and the US designed to explore young people's fashion consumption attitudes and behaviour. The data we obtained has allowed us to analyse the variation in attitudes towards sustainable fashion consumption across the countries investigated. The current report expands on the Mistra Future Fashion Report on fashion consumption and sustainability among young Swedish consumers (Gwozdz et al., 2013). The aim is to contribute to a better understanding of consumers' fashion-related behaviour, with a particular focus on the identification of early adopters of sustainable fashion, i.e. the focus is to identify what makes them become sustainable fashion pioneers compared to mainstream consumers. The understanding gained from our analysis has enabled us to identify entry points for promoting sustainable fashion consumption.

Young consumers have an important role and position in European policymaking when it comes to sustainability (European Commission, 2008). This group is perceived as having high potential regarding innovation and as having the ability to serve as catalysts for leading the transition towards sustainable lifestyles. They can serve as change agents and key players in empowering people to make radical changes in their lives (Fien et al., 2008). Having experienced cultural changes and the socio-cultural environment of various time periods, the youngest generation has been socialised with different values compared to older generations (Twenge et al., 2012). At the same time, the consumption patterns of the younger generation are predicted to have a higher burden on the environment than current generations do as the younger generation is considered to be the most consumption oriented (Sullivan and Heitmeyer, 2008). These contrasting generational approaches to consumption should probably not come as a surprise. The consumption patterns and habits of young people and their relationship to sustainability are characterised by contradiction and dissension. In part, this is symptomatic of the fluidity of youth identities and the shifting priorities that characterise this group (Skelton and Valentine, 1998; Valentine, 2003; Worth, 2009).

Young consumers have a high environmental awareness and consider the environmental impacts of textile production to some extent when purchasing clothes. These considerations, however, do not necessarily translate into action and other factors, such as the price of the clothing, the price-quality relationship, or the style and fit, might be valued more than sustainability. This attitude-behaviour gap is visible not only in the case of young consumers but in all age groups and across various consumption fields and product categories, such as food, housing and personal mobility (e.g. Faber

et al., 2012). This gap between attitude and behaviour becomes apparent across different consumption phases from purchasing to discarding. Keeping this in mind, the purpose of this report is to:

a) Describe current fashion consumption behaviour, attitudes, motivation and other personal factors related to fashion consumption among young consumers in five countries: Germany, the Netherlands, Sweden, the UK and the US. To date, only a few large-scale, representative studies examining fashion consumption in relation to sustainability have been conducted and published. Our findings thus shed more light on how young consumers purchase and discard their clothes across countries.

b) Identify consumers who already consume fashion sustainably. This report focuses on who these consumers are in the countries under study and what differentiates them from less aware consumers. These comparisons will be carried out along two consumption phases: purchasing (including pre-purchase) and discarding.

Structure of the report at a glance

This section provides a summary of the structure of the remainder of the report. : Prior to this section an executive summary outlining the report was presented followed by a description of the aim and rationale of the research.

Chapters 1 and 2 define the terms sustainable consumption, fashion consumption, sustainable fashion consumption, young consumers, and young consumers and sustainable fashion consumption. Additionally, some background literature is presented. Thus these two chapters provide background information on how key aspects have been defined as well as on how the various terms fit together.

Chapter 3 describes the questionnaire survey, the data collection and the resulting sample.

Chapters 4, 5, 6 and 8 present findings for the trajectory of the purchase phase (chapters 4, 5, 6) and the discard phase (chapter 8). Structured similarly, these four chapters begin with an introduction to the respective consumption phase and then provide an overview of relevant topics that have been measured. Next, focus is put on individual topics within one consumption phase, where the background and relevance of the topic are presented followed by an introduction to the actual measurement of the topic. Finally the results and country comparisons are presented.

Chapter 7 compares different consumer segments grouped based on their awareness, knowledge and commitment towards sustainable fashion consumption. Structured differently than the three preceding chapters, this chapter begins by introducing a consumer segmentation concept that we call stages of change, which is an alternative approach to consumer segmentation that goes beyond the usual demographic factors. The consumer segments are then compared along the consumption phases, with special attention paid to the topics presented in the previous chapters.

Chapter 9, the last part of this report, provides a summary of the entire report.

Methodology

If possible and when available, validated and reliable scales were used to measure relevant topics. At the beginning of each chapter there is an overview of the scales, while the Appendix lists the sources for each one. In some cases, existing, validated scales had to be adjusted to the context and time constraints. These changes are addressed in the respective chapters where

the scales are used. Unless indicated otherwise, a Likert scale ranging from 1 'completely disagree' to 5 'completely agree' is used.

The findings are presented by the mean, the standard deviation (SD), and the minimum and the maximum. The mean represents the average, for example the average age of respondents. The SD describes how much respondents deviate from the mean (i.e. whether there a wide variety of answers or whether respondents agree). The minimum and the maximum provide the lowest and the highest answer category in the sample, which provides a gauge for interpreting the mean and the SD.

Additionally we carried out group and country comparisons. In chapters 4 to 8, we compared behaviour, attitudes, motivation and other personal factors based on socio-demographics and country. We also compare consumer segments that differ in their commitment to sustainable fashion consumption (mainly chapter 7). Statistical testing was carried out depending on the nature of the data, including t-tests and non-parametric testing, as well as an analysis of variance (ANOVA). Differences are only reported when statistically significant ($p<.05$).

Chapter 1

sustainable consumption and sustainable fashion consumption

1. Sustainable consumption and fashion consumption

Sustainable consumption: A general understanding

Before examining the sustainability of fashion consumption we will provide a brief introduction to the basic concepts used in this report.

The negative consequences of material consumption – characterised by the overconsumption of industrialised countries and the growing consumption levels of post-socialist countries – on the environment and society were first highlighted over four decades ago in the report Limits to Growth (Meadows and Meadows, 1972) by the global think tank Club of Rome. The World Commission on Environment and Development (WCED) did not put it on its agenda until 15 years later (WCED, 1987) and it appeared on the Rio Earth Summit agenda in 1992, followed by the Johannesburg Summit in 2002 and then the Marrakech Process, including the 10 Year Framework of Programmes on Sustainable Consumption and Production, all of which have resulted in various regional and global initiatives. The European Council identified sustainable consumption and production as one of the seven key priorities for the EU in its new EU Sustainable Development Strategy.

Sustainable consumption and production have gained significant attention on the international and national policy agenda, with emphasis being put on achieving major changes in existing consumption patterns and lifestyles. The original term, sustainable consumption, stems from the Oslo Declaration, where it is defined as "the use of goods and services that respond to basic needs and bring a better quality of life, while minimising the use of natural resources, toxic materials and emissions of waste and pollutants over the life cycle, so as not to jeopardise the needs of future generations" (Norwegian Ministry of the Environment, 1995). Currently it is a concept that comprises competing discourses (Hobson, 2006) with differing views on whether and to what extent it calls for consuming more efficiently, consuming differently or consuming less (Jackson, 2006). The discourse around sustainable consumption calls for a deeper understanding of current lifestyles and the drivers of current consumption patterns, behaviours and the satisfaction of our needs, habits, routines and consumer decision making (Jackson, 2005; Shove, 2003; Reisch, 2009). According to Spaargaren the "lifestyle of each individual is constructed from a series of building blocks – corresponding to the set of social practices an individual invokes when pursuing his or her everyday life" (2003, p. 689). In order to better align the term with the everyday life of individuals, sustainable consumption has now been re-defined as sustainable lifestyles (United Nations Environment Programme (UNEP), 2010).

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Chapter 1 – sustainable consumption and sustainable fashion consumption

Sustainable lifestyles refers to a broader set of activities, including interpersonal relationships, leisure activities, education, sports and material consumption (from the purchase and use of products to the interaction of and dealing with needs and their satisfaction (Reisch, 2001; Mont, 2007). The reason why concentrating on reduction potentials merely from a production perspective is not sufficient is exhibited, for example in the case of consumer durables, where up to 80% of environmental pollution occurs during the use phase (Collaborating Centre on Sustainable Consumption and Production (CSCP) and UNEP Division of Technology, Industry and Economics (DTIE), 2007). The use phase in the following areas of consumption plays a major role in sustainable consumption: housing, food, mobility and leisure, information and communication, and clothing and washing (European Environment Agency (EEA) 2005).

Strategies for achieving sustainable development and lifestyles can be divided into three different groups: efficient, sufficient (Hicks and Kuhndt, 2013; Huber, 2000) and consistent lifestyles. Here we will only define the term sufficient lifestyles further. The term sufficient lifestyles (Hicks and Kuhndt, 2013) encompasses a strategy that aims to curb affluent consumption patterns and to improve quality of life, which are often linked to how needs are determined. Sufficiency, which proposes a new model of wealth or well-being, focuses on the self-limitation of material needs and consumption or the decision not to consume. This includes, for example the substitution of products through services, the collective use of different products, self-production, secondary market supply and collaborative consumption (Botsman and Rogers, 2010; Reisch, 1999). Examples of sufficient lifestyles on the individual level are the 'Voluntary Simplicity', the 'Slow Living' movement and the 'Buy Nothing Day' campaign, while community level examples include transition towns and new community currency schemes.

In terms of *fashion consumption*, it is necessary to distinguish between "fashion" and "clothing". Fashion goes beyond the utility of the clothing and the fulfilment of physical needs such as protection. Individuals who consume fashion use it to identify themselves and to communicate their values, lifestyle and self to other individuals and groups in society.

Niinimäki (2010) distinguishes fashion from clothing by referring to its symbolic production, while Myers and Biocca (1992) point out that body image is a mental construction. According to Solomon and Rabolt (2004) and Kawamura (2005), fashion refers to style and dress accepted by a large group of people and society; it is the acceptance of certain cultural values and is open to rapid changes. Consumers constantly modify their preferences based on others' behaviour, choices and influence (Bentley and

Chapter 1 – sustainable consumption and sustainable fashion consumption

Ormerod, 2009). Fashion can be seen as an ongoing process of lifestyle and identity construction (Meyer, 2001; Peattie, 2001).

The term *sustainable fashion consumption* covers a confusing number of areas in that "Environmental, ecological, green, sustainable, ethical, recycled, organic, and inclusive (universal) fashion and fashion design, as terms, co-exist, cross-fertilize, and are readily confused" (Thomas, 2008, pp. 525-526). This wide array of terms might generate further confusion and scepticism among consumers. According to Shaw and Shiu (2002) it is important to distinguish green and ethical consumerism, as the latter covers a broader scope and requires a more comprehensive decision-making process. Niinimäki offers the following definition for "eco-fashion", a similar term: "Clothing that is designed for long lifetime use; it is produced in an ethical production system, perhaps even locally; it causes little or no environmental impact and makes use of eco-labelled or recycled materials" (2010, p. 152).

The term sustainable fashion has also become a widespread topic in national and international discourses, with an increasing number of initiatives appearing, such as the NICE Consumer project initiated by the Danish Fashion Institute (Eder-Hansen et al., 2012), the Sustainable Clothing Action Plan in the UK lead by the Waste & Resources Action Programme (WRAP), which aims to improve the sustainability of clothing across its lifecycle, and the Higg Index 2.0, which is an indicator-based assessment tool for apparel and footwear products. The working definition for sustainable fashion consumption used in the NICE project defines it as "the use of clothing for purposes beyond utilitarian needs, including 'identity making', which is achieved without jeopardizing the ability of future generations to meet their needs" and "sustainable fashion consumption is a sub-set of the sustainable fashion system. It includes consumer attitudes and behaviors that lead to reductions in the triple-bottom line (economic, environment and social) impacts of buying, wearing, caring for, repairing and recycling fashion goods. It includes demanding sustainable alternatives, caring for garments in less impact intensive ways (e.g. cold wash and line drying clothes) and responsible disposal or recycling of obsolete goods" (Eder-Hansen et al., 2012, p. 11).

Chapter 2

young consumers and sustainable fashion

2. Young consumers and sustainable fashion

Young consumers: Key to the development of sustainable consumption patterns

All environmental problems are directly or indirectly linked to consumption, which means today's consumer behaviour and lifestyles must change (EEA, 2010). Bringing about this change requires a multi-stage and multi-level process, from the determination of needs to the disposal of products. Young consumers, especially Millennials/Generation Y (people born between 1982-1999), are the largest group of consumers in the world with a significant purchasing power and a high level of personal and financial freedom (Yarrow and O'Donnell, 2009). As mentioned previously the consumption patterns of the younger generation are predicted to have a higher burden on the environment than current generations do as the younger generation is considered to be the most consumption oriented (Sullivan and Heitmeyer, 2008). According to Bakewell and Mitchell (2003), Generation Y females have been socialised to be a consumer at an earlier age than older generations and they spend a considerable amount (two thirds) of their money on clothing (Bakewell et al., 2006). A recent study investigating generational trends and differences at age 18 between Baby Boomers (born 1943–1961), Generation X (1961–1981) and Millennials/Generation Y (1982–1999) (Twenge et al., 2013) in the US found that Millennials are not more caring, community oriented or active politically than older generations and that their interest in protecting the environment shows the largest decline. On the other hand, they are more committed to and active about volunteering and about being involved in community activities (especially at school).

At the same time, this group is perceived as having high potential regarding innovation and as having the ability to serve as catalysts for leading the transition towards sustainable lifestyles. They can serve as change agents and key players in empowering people to make radical changes in their lives (Fien et al., 2008). Consumption patterns developed during the early phases of consumer socialisation serve as the basis for consumer behaviour during adulthood. As a result changing and influencing their consumption behaviour is crucial since today's youth will serve as role models for subsequent generations and have an impact on our future development. Having experienced cultural changes and the socio-cultural environment of various time periods, the youngest generation has been socialized with different values compared to older generations (Twenge et al., 2012). Generation Y represents a source for fundamental change and is expected to serve as change agents and a catalyst for sustainable consumption patterns (Hume, 2010). As Melucci points out, "Young people are the primary subjects of dramatic transformations that affect contemporary society and experience them most directly. Parents, teachers, and adults can learn about themselves by listening to youngsters" (1992, p. 52).

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Chapter 2 – young consumers and sustainable fashion

Consumers 16 to 35 years of age are the group that is the most open to change compared to other generations and are likely to change consumer behaviour (Pew Research Center, 2010). As a result, understanding what characterises this age group and what interventions might be needed to guide their behaviour is of utmost importance.

With the rise of fast fashion – which refers to low-cost fashion with a short life cycle that imitates luxury fashion trends – a throw-away attitude is growing among consumers (Morgan and Birtwistle, 2009). This trend is especially true for younger consumers, who are more keen on following and keeping up with the latest fashion craze. At the same time, as Kim and Damhorst (1998) report and this report confirms, young consumers are concerned about the environment and the environmental impact of clothing. These concerns, however, rarely translate into action when making purchasing decisions.

Chapter 3

the survey

3. The survey

Questionnaire development

The questionnaire consisted of two parts: one addressing more general fashion consumption and the other focusing on sustainable fashion consumption. Questions covered internal factors about consumers, such as knowledge, attitudes, existing resources (e.g. time and money), lifestyle factors, motivation, social norms and other personal characteristics that influence (sustainable) fashion consumption, but also external factors, such as perception of the availability, affordability and accessibility of sustainable clothing alternatives.

The questionnaire – developed in English – builds upon the questionnaire developed for the Mistra Future Fashion Report on fashion consumption and sustainability among young Swedish consumers (Gwozdz et al., 2013). The revised questionnaire contains some new elements, such as a style and a fashion consciousness scale, and questions about personal well-being, stress, depression and anxiety. Finally, GfK (Growth from Knowledge), a market research company, translated the English version into German, Swedish and Dutch.

Table 1. Overview of the main thematic areas and scales of measurement used in the questionnaire

Young consumers purchasing behaviour	Purchasing behaviour and values	Purchasing behaviour and the environment	Trend: Collaborative consumption	Reuse, recycle and discard	Well-being
Acquisition mode	Shopping Values: Hedonic and Utilitarian Values Scale	Environmental concern	Sharing, borrowing, renting	Textile recycling attitudes: Disinterest Scale and Hassle Scale	Personal well-being
Shopping frequency	Function of clothing: Fashion Function Scale and Individuality Function Scale	Scepticism about environmental product claims		Disposal, recycling	Depression Scale, Anxiety Scale and Stress Scale (DASS)

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Chapter 3 – the survey

Young consumers purchasing behaviour	Purchasing behaviour and values	Purchasing behaviour and the environment	Trend: Collaborative consumption	Reuse, recycle and discard	Well-being
Shopping frequency	Fashion consciousness	Perceived ability to promote ethical trade (Triple A)	Discarding		
	Personal style consciousness	Label use and knowledge			
	Materialism: Centrality, Success and Happiness Scale	Environmental apparel consumption			
		Environmental clothing purchasing behaviour			
		Stages of change			

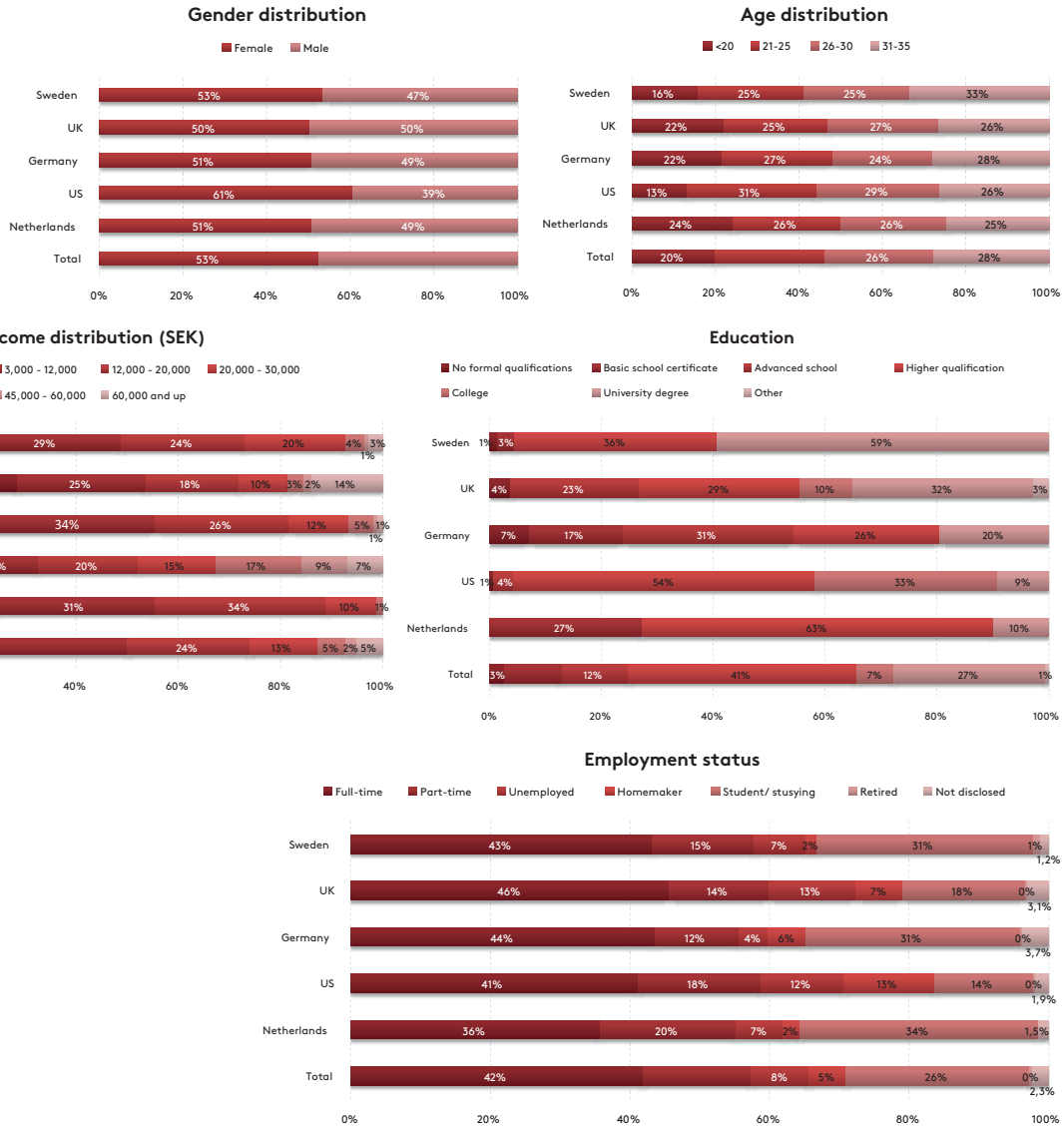
Data collection, sample description

The data collection was carried out by GfK (Germany, the Netherlands, the UK, Sweden) and Qualitrics (US) via computer-assisted web interviewing. The target group was consumers 16 to 35 years of age in each country. The sample is representative for this age group regarding age, sex, region and education. The number of consumers who participated in the survey, which was conducted from April 2014 to June 2014, was 6,388. There were 1,352 respondents in Sweden; 1,373 in the UK; 1,336 in Germany; 898 in the US; and 1,429 respondents in the Netherlands.

According to the statistics on the sample, the US sample has a slightly higher share of females and a smaller share of people under the age of 20. Note that consumers under the age of 18 in the US are not allowed to participate in questionnaires without parental consent, which is why the minimum age of participants in the US sample is 18. Income distribution also shows a difference, where a higher share of US respondents reported a monthly income higher than SEK 30,000. The share of students in the US sample is significantly lower than in the other countries studied. Respondents from the Netherlands reported a lower and more equally distributed income, which may be the result of a higher number of participants who work part-time. There is a significant difference in education levels as well.

In Sweden almost 60% of respondents have a university degree, while in the US and the Netherlands this rate is only 10%.

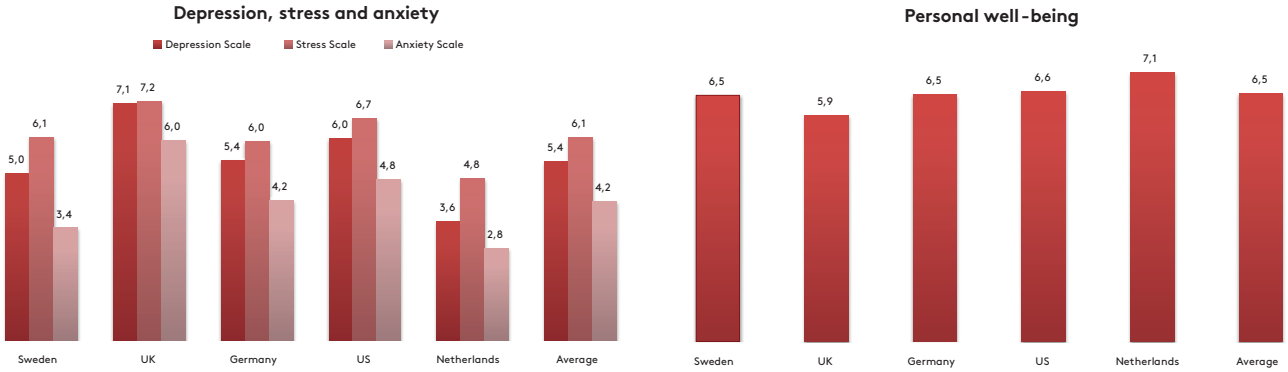
Table 2. Sample characteristics



The questionnaire also included questions about personal well-being (International Wellbeing Group, 2013), stress, depression and anxiety (Lovibond and Lovibond, 1995) and showed significant differences for these areas based on a self-assessment of the respondents' own lives. As figure 1 below shows, four scales were used to measure the respondents' current assess-

ment of well-being, stress, depression and anxiety. Figure 1 shows that there is a difference between countries on the average value of the well-being scale. The majority of the data for the five countries shows an average of around 6.5, while the value is significantly lower in the UK and higher in the Netherlands. The depression, stress and anxiety scales indicate significant differences between the countries under study. While UK respondents report higher levels than average, respondents in the Netherlands feel much less stressed, depressed and anxious. Depression, anxiety and stress levels are much higher in Anglo-Saxon countries compared to in Sweden and the Netherlands, while Germany lands in the middle of the scale.

Figure 1. Assessment of own life – Personal well-being and depression, stress and anxiety



According to the data males and younger age groups are more stressed than the average. A few of the reasons why younger people feel more stressed may be due to uncertainty about the future, employment difficulties and family issues. Inactive groups, such as the unemployed, also have higher stress and anxiety levels. A close analysis of income levels shows that respondents with a mid-level income experience less stress and anxiety compared to respondents with a low or high income. For the low income group the assumption can be made that the higher level of stress, depression and anxiety are related to a lack of financial security and fear of the future, while materialistic values may be the cause for people with a high income, which is an issue that will be examined later in this report.

Chapter 4

young consumers purchasing behaviour

4. Young consumers' purchasing behaviour

This chapter covers the early stages of consumption, namely the pre-purchase and purchase phase of sustainable fashion consumption. In addition to looking at self-reported fashion-related purchasing behaviour, we also examine factors that influence consumer decision making.

Table 3 provides a list of the survey topics and measurement scales used to assess the purchase phase as well as the parameters for analysis. The Appendix includes a list of references for the scales used). Each of the concepts listed in Table 3 will be discussed in detail in this chapter.

Table 3. Purchase phase – overview of topics and parameters.

Topics/measurement scales	Parameters
Reported purchasing behaviour:	
Expenditures for clothing	Monthly spending on clothing (on average)
Shopping frequency	Frequency of clothes shopping
Mode of acquisition	Frequency of various modes of acquisition used

Respondents had to indicate their actual purchasing behaviour by self-reporting on topics such as expenditures for clothing, frequency of clothes shopping, time spent on shopping and where they preferred to shop for clothes.

Based on the data on shopping frequency, almost 40% of respondents reported buying clothes at least once a month, which means a minimum of 12 items per year. In the country comparison, the UK shows a significantly higher share of consumers who buy even more frequently. Over 10% of consumers in the UK buy new clothes weekly (a minimum of 52 items per year) and an additional 40% buy monthly. Respondent in the Netherlands, in contrast, purchase clothing less frequently.

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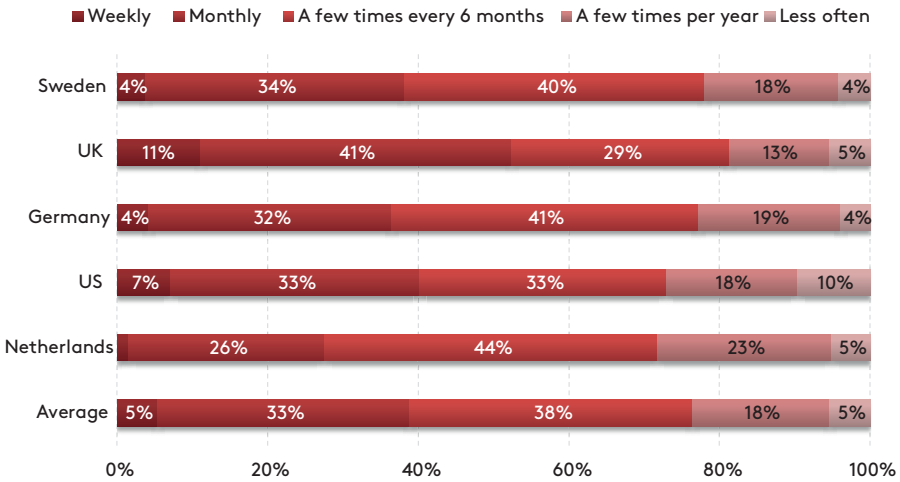
Chapter 4 – young consumers' purchasing behaviour

Figure 2. Shopping frequency



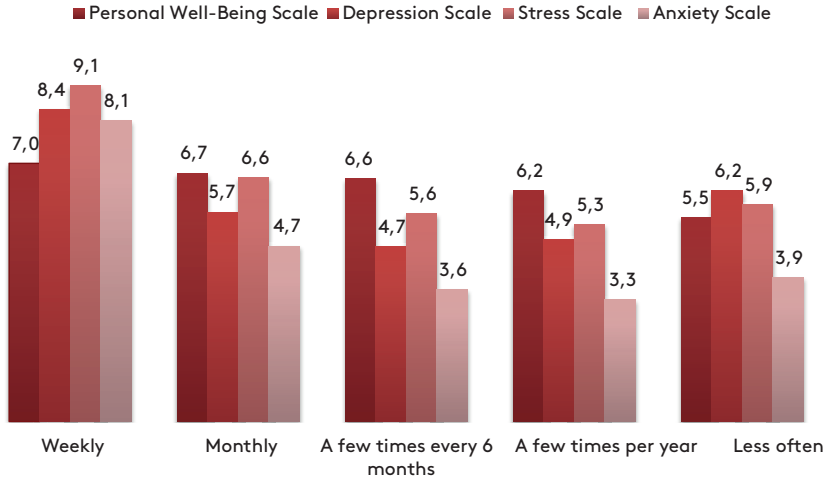
There are several socio-demographic characteristics that show significant differences in shopping frequency. Female consumers are more likely to purchase clothes more frequently, with 46% of female consumers buying clothes at least monthly. In the UK and in the US, however, there is no gender difference. Shopping frequency decreases with age. For consumers less than 20 years of age more than 43% are monthly buyers, while only 34% of 31-35-year-olds are. Not surprisingly, income level has a significant effect on shopping frequency. Only 35% of low-income respondents buy clothes at least monthly, while 60% of individuals with a high income do. The same pattern emerges based on employment status data. Inactive groups, for example the unemployed, shop less frequently. In summary, young consumers have a higher shopping frequency as do consumers with a higher income.

Purchase frequency analysed using well-being and stress scales is also of interest. As illustrated in figure 3, personal well-being is rated similarly in all purchase frequency groups, although there are significantly lower levels on the well-being scale (meaning a disadvantageous or harmful state) for the least frequent buyers. This is not related to purchase frequency but to income level and employment status.

The group of weekly buyers, on the other hand, has high levels of stress, depression and anxiety. As mentioned previously, respondents with a high income reported a high level of depression, anxiety and stress and also a high frequency of clothing purchases. This report will not attempt to explain the correlation between these dimensions, but this issue could be examined in more detail in a future study.

Chapter 4 – young consumers' purchasing behaviour

Figure 3. Self-assessment of own life by shopping frequency



The usage frequency of different modes of acquisition was analysed using a new method based on market research practice to compute an average value of frequency. This method takes the middle value of each response category and then calculates an average for the sample, which makes differences more visible compared to the method used in the previous study (Gwozdz et al., 2013), which counted the average of an ordinal list. In our case, the following middle values were used for further calculations:

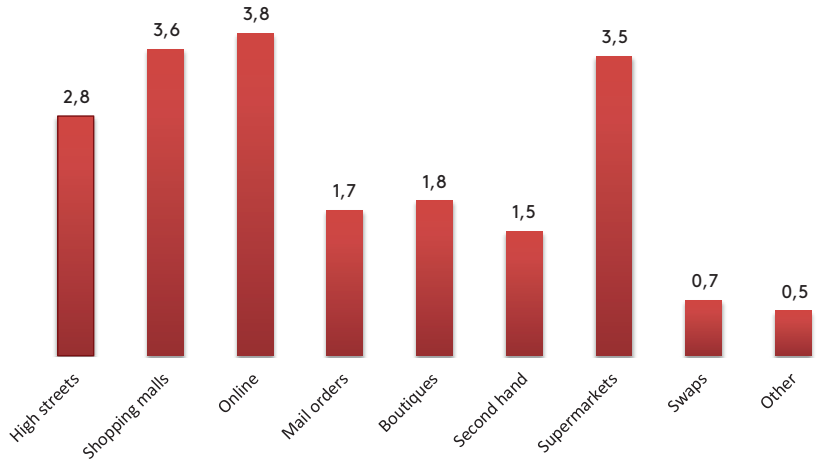
- "Never" recoded to 0
- "1-2 times" recoded to 1.5
- "3-5 times" recoded to 4
- "6-10 times" recoded to 8
- "11-15 times" recoded to 13
- "More than 15 times" recoded to 20

Our results show that the online purchase of clothing is the most frequently used acquisition mode among young consumers. Used with almost the same frequency, shopping malls and supermarkets are used the next most. Second-hand shops and swaps, which represent the most sustainable routes, are the least commonly used shopping channels.

A demographic analysis shows that women purchase more frequently, with the exception of mail orders and swaps, which are used as frequently by men and women. With age, the reported shopping frequency decreases, but grows in economically active groups and groups with a higher income.

Chapter 4 – young consumers' purchasing behaviour

Figure 4. Mean usage frequency of acquisition modes



Country comparisons show that consumers in Sweden report significantly lower usage frequency for online shopping and supermarkets than the average. In Sweden, the most frequently used acquisition mode is shopping malls. In the UK, high streets are used substantially more compared to the average, but not as much as online shopping, which is also used significantly more often than in other countries. German consumers show completely different patterns regarding acquisition modes. Supermarkets are indisputably the most frequently used way to purchase clothing, followed by online shopping and shopping malls. All three modes are used much more often in Germany than in any other country. US consumers use all the acquisition modes an approximately average amount, with only high streets used less frequently for shopping. Respondents from the Netherlands reported high street shopping as the most frequent mode, followed by shopping malls and online shopping – both with significantly lower frequency than the average.

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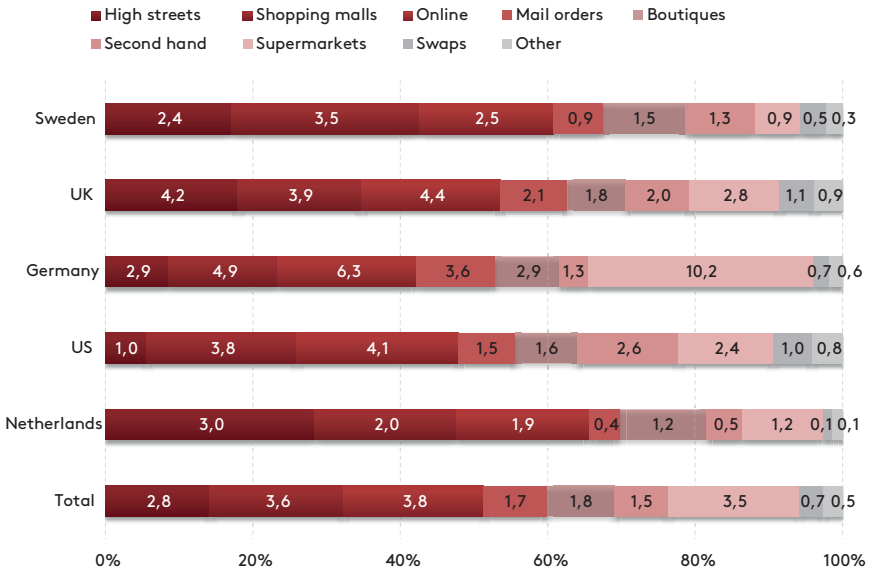
Figure 5. Usage frequency of acquisition modes – country comparison



The relationships between acquisition modes show moderate correlations between:

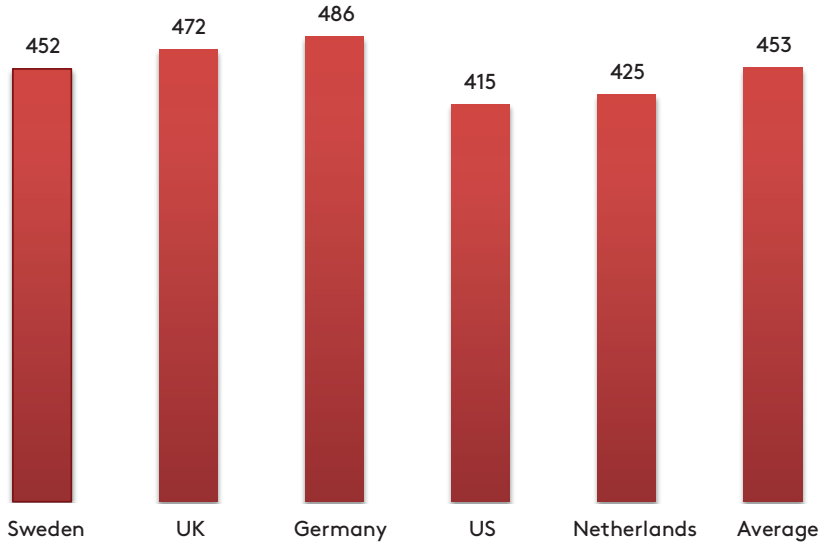
1. High street shopping, shopping malls and boutiques;
2. Online shopping and mail orders;
3. Swaps, second-hand shops, mail orders and boutiques.

Usage frequency for second-hand shops and swaps show a moderate correlation with collaborative consumption and will be described in more detail in chapter 6.

The average monthly spending on clothing is SEK 453, and there is a modest difference among male (SEK 448) and female (SEK 457) consumers. Monthly spending increases with age, but there is no direct relationship between spending and income. Consumers in the two lowest income groups spend a considerably lower amount (SEK 390) compared to mid- and high-level income groups (around SEK 550 monthly).

Chapter 4 – young consumers' purchasing behaviour

Figure 6. Average monthly spending on clothing (SEK)



The country comparison shows significant differences. In the US and in the Netherlands consumers spend less than in the other three countries. In the US this is due to lower prices as the purchase frequency is average. In the Netherlands purchase frequency is much lower, which can be explained by lower monthly spending.

Chapter 5

purchasing behaviour and values

5. Purchasing behaviour and values

Table 4. Purchasing behaviour and values – overview of concept and meaning

Topics / measurement scales	Parameters
Materialistic versus post-materialistic values	Importance of materialistic values in purchasing clothes
Hedonic and utilitarian shopping values	Consumers view shopping either as work or fun
Functions of clothing	Functions of clothing – understanding how consumers choose their clothing
Personal style consciousness	Examination of the extent to which personal style is taken into account when purchasing clothes
Fashion consciousness	Examination of why and how people clothes shop

Hedonic and utilitarian shopping

Utilitarian shopping is when shopping is viewed as being rational and functional, while hedonic shopping is motivated by the individual's emotional needs and is done for enjoyment and fun, which reflects the entertainment value of shopping linked to emotional arousal (Babin et al., 1994; Holbrook and Hirschman, 1982). Environmentally friendly or sustainable fashion is often considered as a new fashion style, suggesting that consumers following the latest fashion trends are more open to eco-friendly clothing, which means they try it out faster, often because it is fun and the most up-to-date (Gam, 2011).

Measurement: The Hedonic and Utilitarian Shopping Values Scale developed by Babin et al. (1994) reflects the degree to which consumers experience shopping as hedonic and/or utilitarian. Two examples of questions used to identify hedonic and/or utilitarian shopping are:

1. Hedonic: Compared to other things I could have done, the time spent shopping was truly enjoyable.
2. Utilitarian: While shopping, I found just the item(s) I was looking for.

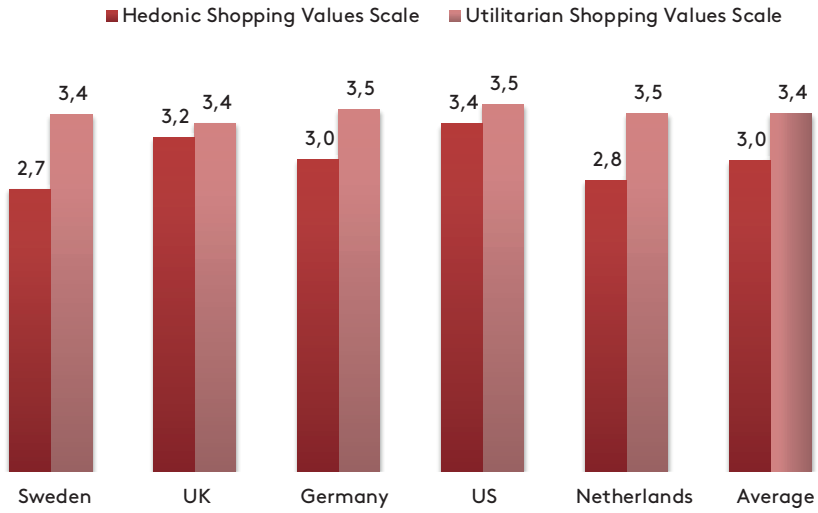
Hedonic and utilitarian shopping was measured with 15 questionnaire items and scales were developed during data processing. The minimum and maximum values assigned for both scales were 1 and 5, the higher values indicating that shopping is more hedonic and/or utilitarian.

The overall average of the hedonic shopping scale is 3.0, while the average for the utilitarian scale is 3.4. Women show higher scores for hedonic shopping, but there is no difference in the utilitarian scale between genders.

There are only minor differences by age group, which means that these values are not influenced by age and life stages (e.g. having one's own family, starting employment). Consumers with higher income levels show a higher average value on the hedonic shopping scale, but no effect can be seen on the utilitarian scale.

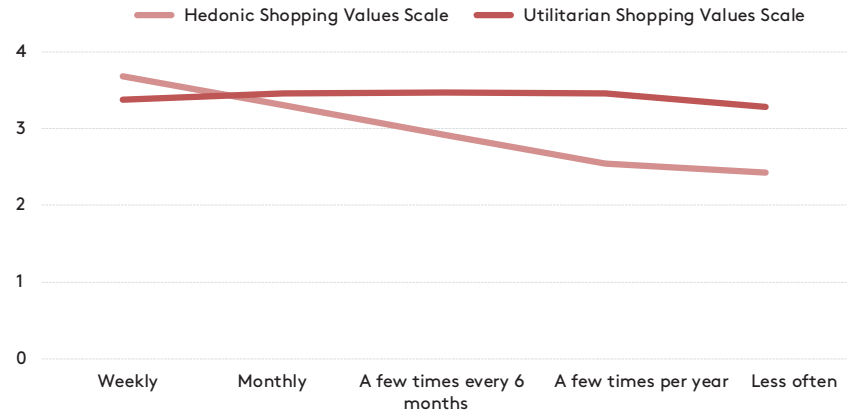
When comparing countries, there are only minor differences in the utilitarian shopping scale values, but hedonic scale values show significant differences. The average value of US respondents for hedonic shopping is 3.4, while in Sweden it is only 2.7. Keeping the previously described cultural differences in mind, the values for the other three countries fall in between.

Figure 7. Hedonic and utilitarian shopping scale – country comparison



The correlation between hedonic and utilitarian shopping habits, well-being and stress-related scales was analysed as well. The results show a significant but very weak correlation between the variables.

Figure 8. Hedonic and Utilitarian Shopping Value Scales by shopping frequency



An analysis of the relationship between shopping frequency and shopping habits shows that utilitarian values are very much alike for all shopping frequency categories, but hedonic values strongly correlate with shopping frequency. There were also significant but weak correlations between acquisition modes and the hedonic values (hedonic consumers are slightly more likely to shop in malls, on high streets and to purchase online more frequently), as is higher average monthly spending on clothes.

Fashion and individuality function and personal style

Measuring what functions clothing has for people can be an indicator of how and why consumers choose clothing. The functions clothing have been shown to be closely related to body image. Kwon and Parham (1994), for example found that consumers with high body satisfaction often use clothes to express individuality, whereas consumers with lower body satisfaction are more interested in using clothes as camouflage. In the 2014 survey Tiggemann and Lacey's scale was used to measure 'fashion function' and 'individuality function' (2009).

The following is an example of an item that measured the fashionability and individuality of clothing:

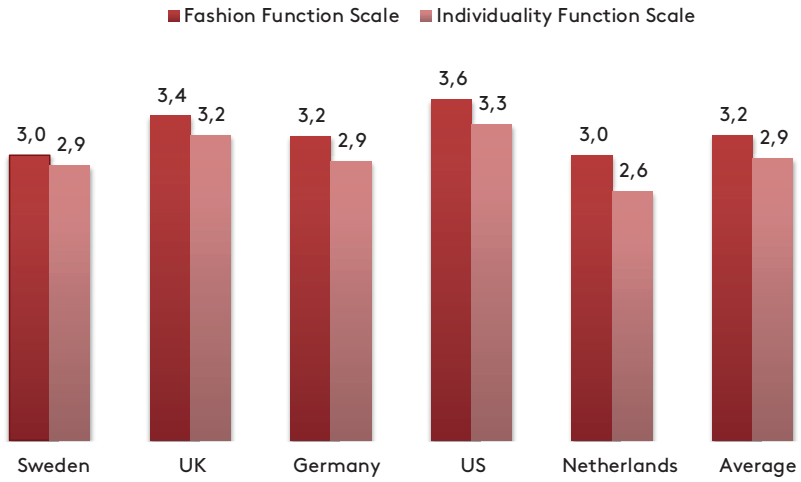
- I tend to select clothes that are fashionable/stylish/exciting/impressive/make me distinctive/rare.

The importance of fashionability and individuality of clothing was measured with five additional similar questionnaire statements that included stylish, exciting, impressive, make me distinctive, and make me rare. The scales were developed during data processing. The scales ranged from 1 to 5, with 1 representing "strongly disagree" and 5 representing "strongly agree". The

higher the score, the higher the degree of importance of the respective functions. The overall average for the fashion function scale was 3.2 and 2.9 for the individuality scale, which indicates that finding clothing that follows the latest trends seems to be slightly more important to respondents than finding a really personal item. A socio-demographic analysis shows that the fashion and individuality function of clothing are more important for women than for men. There is also a strong linear correlation between level of income and the scale values. Interestingly, both scales peak when respondents have a college degree.

A country comparison shows significant variance between the two scales. In the UK and in the US fashionability and individuality have higher importance but in the Netherlands these factors have less influence.

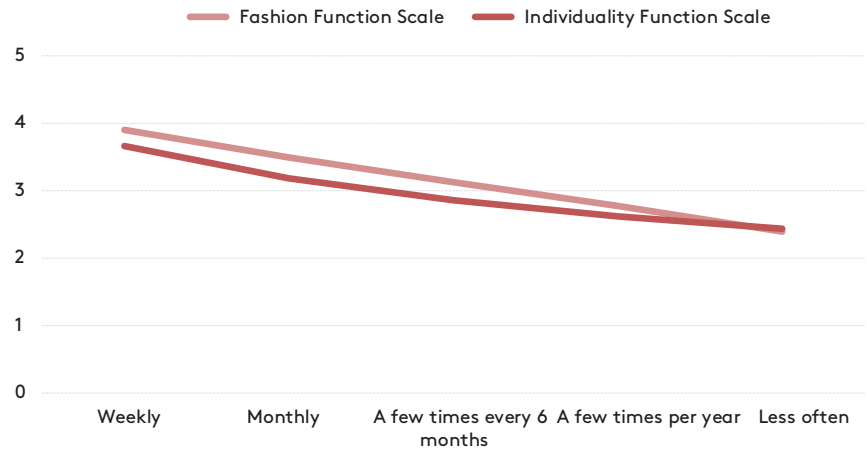
Figure 9. Fashion and individuality function scale – country comparison



Based on previous research results, the relationship between these clothing functions and purchasing behaviour has also been investigated. The correlation of the fashion and individuality function scales is rather strong (the Pearson value is 0.58) and there is also a moderate or even strong correlation between hedonic shopping and both the fashion and individuality function scales. This correlation is the strongest in the US, followed by the UK. In the Netherlands the correlation is weak. There was no significant relationship between the two scales for utilitarian shopping habits.

Figure 10 clearly shows that fashion and individuality function play a larger role for people who tend to buy clothes more frequently. When looking at the average monthly spending on clothing, there is a weak-moderate correlation with the fashion function scale, which means that the more important fashion is to respondents the more money they spend on average on clothing. This correlation was the strongest for Sweden out of the European countries. The correlation was even stronger in the US, which is the only country where the individuality scale and spending correlate moderately.

Figure 10. Fashion and individuality function scales by shopping frequency



Fashion consciousness

The Personal Style Consciousness Scale developed by Tai (2005) was used to examine the extent respondents took personal style into account when purchasing clothing with the following statements:

- When buying clothes, I like to buy those which emphasize my own characteristics.
- I prefer to buy things that reflect my personal taste and interests instead of choosing trendy products.
- When buying clothes, I consider whether they suit my work/school environment.

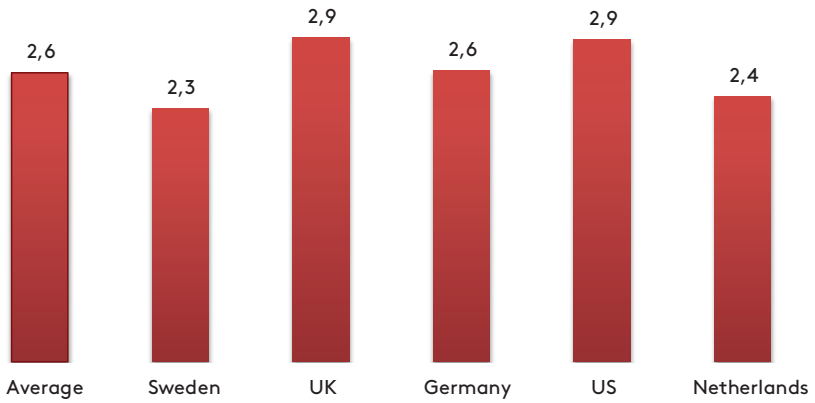
The Personal Style Consciousness Scale showed high correlation (the correlation coefficient is 0.915) with the individuality function scale.

The measurement of fashion consciousness helps us to better understand how and why people shop for clothes. Fashion consciousness was measured based on Sproles and Kendall's (1986) scale using the following six statements using a five-point scale with 1 representing "Completely disagree" and 5 "Completely agree":

1. Fashionable, attractive clothing is very important to me.
2. Keeping up with the latest fashion is important to me.
3. I spend considerable time and effort to learn about the latest fashion.
4. I keep my wardrobe up-to-date with the changing fashions.
5. I usually have one or more outfits of the very new fashion.
6. I consciously choose something that reflects the current fashion.

As shown, these items present a strong commitment to fashion, which is why, at 2.6, the overall average value of the scale was under the midpoint, which is 3.0. As was the case for the fashionability scale, women were more likely to give higher scores. People in younger age groups also found it more important to follow the latest trends and purchase accordingly. The change pattern of average values by income level and education are also similar to the fashion function scale, which presupposes a strong correlation between the two scales. According to the country comparison, respondents in the UK and in the US find following the latest fashion trends to be more important than in other countries. Sweden had the lowest scores for this area.

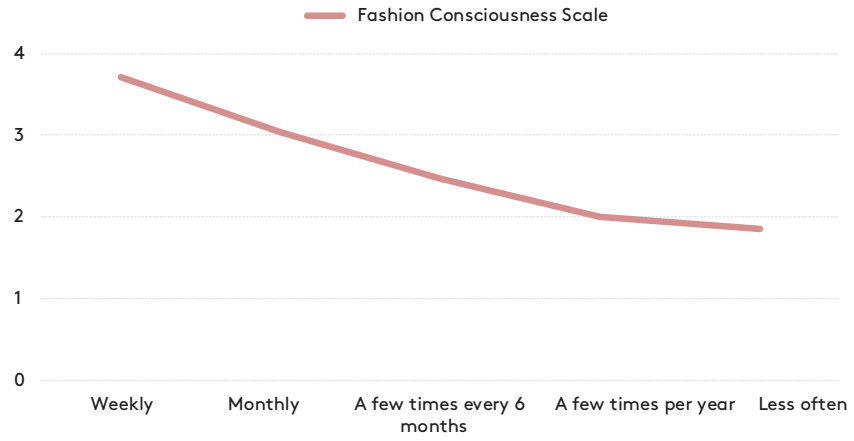
Figure 11. Fashion consciousness scale – country comparison



As mentioned above, with a correlation coefficient of 0.7, there was a strong correlation between fashion consciousness and fashion function and moderate correlation with the individuality scale (0.49). As expected, a moderate/strong correlation was also found for the hedonic shopping scale (0.56).

Figure 12 shows that there are significant differences in fashion consciousness according to shopping frequency. The more fashion conscious the respondents are, the more likely it is that they buy clothes more frequently.

Figure 12. Fashion consciousness scale by shopping frequency



In the country comparison, data on average monthly spending on clothes and fashion consciousness show differences. In the case of Sweden and the Netherlands there is only a weak correlation between the scale values and the amount spent on clothing. In the other three countries the correlation is moderate, with the highest value, 0.49, in the US. This indicates that people who are more fashion conscious are more likely to spend a higher amount of money on clothes.

Materialism scales

Post-materialistic individuals value non-materialistic satisfaction over materialistic wealth. They would never make sacrifices for more material wealth and are not focused on possessions. Their lifestyles are more compatible with social and environmental expectations. Post-materialistic individuals pursue happiness and a better quality of life through non-materialistic means. By contrast, materialistic individuals define themselves and others through their possessions and their lifestyle shows a low compatibility with social and environmental expectations, while a better quality of life is to be achieved through acquiring goods and other possessions (Richins, 1987; Ward and Wackman, 1971; Belk, 1985).

Based on the Materialistic versus Post-materialistic Values Scale developed by Richins and Dawson (1992), we measured three materialistic values: 1) the centrality of acquisition; 2) possessions as defining success; and 3) acquisition as the pursuit of happiness. The following examples clarify how the values, respectively, are defined:

1. Centrality of acquisition scale: I usually buy only the things I need. (reverse)
2. Possession as defining success scale: The things I own say a lot about how well I'm doing in life.

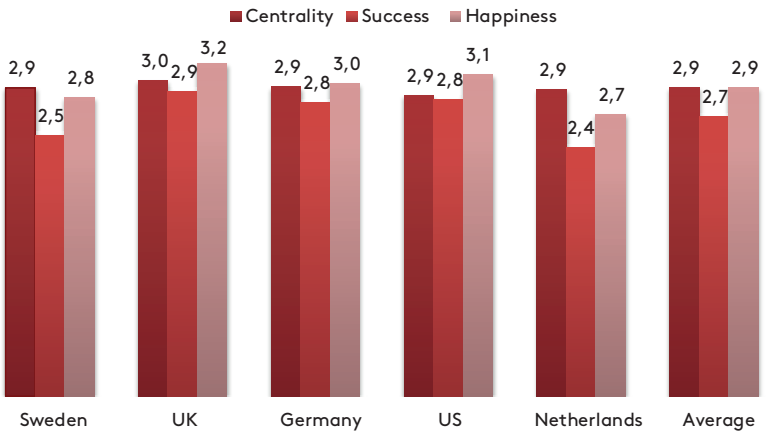
3. Acquisition as the pursuit of happiness: It sometimes bothers me quite a bit that I can't afford to buy all the things I'd like. (reverse)

A high level of these materialistic values is indicated by high scores of the three dimensions.

Eighteen different statements were used to measure materialism and the responses were processed and recoded using three scales. These scales represent different aspects of materialism and materialistic values. Based on the analysis, the overall average of the centrality scale (reversed) was 2.9; the success scale was 2.6; and the happiness scale (reversed) was 2.9. There was no significant difference between the genders, but there was a slight decrease in values on all three scales for the older age groups. This indicates that older respondents are more likely to buy clothing that they do not really need (centrality); feel bad about not being able to afford the items they would like to buy (happiness); and that purchasing clothing loses importance in showing social position (success). This last observation, however, only seems to be true for respondents with a lower income, as the value of the scale is almost 3.0 for respondents with a higher income.

Figure 13 presents the differences between countries, which are only slight this time, for all three scales. Respondents from all countries answered similarly on the centrality scale. The average success scale value is significantly lower in Sweden and in the Netherlands, which indicates that in these two countries clothes are not as important for showing social status or position. One of the reasons for this may be that Sweden has a high level of social and income equality. In the Netherlands, the lower income levels reported by the respondents may play a role. The happiness scale values are higher in the UK and in the US, indicating a lower level of frustration with not being able to afford the clothing they would like to buy).

Figure 13. Materialism – country comparison



The correlation analysis shows a moderate correlation between the success scale, the *fashion function* and fashion consciousness scales and hedonic shopping habits. This indicates that showing social status and position through the purchase and use of clothing, following fashion trends (and purchasing clothes accordingly) and the enjoyment of shopping have a moderately strong relation. It is not possible to find the initial stepping stone for this cross-relationship using the information obtained by the survey, but we assume that these factors reinforce one another.

Figure 14 illustrates this relationship and can be further analysed using the chart, which shows the average values of the scale grouped by purchase frequency. The more frequently purchases are made, the higher the values are, which indicates that showing one's social position with clothing is more important.

Figure 14. Materialism by shopping frequency

Average spending and materialism have a significant but weak correlation, which is an important and surprising result. The correlation coefficients are between 0.1-0.3 in each country for each scale. To summary our findings up to this point, we might state that people who follow the latest fashion trends and who consider clothing to be a status symbol are also frequent buyers, but their average monthly spending does not differ from utilitarian and less materialistic consumers. The difference is perhaps in the quality (price) and the quantity of the items purchased.

Chapter 6

purchasing behaviour and the environment

6. Purchasing behaviour and the environment

Table 5. Purchasing behaviour and the environment – overview of topics/ measurement scales and parameters

Topics/measurement scales	Parameters
General environmental and/or social impact awareness:	
Environmental concern	Consumers' personal environmental concern
Environmental/social concerns in purchasing decisions	Monthly spending on clothing (on average)
Environmental apparel knowledge	Monthly clothing items bought (on average)
Perceived availability, accessibility and affordability of sustainable clothing	Frequency of shopping clothing
Label use and knowledge	Frequency of diverse modes of acquisition used
Scepticism of sustainable product claim	Understanding how price and price vs. quality affect purchase decisions.
Collaborative consumption	Importance of materialistic values in purchasing clothes

Environmental concern

Sustainable fashion consumption consists of several steps: purchase or acquisition, storage, usage and the discard phase. Based on previous research, a large group of consumers are concerned about the environmental impact of clothing, but a small group of them translate these concerns into action when making purchasing decisions as very often, other factors, such as style, price or function predominate over environmental or social concerns (Butler and Francis, 1997; Connell and Kozar, 2012; Kim and Damhorst, 1998; Kozar and Connell, 2013).

Eco-friendly clothing consumption includes clothing made and designed with environmentally friendly attributes or processes, and they are acquired through environmentally preferable sources.

According to Kim and Damhorst (1998), Ellis et al. (2012) and Hustvedt and Bernard (2008), environmentally conscious consumers are interested in and open towards paying a premium price for environmentally friendly clothing. Connell and Kozar's (2014) review, however, notes that there is a very limited level of engagement when consumers have to take action.

In our study, environmental concern was measured based on a scale developed by Thøgersen and colleagues (2010). A high score indicates a high level of environmental concern. Some examples of statements in the questionnaire are:

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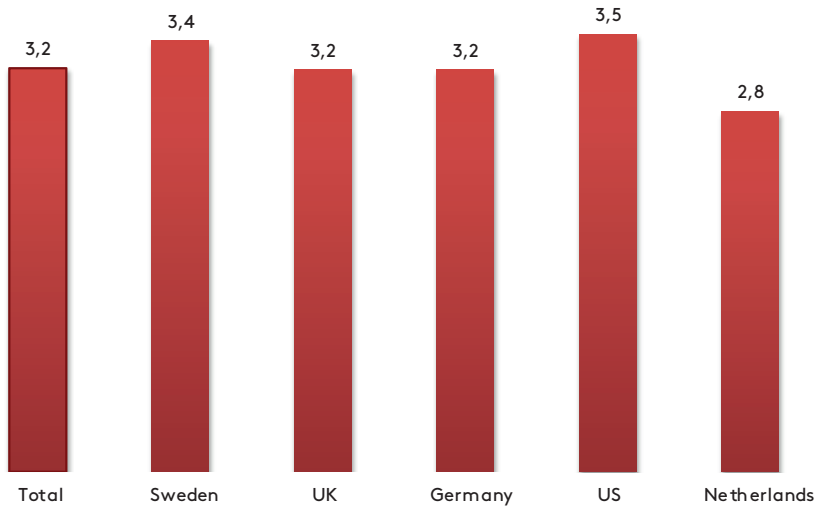
1. I am concerned about the development of the global environment.
2. I feel it is a moral obligation to use environment-friendly products.
3. I often buy eco-labelled products for the sake of the environment

For the measurement of environmental concerns five items were used. Respondents were asked to evaluate the statements using a five-point scale (ranging from "completely disagree" to "completely agree"). The environmental concern scale was developed as an average of the five items. Based on the results, the overall average of the environmental concern scale was 3.2, slightly over the midpoint value of the scale. As shown in figure 15, there are significant differences between the investigated countries. The highest average value was measured in the US, followed by Sweden, while the lowest was in the Netherlands, which is the only country out of the five where a higher share of respondents answered negatively.

According to the socio-demographic analysis, women and older age groups are more concerned about environmental issues. Respondents with a higher income level and higher education also reported higher concerns about the environment, which is in accordance with the findings of previous research.

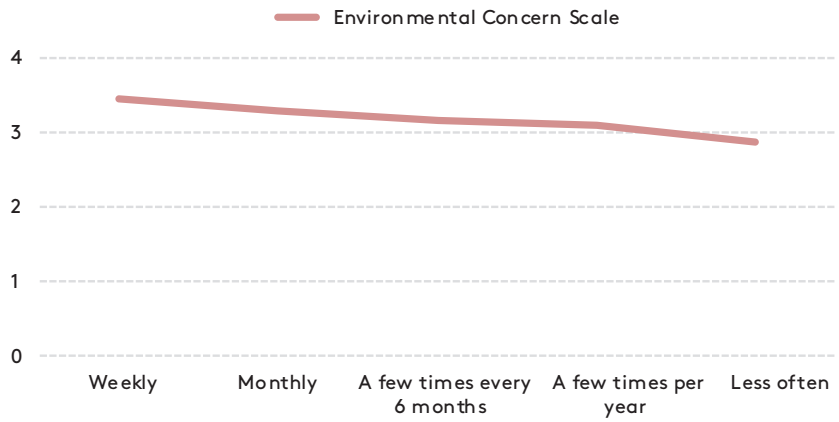
Figure 15. Results on the Environmental Concern Scale



Regarding well-being and stress related scales we did not find any significant correlation with environmental concerns. Surprisingly, people who buy clothes more frequently also feel more conscious about the environment; however, there is only minor increase in the scale values for higher shopping frequency. Regarding acquisition modes, there was not a moderate or strong correlation with environmental concerns, which indicates that there are no clear acquisition mode preferences for more and less environmentally

conscious groups. The scale also shows significant, but weak/moderate correlation with the individuality scale and personal style consciousness scale as well, which indicates that environmentally conscious people are more likely to choose unique, less mainstream clothing.

Figure 16. Environmental Concern Scale by shopping frequency



The average monthly spending is independent of environmental concerns as the correlation of the two variables shows no significant relation.

Scepticism towards sustainable product claims

We looked at scepticism towards sustainable product claims in general. Knowledge of consumer scepticism towards a product claim can help to understand their response to those sustainability claims (Mohr et al., 1998).

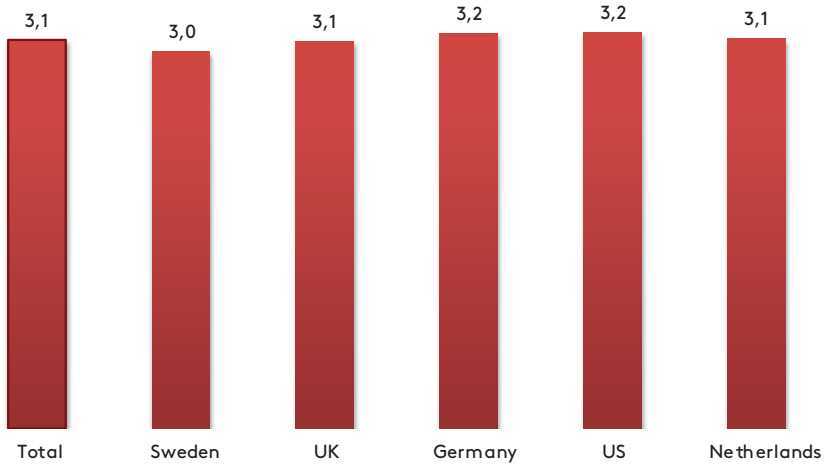
To gain insight into young consumers' scepticism, an adapted version of the measurement scale Skepticism of Environmental Product Claims developed by Mohr et al. (1998) was used. A high score indicates high scepticism towards sustainable product labelling. The following statements from the questionnaire highlight what the topic represents:

1. Sustainable claims made on product labels or in advertising are exaggerated.
2. I do not believe most sustainable claims made on product labels or in advertising.

Scepticism was measured using five different statements rated on a five-point scale. A scepticism scale was developed as the average of the answers, where higher values represent higher scepticism about sustainability product labelling. The average value of the scale was 3.1, which is slightly above the midpoint value of the scale. Figure 17 shows that there was no

difference measured between the investigated countries, or for different socio-demographic groups. This indicates that thoughts and opinions about and trust in product labelling are independent of the basic socio-demographic variables. As the analysis did not show any correlation with other scales and variables used and developed for the study, further research and a more in-depth study and measurement are needed to identify what factors influence scepticism and trust.

Figure 17. Scepticism of Environmental Product Claims Scale



Perceived ability to promote ethical trade

There are several barriers and drivers consumers face while making their purchasing decisions. The two major barriers in the case of clothes are the limited availability of more sustainable clothing (such as in terms of style, fit or aesthetics) and the accessibility of shops offering these products (Hiller Connell, 2010). This is especially characteristic of some product categories, like footwear, formal wear and outdoor apparel (Beard, 2008; Gam, 2011; Hiller Connell, 2010; Shaw et al., 2006). Most producers concentrate on basic product lines for everyday use, while eco-conscious or more sustainable products going beyond basic casual wear products are limited (Beard, 2008). Besides limited availability, the significantly higher price of sustainable products and the limited knowledge and uncertainty of consumers about the available alternatives can hinder products from becoming widespread. Consumers may not buy products that are more environmentally friendly because they are perceived as being of a lower quality and as not being able to deliver the promised claims about their environmental promises (Ginsberg and Bloom, 2004). A study by Goworek et al. reports that even environmentally knowledgeable consumers ''bought low-priced clothing from 'value retailers,' despite being aware of the potential environmental impact of their actions and the fact that this clothing was unlikely to be durable'' (2012: 943.).

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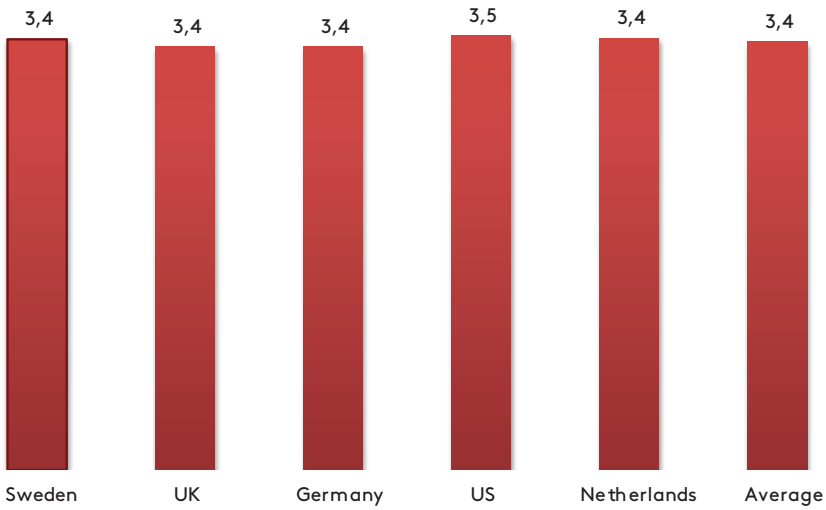
To measure perceived availability, affordability and accessibility of sustainable clothing in the purchase phase, we used the Perceived Ability to Promote Ethical Trade scale developed by Uusitalo and Oksanen (2004). In the survey we asked whether subjects thought enough sustainable product alternatives were available to them. A high score means that they did not see availability, accessibility or affordability as a problem. The following three examples highlight the meaning of the aspects examined:

1. Availability: There are not enough sustainable product alternatives. (reverse)
2. Accessibility: Information gathering about sustainability is difficult. (reverse)
3. Affordability: Sustainable choices are expensive. (reverse)

To measure the perceived availability, affordability and accessibility of sustainable clothing in the purchase phase, we had six items on a five-point scale and developed a scale by averaging the respondents' answers. The overall average value of the scale was 3.4, which indicates that sustainable clothing is reported to be hardly available, accessible or affordable. Figure 18 shows that there were absolutely no differences between countries in the average values. Socio-demographically, there are only minor differences as women, older age groups and higher income groups have slightly higher average values on the scale, which indicates that they find sustainable clothing to be less available, accessible and affordable.

Figure 18. Perceived Ability to Promote Ethical Trade



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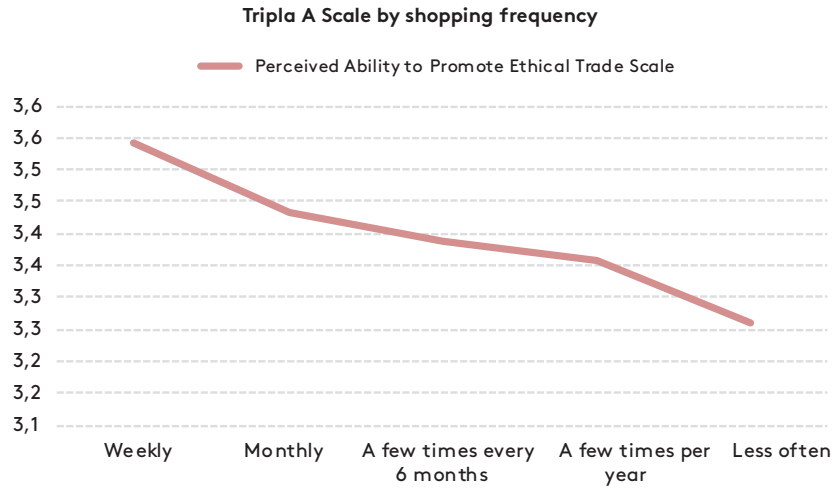
Minor differences in the scale values by shopping frequency are visible as frequent buyers find availability, accessibility and affordability more difficult. See figure 19. There is no difference, however, in the case of acquisition modes and also no significant correlation with average monthly spending.

Figure 19. Affordability, accessibility and availability by shopping frequency



All of this information shows that sustainable clothing is not yet perceived as being widely available to the majority of people in the five countries. This indicates that today the spread and mainstreaming of the purchase and use of sustainable clothing must not only be promoted more strongly to increase consumer trust and confidence in manufacturers, products and labelling, but also to make it more available, accessible and affordable.

Label knowledge

Barriers and drivers of changing the behaviour of consumers can be found to a great extent in the (non-)knowledge and (lack of) information available for and used by consumers. Lack of information and knowledge negatively influences the perceived availability of alternative products and trust in those (Gam et al., 2010; Hiller Connell, 2010,).

According to the Eco-label Index there are 458 eco-labels worldwide, more than 100 of which can be applied to textiles (Almeida, 2015), which is what might cause information overload and confusion for consumers. Suspicion and scepticism – as many initiatives lack a clear and independent verification – represent another barrier to making sustainable alternatives more widespread (Iwanow et al., 2005). At the same time, the number of well-known national and international fashion labels and schemes is rather

limited (Iwanow et al., 2005) and they are seldom taken into consideration when making purchasing decisions (Dickson, 2000). According to Laroche et al. (2001) consumers are often sceptical in response to green advertising and the overuse of terms such as environmentally friendly and natural (Karna et al., 2001).

The use and knowledge of sustainable clothing labels was measured in two steps. We asked whether consumers were familiar with and used existing textile labels (and in the specific countries, the ones that were available and used). The questions are based on work by Thøgersen et al. (2010).

Respondents were given a list of labels only used on clothing in their respective countries. The selected labels used for each country are shown in the figures below. Answer categories ranged from "never seen" to "seen and know what it means", on a four-point scale. A second question investigated the use of already known labels with answer categories ranging from "never consider" to "consider always".

Respondents were initially asked if they were familiar with the label (picture) presented and then asked to answer on a four-point scale. Then, if the respondents were familiar with the label, they were asked, on a five-point scale, about the extent to which they took the label into account when buying clothes.

According to the overall results, the awareness score is under the midpoint value (2.5) in all countries. This indicates that there are significant insufficiencies in communicating sustainability labels and in raising awareness. Regarding use of the labels, only two countries, Sweden and the UK, had a scale value over the midpoint. This indicates that they were the only countries where people (who are aware of the labels) also take them into account when purchasing clothes. In the other three countries labels apparently do not generally influence purchasing decisions.

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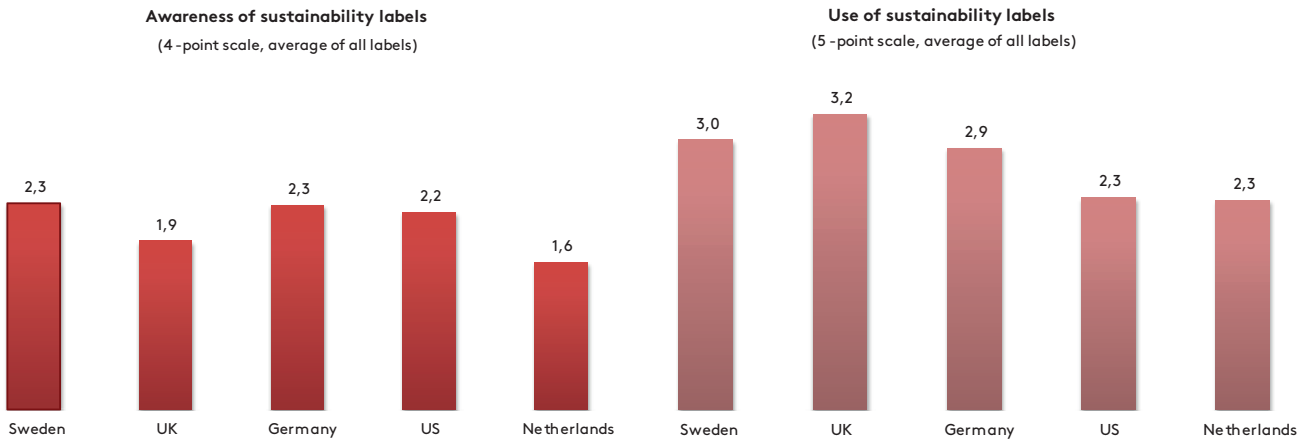
Figure 20. Use and knowledge of sustainability labels



At this point in the report a more in-depth analysis of the data is carried out to look at the country-specific information about labels. In Sweden, use and knowledge scores are higher for women. Awareness increases with age, but the behaviour remains unchanged. Higher income level groups are more aware about and also more likely to take labels into account when purchasing clothes. With a correlation coefficient of 0.55 there is also a moderate positive correlation with the environmental concern scale values and use, which indicates that (as expected) the more concerned respondents are about environmental issues, the more likely they are to take labels into account when buying clothes.

Figure 21 illustrates how use and knowledge differ for the labels examined in Sweden. National Swedish labels (Bra Miljoval and Svanen are labels used across industries) had the highest use and awareness values, while international labels are not as widely known and used. At the same time, it is notable that even well-known brands do not manage to activate conscious purchasing decisions in respondents.

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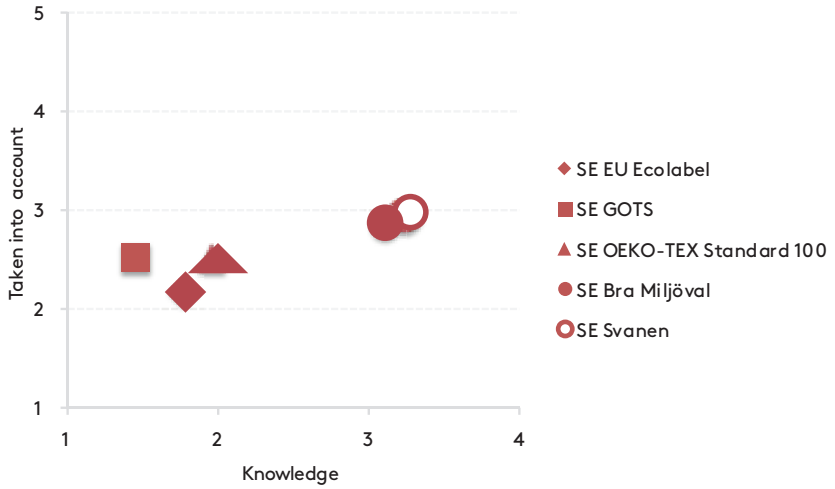
Figure 21. Labels – Sweden



In the UK, men are significantly more aware and more engaged in taking into account sustainable labelling. While awareness of labels is higher in younger groups, older groups are more committed to using them. Similar to Sweden, higher income level groups are more aware about and also more likely to take labels into account during purchase. The same relationship also exists between environmental concerns and taking labels into consideration during purchase, as is the case in Sweden; however the relationship is weaker.

There are other differences compared to Sweden. In the UK:

- There is a moderate correlation between label use and hedonic shopping behaviour
- Label use and knowledge correlate with the individuality scale
- Label use and knowledge correlate moderately with fashion consciousness
- Label use correlates moderately with the materialism scale values

All these relationships give the impression of a highly conscious and actively engaged group that follows an individual, but fashionable style and where purchasing sustainable clothes is a sign of social position. Regarding acquisition modes, there is, notably, a moderate correlation between awareness and more frequent usage of boutiques, swaps, mail orders and supermarkets.

Figure 22 shows that knowledge about labels is rather low, with the exception of the Fairtrade label. In contrast to Sweden, however, people who are aware of a label are also more likely to be influenced by it when purchasing clothing.

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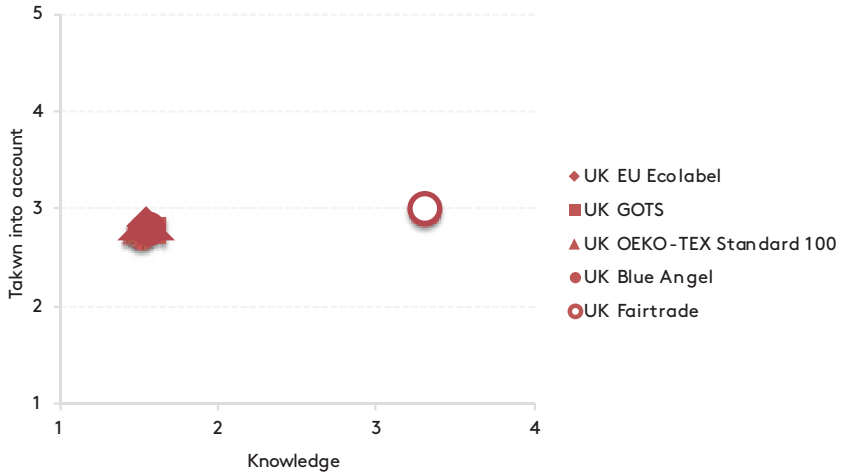
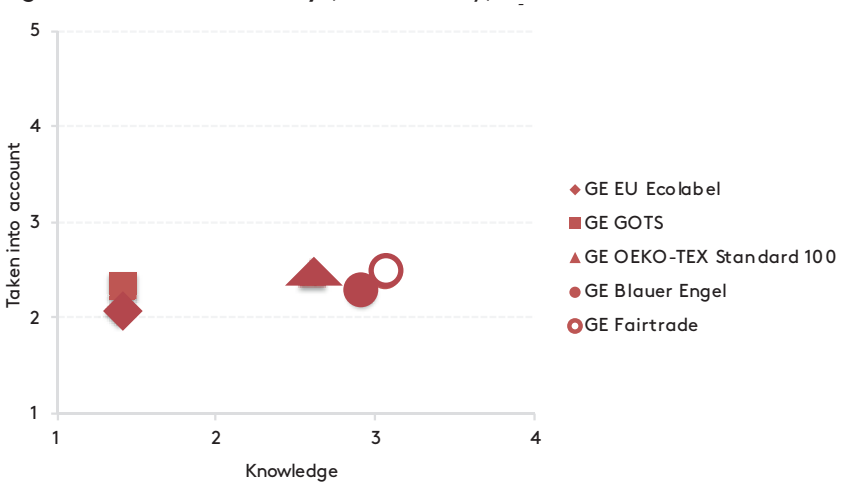
Figure 22. Labels – UK



In Germany, there is no major variance between genders and age groups, regarding either awareness or usage, except for a minor increase in taking labels into accounts during purchase for older age groups. The same relationship also exists between environmental concerns and taking labels into consideration during purchase, as in the case of Sweden and the UK. When looking at other scales and variables, we cannot measure a strong or moderate relation, i.e. the German results are rather similar to Sweden's. The Fairtrade, Blauer Engel and Oeko-Tex labels are well-known, but their use during purchase is under the midpoint value, indicating that developing a greater commitment from consumers is of high importance.

Figure 23. Labels – Germany (GE=Germany)



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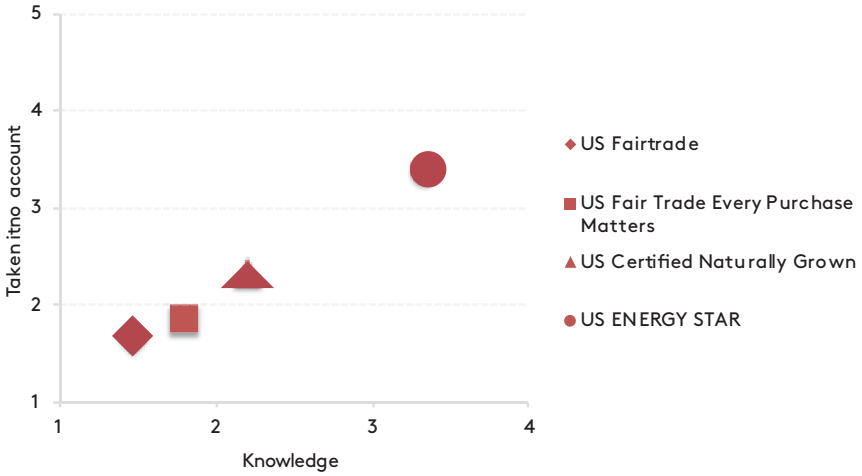
In the US, the analysis did not show any significant variance in awareness or use of sustainability labels by different socio-economic groups, except for a minor increase in both respects for high-income groups. The same relationship exists between environmental concerns and taking labels into consideration during purchase as in the previously discussed countries, but in other respects the US is highly similar to Germany. The most known and most widely used sustainability label is ENERGY STAR. All other labels lag far behind in terms of awareness and commitment.

Figure 24. Labels - US (US=United States)



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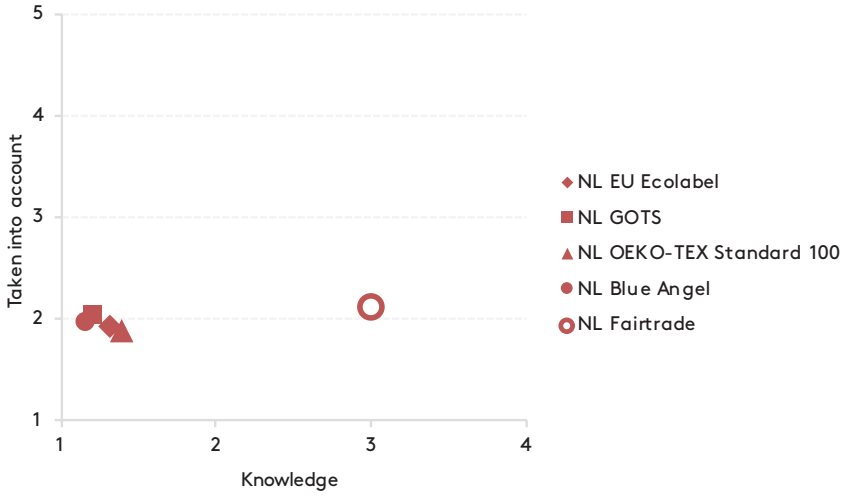
In the Netherlands, use and knowledge about sustainability labels are considerably under the average compared to the other countries. There is a huge difference both in use and knowledge among women and also for older age groups concerning commitment. The most widely known label is the FairTrade label, but commitment is still very low. Based on our data, other labels are apparently almost unknown.

Figure 25. Labels – The Netherlands (NL=The Netherlands)



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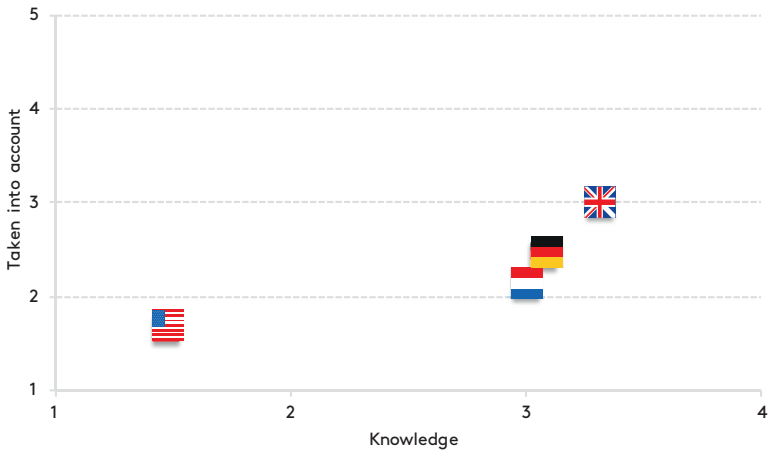
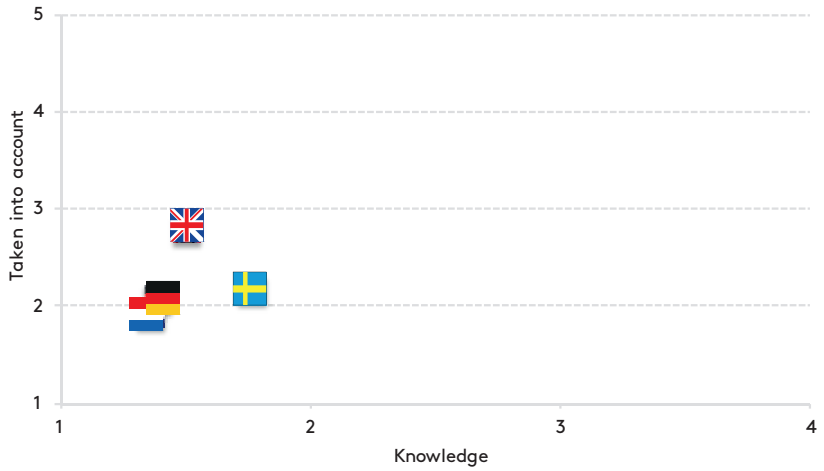
The Fairtrade label is well known in Europe, with a scale value above 3 for all three of the areas studied. This label, however, is almost unknown in the US. With only the UK reaching the midpoint of the scale value, awareness and commitment still need to be expanded.

Figure 26. Fair Trade label – country comparison



The EU Ecolabel is seldom recognised in the selected countries and its use is also weak. The highest level of commitment was measured in the UK, while knowledge is the highest in Sweden. Its use during purchasing decisions is rather low.

Figure 27. The EU Ecolabel – country comparison



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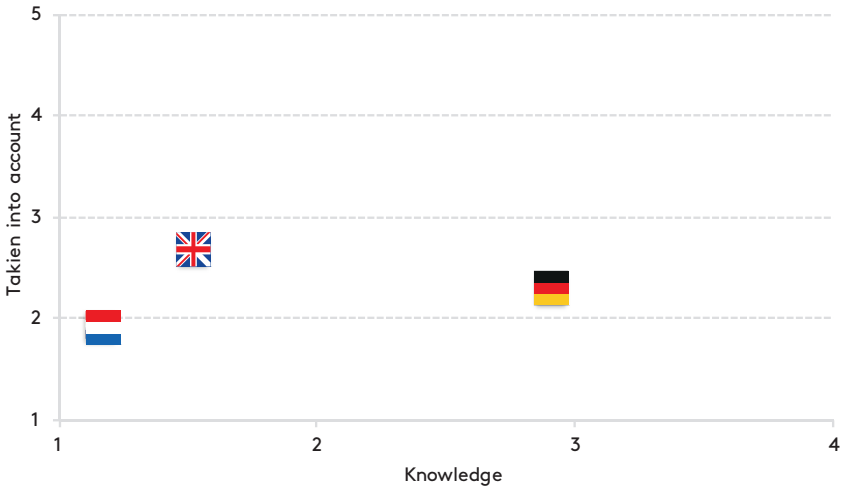
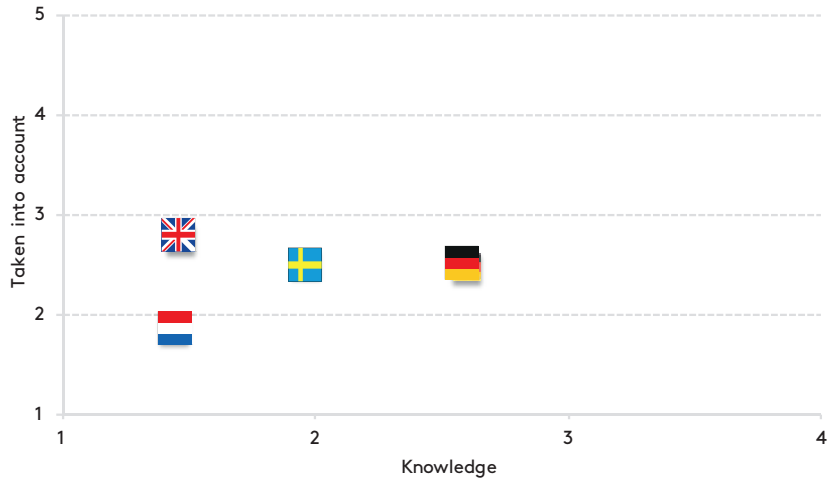
The Blue Angel label was measured in three countries and data from Germany indicate that it has by far the best awareness scores. In the UK, however, people are more committed to using the label.

Figure 28. Blue Angel – country comparison



The Oeko-Tex label is not well known in the investigated countries and people do not actively take into consideration when buying clothes. Knowledge of the Oeko-Tex label is the highest in Germany, but the level of commitment in all countries still needs to be increased.

Figure 29. Oeko-Tex – country comparison



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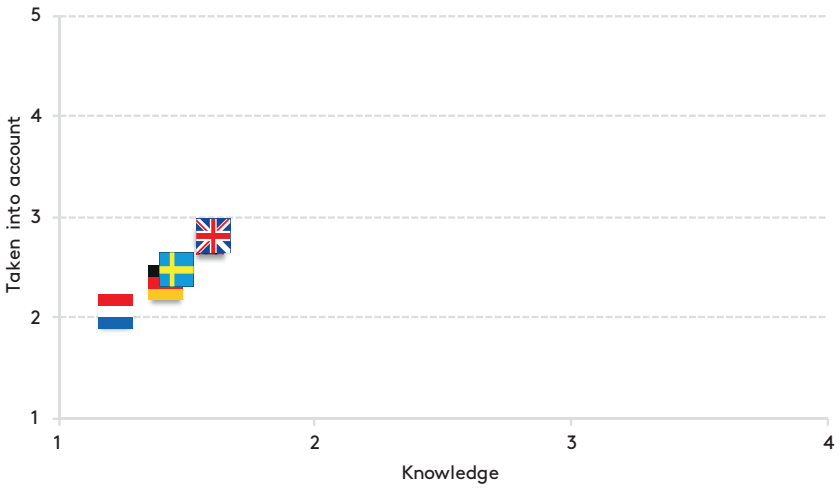
Aa awareness and knowledge of the GOTS label is very poor in all countries, indicating that a greater effort must be put into improving commitment and familiarity. According to the data, the UK is the most aware and committed.

Figure 30. GOTS – country comparison



Chapter 6 – purchasing behaviour and the environment

Environmental apparel consumption

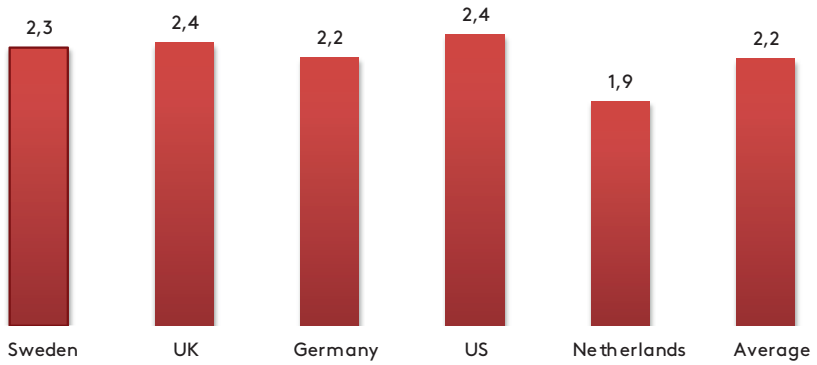
Finally, we also used the measured Environmental Apparel Consumption Scale developed by Kim and Damhorst (1998). Some example items are:

- Avoid apparel products because of environmental concerns.
- Purposely select fabrics that require cooler washing temperature, shorter drying time, or less ironing.
- Buy apparel with environmentally friendly labelling or packaging techniques.

For the measurement of environmental apparel consumption eight statements were used on sustainable clothing and purchasing behaviour frequency. Respondents evaluated the items using a five-point scale ranging from 1 "never" to 5 "always". A high score indicates a higher consumption of environmental apparel. A scale was developed based on an average of the eight items. The overall average of the environmental apparel consumption scale was 2.2, which is far below the midpoint value of the scale, indicating that concerns and awareness do not translate into responsible purchasing behaviour.

Figure 31 shows that there are no significant differences between countries, except for the Netherlands, where the scale value is even lower. There is no significant variance by socio-demographic groups, but, as expected, there is a moderate correlation with the environmental concern scale – people are more likely act sustainably if they are concerned about the topic. The strength of the correlation (0.52) shows, as mentioned above, that greater efforts must be made to engage consumers so they translate their concern into action. With regarding to the other scales described, there is a weak/moderate correlation with the individuality scale and a weak correlation with hedonic shopping values and fashion consciousness.

Figure 31. Environmental Apparel Consumption Scale



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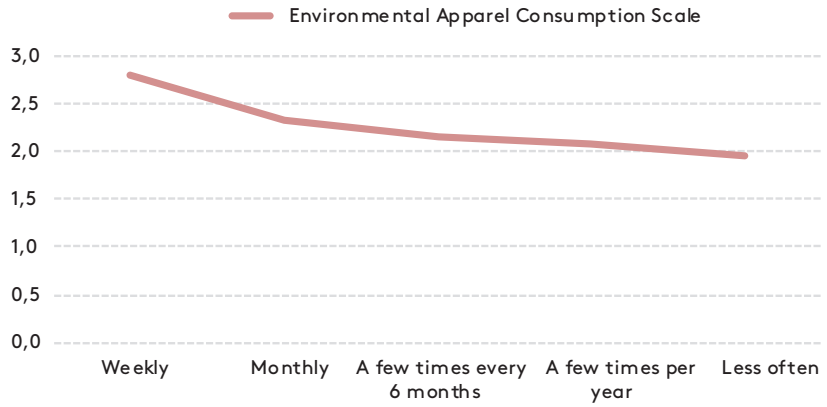
The buying frequency scale values show that people who purchase clothes more frequently are more likely to take environmental issues into consideration at the decision phase. Notably, this increase is non-linear. There is a high increase for the most frequent buyers. Regarding average monthly spending there is only a weak correlation in the US, while data on the other countries do not show any relationship between spending and sustainable purchases.

Figure 32. Environmental Apparel Consumption Scale by shopping frequency



Environmental clothing purchasing behaviour

The environmental and/or social impact of clothes are considered often by only approximately 10% of respondents, and more than 25% of them never think about these issues. There is no correlation with age, but there are significantly higher values for high-income groups and respondents with a higher education.

Notably, regarding country differences, 40% of consumers in the Netherlands never think about (un)sustainable clothing, while around 20% do in the other four countries. If those who only consider the impacts rarely are added to the data, then 75% of respondents in the Netherlands almost never think about the environmental and social impacts of clothing. Also in the Netherlands, especially men are uninterested in the (un)sustainability of clothes, as almost half of them never considering the impacts.

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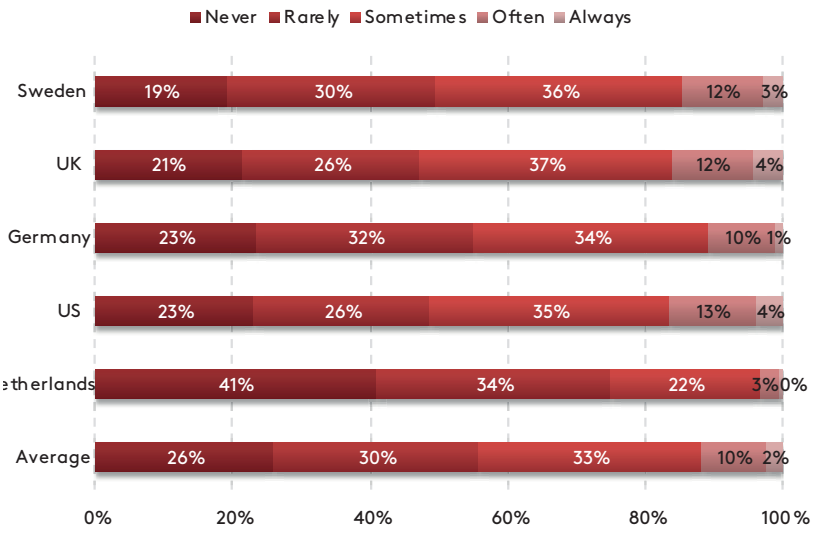
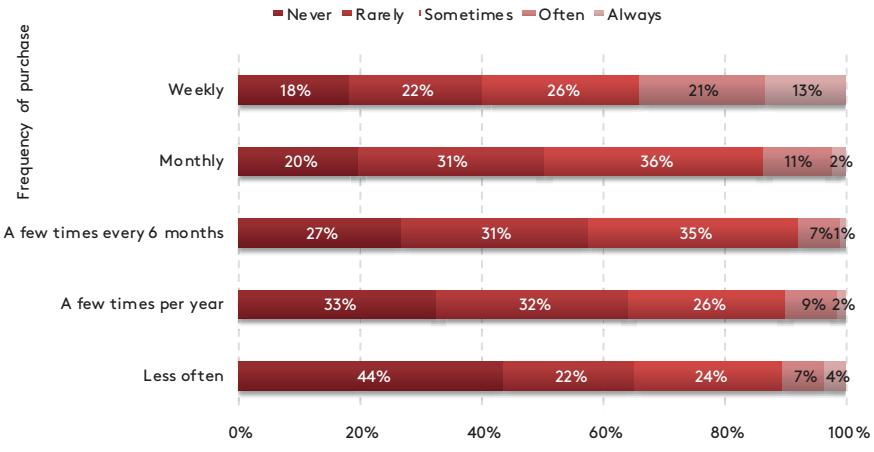
Figure 33. Taking the impact of clothing into account



The purchase frequency data show that frequent buyers are more likely to consider these impacts, regardless of the acquisition mode used. As expected, environmental concerns and the environmental apparel consumption scale show higher values at those who actively consider impacts. At the same time, we have to note that scepticism about product labelling is also higher in this group (but there is no correlation with environmental awareness or label knowledge).

Figure 34. Taking the impact of clothing into account by shopping frequency



Regarding average monthly spending, the differences between the investigated countries are of interest. In Sweden the monthly amount spent decreased when the frequency of taking the impacts into account rose, while

in Germany, the UK and in the US the amount increased. In the Netherlands the amount increases until the middle of the scale ("sometimes") and then begins to decrease for groups that consider environmental issues more frequently.

Trends in fashion consumption – collaborative consumption, sharing, borrowing

In recent decades there is evidence of a growing throwaway consumer culture, with trendy, fast fashion items frequently being discarded after only having being worn a few times (Birtwistle and Moore, 2007), but the last few years attest to the emergence of a new consumer mindset and alternative business models. For example, based on practices like sharing, swapping, borrowing, lending, bartering, renting and leasing, collaborative consumption constitutes an emerging socio-economic model (Piscicelli et al., 2014). While collaborative consumption is not a new phenomenon as such, peer communities and technological advancements have moved these practices out of their former informal niche, with product-service systems and redistribution markets enabling access to a variety of products (Botsman and Rogers, 2011). This new socio-economic paradigm suggests a shift from the ideal of private ownership towards one which focuses on access (Rifkin, 2000).

From a sustainability perspective, it is assumed that sharing resources using these tried and true and yet innovative practices will bring about environmental, economic and social benefits (Jégou and Manzini, 2008) by contributing not only to the reuse of products and the extension of their lifespan, but ultimately by also reducing the purchase of new products.

While collaborative consumption has yet to take hold in the mainstream fashion industry, initiatives based on sharing have mushroomed in recent years. Examples of collaborative consumption range from clothing libraries to mobile swapping and reselling platforms, as well as leasing schemes, to name a few. With many of these initiatives still in their infancy, little is known about the factors which drive and prevent participation in these innovative practices.

Sharing, lending, borrowing and other forms of collective use frequency were measured using five items. The sharing scale averaging respondents' answers, with values between 1 and 6, shows an overall view of these patterns. Higher values represent a higher frequency of lending, sharing and swapping products. According to the data, young consumers are more open to the collective use of items, as are high-income groups. Consumers who bought clothes frequently also stated a higher frequency of collective use. And, as expected, environmentally conscious respondents were more likely to share products with others.

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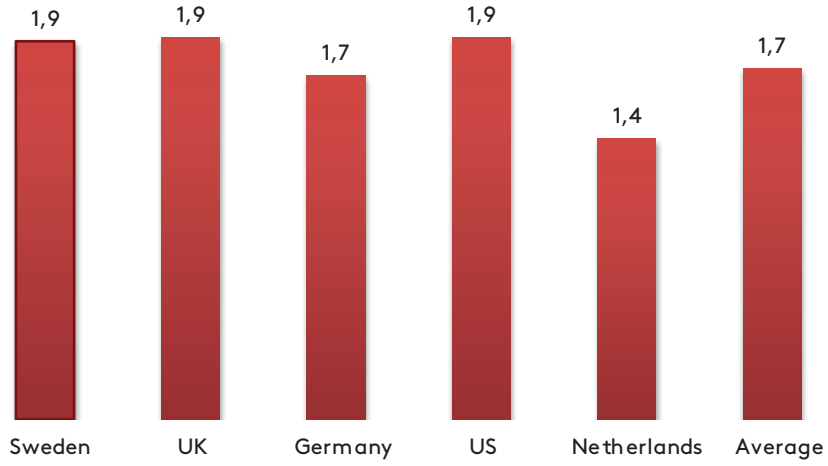
A comparison of country level data shows that the Netherlands has a much lower value on the scale, in contrast to the other countries, which were on the same level.

Figure 35. Collective usage scale by country



A close examination of anxiety and sharing shows a weak/moderate correlation between the sharing scale and the anxiety scale values. Anxiety might be one of the barriers that keep people away from collaborative consumption (the reasons for anxiety cannot be identified or explained by data from the current survey, making it an area of interest for further research on its roots). Regarding acquisition modes, we found a weak/moderate correlation between the sharing scale and the frequency of swapping and buying clothes in second-hand shops, boutiques and by mail order.

Environmental apparel consumption also shows a correlation with sharing frequency. While the correlation (correlation coefficient is 0.3) is rather weak in Sweden and the Netherlands, it is moderate/strong (0.6) in the US and the UK, indicating that in these two countries acquisition is more often substituted with shared usage. In the UK, sharing scale values are also higher for respondents who are aware of and take labels into account when making purchasing decisions.

Chapter 7

stages of change

7. Stages of change

A social marketing approach is a promising alternative when the benefits of behaviour change can only be seen in the long-term, the costs of behaviour change are externalized to the individual and basic values need to change. Developed by Prochaska and DiClemente (1984), the Transtheoretical Model of Behaviour Change or Stages of Change Model is based on a social marketing approach in accordance with Andreasen (1995). The model has increasingly been applied in social marketing as it offers an alternative approach to traditional segmentations and goes beyond socio-economic characteristics by focusing on the different stages of behaviour change in consumers. In order to design effective communication campaigns and intervention programmes, the knowledge and awareness of and the identification of the respective stages of the target audience are crucial. The model highlights that consumers are faced with different barriers in the various stages of behaviour change. As a result a variety of targeted interventions have to be applied to overcome these barriers. The four stages in the model are (1) pre-contemplation, (2) contemplation, (3) preparation, and (4) action & maintenance.

In the following, the four stages are described in brief in the way we employ the model in our study (Andreasen, 1995):

1. Pre-contemplation is the stage in which there is no intention to engage in behaviour change within the next six months. Most consumers in this stage are unaware or under-aware of sustainability issues and problems in fashion consumption.
2. Contemplation is the stage in which consumers become aware of the problems and issues related to sustainability and are seriously thinking about overcoming them but have not yet made a commitment to take action. Contemplators struggle with their negative evaluations of their dysfunctional behaviour and the amount of effort, energy and losses it will require to overcome that behaviour.
3. Preparation is the stage in which consumers are intending to take action in the near the future whenever convenient. Here, consumers report some small behavioural changes. Although they have made some efforts to change, consumers have not taken the step for effective action.
4. Action & maintenance is the stage in which individuals modify their behaviour, experiences and/or environment actively to overcome sustainability issues. Action involves the most overt behavioural changes and requires a considerable time and energy commitment. Maintenance is the last stage in which people work to prevent relapse and consolidate

the gains. If consumers in the action & maintenance group are also maintainers, they consistently consume fashion in a sustainable way throughout all consumption phases.

Measurement: To identify the respondents' respective stages of change, the questionnaire contained the following description, which is based on Mohr et al. (2001):

Please take a moment to think about the part played by one or both of the following issues when you are deciding what to buy: (1) how companies behave toward their employees, the community, and the environment and (2) the environmental impact of the products themselves. Please select one of the following statements that most closely describes, overall, the extent to which these are considerations for you.

Respondents had to choose one out of four statements that reflected their behaviour best. The statements were:

1. I base my purchase decisions on product and service quality, price, and convenience. I am not concerned with these issues and I don't think about them when deciding what to buy.
2. I believe that these issues are important, but it is too difficult and time-consuming to base my purchase decisions on them.
3. When it is easy to do, I use information on these issues in my purchase decisions.
4. I make an effort to learn about these issues, and I am willing to pay more or sacrifice product quality in order to use these issues in my purchase decisions.

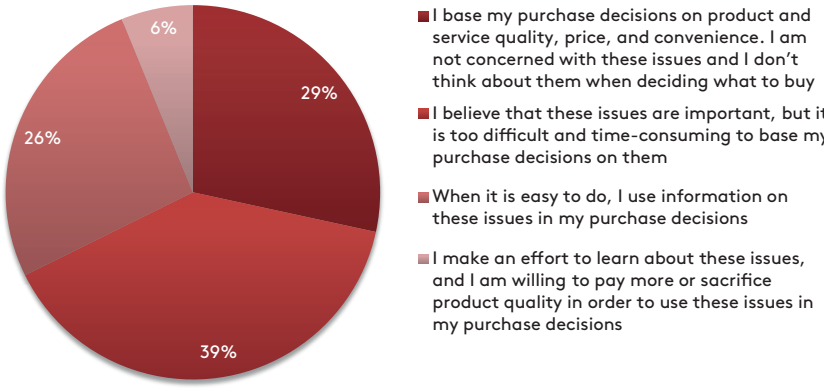
In order to reduce framing effects and to minimise socially desirable answers, the Stages of Change statement was deliberately positioned at the end of the second part of the questionnaire.

Almost 30% of respondents do not take sustainability issues into account during the purchasing decision process; another 40% are aware of these impacts, but find it difficult and time consuming to deal with them. If it is easily available 26% of respondents use this information for purchasing decisions, while only 6% make an effort to gather information related to the sustainability of the product.

There are significant gender differences, as men seem to be less conscious and more careless about sustainability issues. Compared to previous findings, this paper contains some unexpected results concerning the relationship between income and stages of change. People with the highest

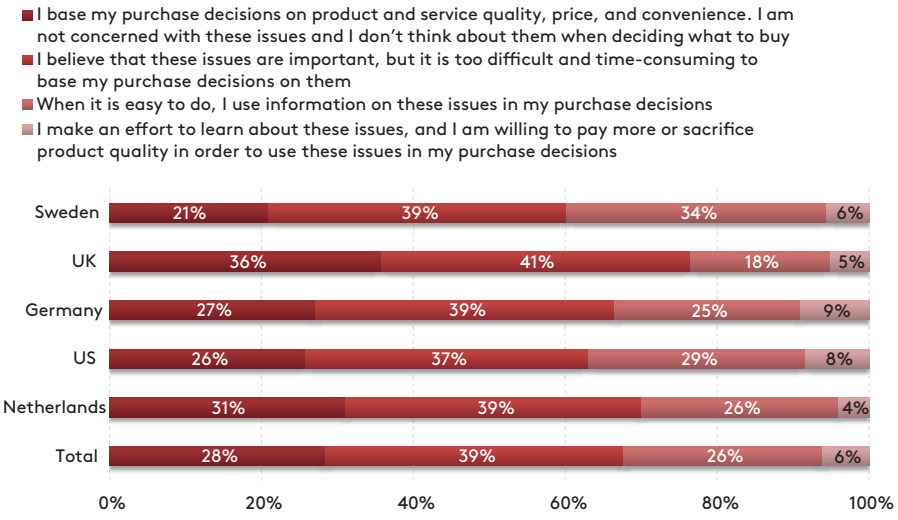
income are more likely to be careless, as almost 35% choose the first statement listed above. This finding might be influenced, however, by the fact that men are over-represented in the high-income groups.

Figure 36. Stages of change



The country comparison indicates that the highest share of less concerned respondents was in the UK (36%) and the lowest share in Sweden (21%). Based on the combined results, Sweden, with the most consumers in later stages, has progressed the farthest, followed by the US. At the other end of the spectrum is the UK, which has the lowest values. This is in glaring contrast to previous findings, where the UK was ranked as one of the countries with the highest level of sustainability awareness and commitment and the Netherlands, which is now in the mid-range, had the lowest values by far.

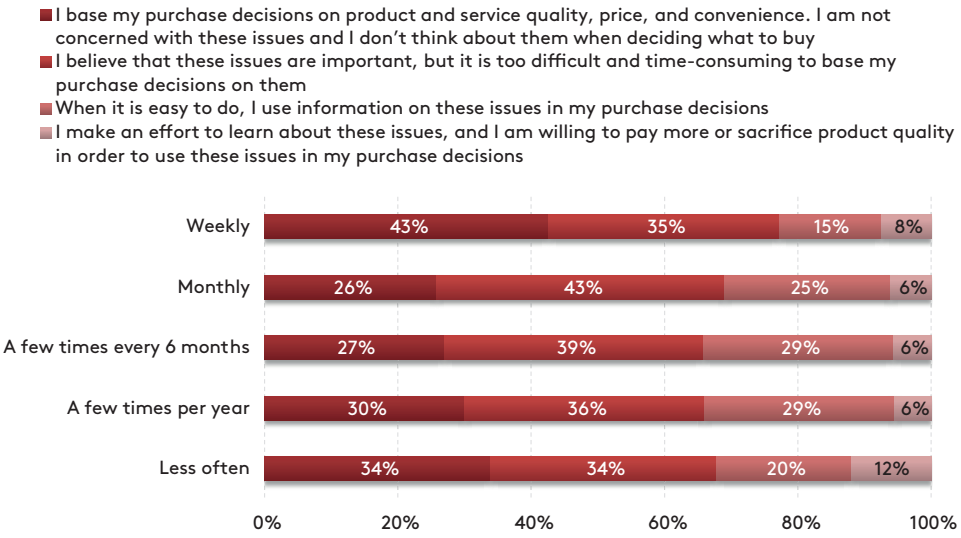
Figure 37. Stages of change by country



Chapter 7 – stages of change

Importantly, the data acquired from the cross table of responses on the stages of change questions and shopping frequency can further refine our findings drawn based on the previous sections. Figure 37 shows that a high percentage of high frequency buyers can be described as being unconcerned about sustainability. This indicates that if early adopters and possible sustainability ambassadors are to be identified then greater focus must be put on a specific sub-set of frequent buyers.

Figure 38. Stages of change by shopping frequency



Country level data on the relationship between shopping frequency and stages of change do not show any specific pattern for Sweden or the USA. In the UK frequent buyers are overrepresented in stage 4, action & maintenance. In Germany, in contrast, shopping frequency is lower among consumers that fall into stages 3 and 4. In the Netherlands, shopping frequency increases slightly in stages 3 and 4, but the majority of respondents are still only modest buyers.

Males and females are equally represented in stage 4 in terms of income and age, with the distribution following a general pattern that does not differ from other stages. At the same time, the share of full-time employees is slightly lower in the group of stage 4 consumers and there is a higher number of individuals who stay at home. The role of individuality and style consciousness is also more characteristic for this group. Stage 4 consumers are more environmentally conscious and take sustainability aspects more into consideration when purchasing clothes. Their knowledge of labels is also higher compared to the other groups. Overall, German consumers are slightly overrepresented at 9% compared to 6% for the other four countries.

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Chapter 7 – stages of change

As expected, responses on stages of change show a strong correlation with environmental concerns and environmental apparel consumption, label use and knowledge. There are no specific patterns, however, for shopping behaviour, function of clothing and the materialism scale.

Chapter 8

reuse, recycle and discard

8. Reuse, recycle and discard

With the rise of fast fashion consumption, the number of retailers offering trendy garments at low prices is increasing and a throwaway consumer culture has emerged, with garments being discarded after only being worn a few times (Birtwistle and Moore, 2007). As young consumers are the main target group of fast fashion retailers, gaining a greater understanding of those young consumers' disposal habits is of utmost importance. With a high level of involvement in fashion products (Goldsmith et al., 1991; O'Cass, 2000) reflected in their high purchasing behaviour and disposal frequency of fashion items, young consumers also contribute to the growing amount of textiles in landfills each year (Birtwistle and Moore, 2007). In general, larger quantities of textiles are being discarded. For example the weight of textile waste collected at council refuse points in the UK increased by 23% 2003 to 2008 (Poulter, 2008). These statistics, however, need to be viewed cautiously as textile waste not only refers to consumers' clothing but also to carpets and other fabrics.

The growth in fashion consumption and the subsequent increase in clothing disposal are linked to magnifying landfill problems and pose a challenge for charity shops. Morgan and Birtwistle (2009) report that many charity shops in the UK have reached their saturation point as the export of more second-hand clothing to the developing world is the result of not just an altruistic act but as a way of passing on responsibility for waste management. The recent burning of excess stock of donated clothes by the Danish charity organization DanChurchSocial (Kirkens Korshær) represents an example of an overstrained charity helpless in the face of an ever-increasing amount of clothing donations (Schelde and Johansen, 2012).

While discarding and recycling behaviour in other areas has received a good deal of attention from the academic world, this has not been the case for discarding and recycling behaviour with clothing (Birtwistle and Moore, 2007).

Textile recycling attitudes

For users who prefer to donate directly to people in need or to give their unwanted and unused but still valuable garments to a charity organisation, the intrinsic rewards were their greatest motivation (Koch and Domina, 1999). For consumers mainly motivated by financial reasons or environmental considerations, reselling and reusing garments was the disposal method mentioned most often in their research. Shim (1995) distinguishes between seven different disposal patterns, which differ not only according to disposal method (donation, reuse, discarding) but also according to the underlying motivation (charity, the environment, convenience, money).

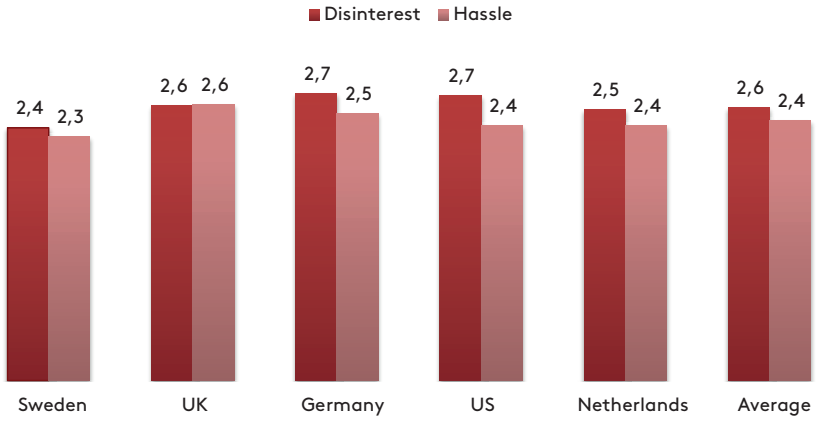
Chapter 8 – reuse, recycle and discard

Using Domina and Koch's (1999) Textile Recycling Attitudes Scale to identify reasons why young consumers discard their clothes, we asked about consumer attitudes towards various textile discarding strategies, e.g. reselling, reusing, donations, lack of interested and level of hassle.

Attitudes related to textile recycling and reuse were measured based on seven items on a five-point scale. Based on these items we developed a disinterest scale, where higher values represent a greater disinterest in recycling clothes, and a Hassle scale, where higher values represent greater hassle from the respondents' point of view. Using a five-point scale to interpret subjects responses, there was, as expected, a strong correlation (0.6-0.8, depending on the country) between the two scales.

According to the results, both disinterest (2.6) and hassle (2.4) were under the midpoint value, which indicates that the majority of respondents think that textile recycling is important. Women were more interested in and committed to recycling, which was also the case for older age groups and high income groups. Frequent buyers were less interested and the majority of them think recycling is a hassle.

Figure 39. Textile recycling attitudes



The analysis did not find any significant correlation with other parameters used in this study, e.g. shopping behaviour, fashion function or label use and knowledge.

Disposal methods and channels

In this study the term disposal of clothing refers to the last phase of the product in the consumer's hands, where it either ends up as waste or is reused. According to Jacoby et al. (1977) consumers either keep their products (e.g. by storing them or using them for another purpose) or dispose of them permanently (e.g. by giving them away or selling them) or temporarily (e.g.

by renting them). Paden and Stell (2005) distinguish between two types of disposal decisions: disposal without redistribution and disposal with the intention to redistribute. With regard to the former clothing is thrown away and ends in a landfill, while in the case of the latter case, consumers choose from a variety of alternatives.

In this study permanent disposal with a direct intention to redistribute without remuneration refers to passing on clothing to friends, family or individuals in need. Permanent, indirect redistribution without remuneration refers to giving away unwanted clothing to charitable organisations. Permanent, direct disposal with remuneration includes garage sales, flea markets and classified ads, while examples of indirect channels are second-hand stores and auctions.

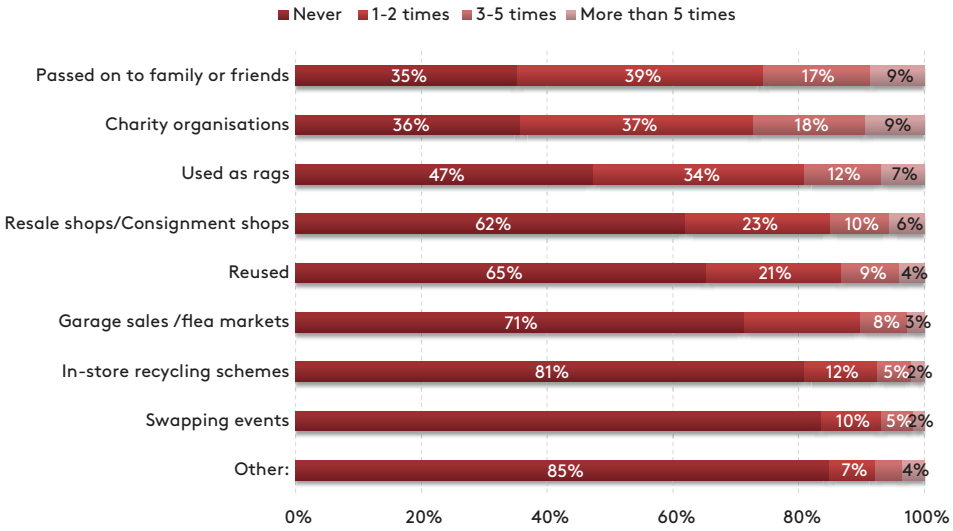
Farrant (2010) assesses the environmental benefits of reusing clothes by applying a life-cycle assessment based on the methodology of the environmental design of industrial products. Her study concludes that the purchase of 100 second-hand articles of clothing would save 60 to 85 new articles of clothing depending on the place of reuse (60 in Sweden, 75 in Estonia and Lithuania, and 85 in Africa).

Measurement: The various disposal categories and recycling channels in our questionnaire derive from Domina and Koch's (1999) Textile Recycling Attitudes Scale and included: passing clothes on to family or friends; donating to charity organizations; use as rags; resale or consignment shops; clothes were modified and then reused; garage sales or flea markets; and swapping events. Initially, consumers were asked to indicate whether or not they had used a discard channel within the last twelve months.

When respondents indicated that they had used a specific disposal strategy within the last twelve months, they could choose between four options to indicate frequency: Never, 1-2 times, 3-4 times, and More than 5 times. Figure 40 shows what percent of the time the various disposal methods are used.

The use of disposal methods shows that recycling textiles is not especially popular. The most frequent type of reuse is to pass the clothes on to family or friends, followed by charity. Garage sales and swapping are only rarely used, as is also the case with in-store recycling. Charity donations are more widely used in the UK and the US, as are garage sales. The real reuse of textiles is the most common in Germany. In general respondents from the UK and the US have progressed further with regard to using a variety of disposal methods.

Figure 40. Use of disposal methods



Reasons for disposal

A variety of reasons drives or forces consumers to dispose of clothing. Jacoby et al. (1977) developed three categories of factors that can influence consumer disposal choices: psychological characteristics of the decision maker; factors intrinsic to the product (e.g. condition); and situational factors extrinsic to the product. Klepp (2001), who has studied disposal practices, has developed the following six different categories of reasons for disposal: technical or quality related; psychological; situational; never worn; functional; or sentimental. Laitala's (2014) review of clothing disposal behaviour shows that quality-related disposal (such as wear and tear) constitutes the most common reason for disposal, followed by psychological/ symbolic reasons (e.g. fashion, taste or boredom) and new consumer needs.

The most decisive factor for whether consumers use recycling or not is convenience and available infrastructure, while the reason for not using recycling was often lack of knowledge on how to recycle (Laitala, 2014). The most commonly used reasons for donating clothing are the wish not to throw away garments still in good condition, to help those who are in need and to create more wardrobe space, and, at sometimes, for environmental reasons (Baker, 2011; Ha-Brookshire and Hodges, 2009; Koch and Domina, 1999; Shim 1995).

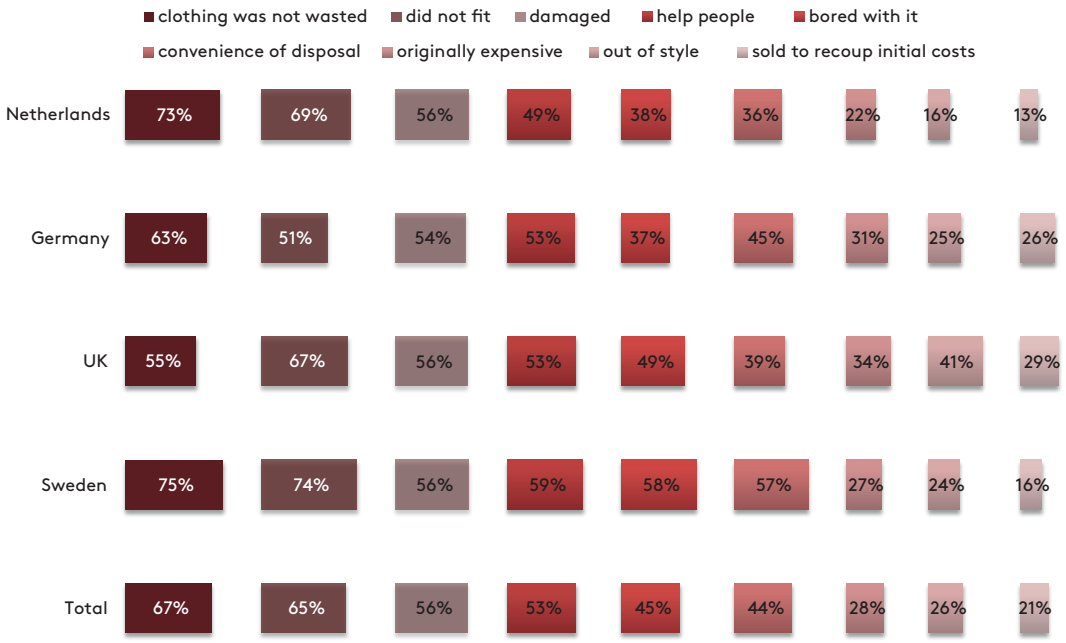
Identifying potential items for disposal is not only connected with feelings of guilt about one's own consumption behaviour but also with feelings of anxiety related to issues about whether keeping or giving away items is the right choice. However, the anxiety and guilt seem to disappear once parti-

cipants have donated their unwanted items, resulting in the satisfaction of both utilitarian (a tidy wardrobe) and hedonic values (feeling good about a good deed). Morgan and Birtwistle (2009) found that young consumers were especially plagued by feelings of guilt regarding expensive, high-quality clothing that they had seldom or never worn.

According to studies by Laitanen (2014), Ekstrom et al. (2012) and Domina and Koch (2001), older generations are more active when it comes to recycling behaviour, especially about donating to (mainly religious) charity organisations, while younger consumers prefer to give unwanted clothes to friends or family. Similarly, donating these items to charity makes people feel better, thus provided a source of relief.

Using Domina and Koch's (1999) Reasons for Discarding Unwanted Garments Scale, our questionnaire asked consumers: What were the three main reasons for discarding unwanted garments? Respondents could select up to three of the following statements: originally valuable or expensive; did not fit; out of style; bored with or tired of garment; sold to recoup some of the original cost; damaged or worn out; convenience of disposal; clothing was not wasted; helps needy people.

Figure 41. Reasons for disposal



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There are only minor differences between countries for reasons for textile disposal, as indicated in figure 41. This question was not asked in the US). Respondents had the possibility to mention several reasons for disposal. In almost all countries "clothing was not wasted" was the most frequently mentioned reason. Charity reasons were mentioned by around 50% of respondents, while initial costs were only mentioned by about 20%.

Chapter 9

summary

9. Summary

According to our results almost 40% of respondents reported buying clothes at least once a month. Online purchase of clothes is the most frequently used acquisition mode followed by shopping malls and supermarkets, though a comparison of data shows that significant differences exist at country level.

The average monthly spending on clothing was SEK 453, without any direct relationship between spending and income. In the US and in the Netherlands respondents spent less than in the other three countries.

Regarding shopping behaviour and the function of the clothing, hedonic and utilitarian shopping habits are independent of socio-demographic factors, their roots to be found in the socialisation of consumers.

A country comparison of clothing function shows significant variance. In the UK and in the US both fashionability and individuality have higher importance for respondents, while in the Netherlands these factors receive less emphasis. Fashionability and individuality are emphasised more by people who tend to buy clothes more frequently. As a result, the more import fashion is for respondents, the more money they spend on average on clothing.

An analysis of the materialism aspect shows that representing social status and position through the purchase and use of clothing, following fashion trends and the enjoyment of shopping have a moderately strong relationship. It is not possible to find the initial impetus for this cross-relationship using the information obtained by our survey, but we assume that these factors reinforce one another. We did determine, however, that people who follow the latest fashion trends and think of clothing as a status symbol are also frequent buyers, but their average monthly spending does not differ from utilitarian and less materialistic consumers. The difference might be found in quality (price) and quantity of the purchased items. Our data reinforces this finding in that people who buy clothes more frequently are also more conscious about the environment, in addition to being more likely to choose unique, less mainstream clothing.

Use and knowledge about sustainability labels during the purchasing decision phase is weak. Only consumers in Sweden and the UK are aware of the labels and take them into account when purchasing clothes. In the other three countries, labels do not have a strong influence on purchasing decisions in the majority of the cases. We also found that awareness, knowledge and trust in product labelling are independent of socio-demographic variables.

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Chapter 9 – summary

As the analysis did not show any correlation with other scales and variables used and developed for this study, no data is available concerning the main cause of trust in or scepticism about sustainability labelling (i.e. communication) – which is one of the most important areas for further study.

Results show that sustainable clothing is perceived as not yet widely available for the majority of people in the five countries. This indicates that today spreading and mainstreaming the purchase and use of sustainable clothing needs to be promoted not only more strongly in a way that increases consumer trust and confidence in manufacturers, products and labelling, but also in a way that makes it more available, accessible and affordable.

Regarding sharing and the collaborative use of products, we found that frequent buyers also indicate a higher frequency of sharing clothes. And, as expected, environmentally conscious respondents are more likely to share products with others. Anxiety might be one of the barriers that keep people away from collaborative consumption.

The majority of respondents find textile recycling important; however, according to the results, it is independent of clothing purchase and use, and related sustainability issues. This finding indicates the importance of the need to raise awareness to expand the reuse of products.

The results and information obtained in this study indicate that there is a highly conscious and actively purchasing group of consumers that follows an individual, but fashionable style and where purchasing sustainable clothes is a sign of social position. We can call this group 'early adopters', and both policymakers and businesses should take advantage of the opportunity to use and treat them as ambassadors of sustainable clothing. This highly committed group, defined by high frequency shopping and a high commitment to environmental issues, even during the purchase phase, is relatively small (only 2.5% of respondents), but the sample size (156 respondents) nevertheless made it possible to draw up a description of them. Over 60% of the group are female and are more likely to be younger. Their income level is mainly higher than average, and highly educated people are also over represented in the group. Regarding attitudes and behaviour, the group varies considerably compared to the total population in terms of openness to textile recycling, sharing products and in terms of environmentally conscious and environment-friendly behaviour in general. At the same time, they are frequent and hedonic shoppers highly influenced by fashion trends.

References

Almeida, L. (2015): Ecolabels and organic certification for textile products. In: Subramanian Senthilkannan Muthu (ed.): Roadmap to Sustainable Textiles and Clothing: Regulatory Aspects and Sustainability Standards of Textiles and the Clothing Supply Chain, pp. 175-196.

Andreasen, A. (1995). Marketing Social Change. San Francisco: Jossey-Bass.

Babin, B., Darden, W.R. & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. Journal of Consumer Research, 20, 644-656.

Bakewell, C., Mitchell, V.W. & Rothwell, M. (2006). UK Generation Y fashion consciousness. Journal of Fashion Marketing and Management, 10(2), 169-180.

Bakewell, C. & Mitchell, V.W. (2003). Generation Y female consumer decision-making styles. International Journal of Retail and Distribution Management, 31(2), 95-106.

Beard, N.D. (2008). The branding of ethical fashion and the consumer: A luxury niche or mass-market reality? Fashion Theory, 12 (4), 447-467.

Belk, R.W. (1988). Possessions and the extended self. Journal of Consumer Research, 15 (2), 139-168.

Bentley, R.A. & Ormerod, P. (2009). Tradition versus fashion in consumer choice. Scottish Journal of Political Economy, 56(3), 371-381.

Birtwistle, G. & Moore, C. M. (2007). Fashion clothing: Where does it all end up? International Journal of Retail & Distribution Management, 35 (3),210-216.

Black, I.R. & Cherrier, H. (2010). Anti-consumption as part of living a sustainable lifestyle: Daily practices, contextual motivations and subjective values. Journal of Consumer Behavior, 9 (6), 467-487.

Botsman, R. & Rogers, R. (2010). What's Mine is Yours. London: Collins.

Brown, P.M. & Cameron, L.D. (2000). What can be done to reduce overconsumption? Ecological Economics 32, 27-41.

Brundtland, G.H. & the World Commission on Environment and Development (1987). Our Common Future. Oxford: Oxford University Press.

Brusdal, R. & Langeby, A. (2001). Raving hedonists or environmentally concerned? Youth in Norway. In: UNESCO/UNEP (ed). Youth, Sustainable Consumption Patterns and Lifestyles. Paris: United Nations Environment Programme and UNESCO MOST Programme.

mistra future fashion

References

Butler, S.M. & Francis, S. (1997). The effects of environmental attitudes on apparel purchasing behavior. Clothing and Textiles Research Journal, 15(2), 76-85.

Cherrier, H. (2009). Anti-consumption discourses and consumer-resistant identities. Journal of Business Research, 62 (2), 181-190.

Connell, K.Y.H. & Kozar, J.M. (2014). Environmentally sustainable c consumption: knowledge, attitudes, and behaviour. In: Subramanian Senthilkannan Muthu (ed.): Roadmap to Sustainable Textiles and Clothing. Singapore: Springer.

Connell, K.Y.H. & Kozar, JM (2012). Social normative influence: An exploratory study investigating its effectiveness in increasing engagement in sustainable apparel-purchasing behaviors. Journal of Global Fashion Marketing, 3(4), 172-179.

Crane, D. & Bovone, L. (2006). Approaches to material culture: The sociology of fashion and clothing. Poetics, 34 (6), 319-333.

CSCP & UNEP DTIE (2007). Retailers Calendar: Exploring New Horizons in 12 Steps Towards Long-Term Market Success. Wuppertal, UNEP/Wuppertal Institute Collaborating Centre on Sustainable Consumption and Production and UNEP DTIE: 81.

Dallas, M.J., Wilson, P.A., Burns, L.D., Miller, J., Markee, N. & Harger,B. (1992). Dermatological and other health problems attributed by consumer to contact with laundry products. Home Economics Research Journal, 21 , 34-49.

Defra (2011). Sustainable Clothing Roadmap: Progress Report. London: Defra.

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.

Dobers, P. & Strannegard, L. (2005). Design, lifestyles and sustainability: Aesthetic consumption in a world of abundance. Business Strategy and the Environment, 14, 324-336.

Domina, T. & Koch, K. (1999). Consumer reuse and recycling of post-consumer textile waste. Journal of Fashion Marketing and Management, 3(4), 346-359.

Eder-Hansen, J., Kryger, J., Morris, J., Sisco, C., Watson, D., Kiorboe, N., Dahlgren Petersen, S., Bang Larsen, K. & Burchardi, I. (2012). The NICE Consumer: Research Summary and Discussion Paper toward a Framework for Sustainable Fashion Consumption in the EU. Copenhagen: Danish Fashion Institute & BSR.

mistra future fashion

References

European Environment Agency (EEA) (2005). Household Consumption and the Environment. Copenhagen: European Environment Agency.

Faber, J., Schroten, A., Bles, M., Sevenster, M., Markowska, A., Smit, M., Rohde, C., Dutschke, E., Kohler, J., Gigli, M., Zimmermann, K., Soboh, R. & van 't Riet, J. (2012). Behavioral Climate Change Mitigation Options and Their Appropriate Inclusion in Quantitative Longer Term Policy Scenarios. European Commission, DG Climate Action, Delft: CE Delft.

Farrant, L., Olsen, S.I. & Wangel, A. (2010). Environmental benefits from reusing clothes. International Journal of Life Cycle Assessment, 15, 726-736.

Fien, J., Neil, C. & Bentley, M. (2008). Youth can lead the way to sustainable consumption. Journal of Education for Sustainable Development, 2 (1), 51-60.

Fischer, C. (2008). Feedback on household electricity consumption: A tool for saving energy? Energy Efficiency, 1, 79-104.

Gam, H.J. (2011). Are fashion-conscious consumers more likely to adopt eco-friendly clothing? Journal of Fashion Marketing and Management, 15 (2), 178-193.

Goldsmith, R.E., Heitmeyer, J.R. & Freiden, J.B. (1991). Social values and fashion leadership. Clothing and Textiles Research Journal, 10 (1), 37-45.

Gwozdz, W., Netter, S., Bjartmarz, T. and Reisch, L.A. (2013). Report: Survey Results on Fashion Consumption and Sustainability among Young Swedes. Mistra Future Fashion, http://www.mistrafuturefashion.com/en/media/news/Documents/report%20mistra%20future%20fashion%20sustainable%20consumption.pdf

Ha-Brookshire, J.E. & Hodges, N.N. (2009). Socially responsible consumer behavior? Exploring used clothing donation behavior. Clothing and Textiles Research Journal, 27 (3), 179-196.

Hicks, C. & Kuhndt, M. (2013). Emergent futures? Signposts to sustainable living in Europe and pathways to scale. In: S. Fudge, M. Peters, S. Hoffmann & W. Wehrmeyer (eds.). The Global Challenge of Encouraging Sustainable Living: Opportunities, Barriers, Policy and Practice. Cheltenham: Edward Elgar.

Hiller Connel, K.Y. (2010). Internal and external barriers to eco-conscious apparel acquisition. International Journal of Consumer Studies, 34, 279-286.

Holbrook, M.B., & Hirschman, E.C. (1982). Hedonic consumption: Emerging concepts, methods and propositions. Journal of Marketing, 46, 92-101.

Huber, J. (2000). Towards industrial ecology: Sustainable development as a concept of ecological modernization. Journal of Environmental Policy & Planning, 2: 269-285.

mistra future fashion

References

Huddleston, P., Ford, I. & Bickle, M.C. (1993). Demographic and lifestyle characteristics as predictors of fashion opinion leadership among mature consumers. Clothing and Textiles Research Journal, 11 (4), 26-31.

Hume, M. (2010). Compassion without action: Examining the young consumers consumption and attitude to sustainable consumption. Journal of World Business, 45, 385-384.

Hustvedt, G. & Dickson, M.A. (2009). Consumer likelihood of purchasing organic cotton apparel. Influence of attitudes and self-identity. Journal of Fashion Marketing and Management, 13 (1), 49-65.

Hustvedt G, & Bernard J.C. (2008). Consumer willingness to pay for sustainable apparel: the influence of labelling for fibre origin and production methods. International Journal of Consumer Studies, 32(5), 491-498.

International Wellbeing Group (2013). Personal Wellbeing Index: 5th Edition. Melbourne: Australian Centre on Quality of Life, Deakin University http://www.deakin.edu.au/research/acqol/instruments/wellbeing-index/index.php

Iwanow, H., McEachern, M.G. & Jeffrey, A. (2005). The influence of ethical trading policies on consumer apparel purchase decisions. A focus on The Gap Inc. International Journal of Retail & Distribution Management, 33 (5), 371-387.

Jackson, T. (2005). Motivating Sustainable Consumption: A Review of Evidence on Consumer Behaviour and Behavioural Change. Report to the Sustainable Development Research Network. Guildford: Centre for Environmental Strategy, University of Surrey.

Jacoby, J., Berning, C.K. & Dietvorst, T.F. (1977). What about disposition? Journal of Marketing, 41, 22-28.

Jegou, F., & Manzini, E. (2008). Collaborative services: Social innovation and design for sustainability. Milan: Edizioni Poli.design.

Joergens, C. (2006). Ethical fashion: myth or future trend? Journal of Fashion Marketing and Management, 10 (3), 360-371.

Kawamura, Y. (2005). Fashion-ology: An Introduction to Fashion Studies. Oxford: Berg.

Kim, H.S. & Damhorst, M.L. (1998). Environmental concern and apparel consumption. Clothing and Textiles Research Journal, 16 (3), 126-133.

Klepp, I.G. (2001). Hvorfor går klær ut av bruk? Avhending sett i forhold til kvinners klesvaner. Oslo: SIFO. The National Institute for Consumer Research.

mistra future fashion

References

Koch, K. & Domina, T. (1997). The effects of environmental attitude and fashion opinion leadership on textile recycling in the US. Journal of Consumer Studies and Home Economics, 21, 1-17.

Kozar J.M. & Connell, K.Y.H. (2013). Socially and environmentally responsible apparel consumption: knowledge, attitudes and behavior. Social Responsibility Journal, 9(2), 316-325.

Kwon, Y. & Parham, S. (1994). Effects of state of fatness perception on weight conscious women's clothing practices. Clothing and Textiles Research, 12 (4), 16-21.

Laitala, K. (2014). Consumers' disposal behavior: A synthesis of research results. International Journal of Consumer Studies, 38, 444-457.

Laitala, K. & Klepp, I. G. (2011). Environmental improvement by prolonging clothing use period. Paper presented at the Towards Sustainability in the Textile and Fashion Industry, 26 April 2011, Copenhagen, Denmark.

Lovibond, S.H., & Lovibond, P.F. (1995). Manual for the Depression Anxiety Stress Scales. (2nd Ed). Sydney: Psychology Foundation.

McDonough, W. & Braungart, M. (2002). Cradle to Cradle: Remaking the Way We Make Things. New York: North Point Press.

Melucci, A. (1992). Nomads of the Present. Philadelphia: Temple University Press.

Meyer, A. (2001). What's in it for the customers? Successfully marketing green clothes. Business Strategy and the Environment, 10, 317-330.

Mohr, L.A., Eroglu, D. & Ellen, P.S. (1998). The development and testing of a measure of scepticism toward environmental claims in marketers' communications. Journal of Consumer Affairs, 32 (1), 30-55.

Mohr, L.A., Webb, D.J. & Harris, K.E. (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. Journal of Consumer Affairs, 35 (1), 45-72.

Moisander, J. (2007). Motivational complexity of green consumerism. International Journal of consumer studies, 31 (4), 404-409.

Mont, O. (2007). Concept paper for the International Task Force on Sustainable Lifestyles. Third International Expert Meeting on Sustainable Consumption and Production, Stockholm, 26-29 June.

Morgan, L.R. & Birtwistle, G. (2009). An investigation of young fashion consumers' disposal habits. International Journal of Consumer Studies, 33, 190-198.

Myers, P.N. & Biocca, F.A. (1992). The elastic body image: The effect of television advertising and programming on body image distortions in young women. Journal of Communications, 42(3), 108-134.

mistra future fashion

References

Niinimaki, K. (2010). Eco-clothing, consumer identity and ideology. Sustainable Development, 18, 150-162.

Norwegian Ministry of the Environment (1994). Oslo Roundtable on Sustainable Production and Consumption. Oslo: Ministry of the Environment.

Nyberg, A. & Sto, E. (2001). Is the future yours? In: UNESCO/UNEP (eds). Youth, Sustainable Consumption Patterns and Life Styles. Paris: United Nations Environment Programme and UNESCO MOST Programme.

O'Cass, A. (2000). An assessment of consumer's product, purchase decision, advertising and consumption involvement in fashion clothing. Journal of Economic Psychology, 21, 545-576.

O'Cass, A. (2004). Fashion clothing consumption: antecedents and consequences of fashion clothing involvement. European Journal of Marketing, 38 (7), 869-882.

Paden, N. & Stell, R. (2005). Consumer product redistribution. Journal of Marketing Channels, 12 (3), 105-123.

Peattie, K. (2001). Golden goose or wild goose? The hunt for the green consumer. Business Strategy and the Environment, 10, 187-199.

Piscicelli, L., Cooper, T., & Fisher, T. (2014). The role of values in collaborative consumption: insights from a product-service system for lending and borrowing in the UK. Journal of Cleaner Production (in press, available online 28 July 2014).

Poulter, S. (2008). The Primark effect: throwaway fashion that cannot be recycled now makes up 30 per cent of the waste in council tips. Daily Mail, 25 November 2008.

Princen, T. (2005). The Logic of Sufficiency. Boston: MIT Press.

Prochaska, J.O. & DiClimente, C.C. (1984). The Transtheoretical Approach: Crossing Traditional Boundaries of Therapy. Homewood, IL: Dow Jones Irwin.

Reisch, L. (2003). Consumption. In E.A. Page & J. Proops (eds). Environmental thought. Cheltenham, UK: Edward Elgar.

Richins, M.L. (1987). Media, materialism, and human happiness. Advances in Consumer Research, 14, 352-356.

Richins, M. & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. Journal of Consumer Research, 19 (3), 303-316.

Rifkin, J. (2000). The Age of Access: The New Culture of Hypercapitalism. Where All of Life Is a Paid-For Experience. New York: Tarcher.

mistra future fashion

References

Roesner, L., Qian, Y., Criswell, M., Stromberger, M. & Klein, S. (2006). Long-term effects of landscape irrigation using household graywater: Literature review and synthesis. City?: Water Environment Research Foundation and the Soap and Detergent Association (SDA).

Rowe, H.D. (2006). Detergents, clothing and the consumer with sensitive skin. International Journal of Consumer Studies, 30 (4), 369-377.

Schaefer, A. & Crane, A. (2005). Addressing sustainability and consumption. Journal of Macromarketing, 25 (1), 76-92.

Schelde, N. & Johansen, T.S. (2012). Flere hundrede ton genbrugstoj ender pa forbrandingen. Accessed: 1 October 2013. http://www.kristeligt-dagblad.dk/artikel/449608:Kirke---tro--Flere-hundrede-ton-genbrugstoej-ender-paa-forbraendingen?all=1

Seyfang, G. (ed.) (2011). The New Economics of Sustainable Consumption: Seeds of Change. Reprint, London: Palgrave Macmillan.

Shaw, D., Hogg, G., Wilson, E., Shiu, E. & Hassan, L. (2006). Fashion victim: The impact of fair trade concerns on clothing choice. Journal of Strategic Marketing, 14 (4), 427-440.

Shim, S. (1995). Environmentalism and consumers' clothing disposal patterns: An exploratory study. Clothing and Textiles Research Journal, 13 (1), 38-48.

Solomon, M., Bamossy, G., Askegaard, S. & Hogg, M.K. (eds). Consumer Behavior: A European Perspective, 3rd ed. Harlow: Prentice-Hall.

Solomon, M. & Rabolt, N.J. (2004). Consumer Behavior: In Fashion. Upper Saddle River, New Jersey: Pearson Education, Inc.

Spaargaren, G. (2003) Sustainable consumption: Theoretical and environmental policy perspective. Society and Natural Resources, 16(8), 687-701.

Stephens, S.H. (1985). Attitudes toward socially responsible consumption: Development and validation of a scale and investigation of relationships to clothing. Unpublished doctoral dissertation, Virginia Polytechnic Institute and State University.

Swinker, M.E. & Hines, J.D. (1997). Consumers' selection of textile products made from recycled fibres. Journal of Consumer Studies and Home Economics, 21, 307-313.

Thomas, S. (2008). From "green blur" to ecofashion: Fashioning an eco-lexicon. Fashion theory: The Journal of Dress, Body & Culture, 12 (4), 525-540.

Thogersen, J., Haugaard, P. & Olesen, A. (2010). Consumer responses to eco-labels. European Journal of Marketing, 44 (11/12), 1787-1810.

mistra future fashion

References

Tiggemann, M. & Lacey, C. (2009). Shopping for clothes: Body satisfaction, appearance investment, and functions of clothing among female shoppers. Body Image, 6 (4), 285-291.

Twenge, J.M. & Kasser, T. (2013). Generational changes in materialism and work centrality, 1976-2007: Associations with temporal changes in societal insecurity and materialistic role modelling. Personality and Social Psychology Bulletin, 39(7), 883-897.

UNEP (2010). ABC of SCP: Clarifying concepts in sustainable consumption and production. City?: United Nations Environment Programme.

Uusitalo, O., & Oksanen, R. (2004). Ethical consumerism: A view from Finland. International Journal of Consumer Studies, 28 (3), 214-221.

VIACOM Brand Solutions (2012). The Golden Age of Youth 2008. Accessed: 1 October 1, 2013. http://www.viacomasia.com/golderageofyouth08.html

World Population Foundation (2011). Facts. Accessed: 29 October 2011. http://www.wpf.org/reproductive_rights_article/facts

Wood, T. D. (2009). How to Care for Technical Fabrics. Accessed: 1 October 2013. http://www.rei.com/learn/expert-advice/fabric-care-symbols.html

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Appendix

Appendix: Overview of scales of measurements used in questionnaire

	Scale/measurement	Source
Purchase phase (including pre-purchase)	Expenditures for clothing	Own scale
	Shopping frequency	Own scale
	Mode of acquisition	Own scale
	Materialistic versus post-materialistic values	Richins, M. & Dawson, S. (1992). A consumer values orientation for materialism and its measurement: Scale development and validation. Journal of Consumer Research, 19 (3), 303-316.
	Hedonic and utilitarian shopping values	Babin, B.J., Darden, W. R. & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. Journal of Consumer Research, 20, 644-656.
	Fashion consciousness	Sproles, G. & Kendall, E. (1986). A methodology for profiling consumers' decision making styles. Journal of Consumer Affairs, 20(2), 267-279.
	Functions of clothing	Tiggemann, M. & Lacey, C. (2009). Shopping for clothes: Body satisfaction, appearance investment, and functions of clothing among female shoppers. Body Image, 6, 285-291. (In 2014, only used the categories 'fashion function' and 'individuality function')
	Personal style consciousness	Tai, Susan H.C. (2005). Shopping styles of working Chinese females. Journal of Retailing and Consumer Services, 12, 191-203.
	Environmental concern	Thøgersen, J., Haugaard, P. & Olesen, A. (2010). Consumer responses to ecolabels. European Journal of Marketing, 44 (11/12), 1787-1810.
	Environmental/social concerns in purchasing decisions	Butler, S.M. & Francis, S. (1997). The effects of environmental attitudes on apparel purchasing behavior. Clothing and Textiles Research Journal, 15 (2), 76-85.
	Environmental apparel knowledge and consumption	Kim, H.S. & Damhorst, M.L. (1998). Environmental concern and apparel consumption. Clothing and Textiles Research Journal, 16 (3), 126-133.
	Perceived availability, accessibility and affordability of sustainable clothing	Uusitalo, O., & Oksanen, R. (2004). Ethical consumerism: A view from Finland. International Journal of Consumer Studies, 28 (3), 214-221.
	Label knowledge and usage	Thøgersen, J., Haugaard, P. & Olesen, A. (2010). Consumer responses to ecolabels. European Journal of Marketing, 44 (11/12), 1787-1810.
	Scepticism of sustainable product claim	Mohr, L. A., Eroglu, D. & Ellen, P. S. (1998). The development and testing of a measure of scepticism toward environmental claims in marketers' communications. Journal of Consumer Affairs, 32 (1), 30-55.
	Collaborative consumption	Own scale

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Appendix

	Scale/measurement	Source
Reuse, recycle, discard phase	Reasons for discarding	Domina, T. & Koch, K. (1999). Consumer reuse and recycling of post-consumer textile waste. Journal of Fashion Marketing and Management, 3 (4), 346-359.
	Textile recycling attitudes	Domina, T. & Koch, K. (1999). Consumer reuse and recycling of post-consumer textile waste. Journal of Fashion Marketing and Management, 3(4), 346-359.
	Disposal behaviour	Domina, T. & Koch, K. (1999). Consumer reuse and recycling of post-consumer textile waste. Journal of Fashion Marketing and Management, 3(4), 346-359.
	Scale/measurement	**Source**
Stages of change	Stages of change	Mohr, L. A., Webb, D. J. & Harris, K. E. (2001). Do consumers expect companies to be socially responsible? The impact of corporate social responsibility on buying behavior. Journal of Consumer Affairs, 35 (1):45-72.
	Scale/measurement	**Source**
Well-being	Personal well-being	Cummins, R. A. (2013). Positive psychology and subjective well-being homeostasis: A critical examination of congruence. In D. Moraitou & A. Efklides (eds.), Quality of Life: A Positive Psychology Perspective (67–86). New York: Springer
	Depression, Anxiety and Stress Scale (DASS)	Lovibond, S.H. &Lovibond, P.F. (1995).Manual for the Depression, Anxiety, Stress Scale, 2nd ed. Sydney: Psychology Foundation.

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