Mapping Psychological Factors to Investigate the Potential Influence of Sustainable Labelling in Fashion

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10th of June 2022
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Abstract:

It has been argued that the fashion industry is the second most polluting industry that is threatening the entire planet and all of its resources. Therefore, consumer buying behaviour is critically to map in order to see where the impact can be made on the production of sustainable clothing. In this research, the new investigations of the De Autoriteit 8 Consument & Markt (ACM) regarding sustainable labelling will be explained in our own investigation will be done by diving into the psychological factors of interest in sustainability, trust in sustainability, awareness of sustainability and knowledge about sustainability. These factors should explain the two dependent variables developed purchase intention and willingness to buy. It has been found that interest and knowledge are significant predictors of purchase intention and that style, price and sustainability are the most important factors for consumers when buying clothing. Furthermore, it was found that consumers lack a great amount of knowledge regarding sustainable labelling, but that they are still willing to pay more for sustainable clothing than conventional clothing.

Foreword:

Firstly, major thanks to my supervisor Berfu Unal, who greatly supported me throughout this project. She was a great help due to her extensive knowledge regarding psychological papers and investigations on how to best form this thesis together.

Secondly, I want to thank WE Fashion for guiding me through this process of putting this thesis together on a very difficult and recent topic. Especially, the entire Corporate Social Responsibility team for giving me an experience on which I can look back proudly.

Lastly, I would like to thank all the participants who invested their time to fill in the survey since without participants there would not be a thesis paper at all.

Content:

Introduction

While much action has been taken to prevent climate change, we are still facing enormous environmental problems such as loss of biodiversity, global warming, freshwater scarcity, and deforestation (Neumann et al., 2021). It has been argued that the fashion industry is the second most polluting industry that is threatening the entire planet and all of its resources.

However, the trend of sustainable consumerism is on the rise which is also noticed by *De Autoriteit Consument & Markt* (ACM, 2019*)* that developed new guidelines regarding sustainability claims companies might be using for the sales of their products. The ACM is a Dutch public institution connected to the government (ACM, 2019a) that enforces the rules for companies by countering illegal practices and prompting them to follow the established rules. The goal of the ACM is to teach these rules to producers and consumers so that everyone knows their rights and responsibilities. (ACM, 2019b). The ACM has identified that consumers are taking sustainability more into consideration when purchasing products, leading to companies and brands have been implementing sustainability as an important part of their marketing strategies. The consumers cannot check these claims themselves which means the ACM needs to validate the trust in all companies and make sure 'greenwashing' is prevented (ACM, 2019a).

In my thesis, I aim at exploring the buying behaviour of consumers regarding sustainability. There are various certifications used to determine whether certain clothing is sustainable. In this thesis, the *Better Cotton Initiative (BCI), Organic Cotton Standard (OCS) and Global Recycled Standard (GRS)* will be discussed. The different labels will be explained to create the knowledge needed for the understanding of the raw materials used in the different clothing products.

As described above, sustainability is becoming an increasingly powerful factor in the decision-making process for consumers when buying products, including clothing (Kotahwala, 2020). In order to address this gap, I am going to investigate the factors, willingness to pay, intention to pay, interest in sustainability, trust, problem awareness, and knowledge.

In order to have an applied perspective on this topic, I have chosen to do this thesis in collaboration with WE Fashion, and together we aim to critically examine how these labels are communicated to the consumer, for example, are there already initiatives? Are there any marketing strategies behind this or should there be more marketing on these topics?

Furthermore, to get an insight into the perspective of the consumer on the knowledge they have regarding the certification of sustainable clothing, a survey will be done. This will help me also get a better understanding of the pinpoints of how the consumer engages with these certifications on clothing and sustainable clothing in general.

This journey will eventually lead to the answer to the following research question: "*How could psychological factors influence the purchase behaviour of consumers buying clothing?*"

The aim of this thesis is to investigate what the consumer knows about the certification of sustainable clothing and whether it plays a role in the decision-making process of a consumer when buying clothing. This will be done through the exploration of the influence of lack of knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability on willingness to pay for and purchase intention of sustainable clothing. The knowledge gathered will be used to suggest improvements through marketing or policy on multilateral levels, which might increase the sales of sustainable clothing

Theoretical framework

Sustainable fashion is becoming increasingly popular meaning the investigation of what influences the fashion buying behaviour becomes more and more interesting (Muthu, 2019). The reasons for purchasing a certain product differ from one person to another. Individual preferences might vary extensively when products such as clothing are used since clothing can differ in colour, brand, material, design, comfort and so on. Fashion is a very special product category since it can be seen as a way to show one's identity and emotions. Companies have tried for many years to adjust their products to the consumer and investigate their desires and needs. They tried this by understanding consumer behaviour with multiple methods and processes (Muthu, 2019).
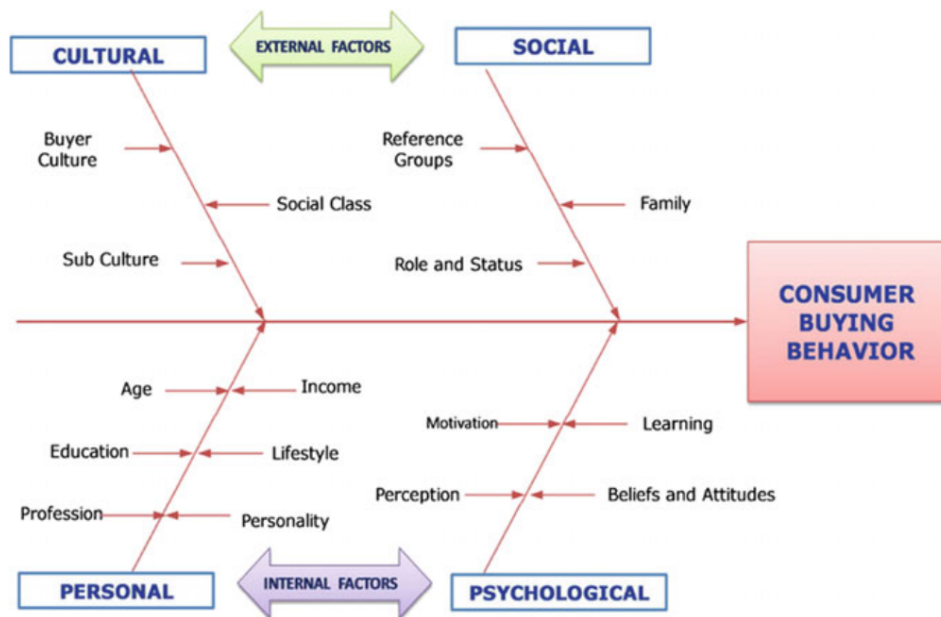

Figure 1.

Broadly speaking, consumer buying behaviour can be influenced by internal factors referring to psychological factors, and external factors, referring to sociological factors. Factors such as culture, social class, reference group and family influence are among the most crucial external factors and play a main

role in affecting the decision-making process of a consumer out of the external factors(Hawkins & Mothersbaugh, 2010).

On the other hand, the underlying internal factors are indeed knowledge, awareness and interest that drive a consumer to take action. The psychological factors are the most influential internal factors of consumer behaviour. In particular, factors such as one's beliefs and attitudes play a large role in predicting buying decisions. Notably, it has been found that individuals interested in environmental problems are more likely to choose sustainable options over non-sustainable options (Hawkins & Mothersbaugh, 2010). As such, it can be expected that sustainable clothing will also be more likely to be chosen by those who have a key interest in environmental problems and issues.

The main way consumers know clothing is sustainable is through sustainable labels. This is the way to reach out to the interested individuals, but also raise awareness among other individuals who might question what the label means upon encountering it (Byrd & Su, 2021).

Sustainability Labels

While there are many different labels used in the fashion industry, three labels are particularly relevant due to their wider use: The Better Cotton Initiative (BCI), Global Recycled Standard (GRS) and Organic Content Standard (OCS). These labels all have the focus to improve the sustainability of the manufacturing process and/or the product itself (Byrd & Su, 2021).

The Better Cotton Initiative (BCI) is a not-for-profit organisation that aims to improve global cotton production focusing on the farmers and the environment. BCI is the largest cotton sustainability program on earth and its network accounts for over two million cotton farmers in 21 different countries. The stakeholders of BCI are fairly diverse all across the world and throughout the supply chain in order to improve the environment and economies of cotton-producing areas. They do this by doing their own research on the cotton products, monitoring programme-wide and sampled monitoring. Their main goal is

to create cotton production that is better for the cotton farmers, the local communities and, the environment (Byrd & Su, 2021).

The Global Recycled Standard (GRS) was established by Control Union Certification in 2008 and turned over to Textile Exchange in 2011. The GRS is an international standard that provides benchmarks for third-party certification of recycled content, social and environmental activities and chemical regulations. They work together with recyclers, suppliers, brands, and retailers from all parts of the globe. The goal of GRS is to set benchmarks in order to safeguard precise content claims and good working practices and that destructive environmental and chemical impacts are kept to a minimum throughout the whole supply chain. The surprising part with GRS is that they are testing the entirety production chain in which they take into consideration the social and environmental problems, and prohibit any use of chemicals (Byrd & Su, 2021).

The Organic Content Standard (OCS) is an international, voluntary standard that sets benchmarks for third-party certification of certified organic input and chain of custody. The goal of the OCS is to enhance organic agriculture production. They are pursuing this goal by providing the industry with a tool to verify the organically grown content, a trusted tool to communicate organically grown content claims to the industry and organic fibre farmers with broad access to the global organic market for their products. Their key points are verifying organic content, a chain of custody, credible certification, confident communication, and stakeholder engagement (Organic Content Standard (OCS), 2022). But to what extent consumers are knowledgeable about these labels and how do they perceive these labels? In the next section, we will discuss key psychological factors that might influence consumers' purchase behaviour.

Lack of knowledge of sustainability

One of the key factors influencing the purchase intention of consumers is knowledge. In the study of Oh & Abraham, it was found that knowledge has a severe influence on the purchase intention of consumers. They researched the effect of knowledge on decision-making in the context of organic cotton clothing in which it was found that overall knowledge about the fashion industry and its practices was fairly low (Oh & Abraham, 2013). When the consumer had more knowledge of the fashion industry and its practices they were significantly more interested in workers in the business and presented favouritism towards socially responsible businesses. This shows a significant relationship that might be a good prospect for our own research. It was also found that whenever the consumer has sufficient knowledge on relevant issues it might increase its acceptability and therefore also could increase the willingness to pay for sustainable clothing (Oh & Abraham, 2013).

Interest in sustainability

People's interest in sustainability goes paired with knowledge. When someone is highly interested in sustainability, this person probably will have a sufficient amount of knowledge regarding sustainability. Nowadays, a large number of individuals still do not have sufficient knowledge regarding sustainability whilst this is one of the main incentives for more sustainable behaviour this is primarily due to interest (Khan et al., 2020).

Interest in sustainability is determined by the individual's attitudes towards sustainability (Khan et al., 2020). Attitude involves a person's opinions and morals either expressed as positive or negative such as waste sorting which might for some others be positive to do, but for others not since it takes more time and their time is more valuable for them (Khan et al., 2020). Meaning the higher a person's interest the more effort, for example in terms of money, a person wants to put into example making sure their food is sustainable or their clothing is sustainable by doing research on the different products. This is the same with clothing where some find it important to have sustainable clothing rather than non-sustainable clothing (Khan et al., 2020).

<u>Problem Awareness</u>

Problem awareness is one of the first steps for consumers to buy more sustainably. Awareness is defined as whether someone is aware of the negative consequences for others or for other things one values when not acting prosocially. It was also found that the higher the awareness the higher the felt responsibility of consumers to act pro-environmentally (De Groot & Steg, 2009). A great example of this is the disaster that was broadcasted all around the world about Rana Plaza in Bangladesh which killed over 1100 people in 2013. It exposed all the underground problems in the fashion industry and consumers started to demand to know where and how their products are being made due to increased consumer awareness. This event led to companies setting up corporate social responsibility departments within their company (Byrd & Su, 2021). Now around the world, people are much more aware of the issues occurring in the fashion industry, shrinking the step to buy more sustainably. Awareness has grown massively in the purchase behaviour of the consumer since nowadays we have way greater access to information that is covered on the news daily. This means we are way more aware of everything going on around the world, so also regarding sustainable clothing, however, there is still a lot that is uncovered (Byrd & Su, 2021).

<u>Trust in the fashion industry</u>

The production of sustainable clothing has been a complex process to be fully transparent, ethical, and sustainable throughout the supply chain. Therefore, retailers in most cases do not know everything about their production. Sustainability has been gaining increased importance and it has become a trend to which companies responded by greening their marketing communications with social or environmental claims (Brandão & Costa, 2021). The way multiple companies communicate with the customer is often perceived as greenwashing, which is defined as dishonest and misleading. The problem is that there is no standard regulation to prevent greenwashing from happening (Brandão & Costa, 2021).

This has resulted in an enormous increase in scepticism towards companies and might keep possible customers from buying sustainable clothing from the enormous lack of trust (Brandão & Costa, 2021).

Trust has been shown to have a significant influence on the purchase intention of consumers. Since the reliability of a brand does on the one hand influence the beliefs that it will satisfy the consumer's needs. It also is a big predictor of positive outcomes of marketing such as loyalty and purchase intention (Neumann et al., 2021).

Regarding sustainable fashion, the consumer nowadays has sustainable and traditional options. However, there is a huge lack of trust in sustainable fashion due to previous incidents such as those described above with Raza Plaza and news articles exposing the fashion industry. This has led to the fact that consumers doubt whether a claim of a sustainable product is true (Neumann et al., 2021). When coupled with the big number of sustainable labels available, it also occurs that when a label is seen it is perceived as "just another green label". Neuman et al. (2021) have also shown that trust has a significant impact on purchase intention (Neumann et al., 2021).

Purchase intention

Nowadays the availability of more environmentally friendly products, such as clothing, has increased compared to the previous years. It has been shown that the most important factors in whether a consumer wants to buy more sustainably or not are their values and decision-making. There are three different values in consumption: utilitarian (functionality, quality, durability), hedonic (seeking novelty), and conspicuous (belonging to a group, status) (Neumann et al., 2021). Consumers often feel they have to make trade-offs for sustainability regarding their values. Whenever the person's values align with the product such as the brand promoting itself to be sustainable or the product is produced in a sustainable way, the chance this person buys the product is much higher. For clothing, this could for example by price, style, sustainability, easiness of shopping or fashionable. If one person has high environmental values this person might find sustainability the most important factor. However, when one person finds the price most important and is looking for the cheapest t-shirt sustainability might be put in the last place (Neumann et al., 2021).

<u>Willingness to pay</u>

When going shopping for clothes one of the key factors influencing buying behaviour is price and often when considering sustainable clothing it is frequently connected to a higher price. It has been found by Brandão and Costa (2021), that one of the main reasons for consumers not behaving more sustainably is the perceived higher price. It is often thought that purchasing from ethical brands or buying clothes made from sustainable materials are not for everyone pushing possible customers away. However, customers take into account the perceived ratio of cost/benefit, for example, value, whenever making a purchase. Therefore the perceived value of a product can have a significant impact on the willingness to pay. The perceived value of a product can differ between individuals by factors such as knowledge, interest and trust (Brandão & Costa, 2021).

<u>The current study</u>

Based on previous literature, the study aims to investigate the influence of lack of *knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability* on *willingness to pay for and purchase intention of sustainable clothing*. The decision-making of the consumer will be explored through these six variables and clear relations will be exposed and explained. The knowledge obtained can be linked to sustainable labelling on how the sales of sustainable fashion could increase. To come to this conclusion we first have to look at how we could enhance sustainable behaviour regarding clothing purchases.

I hypothesise that lack of knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability will all be positively related to purchase intentions and willingness to pay for sustainable fashion. More specifically, I argue that most of the participants are aware that multiple issues occur around the fashion industry which enhances their interest in sustainability, however, they do not have sufficient knowledge on the topic. I also expect that there will be low trust in the fashion industry and sustainable labelling due to historical scandals. It will overall influence the purchase intention on

whether they find price the most important or sustainability which will influence the willingness to pay for a product.

Out of all the factors it is expected that trust is going to be the most significant predictor since this is a very powerful psychological factor intertwined with all other factors.

It is also expected that style and price are going to be the most significant factors for consumers when shopping for clothes. This will give a great overview of the purchase intention of the consumer.

Furthermore, I expect that people are willing to pay more for a sustainable t-shirt than for a non-sustainable t-shirt

H1: I expect that lack of knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability will all be positively related to purchase intentions and willingness to pay for sustainable fashion

H2: I expect that there will be low trust in the fashion industry and sustainable labelling

H3: I expect trust is going to be the most significant predictor

H4: It is expected that style and price are going the most significant factors for consumers when shopping for clothes

H5: I expect that people are willing to pay more for a sustainable t-shirt than for a non-sustainable t-shirt.

Method:

The following section will outline and justify the methodological approach that was used for this research study. The aim of the study is to map psychological factors influencing the decision-making process of a consumer when buying clothes. The obtained information will create a great understanding of which factors have the most significant influence on the consumer and how these factors could be used to enhance sustainable fashion purchases. The factors that I will map out are problem awareness, trust, knowledge, interest in sustainability, purchase intention, and willingness to pay.
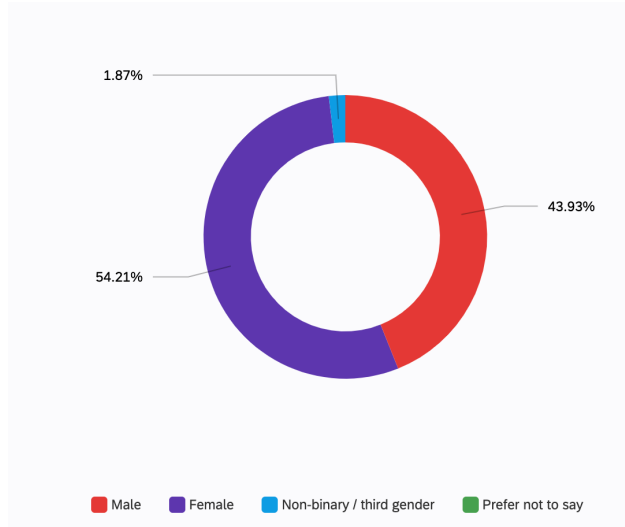
One more specific factor will be sustainable labelling on clothing since this is the aspect that is communicated to the consumer on the sustainability levels of the product. This will stimulate the greater goal which is to combat climate change and preserve the world. This research will enforce the following methodological approach to understand and answer the research question and hypothesis explained before. In this thesis, I will do quantitative research in which an online survey will be conducted.

Participants

For my research, there was not a specific target population. I wanted to create as diverse a group as possible including people of all ages, all regions, all socioeconomic statuses and all genders.

The sampling technique that has been used was the snowball technique. I used my own social network as a starting point, including peers from Campus Fryslan, and people from the student association. In addition, social media platforms such as Linkedin and Facebook were used to recruit participants. . The reason behind this way of sampling was to reach as many people as possible, increasing the chance to have people with different backgrounds as participants.

A total of 111 respondents participated in the online survey. Upon inspecting the data, 5 people were left out of the data analysis due to missing data or leaving the questionnaire empty. Data analysis was carried out with the remaining 107 participants. 54,2 % of them were female and the Mean age was 28,98 (SD=13,54.). 43,9% of the participants were male and had a Mean age of 26,11 (SD=11,89). 2 Participants were non-binary/third gender and had a mean age of 22 (SD=1,41) (see Figure 2).

Figure 2.

Amongst these participants, the frequency of shopping was investigated to get a better overview of the buying behaviour of the participants. In the graph on the right (see Figure 3), it can be seen that most participants buy clothes *Once every month* and *Once every three months*.
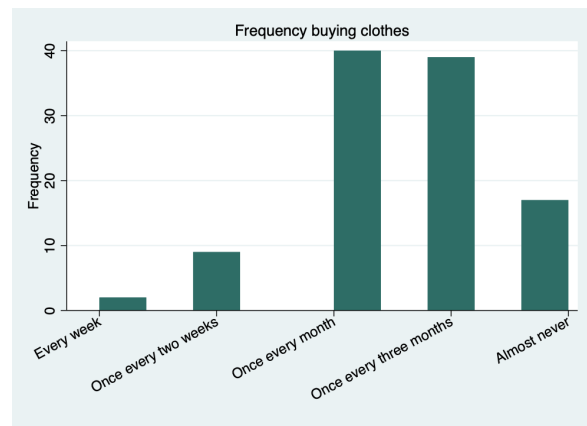

Figure 3.

<u>Materials</u>

<u>Independent variables</u>

Interest in sustainability: We measured interest in sustainability with 3 items: 1- I often consider sustainability in my daily life. 2- I am interested in learning how to behave sustainably 3- I often consider the consequences of my actions on the environment. Responses were provided by using a Likert type scale ranging from 1= strongly disagree to 5= strongly agree. The scale had a good internal consistency (Cronbach's alpha=0.8068, M=4.0718 SD=0.7787). The first variable that was tested was interested in sustainability and this was done through 3 items. It can be seen that in questions 5 to question 7 there is an average mean of 4,0718 which refers back to the answer "somewhat agree". The higher the mean the higher the interest in sustainability. The standard deviation is 0,7787 meaning 95% of the respondents answered between 3,2931 - 4,8505 referring to neither agree nor disagree to strongly agree.

Importance ratings: We used a ranking scale asking about what people find important when buying clothing. The following five options had to be ranked in order of importance from the most important (1) to least important (5) 1- price, 2- style, 3- sustainability such as sustainable labels, 4- easiness of shopping and 5- fashionable.

Trust: We measured trust with 4 items. Participants responded to the following items 1- I trust the clothing industry regarding sustainability change 2- I trust that sustainability is taken into account in the manufacturing process 3- I trust in the accuracy of sustainable labelling 4- I trust no greenwashing is used in the clothing industry. Responses were given on a Likert type scale ranging from 1= strongly disagree to 5= strongly agree. The scale had a good internal consistency (Cronbach's alpha=0.7725, M=2.1894 SD=0.7835). Higher means indicated higher trust of respondents towards the asked sustainability topics; sustainable change, manufacturing process, and sustainable labelling. Looking at the meaning it refers to the answer "somewhat disagree:. Taking into account the standard deviation we can

see that 95% of all respondents answered between 1,4059 - 3,5953 which is strongly disagree to neither agree nor disagree

Problem awareness: We measured problem awareness with 3 numbers items. We asked certain questions regarding the fashion industry to see if they were aware of certain issues occurring in this sector. Participants indicated to what extent the manufacturing process of clothing has a negative impact on the environment, the transportation process of the fashion industry significantly contributes to CO_2 emissions, and the manufacturing process of clothing takes into account the social impacts, such as child labour, and fair wages by using a Likert type scale ranging from 1(strongly disagree) to 5(strongly agree). The scale had a good internal consistency (Cronbach's alpha= 0.6534., M= 3,8333 SD= 0.6325). Higher means indicated higher problem awareness of issues occurring in the fashion industry. Looking at the average means it is linked to the answer "somewhat agree". Taking into account the standard deviation we can conclude that 95% of the respondents answered the questions from 3.2005 - 4.4658 which is "Neither agree nor disagree" to "strongly agree:.

Knowledge: We measured knowledge with two items. Participants indicated to what extent they have knowledge of sustainable clothing by responding to two items: 1- I have little knowledge about sustainable clothing, 2- I have little knowledge regarding sustainable labelling of clothing, by using a Likert type scale ranging from 1= strongly disagree to 5= strongly agree. The scale had a good internal consistency (Cronbach's alpha=0.8703, M=3.0523 SD=1.1479). Higher means indicated less knowledge regarding sustainable clothing and sustainable labelling. It can be seen that in question 16 and question 17 there is an average mean of 3,0523 which refers back to the answer "Neither agree nor disagree ". The higher the mean the higher the interest in sustainability. The standard deviation shows that 95% of all respondents answered the questions from 1,9044 - 4,2002 which is "somewhat disagree" to "somewhat agree".

We measured knowledge again with two different items. Participants indicated to what extent they have knowledge of sustainable clothing by responding to two items: 1 - When scoring yourself a Neither agree nor disagree to strongly agree in the previous question, is this because of a lack of interest in sustainability or lack of trust in the fashion industry or another reason?, 2 - Have you heard of the Better Cotton Initiative? By answering yes or no or either by choosing one of the options. The scale has a low internal consistency (Cronbach's alpha=0.2890, M=1.875 SD=0.3198). The mean from these questions refers back to the answer's "lack of trust". This meaning calculated with the standard deviation gives us that 95% of all respondents answered the questions 1,5552 - 2,1984 which is a lack of trust.

Dependent variables.

Purchase intention: We measured purchase intention with one item: "How much would you pay for the same shirt but then made from sustainable materials? (EUR). Participants responded by giving a price that ended up with (M= 16.16685, SD= 7,8587).

Willingness to pay: Participants indicated what they would pay for a sustainable t-shirt compared to a non-sustainable t-shirt. A picture of a regular, non-sustainable t-shirt (plain white) was shown with a price tag of 10 euros. Participants were asked to indicate how much they are willing to pay for the sustainable option of the same t-shirt. A difference score was calculated by subtracting the price paid for a non-sustainable t-shirt (i.e. 10euros) from the price indicated for the sustainable t-shirt. A larger difference indicated a higher willingness to pay for the sustainable clothing option.

Procedure

Data collection was carried out online using Qualtrics. Participants were recruited via the different channels named above. They first read the information and informed consent form. They were assured that participation was voluntary and they could withdraw anytime they wanted. After giving consent, the survey started. When no consent was given the questionnaire would immediately be ended. Participants filled in socio-demographic questions first, followed by questions regarding interest in sustainability and then continued with importance ratings that explain their motives for buying clothing. This was then followed by questions about trust, and problem awareness and ended with questions regarding their knowledge and what they would pay for a sustainable t-shirt. The ultimate question was whether they would intend to buy more sustainably next time. It took approximately 5-10 minutes to finalise the questionnaire.

Results

In order to investigate the correlation between the independent variables a correlation table has been made and multiple significant correlations have been found.

Interest has been found to be significantly correlated with trust ($p=0.0051$, $\rho=-0.28$). The correlation is negative meaning the higher the interest the lower the trust and the lower the interest the higher the trust.

Secondly, awareness turned out to have a significant correlation with interest ($p=0.02$, $\rho=0.23$). The correlation showed to be positive meaning the higher the interest the higher the awareness and vice versa.

Lastly, it has been concluded that knowledge has a significant correlation with interest ($p=0.0027$, $\rho=-0.231$). Knowledge and interest showed to have a negative correlation meaning when the knowledge increases the interest decreases and when the interest increases the knowledge decreases.

Table 1. Correlation table of all independent variables

	interest	Trust	Awareness	Knowledge
Interest	1.000			
Trust	-0.28*	1.0000		
Awareness	0.23*	0.05	1.0000	
Knowledge	-0.31*	0.20	0.09	1.0000

* p <.05

In order to test our hypotheses, we carried out two regression analyses by using the willingness to buy and purchase intention as dependent variables and interest, trust, awareness and knowledge as independent variables.

Table 2. Multiple Regression Analyses Testing whether Willingness to buy and Purchase intention would be predicted by Independent variables (Interest, Trust, Awareness, Knowledge).

	β	t	Adjusted R^2	F	df	p
DV: Willingness to buy			0.03	4. 67	1,57	
Interest	.83	0.60				0.5
Trust	-2.08	-1.62				0.1
Awareness	-.73	-0.49				0.6
Knowledge	-.98	-1.16				0.2
DV: Purchase intention			0.34	4. 77	11,49	
Interest	.59	4.55				0.000
Trust	.01	0.13				0.89
Awareness	-.12	-0.85				0.39
Knowledge	-.24	-3.03				0.003

As can be seen on Table 2, conducting the regression analysis for willingness to pay, none of the independent variables significantly predicted willingness to pay since all p-values are higher than 0.05.

This can also be seen in the adjusted R^2 which is 0.03 meaning that only 3% can be predicted by the presented independent variables.

A second regression analysis has been conducted for the independent variable purchase intention. The four independent variables predicted 34% of the variance in purchase intention. Notably, interest had a positive association with purchase intention ($\beta=.59$, p=0.000). The higher the interest the higher the purchase intention. Second, knowledge has shown to have a negative association with purchase intention ($\beta=-.25$; p=0.000). The lower the knowledge the higher the purchase intention and the higher the knowledge the lower the purchase intention. Interestingly, trust and problem awareness did not significantly contribute to the model.

Importance Rating

Next, we tested H4 on importance ratings for what people find important in their buying decisions for clothing. It can be seen in Figure 4 on the left that style is the most significant factor. More specifically, 53 of the respondents have chosen style to be the most important factor. Whilst 13 respondents voted price as the most important factor,12 respondents voted sustainability as the most important. The two factors having the least votes for the most important factors are easiness of shopping with 3 votes and fashionable with 1 vote.
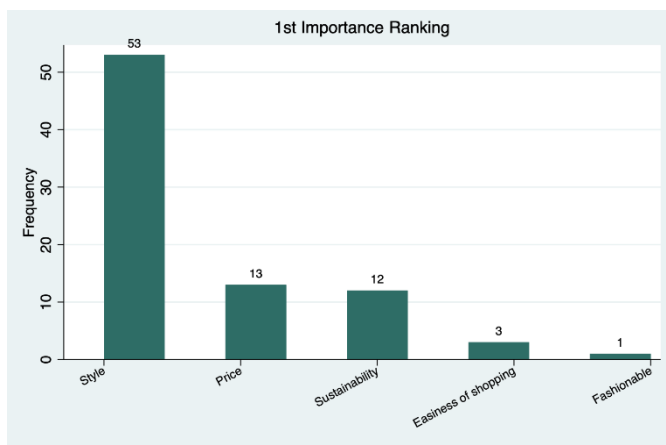

Figure 4.

The second most important factor was either the price with 29 of the respondents choosing it or sustainability with 27 of the respondents choosing it. These were followed by style by 14 respondents. The two factors with the least votes for the second most important factor are ease of shopping with 10 votes and fashionable with 2 votes (see Figure 5).
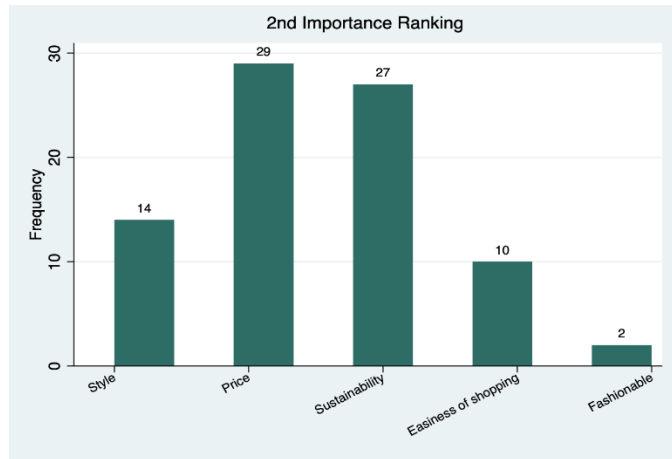

Figure 5.

The third most important factor given by the respondents with 26 votes is easiness of shopping This was followed by price with 21 votes and fashionable with 17 votes. Style only has 5 votes (see Figure 6).
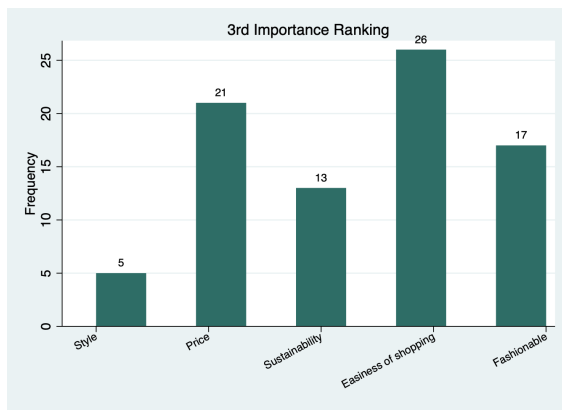

Figure 6.

It can be concluded that style, price and sustainability, in this precise order, are the most important factors for consumers when buying clothes.

<u>Open questions</u>

We also had two open questions for respondents whereby they can provide answers. The first one asked whether the reason for not being knowledgeable about sustainable clothing results from a lack of trust and lack of interest or both. Participants could also fill in themselves the reason is for their little knowledge regarding sustainable clothing and labelling.

```
Tabulation: Freq.  Value
           107  ""
             1  "A bit of both"
             1  "Both"
             1  "Hard to find factual reliable
                information"
             1  "Jack of knowledge"
             1  "Just have not done enough research on
                sustainable labeling specifically to
                know enough about it"
             1  "Mostly lack of trust, the average
                consumer likes to pay as less as
                possible hence why I don't buy 'child
                labour free' yet"
             1  "Perhaps i know more than most others
                but still feels like i dont know enough
                due to lack of available knowledge of
                some brands id like clothes from"
             1  "Q17_3_TEXT"
             1  "{"ImportId":"QID18_3_TEXT"}"
```

It can be seen that most of the respondents gave the answer "both" or further explained that their lack of knowledge resulted from a lack of trust or lack of interest. What was also found is that access to valid knowledge was a big hurdle for some. This can for example be intertwined with trust since not every source is reliable.

A second open-ended question investigated if they were familiar with the Better Cotton initiative. We asked a follow-up question if they knew any other sustainable labels than the Better Cotton Initiative.

ANSWERS	
Good on you	Fair trade
Cradle2cradle	Everlane
I mostly look at the sustainability statement and efforts of the company not labels and check it in good on you app	'- H&M but is purely greenwashing so not ok.
Oekotex	Un alliance for sustainable fashion
gots, oe,	Yes, like organic and recycled labels
Mud jeans. Organic cotton. Made from recycled plastics.	Fair trade

I know one brand, Labfresh.	Oeko
Fairtrade, FSC	Bijenkorf heeft een groen label
Green Button, GOT…	I thought it is Kuyicho
Ecovero, Livaeco, Tencel, RWS, LWG, Organic Cotton	Kuyichi jeans, Kings of Indigo, by molle, People tree, gray label, alcimist,
Sustainable Apparel Coalition	Gots
Fairtrade, GOTS	tree, gray label, alcimist,
GOTS, GRS, PETA approved vegan, Grüner Punkt, Öko Tex 100, C2C, Fairtrade,	Some mark offer a sustainable line of cloths, e.g. IKKS
Gots	Too many to list

It can be seen that multiple answers are given a couple of times like Fairtrade, Oekotext, GOTS. However, what can be concluded from this is that people are not well informed about what is a sustainable label and what is not. Of course, a lot of brands nowadays have labels but it does not immediately imply that this label is sustainable.
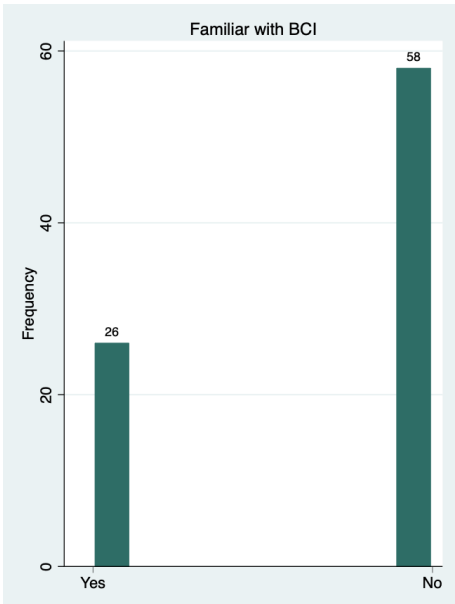
It was found that 26 of the respondents were familiar with the Better Cotton initiative whereas 58 people were not familiar with the Better Cotton initiative.

Figure 7.

Willingness to pay

The willingness to pay for a sustainable t-shirt was explored. On average the respondents would pay 16.16 euros (SD= 7.,89) for a sustainable t-shirt. This is 61.6% more than for a non-sustainable t-shirt.

Purchase intention

At the end of the survey, the question was asked whether participants have the intention to buy more sustainably in their next clothing purchase. Visual inspection of Figure 8 below hints that the majority of the people indicated that they are inclined to buy sustainable clothing, meaning there is a willingness to buy more sustainably after filling in the survey.
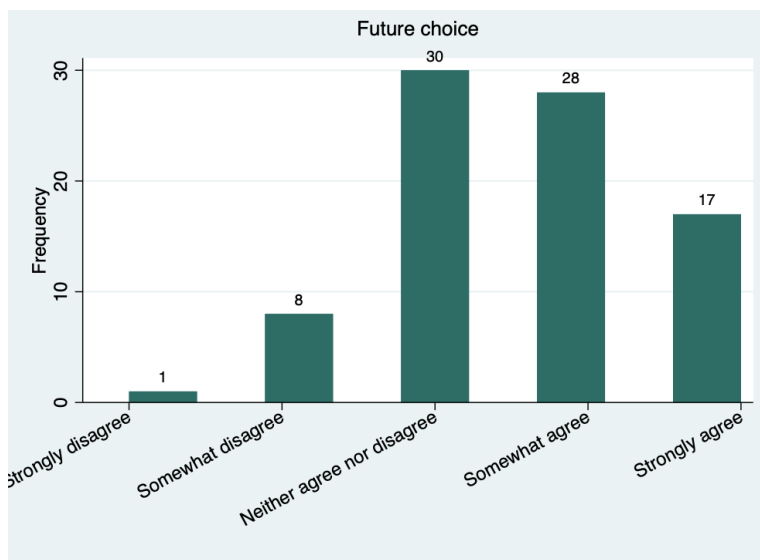

Figure 8.

H1: I expect that lack of knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability will all be positively related to purchase intentions and willingness to pay for sustainable fashion

It can be concluded that H1 is not supported. It is not supported since none of the independent variables predicted willingness to pay. However, H1 is partly supported for purchase intention as interest and knowledge predicted purchase intentions whereas awareness and trust did not.

H2: I expect that there will be low trust in the fashion industry and sustainable labelling

Based on visual inspection of the means, it can be concluded that H2 is supported. The average mean of the variable trust is 2.19 which refers to the answer somewhat disagreeing. This shows that the average respondent has little trust in the sustainable change of the clothing industry, manufacturing process, sustainable labelling and that no greenwashing occurs in the clothing industry.

H3: I expect trust is going to be the most significant predictor

It can be concluded that H3 is not supported as trust was not a significant predictor of willingness to pay or purchase intentions. .

H4: It is expected that style and price are going to be the most significant factors for consumers when shopping for clothes

It can be concluded that H4 is supported. It can be seen in the importance ranking that style has come on top of being the most important factor when buying clothes and the second one is price. These two factors are followed up by sustainability in a steady place 3.

H5: I expect that people are willing to pay more for a sustainable t-shirt than for a non-sustainable t-shirt

It can be concluded that H5 is true. \ The result out of 73 responses was that on average the respondents would pay €16.16 (SD= 7.89)for a sustainable t-shirt. This is 61.6% more than for a non-sustainable t-shirt (€10).

Discussion:

The aim of this thesis was to investigate what the consumer knows about the certification of sustainable clothing and whether it plays a role in the decision-making process of a consumer when buying clothing. This will be done through the exploration of the influence of lack of knowledge of sustainability, problem awareness, trust in sustainability, and interest in sustainability on willingness to pay for and purchase intention of sustainable clothing.

A survey was conducted that revealed the following results. Interest in sustainability was related with the independent variables trust, awareness, and knowledge. Interest had a negative correlation with trust and knowledge and a positive correlation with awareness. The finding of a significant relationship between interest and knowledge is in line with previous research in which interest led to more knowledge regarding sustainability since people tend to do their own research due to higher interest resulting in more knowledge about the topic (Khan et al., 2020). Trust has also shown in previous studies to have a strong correlation with interest in sustainability. When consumers are interested in the sustainability of clothing, they will do research on their own, the search will reveal multiple news articles about certain scandals that might negatively affect the trust (Neumann et al., 2021). Furthermore, it was found in previous studies that knowledge is mostly driven by interest (Oh & Abraham, 2013).

In the regression analysis, it was found that interest in sustainability is a significant predictor of purchase intention, meaning the higher the interest the higher the purchase intention. Other studies found that interest is driven by attitudes meaning when someone has positive attitudes towards sustainability it immediately enhances the interest in sustainability making them more likely to accept sustainability initiatives (Khan et al., 2020).

Furthermore, knowledge has also been found to be a significant predictor of purchase intention. It has been concluded that knowledge has a negative correlation with purchase intention meaning the lower the knowledge the higher the purchase intention. The same has been found in previous studies where it was said that knowledge is one of the most influential factors in the decision-making process of a consumer

(Oh & Abraham, 2013). However, in this research knowledge was with both purchase intention and willingness to buy negatively correlated. This is an interesting result since it is a very unexpected finding looking back at previous research. This might contradict that knowledge is not per se a motivating factor to act sustainable (De Groot & Steg, 2009).

The importance ranking exposed that style, price and sustainability are the most important factors when buying clothes. It was also found that style and price are the key factors taken into account when buying clothing, however, sustainability is a new factor that has come to light recently as well as in our research (Muthu, 2019). This gives a great future prospect, taking into account that interest in sustainability will increase as a result of the increased attention to sustainability overall. This enhances awareness and as shown in our correlation table interest and awareness are positively and significantly correlated with each other.

The respondents were asked to name sustainable labels they knew, however, from the results we can see that a lot of the answers from the respondents were not even sustainable labels, meaning there is a significant lack of knowledge regarding sustainable labelling. Furthermore, we could see some people naming certain sustainable labels more often and these are also the most well-known ones. This is not surprising since it has been found in multiple other studies that the knowledge regarding sustainable labelling and practices in the fashion industry is fairly low (Oh & Abraham, 2013). This points out an area where a lot of development can be made and is worth further investigation. For example, The Better Cotton Initiative is the biggest cotton initiative in the world and 26 people in our research said they were familiar with the initiative whereas the majority of people were not familiar with the initiative. Therefore, it can be concluded that even if the most well-known initiative is not that well known and a severe lack of knowledge is present among the consumers regarding sustainable labelling.

While knowledge about sustainability labels is low, it seems people are willing to pay more for sustainable clothes. Indeed, in our study, participants were willing to pay around 62% more for the sustainable alternative of a t-shirt. Similar results have been found in other studies. For instance, it has been found that when someone values sustainability higher than conventional products, the consumer

intends to pay more for sustainable products (Brandão & Costa, 2021). As such, sustainability labelling might particularly be appealing to consumers who value environmental protection.

The current study has some important limitations that have to be taken into account for possible future research. Firstly, the question asking about the importance of ranking might have created a bias in answering. The different factors in this question were already presented in an order some people agreed to (the order: style, price, sustainability, easiness of shopping, fashionable), meaning some participants might have just clicked to continue to the next question. However, the online survey platform Qualtrics registered this as not answering the question since the factors have not been dragged into a different order. This resulted in a decline of 20 participants compared to the previous questions, decreasing the quality of my data.

Secondly, there were some participants that did not answer some questions of the survey but did get taken into the data analysis since they did answer most of the questions in the survey. However, this shifted the number of observations per question which decreases statistical power and needs to be taken into account in future research.

Third, in measuring willingness to pay, a sustainable t-shirt was given as an example, which is basic clothing that is not very expensive. However, clothing is very specific, meaning that the percentage paid more for a sustainable t-shirt cannot readily be applied to another type of clothing, such as a jacket or jeans. In addition, while we found that participants are willing to pay much more for a sustainable alternative, it could be the case that willingness to pay more for the sustainable version might be lower for products with an already high price premium. Future research could include other clothing types with varying price premiums to have stronger conclusions for willingness to pay for sustainable alternatives.

Overall, the survey might have also triggered socially desirable answers as from the questions, it was clear that the study was on sustainable fashion, which might have resulted in priming the respondents to answer more in favour of sustainability than they would actually think. This intertwines with the attitude-behaviour gap that there is still a big gap between what people say they would do and how they

actually act (Straehle et al., 2016). Future research could therefore also measure real shopping behaviour rather than intentions.

Conclusion:

To conclude, the exploration of the psychological factors of interest in sustainability, trust in sustainability, awareness of sustainability, and knowledge about sustainability all regarding the clothing industry has given us a better insight to answer the previously developed research question. How could psychological factors influence the purchase behaviour of consumers buying clothing? From our research, it can be concluded that the factors of interest and knowledge are the most significant predictions of purchase intention that are part of the purchase behaviour of the consumer. In purchase intention, the interest in sustainability was measured and we came to the conclusion that sustainability is the third most important factor for consumers when buying clothing. However, little is known about sustainable labelling and about the Better Cotton initiative.

Therefore, the outcome of this research reveals a great gap in research into the factors of interest in sustainability and knowledge about sustainability. The quality of the data is lower than expected since not all respondents completed the whole survey leaving us with missing data points. This deeper investigation of these factors might reveal how sales of sustainable clothing could be stimulated.

The conclusion regarding enhancing sustainable clothing sales would be to stimulate knowledge by marketing more on the sustainable side of a company and why the Corporate Social Responsibility of that company is well developed. It has shown that knowledge is a significant predictor of purchase intention, so promoting the sustainability of your company can enhance interest since these variables are also significantly correlated with each other. Furthermore, it might enhance factors such as awareness and trust since these have also shown to be significantly correlated to interest. This is a great first step to an increase in sales from a business perspective. A good example could be to promote the sustainable labelling that a brand or company uses for their clothing. By explaining clearly and in simple terms to the consumer what the label stands for and what it includes a better understanding will be created among

consumers. However, this might be hard due to certain laws regarding greenwashing to prevent the consumer from greenwashing. Therefore, this must closely be investigated before set up.

From a governmental perspective, more validated information should be available on the internet. It has been shown that there is a severe lack of trust in the clothing industry as a result of scandals and bad news reports from factories. This negatively influences the interest and knowledge of consumers about sustainability which might prevent them from buying more sustainable. Furthermore, it has been shown that the people that do know some sustainable labelling state that there are so many diverse labels that they might need to be centralized meaning that there should be one universal label regarding for example the farming of cotton. Centralizing sustainable labels in policies makes it easier for consumers to obtain knowledge since it should be the same nation or union-wide. This process can have a severe positive impact on the trust of consumers since these are significantly correlated to knowledge and interest. Furthermore, since knowledge and interest have been shown to be significant predictors of purchase intention it could boost sales of sustainable clothing. This is definitely a topic, on a governmental level, that should be investigated more since there is significant potential here.

In the end, we can see that these factors (interest, trust, awareness, and knowledge) can have a severe influence on the purchase behaviour of consumers. It has also shown that sustainable labelling can play an extensive role in this since all these factors are intertwined with the goal of a sustainable label, which is to inform the consumer about the product. Therefore, large grounds can be won by looking at the possibilities and roles sustainable labelling could play in the future regarding knowledge, trust and even later in policies.

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Appendixes:

Appendix 1: Consent form survey

university of groningen

Welcome to this survey!

This survey takes around **5 minutes** to complete. You will be asked questions about your point of view on sustainable clothing.

Thank you for your participation!

Your participation in this survey is **voluntary**. If you decide to participate, you can stop at any time without having to provide a reason. There will be no adverse consequence of not participating in or not completing the questionnaire. The data collected in this survey is **anonymous**. Research data published, for example in university reports or scientific journals, cannot be used to identify you. Anonymised data may be shared with other researchers for scientific purposes.

By clicking the "Yes, I consent" button below, you indicate that: ¨I read and understood the information above, I voluntarily participate in this study. I give the consent to the use of my survey responses as data¨.

◯ Yes, I consent
◯ No, I do not consent

→

Survey consumer:

Socio-demographic questions
1. What is your age?
2. What is your gender?
3. What is your current job?
4. How often do you buy clothes? Every week, Once every two weeks, once a month, once every 3 months?, Almost never?

Interest in sustainability: (5-point Likert scale: Totally Disagree (1)- Totally Agree (5)
Please indicate to what extent you agree or disagree with the items below.

5. I often consider sustainability in my daily life.
6. I am interested in learning how to behave sustainably.
7. I often consider the consequences of my actions on the environment.

Importance Ratings explaining motives in buying clothing
8. What is the most important factor when buying clothes? Please rate the below items in terms of importance to you.
- Price
- Style
- Sustainability such as sustainable labels
- Fashionable
- Easiness of shopping

TRUST ITEMS: (5-point Likert scale: Totally Disagree (1)- Totally Agree (5)
Please indicate to what extent you agree or disagree with the items below.

9. I trust the clothing industry regarding sustainability change
10. I trust that sustainability is taken into account in the manufacturing process
11. I trust in the accuracy of sustainable labelling
12. I trust no greenwashing is used in the clothing industry

Problem awareness Items: (5-point Likert scale: Totally Disagree (1)- Totally Agree (5)
Please indicate to what extent you agree or disagree with the items below.
13. The manufacturing process of clothing has a negative impact on the environment
14. The transportation process of the fashion industry significantly contributes to CO2 emissions.
15. The manufacturing process of clothing takes into account the social impacts, such as child labour, and fair wages, and preserves them.

Knowledge Items:
16. On a scale of 1 to 5, do you have any knowledge regarding sustainable labelling of clothing?
17. Have you ever heard of the *Better Cotton Initiative*?
18. When scoring yourself a 1 to 3 in question 15, is this because of a lack of interest in sustainability or lack of trust in the fashion industry?

Dependent Variables Q18: (5-point Likert scale: Totally Disagree (1)- Totally Agree (5)
19. What would you pay for a sustainable t-shirt (non-sustainable t-shirt price 20eu, sustainable t-shirt price must be filled in by participant)
20. In my next clothing purchase, I intend to buy a sustainable one.