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INTEREST OF FEMALE CONSUMERS IN FINLAND ABOUT SUSTAINABLE FASHION

– Survey on Female Consumers in Finland



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KEYWORDS:

Sustainable Fashion, Environment, Consumer

ABSTRACT

This study aims to examine the interest in Sustainable Fashion of Female consumers in Finland while presenting the environmental impacts of the Fashion industry and introducing the Sustainable Fashion concept. Furthermore, this study aims to find out whether there is a connection between the awareness of the environmental impacts of the Fashion industry and the consumers' intention in Sustainable Fashion. The research was carried out by thoroughly studying previous studies, employing theoretical frameworks, and conducting a survey on a sample group. The target group of this research is Female individuals in Finland and those aged from 20 to 40. It is noteworthy that these individuals who were selected for this study are not necessarily Finnish nationals.

The research studies the environmental impacts of the fashion industry, explains sustainable fashion forms and assesses the female consumers' familiarity and Interest in Sustainable Fashion and their clothing consumption habits. Besides, other related factors in the research can be considered for future studies.

Keywords:

Sustainable fashion, Environmental, Consumer

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INTRODUCTION

Fashion has been around for centuries, shaping and evolving its form over the years. Without a doubt, we can find the presence of style in every aspect of life. From day-to-day routine to work-life and to other activities that one might encounter. The importance of technique and its presence in our everyday life is no longer simply a piece of cloth we use to cover our bare skin and keep it us warmth or exposed to potential physical damage from nature.

Most of us, if not all, today approach to fashion the way we dress, a form of reflecting and showcasing one's personality, identity, or a social class/religion in some cultures. Fashion puts people into groups but at the same time creates a gap and separates people. For instance, a businessman dresses a certain way and far different from a person whose hair is neon green with multiple piercings. That same businessman might view the person with green hair as a freak and an outsider, or that artist whose hair is green might see the businessman as an unexciting individual, etc. Fashion has evolved and become a part of civilization as far as human exists. It is rather difficult to picture a world without textile and clothing.

In addition to being a fundamental part of our everyday life, the fashion industry also plays an essential role in the global economy. Despite the importance of fashion to the world economy and society, it is often underappreciated and seen as a frivolous and ephemeral industry. Little that we know, the industry has contributed hugely to the global economy, with its value at 3 trillion dollars, providing jobs to over 57 million workers worldwide. (Corner, 2014)

Nevertheless, just as other global industries, the fashion industry adds a tremendous negative impact on the environment. It is currently the second-largest polluter, just after the oil industry and a significant water consumer using an immense amount of water for its production. (Sustain Your Style)

1.1 Fashion Footprint

The demand for clothing has been driven by the increases in the growing middle-class population across the world. In the last 15 years, it was estimated that clothing production has doubled. (Ellen MacArthur Foundation, 2017) However, this rapid growth of the fashion industry has created multiple controversial concerns and discussions about the industry's economic, environmental, and social aspects.

Due to consumers' demands, fast fashion generates cheaper garments, increases the number of collections launched per year, yet still offers the constant update of new and trendy styles. This continuous accumulation of cheap clothes is an only possible result of a continuous reduction of production costs. The amount of garment consumption has increased dramatically as mass production enabling consumers to purchase more at lower prices. While fast fashion focuses on cheap and quick solutions yet trendy and up-to-date, it also creates a tremendous amount of textile waste and toxic chemicals into the environment. (Perry, 2018)

The fashion industry is one of the biggest waste producers and significantly impacts our environment's long-term well-being. This, however, has a severe consequence on our health and our planet due to toxic chemicals which are massively used in the production period. In addition to a disastrous environmental impact, many textile and clothing companies face endless criticisms and elimination for ignoring ethical concerns of child labour, low wages, gender discrimination, and working conditions. (Sustain Your Style)

While it is one of the biggest industries that satisfy consumers' emotional needs simultaneously, it has been a significant topic that articulates endless discussion and causes headaches for sustainability leaders and conscious consumers. (Sustain Your Style)

1.2 Sustainable Fashion and Consumers

As the fashion industry becomes more competitive, many fashion retailers are trying to create a competitive edge to differentiate themselves and stand out from this crowded market. Understanding the current sustainability trends is essential to maintain the competitive advantage of a business. With that in mind, fashion companies are leaning towards developing an optimal business model, more sustainable alternatives of fabric choice and production process, and incorporating strong brand values. (Strähle & Müller, 2017)

Today, consumers are driven to live a more responsible and conscious life. They are now keener on the idea of circular products. In general, these consumers are more aware and conscious of their purchases compared to previous generations. Thus, millennials prefer to spend their money on brands that take social concerns into their brand building, implement sustainable manufacturing processes, and emphasize ethical business values. (Lein, 2018)

1.3 Thesis Objectives

We live in a time of modern technologies, high-speed internet, conveniences, and seemingly unlimited options, making the shopping experience more instant and assessable than ever before. It fosters excessive consumption, which drives companies and businesses to produce more to meet the demands. However, this excessive consumption and production have become a significant issue that was negatively affecting the environment.

Without denying the economic role the fashion industry adds to the world economy and the sentimental values as consumers, we often fail to acknowledge the environmental cost of the clothes we regularly buy. This does not mean to discourage readers from purchasing clothes. However, it is worthwhile to present and unravel the actual impacts the industry has on the environment and encourage a more conscious clothing consumption. The global fashion industry, in turn, causes endless detrimental environmental repercussions. However, the most significant problems with the manufacture and production of our clothes are the immediate ramifications for the worldwide water system. Thus, this thesis aims to study the environmental effects of the

Fashion Industry and see whether Female Consumers in Finland are interested in Sustainable Fashion.

This thesis is carried out in favour of the author's recent launch of a sustainable clothing line. Therefore, the topic is mainly chosen for the theory with a purpose in mind that it would somewhat give an idea and enables the author to gain deeper insights on the matter.

1.4 Research Questions

This thesis aims to examine the environmental impacts of the fashion industry and discover whether Female Consumers in Finland are interested in Sustainable Fashion. To meet the objectives of the thesis is to answer these 3 main research questions:

- *Question 1: What are the environmental issues of the fashion industry?*
- *Question 2: What can Sustainable Fashion be?*
- *Question 3: Are Female Consumers in Finland interested in Sustainable Fashion?*

1.5 Thesis Structure

To answer the research question and meet the thesis objective, this thesis is conducted as the following:

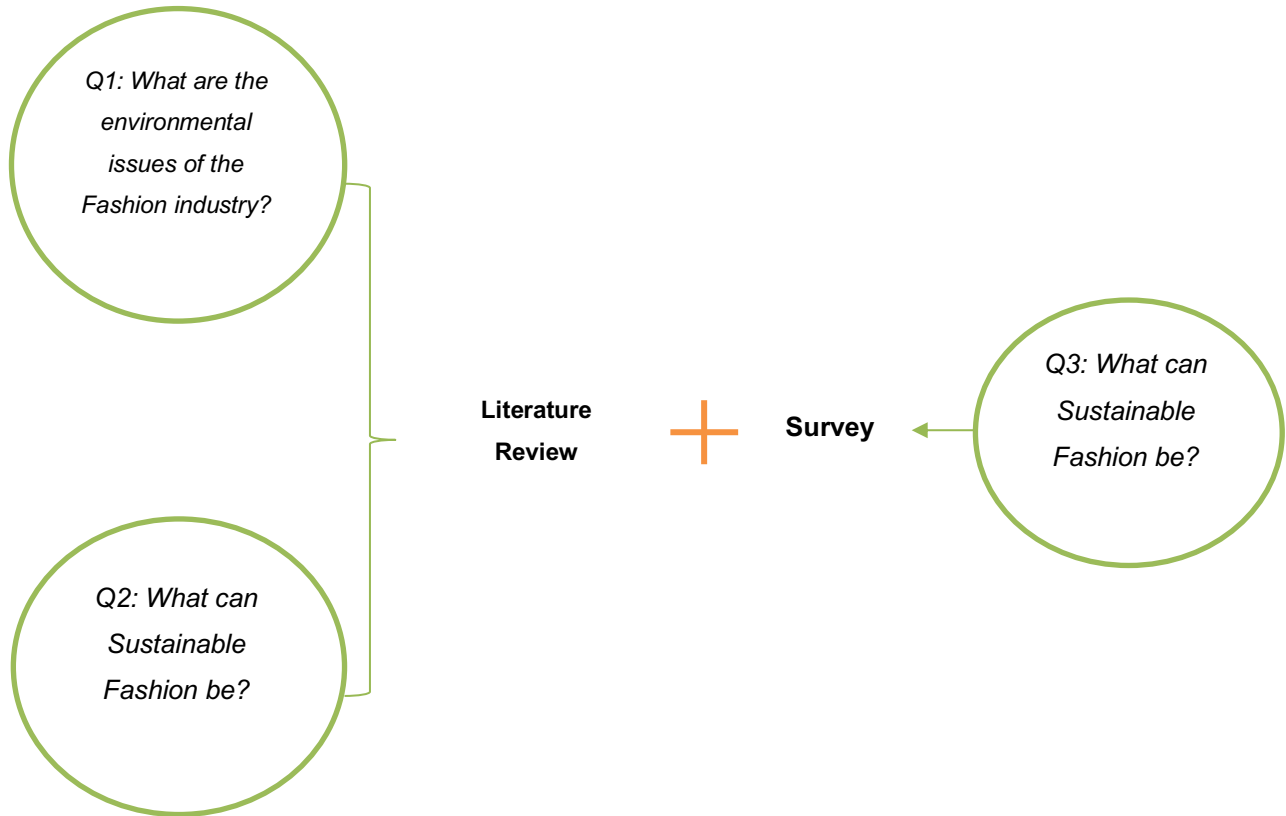


Figure 1: Thesis structure. (Dang, 2021)

To meet the thesis objective and answer the research questions, this thesis is structured as illustrated in Figure 1.

In the Literature Review, the author explores the environmental impacts of the Fashion industry and studies what Sustainable Fashion can be. Additionally, to answer the research question - Question 3, a survey is conducted.

LITERATURE REVIEW

2.1 The fashion industry and its environmental impacts

While being a multi-billion-dollar industry, the textile and fashion industry bears an enormous responsibility for carbon emission, chemical runoff, and waste accumulation in different parts of the world. In particular, the industry is considered the second most polluted industry of all, with an estimation of global textile consumption of more than thirty million tons a year. (Chen & Burns, 2006)

According to a recent study by Ellen MacArthur Foundation, it is estimated that in 2015 1.2 billion tons of CO₂ was produced by the fashion industry. Greenhouse gases are generated by the global fashion industry concerning its production, manufacturing, and transportation of millions of garments purchased each year. The sector alone accounts for twenty percent of global wastewater discharge and ten percent of global carbon emissions. This is greater than the emissions which are produced by all international flights and maritime shipping combined. (Ellen MacArthur Foundation, 2017, p. 38)

While there are several stages in the fashion supply chain that influence ecological and social concerns, as previously stated, this thesis's primary purpose is to study the environmental cost of the fashion industry. Therefore, to emphasize the fashion industry's impact on the environment, the 2 parts observed by the author: Production (textile companies/fashion brands) and Consumers (consumers responsibility), which she believes play substantial roles in the overall fashion footprint.

2.1.1 Production

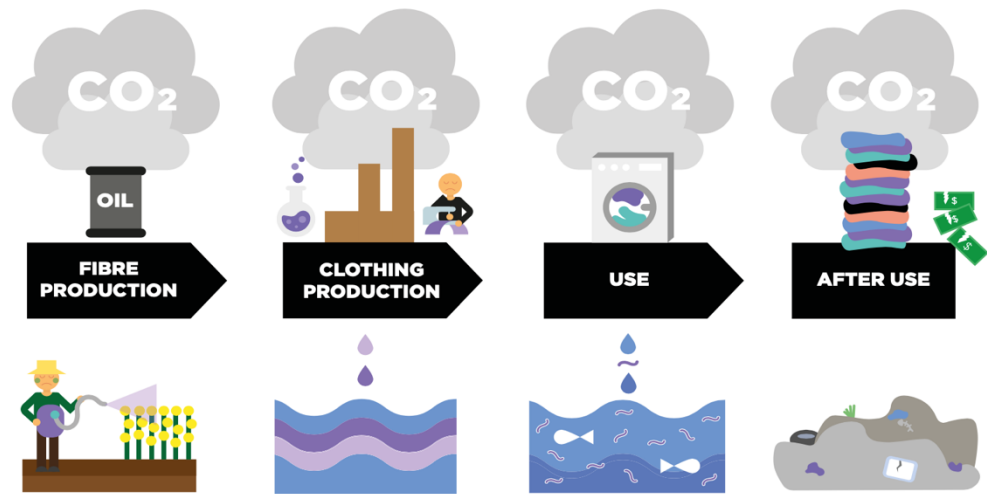


Figure 2: The impacts of today's clothing production and consumption on resources and environmental well-being. (Ellen MacArthur Foundation, 2017, p. 19)

Fibres and Clothing production

The majority of our clothes are made of synthetic fibres, such as polyester, acrylic, nylon, etc. These fabrics are made from non-renewable resources and from fossil fuel which consumes much more energy than natural fibres (CO DATA, 2018)

Besides, low-quality synthetic fibres also emit gases like NO₂, which has a more significant damaging effect than CO₂. Moreover, the toxic substances from textile production undoubtedly affect and damage both the field workers and textile consumers, as plastic microfibers are often found in non-renewable material-made garments and are ended in the ocean. (Ellen MacArthur Foundation, 2017, p. 21).

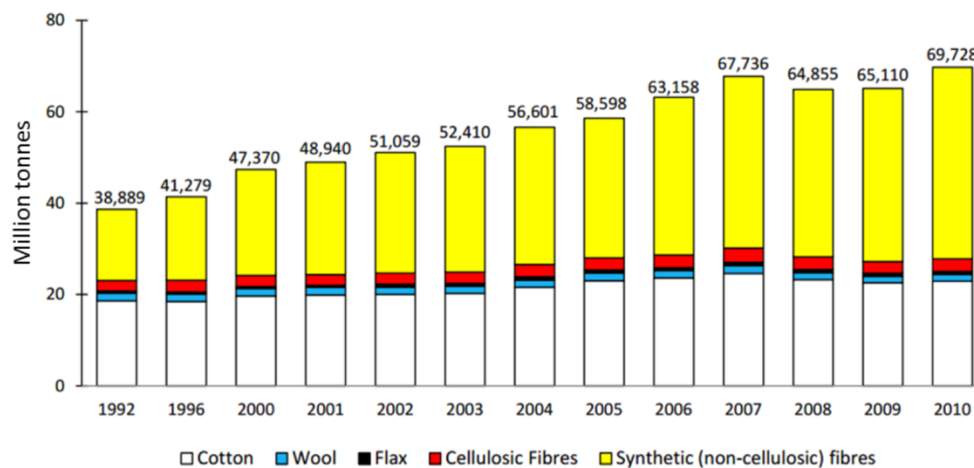


Figure 3 – Global apparel fibre consumption (FAQ/ICAC World Apparel Fibre Consumption Survey, 2013)

Figure 3 above demonstrates that from 1992 to 2010, Synthetics fibres and cotton are the most consumed fibre in the global apparel industry.

In this chapter, Polyester and Cotton will be selected to discuss in this research. The graph above indicates why cotton is one of the fabric types chosen to be studied and discussed. Polyester and cotton are selected to be observed in this study. The reason Polyester and Cotton are particularly chosen instead of other types of fabrics is clear as they are the most commonly used fibres for clothing production.

Polyester

Polyester is considered the world’s most commonly used synthetic fibre, among others. Its characteristic is durable, lightweight, and reacts well with the dyeing process or blends well with other fibres. In addition, with the low cost of production along with its wrinkle-free nature and fairly easy-to-wash, it seems to be an obvious and win-win choice for both manufacturer and consumer. Hence, the demand for polyester has been steadily increasing over the years. Back in 1980, 5.2 million tons of polyester were produced globally, and it went up to 46.1 million tons by 2014. Throughout this period, all fibres’ demand growth was influenced mainly by polyester, which takes up to a 73.4 percent increase. (Common Objective, 2018)

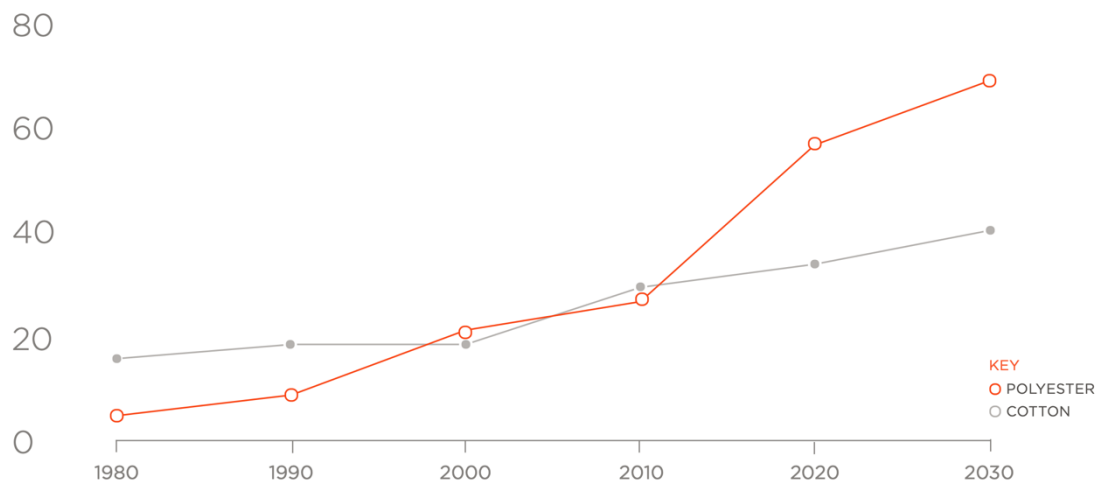


Figure 4: Fiber Demand: Polyester vs. Cotton from 1980 to 2030
(Commonobjective.co, 2017)

According to Common Objective, Polyester overtook cotton in fibre use for the first time in 2002 and continues on the rise. As shown in Figure 3, it is expected to grow and expand its market much further compared to cotton. (Commonobjective.co, 2017) In addition to polyester's characteristics, the common objective also points out that the cost to produce polyester is relatively cheap, which has further driven the demand for polyester used in the global clothing and textile industry. This particular synthetic fibre takes up more than 65% of fibre use. (Common Objective, 2018)

As fashion consumers, we can easily find a garment made from synthetic fibres – most seen polyester. With a quick walk through any clothing retail store or a browse on the internet, polyester is almost present in every product's detail and fabric composition.

Like any other synthetic fibre that is all made from non-renewable fossil fuel, the production of these synthetic fabric requires about 342 million barrels of oil, and the clothing industry takes up 98 million tons of non-renewable resources yearly. (Ellen MacArthur Foundation, 2017, p. 38).

Cotton

On the other hand, apart from the frequent use of synthetic fibres, cotton is also one of the most well-known fibres in the natural fibres category commonly used in garment manufacturing. Cotton - while one of the natural fibres listed in the graph-is the second

most used fabric in apparel production and persists steadily from 1992 to 2010. (FAQ/ICAC World Apparel Fibre Consumption Survey, 2013) Despite being advertised and perceived as a more eco-friendly alternative than synthetic fabrics, we as consumers are often mistaken and poorly informed about the tremendous impact that conventional cotton farming has on the environment and the well-being of its farmers and workers.

It is estimated that growing conventional cotton uses up to 25 percent of the world's insecticides and above 10 percent of the world's pesticides per year. (Dietz, 2013). This number alone makes us question our whole perception of cotton all over and how negatively the entire production has impacted and still is impacting the planet. Similar to any other commonly used materials, they all contribute various negative impacts on the environment and compromise the people's health involved in the process. (Ellen MacArthur Foundation, 2017)

In addition to conventional cotton farming, harmful chemicals are used to produce, treat and dye fabric materials. Often, untreated contaminated wastewater from textile factories is discharged directly into the rivers. Among others, wastewater contains various types of toxic substances such as mercury, lead, and arsenic. (Sustain Your Style) These substances are unspeakably threatening to the marine ecosystem and the health of people living in nearby areas. The contaminated wastewater that is dumped into the rivers harms the lives of the people who live by those riverbanks and flows to the sea and then extends over the globe. (Ellen MacArthur Foundation, 2017, p. 21)

Along with the high volume of non-renewable resources used in producing plastic-based (synthetic) fabric and the number of chemicals (fertilizers, pesticides, insecticides, etc.) used in cotton farming, as well as the excessive amount of water consumption. [DT1] Water is one of the significant elements not displayed on the label of your clothing. Surprisingly, [the water necessary] [DT2] to make a single cotton T-Shirt can consume 2700 litres. Textile production uses up to 93 billion cubic meters of water yearly. Looking at water intake and wastewater, producing polyester has a lower environmental impact compared to growing cotton. However, it requires 125 MJ of energy and emits 14.2 kilograms of CO₂ to produce 1 kilogram of polyester; according to Common Objective, in 2015, polyester production for clothing released approximately triple the amount of CO₂ of 282 billion kilograms compared to the production of cotton. (Common Objective, 2018)

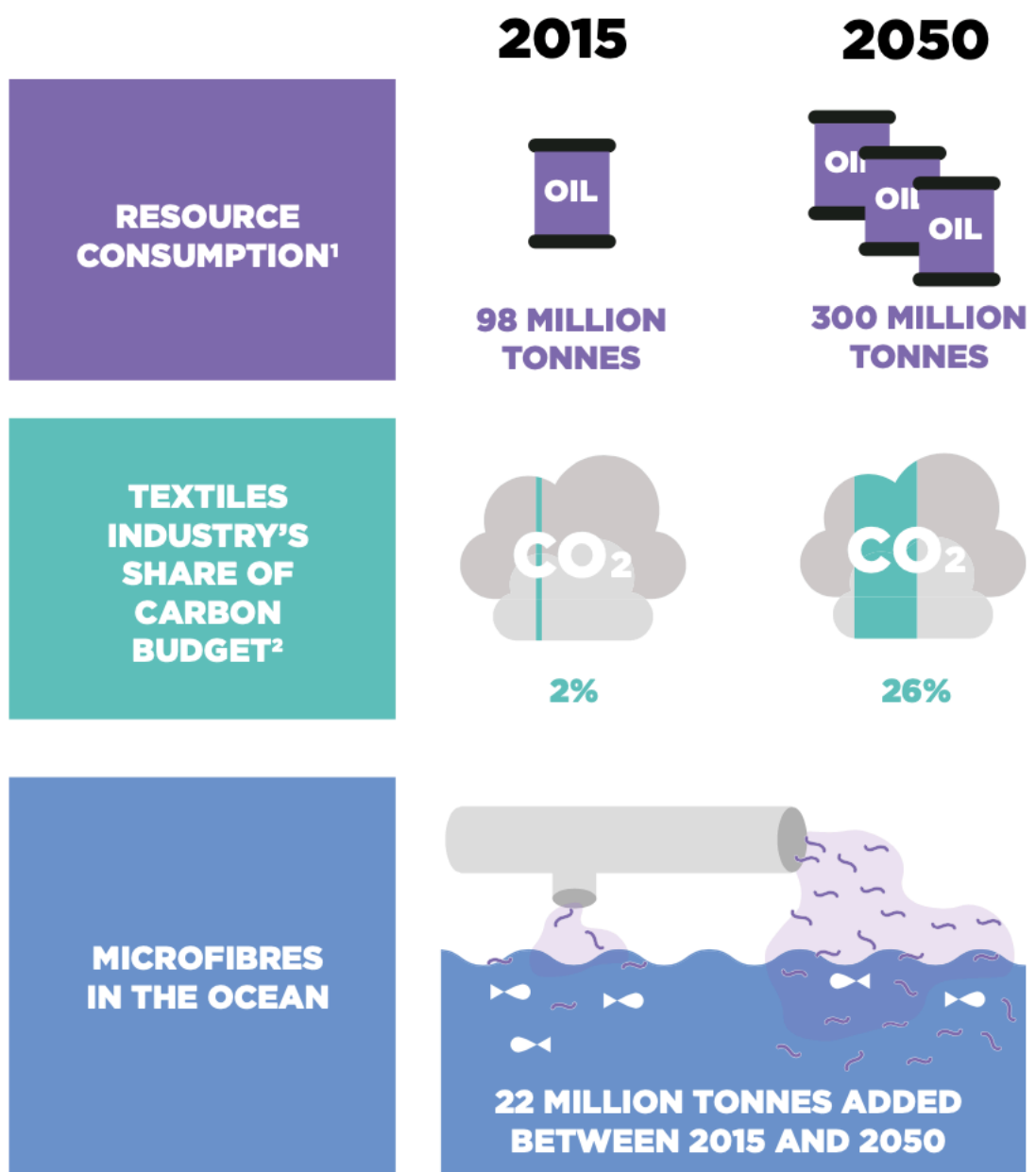


Figure 5: Fashion negative environmental impacts forecasted to be increased dramatically by 2050. (Ellen MacArthur Foundation, 2017, p. 21)

The actual data on how apparel production impacts the ecosystem and human health is often underreported or lacks transparency. However, it is known that textile production releases a high volume of chemical hazardous into the water in which contributes up to 20% of water pollution globally from its textile dyeing and treatment process alone while

we as consumers are also contributing significantly to the supply chain. (Ellen MacArthur Foundation, 2017, p. 21)

2.1.2 Fashion Consumption – During Use & After Use

Looking at Figure 2 mentioned above in this thesis, besides the negative impacts apparel production has on the environment, we as consumers also play a part in this supply chain. Unfortunately, so often underestimate our role as consumers regarding fashion footprint and fail to acknowledge the contribution we add by how we shop and consume clothes.

In recent days, clothing has become much more quick-to-throw and underutilized. It could have been due to several reasons, one of which is the “affordable”/cheap pricing and versatile designs available in the market. We buy more than we need or use in which leads to it become waste. Estimated on the global scale, the number of times one garment is used before getting disposed of has lessened by 36% compared to 15 years ago. (Ellen MacArthur Foundation, 2017, p. 19) This upgoing trend of clothing buying pattern drives companies to produce more inexpensive and low-quality clothes and faster to meet the high demand of the latest fashion trends. Yet, due to its durability and underutilization, more clothes end up as textile waste and accumulated in landfills or incinerated. (Ellen MacArthur Foundation, 2017)

According to data extract from Environmental Protection Agency (EPA), in 2018, the number of textiles generated in the United States was 17 million tons. Only 2,5 million tons were recycled, which resulted in giant mountains of 11,3 million tons of textile waste in landfills. (United States Environmental Protection Agency, 2020)

Management Pathway	1960	1970	1980	1990	2000	2005	2010	2015	2017	2018
Generation	1,760	2,040	2,530	5,810	9,480	11,510	13,220	16,060	16,890	17,030
Recycled	50	60	160	660	1,320	1,830	2,050	2,460	2,570	2,510
Composted	-	-	-	-	-	-	-	-	-	-
Combustion with Energy Recovery	-	10	50	880	1,880	2,110	2,270	3,060	3,170	3,220
Landfilled	1,710	1,970	2,320	4,270	6,280	7,570	8,900	10,540	11,150	11,300

Figure 6: 1960 – 2018 Data on Textiles in MSW, unit is in thousands of US tons. (United States Environmental Protection Agency, 2020)¹

Additionally, piles of textiles waste accumulated in landfills also lead to the leakage of chemical substances and remaining dyes used during production and consumption into the environment as it degrades. According to KEMI, in the EU alone, each year over 2000 tons of hazardous chemical is released into the environment due to textile degradation in landfills. (KEMI, 2016) Plus, the incardination process might potentially release harmful gases into the air if the emission is not carefully controlled throughout the process. (Ellen MacArthur Foundation, 2017) The Foundation Ellen MacArthur promotes and supports the idea of a sustainable society.

As previously discussed in this thesis with statistic data, synthetics fibres are the most commonly used fibres in clothing production – especially polyester. Let’s not forget this particular affordable fabric, with its unique characteristics, is the main factor that drives fast fashion. However, as a consequence, it poses a significant threat to landfills and their inhabitants. In recent years, the textile industry has been considered a pivotal contributor to plastics entering the sea. (Ellen MacArthur Foundation, 2017, p. 21)It should be noted that synthetic fibres account for over 60% of clothing items

(Greenpeace, 2017) . This results in a significant amount of microplastics get shredded during each washing cycle and end up in the ocean. According to “A new textile economy” report by Ellen MacArthur Foundation, with the current fashion and textile consumption rate, it is estimated 22 million tons of microfibers will end up in the ocean between 2015 and 2050. (Ellen MacArthur Foundation, 2017, p. 21)

Another study supported by European Union also emphasizes the concerning impacts that the industry adds to the marine ecosystem. The study stated that all the washing cycles combined discharged 30,000 tons of microplastics into wastewater per year in Europe alone. (Greenpeace, 2017)The consequence is far worse and can directly affect human lives as well. At the same time, these microplastics are not biodegradable and break into smaller particles and stay remained in the marine ecosystem. Due to this, sea habitats such as fishes, crabs, etc., can be severely harmed from ingesting these tiny particles of microplastics, affecting the whole ocean’s food web. (Greenpeace, 2017) This then later on harming human health as many of us eat these fishes which have microplastics in their system. Browne is one of many of experts that are trying to find the exact way to treat animals and ecosystems across this large and varied range of microplastics contamination. Evidence from poor reproduction of fish to changed microbial communities in the soil has been tangled. As more data is collected by academics, “we start to know that the problem is at the end of the iceberg.” (Brown, 2004)

2.2 Sustainable Fashion

The concept of Sustainable Fashion is relatively new even though sustainability trends have been around for over a decade and continuously on the rise. If paying attention, we could see sustainable practices are implemented in one way or another in almost every new service or product development. However, there is yet an official definition or standard to define Sustainable Fashion.

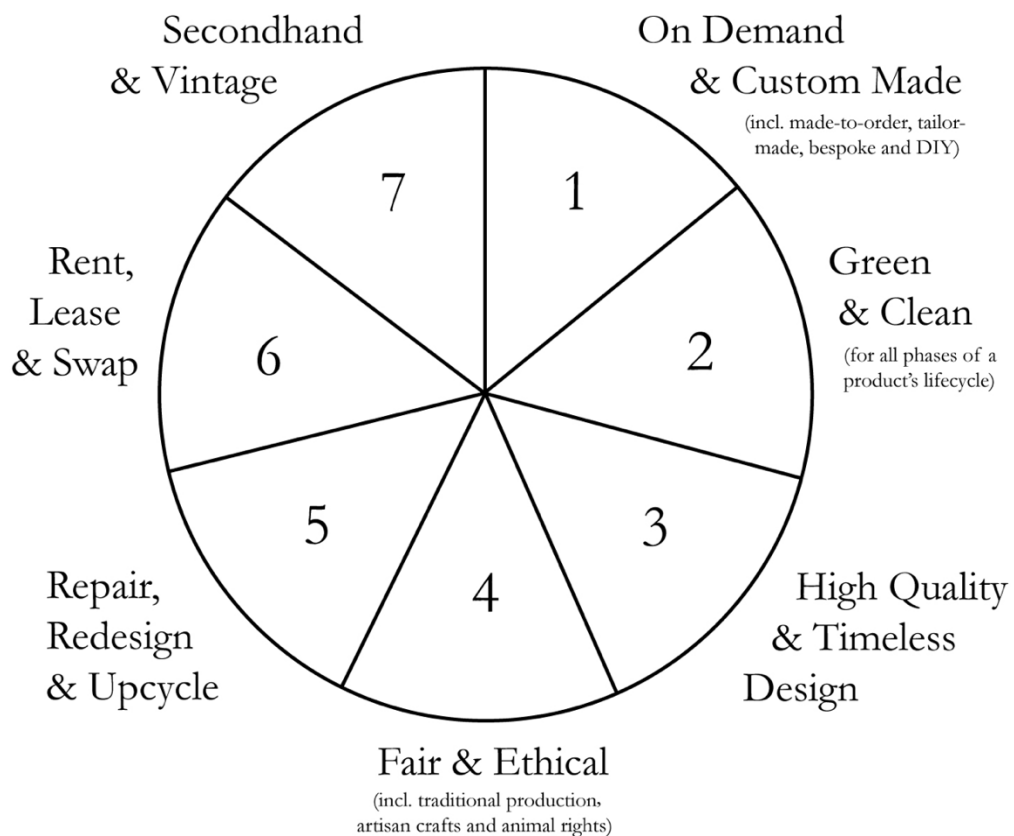
Sustainable Fashion or Slow Fashion can be understood as a movement against fast fashion. Sustainable fashion introduces ethical practices, avoids production waste, and purchases habits focused on quality. (Ertekin & Atik, 2014) (Fletcher, 2010)

Fashion brands can promote sustainability or its slow fashion movement via multiple ways such as the workforce, fabrics, and material, upcycling, and recycling production, etc. Hence, to achieve the so-called sustainable fashion, apparel companies must take

these factors into account, whether through recycling and traditional production techniques and incorporating surplus, renewable and organic raw, eco-friendly materials. (Johnston, 2012) However, that is probably a considerable challenge as the supply chain for clothes is very fragmented. Many activities are outsourced to different suppliers in different countries (cotton grown in Africa, garments made in Asia, dye in another place, and pollution because of transporting the mantillas (Mantilla is a classic Spanish lace or silk shawl, commonly worn over a high comb known as a peineta, which is popular with women) from one place to another. So what Johnson is saying is logical in theory but to put into practice it could be very challenging due to fragmented of the supply chain.

The concept of Sustainable Fashion incorporates a variety of terms: slow fashion, eco-fashion, ethical or fair trade. According to Dr. Anna Brismar (Brismar, 2019), there are 7 forms of sustainable practices in fashion:

- High quality, timeless design: last from season to season. Trend-independent.
- Made-to-order, DIY, and Custom Made
- Recycle, Repair & Upcycle: Circular Economy approach.
- Second-hand, Thrifted & Vintage: Circular Economy approach
- Rent, Loan, Swap: Circular Economy approach
- Clean & Green: use of eco-friendly fibre, natural or eco-friendly dye-process
- Ethical & Fair: Fair wages, good working conditions.



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By Dr. Anna Brismar 2019

Figure 7: 7 forms of Sustainable Fashion (Brismar, 2019)

These practices can be integrated with a single method or applied interchangeably with one another. Hence, brands and retailers can use one to several of these 7 forms integrated into the business model and make claims on their approach to lessen the industry's impact on the environment. To attract the attention of new consumers, brands have been focusing on the use of several Sustainable/Green terms. Each footprint shows specific challenges from a life cycle perspective connected to process, product, or activity (Galli et al., 2013). Several footsteps are recognized as crucial to sustainable development and sustainability. such as eco-fashion, slow-fashion, ethical, and fair-trade fashion in brand communication. (Kutsenkova, 2017)

During this research journey, the author discusses the topic via several communication tools with multiple people. For example, one might argue "Sustainable Fashion" is a less accurate use of terms if a brand only focuses on its materials and fabrics. Though it might be true that there would be a better term to use for such practice, such as ecological

fashion, it only addresses the environmental aspects of the entire supply chain. However, achieving a full loop of sustainability in a whole complex supply chain is not yet feasible.

Several discussions state that up to this date, and Sustainable Fashion does not yet exist. As we learn about “sustainable practice,” we soon understand that numerous (more) sustainable practices are in place. Some people emphasize the need to make clothing environmentally friendly. In contrast, others encourage second-hand clothing or highlight the benefits of swapping, renting, or buying clothes rather than buying new clothing. All measures that promote production and consumption with more environmental, social, and ethical awareness are crucial steps towards a more sustainable future. (Brisma, 2016)

No one brand/company can confidently claim or prove that they have achieved absolute sustainable business practices. We could focus on using organic and eco-friendly materials, but dyes cannot be controlled. Or if dyes can be controlled though simultaneously the garments end up transported the garments by plane or ships, which produce a considerable amount of CO₂ emission. (Riera & García, 2019) In other words, it is an example of how it is yet not possible to achieve sustainable entirely throughout the whole supply chain. As stated earlier, the supply chain for clothes is fragmented and it can be a challenge in practice that limit the effort put in by supply chain to improve sustainability are; inadequate return on asset, customers are not ready to pay higher price for the green products, the complexity in accessing sustainability throughout the life cycle of a product.

2.2.1 Consumers on Sustainable Fashion.

Despite failing to acknowledge the importance of the role we play as consumers in the Sustainability of Fashion, the role of consumers in the promotion and adoption of sustainable practices in fashion is crucial and fundamental in pressing leading brands and industry to make positive changes. It is suggested that consumers are one of the most significant factors influencing changes in the Fashion industry. (Allwood , Laursen, Malvido de Rodriguez, & Bocken, 2006)

Furthermore, the study presents a list of suggestions concerning the need to consume less and change in buying habits: from utilizing clothes that already exist in their closets to second-hand clothing and textiles, or other suggestions encourage consumers to

wash their clothes less frequently. In the end, it emphasizes the importance of consumer education. (Allwood , Laursen, Malvido de Rodriguez, & Bocken, 2006) (Palomo-Lovinski & Hahn, 2014)

Jägel et al., 2012 study is a rare example of motivation-driven research regarding sustainable fashion. Using selective self-reports by consumers who have performed at least one act of sustainable practices such as recycling clothing, boycotting a company for perceived unsustainable practice, or buying eco and fair trade clothing, the study examines hypothetical, and future purchases regard to sustainability issues in fashion. (Jägel, Kathy, Alexander, & Thorsten , 2012) (Lundblad & Davies)

To strategically understand the nature of how consumers associate with clothing purchases, Kotler's (Kotler & Armstrong, 2018) model of Consumer Behaviour is suggested in this chapter as a traditional buying decision-making process. The author uses this model to analyse further whether the model fits how consumers respond to Sustainable Fashion.

Kotler's Consumer Behaviour model can research and study their target group to effectively communicate and approach their consumers. The model consists of 5 stages:

- **Problems/Needs Recognition**

This is the stage where consumers acknowledge and become aware of his/her need or problem that they want to solve or satisfy, which leads to the need to buy a product or service.

- **Information Research**

After becoming aware of the need to obtain a product or service, consumers start searching for information regarding the matter which she/he are looking to solve. The search can be carried out in various ways, such as consulting a friend, family member, peers, or commercial channels (advertising, salespersons, etc.).

Regardless of how the information is obtained, information collected through personal contact can be influential, while public received information provides credibility.

- **Evaluation of Alternatives**

Once consumers have gathered information and narrowed down the available alternatives, they assess and compare different options based on certain factors. These factors could be tangible regarding functionalities and features of the product or service or intangible regarding hedonic values (emotions, beliefs, etc.) By the end of the phase, the intent of purchase decision is expected to be formed.

- **Purchase Decision**

After assessing all available alternatives and comparing the attributes between them, this is the stage where consumers decide on a specific brand that meets all the details that one seeks in the Evaluation stage, or it could simply be a single product/service and make a purchase on.

The purchase made at this stage can be try-outs (first purchase) or returned purchases. It is essential to acknowledge that despite the initial purchase intention (intention to buy the most preferred product/service), it may not turn into an actual purchase due to circumstantial factors.

- **Post Purchase Behaviour**

This stage is as crucial as other model stages and to successfully retain customers. In addition, this stage reflects how consumers feel and think about the product/service after the actual purchase and usage.

The post-purchase stage is where consumers have the power to influence others on future purchases. Whether to avoid or support specific brands/products/services.

Given the suggested theoretical framework of Kotler's Consumer Behaviour model, this thesis focuses on Stage 1 and 2 of the framework: Problems/Needs Recognition and Information Research to discuss Sustainable Fashion consumers.

For instance, applying Stage 1 of Kotler's Consumer Behaviour model: Problems/Needs recognition to this discussion, it is fair to say that they must first become aware of the problem for consumers to make any further decision regarding Sustainable Fashion. In other words, for consumers to make informed and responsible buying decisions regarding clothing, they must be educated and aware of the environmental issue of the fashion industry. Therefore, to effectively raise awareness, the matter should be accessible and understandable by the mass. (Speranskaya, Caterbow, & Buonsante, 2020)

On the other hand, (Bin 2014) suggests that as consumers increasingly become more aware and informed of the negative implications of their clothing buying habits, they tend to make changes in their consuming habits. (Bin, 2014) This is a perfect example of Problems/Needs Recognition stage of the Kotler's model of when consumers become aware of the problems which later influences in how she/he decide on their action.

Taking laundry regime is an example. Once consumers become more aware of how much microplastics they would discharge into the water per wash, it could help change people's habits by adopting a better way or more environmentally friendly laundry regime—for instance, washing full-loads, using the correct washing cycle, using biodegradable and eco-friendly detergents with minimal chemical substances. (Speranskaya, Caterbow, & Buonsante, 2020)

In addition, a recent study by (Granskog, Lee, Magnus, & Sawers, 2020) suggests that the silver lining of the COVID-19 forces consumers to rethink their lifestyle and consuming habits, the motivation of combating issues such as climate change, limiting negative impacts on the environment has become even more critical. While the fashion industry is working out its position for the next expected post-COVID-19 pandemic, the study shows that European consumers have become more engaging in sustainability topics. (Granskog, Lee, Magnus, & Sawers, 2020) This shift in consumers' focus likely to encourage consumers in supporting businesses that taking initiatives in implementing sustainable alternatives. It stresses that consumers have already begun to change their buying behavior accordingly and are urging leading fashion brands to uphold their commitment to social and environmental responsibilities (Granskog, Lee, Magnus, & Sawers, 2020)

METHODOLOGY

3.1 Research Method

This thesis comprises a literature review of the extract statistical data from previous studies on the topic, supporting examining and emphasizing the potential and existing environmental impacts the fashion industry contributes. Due to the nature of this research, quantitative deems a suitable method. Thus, the deductive approach is chosen as the author suggested theories to examine the ideas. (Saunders, Lewis, & Thornhill, 2016)

In addition to the introductory suggested theories, this thesis is an exploratory study where the author wishes to examine and deep dive into the topic of interest. (Saunders, Lewis, & Thornhill, Research Methods for Business Students, 2016, p. 174)

Consequently, following the quantitative method and conducting an online survey enables the author to collect data to support the discovery and validate insights on the concerned topic.

Henceforth, a survey is designed to gather information and utilize statistical methods to examine and disclose findings. The purpose of this study, the survey is made in a straightforward and timely manner and consists of:

- **Clothing consumption habits:** this part is to study the patterns of respondents in clothing consumption, such as buying frequency or how they deal with old/unwanted clothes.
- **Familiarity and Interest in Sustainable Fashion:** Participants' interest in a sustainable fashion.

3.2 Survey Design

The questionnaire has been designed as an online survey that targets only Female individuals in Finland from 18 to 40. Its goal is to examine whether they are familiar with

and interested in Sustainable Fashion. The survey was structured in a specific way to ensure that it is not time-consuming, easy to read, and fill out the answers.

There are 4 types of questions created in the survey: Multiple-Choice questions, Opinion-scale questions, Yes/No questions, and Picture-Choice questions. Multiple-choice questions are used in obtaining age group, buying frequency, and consumption habits. At the same time, Opinion-scale questions are used to ask the respondents to rate their opinion on designed statements related to the research. And Yes/No question and Picture-choice questions are somewhat similar, and the only thing that differs in Picture-choice questions is that pictures are provided for the respondents to choose one or another.

The question types were carefully formulated to save time on the respondents' end while still supporting the data analysis process of this research.

3.3 Data Collection

To ensure easy access and requires minimal time from respondents to follow through with the survey, Type form is the tool that was used to create the study. The device offers various user-friendly templates with pleasant aesthetic designs available to choose from. It also gives additional features that traditional survey tools do not have by providing completion rate, the average time to answer the entire survey, and most importantly, data once collected can be viewed in both raw data and summary statistical data. The survey was designed in a way that respects the respondents' privacy. Online survey randomization is a research technique used to show answer options for survey participants randomly. It avoids order distortions induced by the fact that respondents tend to choose the first option if they receive the same order. So that they can be answered anonymously. In this way, respondents can feel comfortable participating in the survey and answering truthfully without the potential social pressure that might have been a driver affecting the result.

The survey was sent out via social media platforms like Instagram, Facebook Group, Facebook Messenger, and WhatsApp to collect the answers. As the purpose and focus of this study are on female consumers in Finland, the recipients were selectively chosen to ensure the sample group represents the accordingly target audience and to minimize the possible inaccuracy in data validation. Therefore, the recipients selected to

participate in the survey are female individuals within the age group of 20 to 40 years of age residing in Finland.

The purpose of using digital communication tools, in this case, social media platforms as aforementioned - is to maximize time efficiency and physical location-independent. Thus, via these channels, it supposedly allows the survey to be reached and accessed instantly, plus the recipients can choose to answer the survey in their own time and at their convenience.

3.4 Reliability and Validity

To validate the data from the research and its reliability, the aim was to receive as many responses as possible. In addition, the survey was carefully designed according to the suggested theoretical framework used in the literature review part of this thesis so that it is relevant and supports the study.

A trial run was in place for the survey, it was sent out to family and friends and the thesis supervisor to gather feedback. Background information upon the receipt of the responses was screened carefully to ensure the target audience was met. There have been some respondents who do not meet the target audience of the research. In this case, these responses were left out and not taken into accounting when drawing analysis and conclusion.

3.5 Limitation

The initial aim of the survey is to gather relevant info that helps to examine the theories mentioned in the literature review of the thesis and to answer the research questions at the same time minimize the time limit in completing the survey to prevent respondents drop out while taking it. Therefore, questions are solely designed as Yes/No and multiple choices questions.

Despite the well-structured and planned survey, there might have been invalid data due to dishonesty and misunderstandings of the questions. Moreover, it is noteworthy that the study was first sent out to friends and family - who belong to the target group. Then they were asked to forward the survey to female individuals that they know whose age

and location fall within the same target group. On top of that, most of the respondents have a direct or indirect connection to the author. This, however, can create bias and decrease the reliability of collected data. Additionally, throughout the data collection and analysis process, it was acknowledged that some questions in the survey were not well-worded and indirect. This could lead to misinterpretation in ways that result in inaccurate answers, which would affect the validity of the data.

In addition to how the survey was constructed and distributed, the ability to generalize data is lacking due to a small sample of respondents. The survey got 50 responses in total, which is not big enough to make a general claim based on received data given the whole population of Female Consumers in Finland.

DATA ANALYSIS

The survey receives 57 responses in total; however, 7 of those were not met the targeted group of the study. Thus, only 50 answers were taken into account for the data analysis. The 50 respondents represent a group of female individuals between 20 to 40 years of age residing in Finland.

The data was collected and analysed using the Typeform tool.

1. BACKGROUND

This question was designed to learn more about the respondents' age group. Therefore, age was not the factor on which the study focuses; however, it gives an overview of most respondents selected for the research.

Your age group

50 out of 50 answered

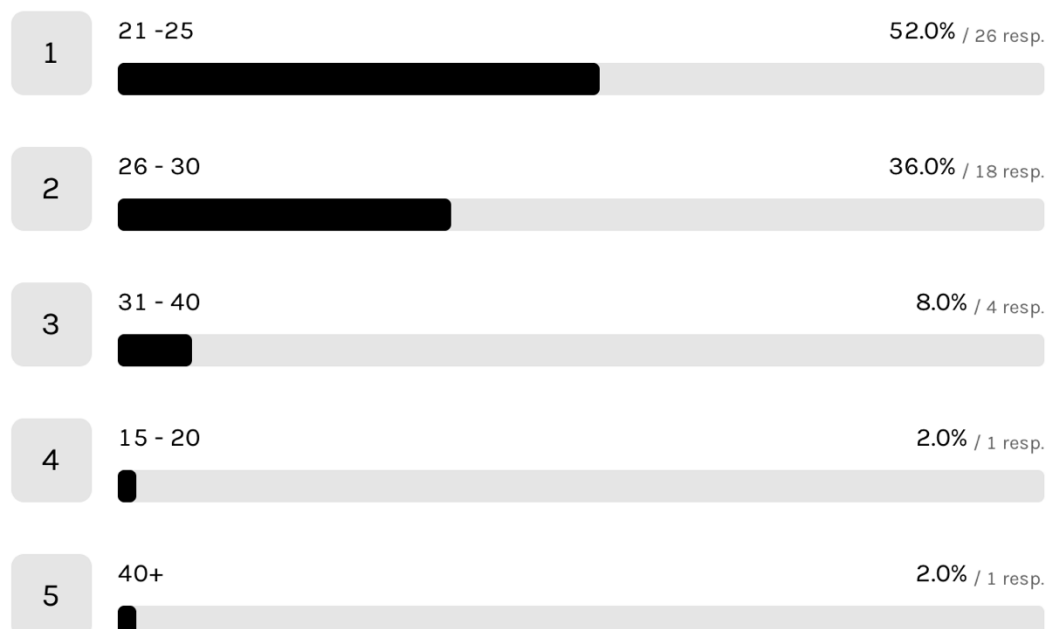


Figure 8: Age Group (Dang, 2021)

In the majority, survey participants' age mostly ranges from 21 to 30 years old. At the same time, the age group of 21 – 25 years old is the largest group which accounts for 52% of total respondents. The second largest group belongs to the age group from 26 – 30 years old, accounting for 36% (18 out of 50 respondents). Whereas, two age groups of 15 – 20 and over 40 are insignificant and account for only 2 percent of the total (1 out of 50 respondents).

2. Familiarity and Interest in Sustainable Fashion

Question: How important is the environment to you?

This question was designed to identify the respondents' attitude towards environmental-related issues and see whether the majority care to somewhat care about the environment, which results in the possibility of taking an interest in the environmental-related topic, in this case – Environmental issues of the fashion industry.



Thank you for taking part in this research survey. Before we start, can you please tell me how important the environment is to you

50 out of 50 answered

4.4 Average rating

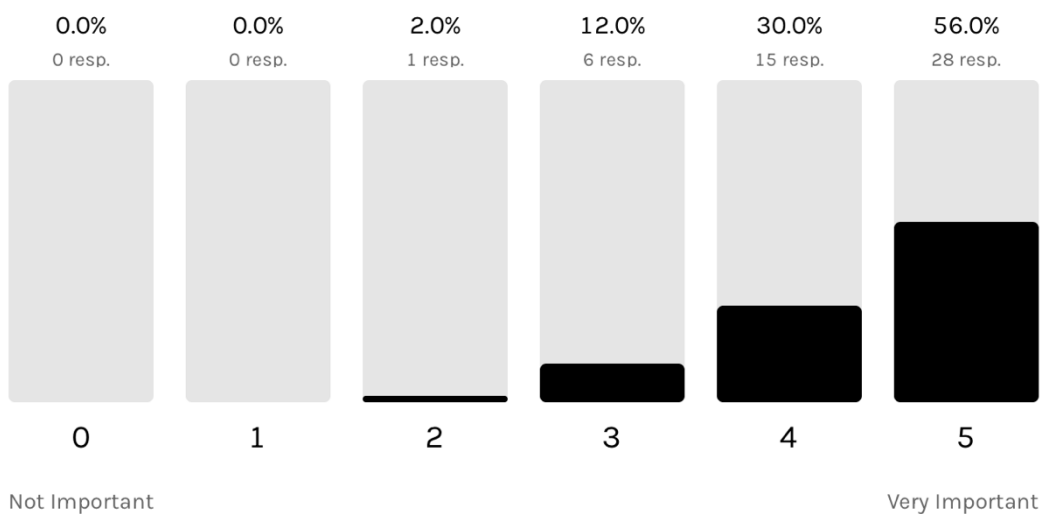


Figure 9: The importance of the environment to the respondents (Dang, 2021)

While the question was designed on a scale ranging from 0 – 5, with 0 being the bottom end of Not Important and five as the highest end of the importance the environment is to the respondents.

The majority of the answers lean towards the higher end of the scale, indicating most respondents believe the environment is somewhat essential. The total of the higher end of the leaf accounts for 98% of the total (49 out 50 respondents). It should be noted that not one respondent claims that the environment is not essential to them.

In other words, according to the data collected, it is fair to say that over 80% of respondents claim that the environment is essential to them. This result could mean that most respondents would have more likelihood to become aware of environment-related issues, which could increase the chance of becoming aware of the environmental impacts of the Fashion Industry.

Question: Are you familiar with Sustainable Fashion?

This question was designed as a multiple-choice question. The respondents were asked to evaluate their familiarity with Sustainable Fashion to identify whether they are interested by giving suggested statements. Those statements include:

- I'm familiar with the term and trying to look for sustainable alternatives when buying clothes.
- I am not very familiar with the term, but I am intrigued to know more.
- I have heard of it, but I am sceptical/not wanting to change my shopping habit.
- I have heard of Sustainable Fashion but not thoroughly understand it.
- I have heard once or twice but no interest or intention to know more.

Which statement below best describes you:

50 out of 50 answered

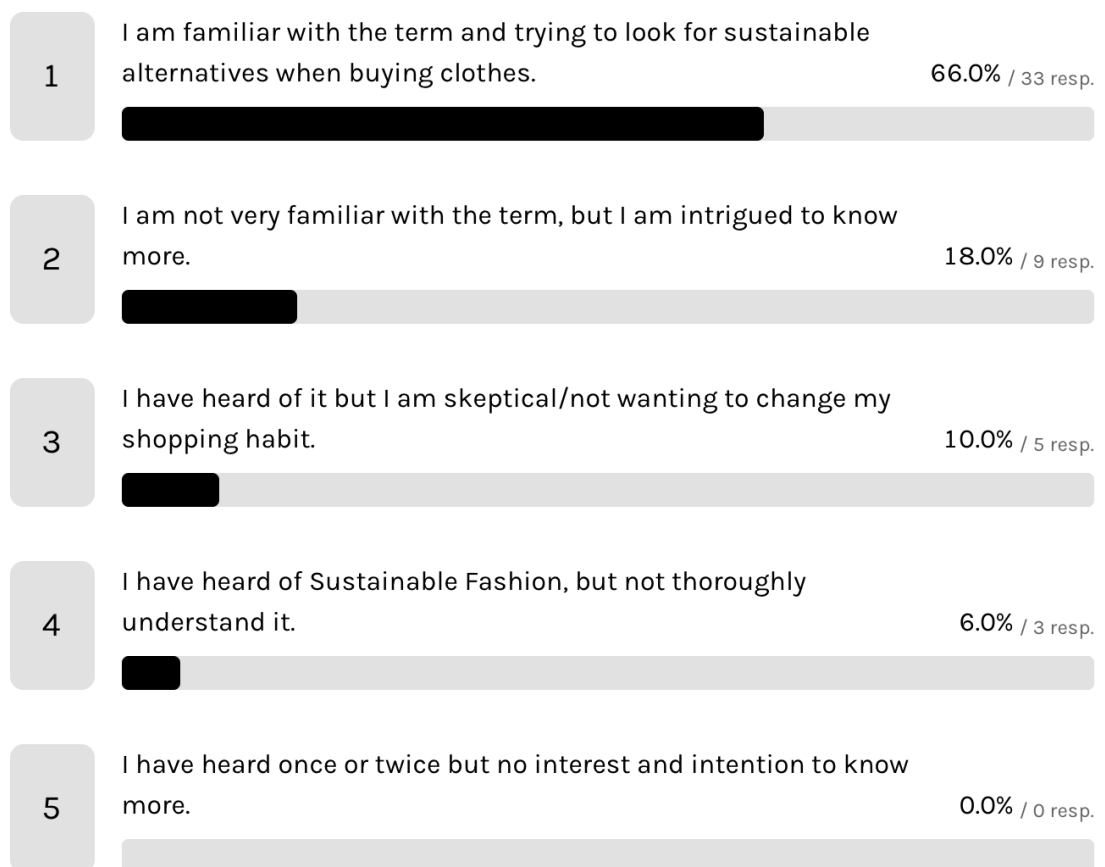


Figure 10: Respondents' familiarity with Sustainable Fashion (Dang, 2021)

The participants were given five statements to choose from. At the beginning of the question, it was indicated to ask the participants to select whichever best information describes them. Out of the 5 statements given, 5 out of 5 suggest a familiarity with Sustainable Fashion. Therefore, the answers do not entirely translate into the interest of the respondents in Sustainable Fashion. However, it is partially reflected depending on which statement was selected.

According to the data gather (Figure 11), it suggests that majority of the respondents – 84% is interested in Sustainable Fashion where 66% stated that *they are familiar with the term and looking to buy more sustainable clothing*” and 18% said *that they are not entirely normal however they want to know more about it*.

It should be noted that 10% stated that they are familiar with the concept, but it might depend on various factors due to skepticism and unwillingness to change for them to make changes. This could be a valuable area to look into in independent research to further identify the gap in promoting Sustainable Fashion to consumers.

On the other hand, not one person stated that they do NOT want to know more about Sustainable Fashion.

In other words, it can be assumed that the majority is familiar with Sustainable Fashion. Yet, despite 10% who claimed they are sceptical, they are presumably intrigued to learn more about the topic.

Question: Are you interested in Sustainable Fashion because you are aware of the environmental issues of the Fashion Industry?

The respondents were asked if they are interested in Sustainable Fashion because of their awareness of the environmental issues that the Fashion Industry contributes and whether they are looking to support Sustainable Fashion when and if it becomes available to them. The purpose is to examine whether there is a link between their awareness of the issues and their interest in the topic.

I am interested in Sustainable Fashion because I somewhat know about the impacts the fashion industry has on the environment and want to make positive changes. I wish there will be more sustainable alternatives available for me when it comes to clothing.

50 out of 50 answered

4.4 Average rating

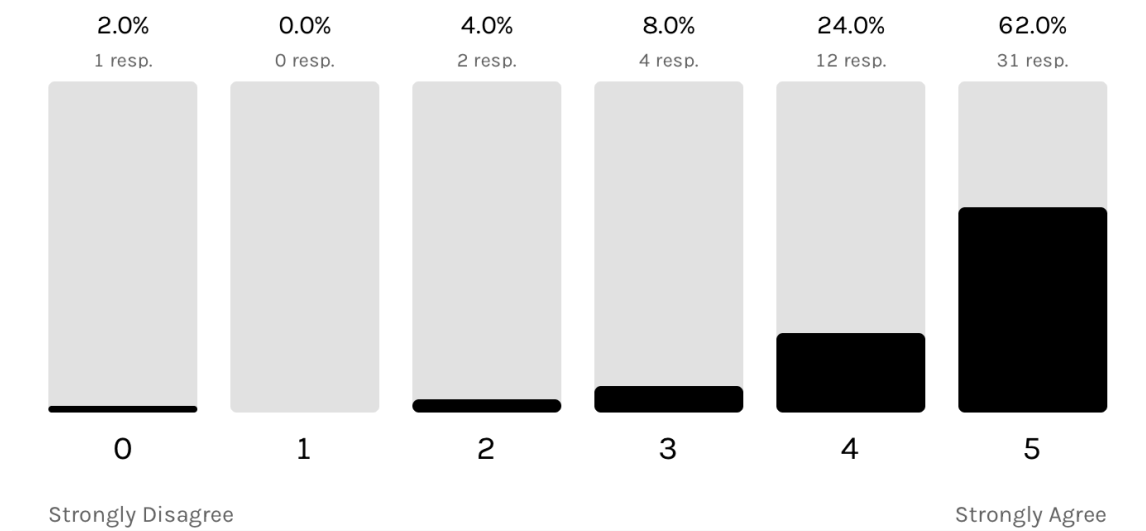


Figure 11: Respondents' interest in Sustainable Fashion. (Dang, 2021)

Similar to Figure 9, the question in Figure 11 was designed in scale option ranging from 0 – 5 with 0 being the bottom end of Strongly Disagree and five as the highest end of Strongly Agree to the states listed.

Figure 11 illustrates that 88% of the respondents agree that they become interested in Sustainable Fashion is due to their awareness of the environmental issues that the

Fashion industry contributes. Whereas 8% claimed to be neutral, and the remaining represent only 6% disagreed. The result indicates a link between respondents' awareness of the issues and how they respond to Sustainable Fashion.

Question: Have you come across any sustainable initiatives while shopping for clothes?

The respondents were asked a simple Yes/No question to see if they have been exposed to any forms of Sustainable Fashion. However, this does not necessarily mean that they are also aware of the environmental issues of the Fashion industry.

Have you come across any sustainable initiatives while shopping for clothes?

50 out of 50 answered



Figure 12: Sustainable exposure to the interviewees. (Dang, 2021)

Figure 12 shows that 88% claims that they have come across some sustainable clothing options while shopping for clothes, while only 12% answered otherwise. Thus, according to the result in Figure 12, it is fair to say that most respondents have been exposed to Sustainable Fashion. This, however, does not reflect whether they are interested in Sustainable Fashion. Yet, an assumption can be drawn that if the exposure is high, it could increase a higher chance of taking an interest in the topic, which might lead to further research.

Altogether, Figure 9, 10, 11, and Figure 12 show consistency in answers. Over 80% claims that they care about the environment – 86% (Figure 9), are familiar with Sustainable Fashion – 84% (Figure 10) and interested in Sustainable Fashion – 88% (Figure 11). Given this result, it can be assumed that Kotler's method on Consumers Behaviour Stage 1 & 2 do apply, where once consumers become aware and recognize there is a need or problem, it would consequently spark interest and encourage further information research on the matter.

3. Clothing consumption habits and intention

Question: How often do you buy clothes?

This question is asked to identify how frequently people buy clothes yearly. The aim is to determine how often we buy clothes. The respondents were given 5 options to choose from:



How often do you buy clothes?

50 out of 50 answered

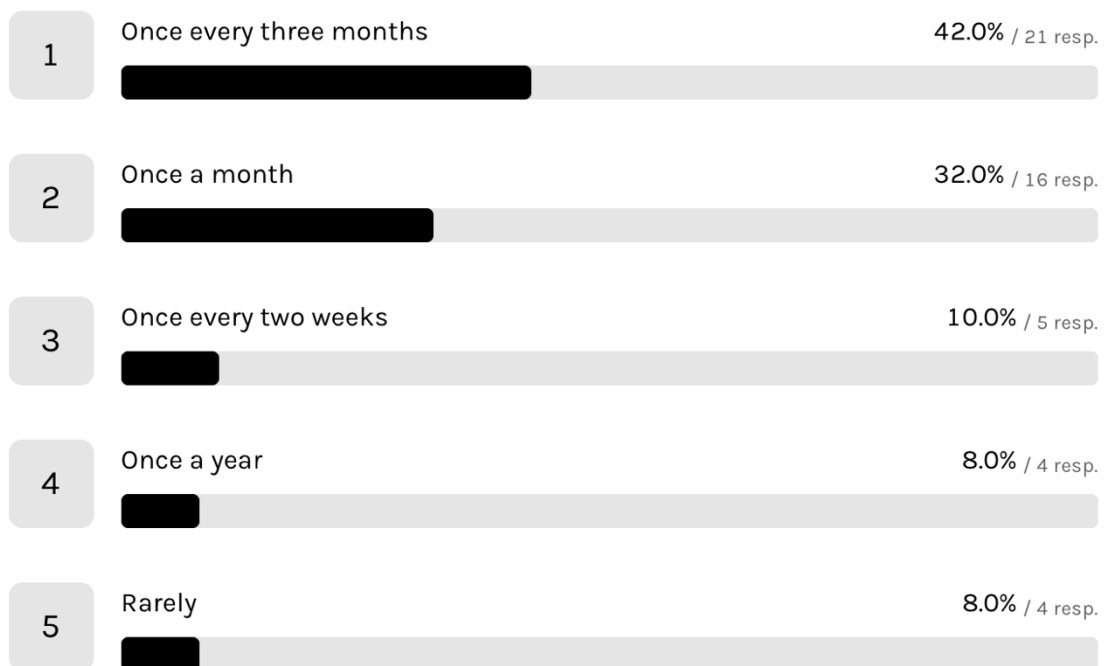


Figure 13: Clothing buying frequency. (Dang, 2021)

According to Figure 13, it is clear that most of the respondents buying clothes more than twice a year. Even though 10% - which does not seem like a significant number - claim they buy clothes every two weeks – which is relatively frequent, 32% says they buy clothes once a month and 42% - the most accounts for – once every three month which

equals in a total of 84% claims that they buy clothes more than one time per year. At the same time, only 16% say that they buy clothes once a year or less.

This result supports the discussion explored in the literature review that consumers do take part and contribute to the environmental impacts as a part of the industry supply chain, for example, either through purchases of not eco-friendly, cheap clothes that fuel fast fashion or buying clothes frequently, which potentially leads to unnecessary textile waste or the discharge of microplastics into the environment through clothes washing.

Question: What do you usually do with your old/unwanted clothes?

The respondents were asked to identify what they do to their unwanted/old clothes. In addition, this question was asked to see the simple ways consumers choose to deal with their old/unwanted clothes.

What do you normally do with your old/unwanted clothes?

38 out of 50 answered

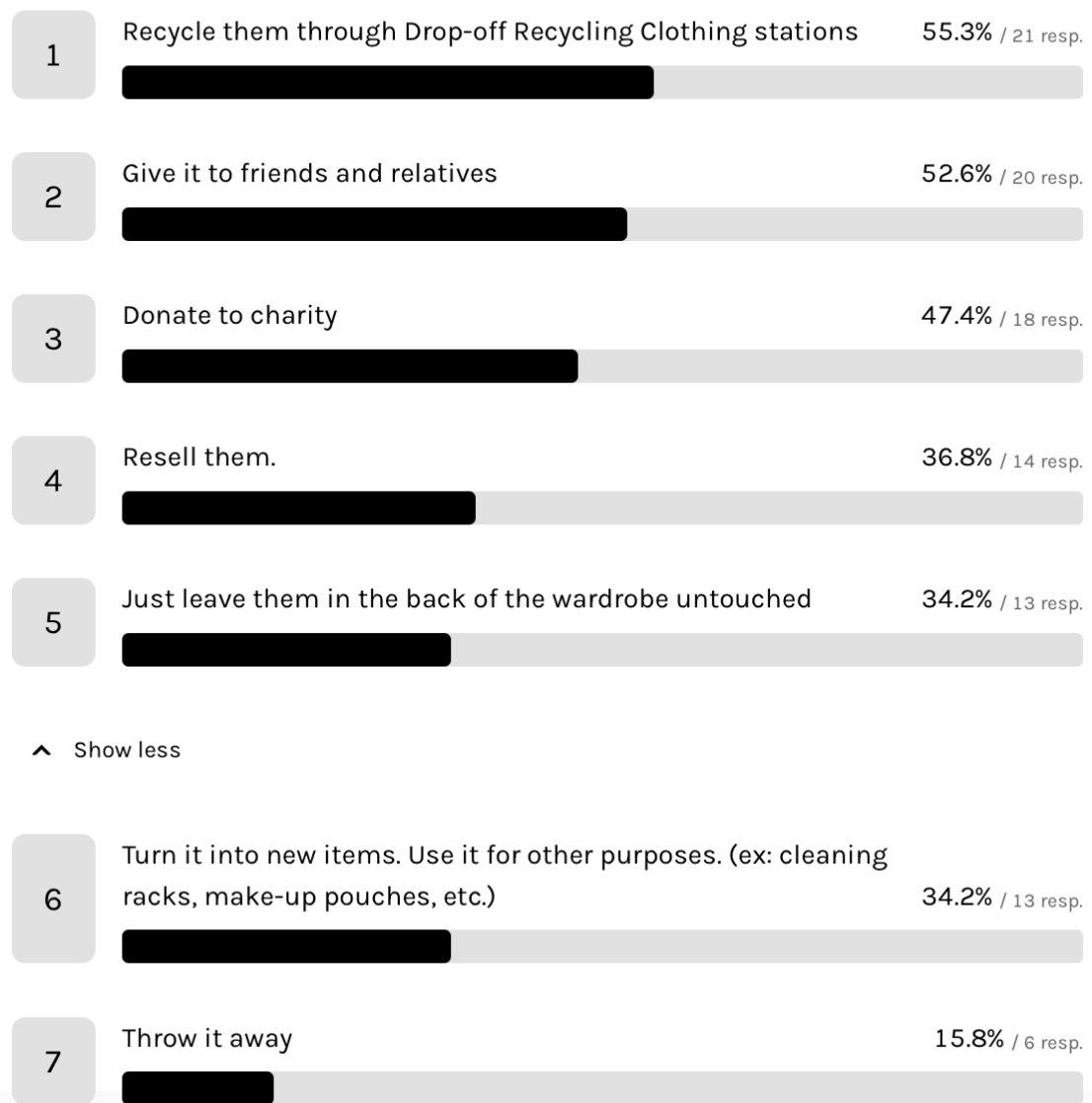


Figure 14: Common ways respondents use to deal with unwanted/old clothes.

(Dang, 2021)

The options were selected relatively evenly by the respondents. Over 50% say they *recycle their old/unwanted clothes through Drop-off Recycling Clothing station* – 55,3% or *give to friends and relatives* – 52.6%. In addition, 47.4% say that they *donate them to charity*. While over 30% say they either resell them (36.8%), leave them in the back of the wardrobe untouched (34.2%) or reuse and turn them into new items (34.2%). Additionally, only 15.8% say that they throw them away.

Despite only 34.2% saying that they leave old/unwanted clothes in the wardrobe untouched and 15.8% say they throw them away, that does not mean the amount of textile waste is more diminutive. Furthermore, even though the majority selected the options that suggest reuse or recycling, there is no clear indication that the clothes were recycled.

Question: Would you buy the more sustainable option over the regular one?

Respondents' were given a Picture Choice question to choose from, where the pictures indicate 2 options:

- Sustainable T-shirt (with the green icon)
- Regular T-shirt

It is noteworthy that there is a hypothetical price tag given where the Sustainable T-shirt is slightly higher in price compared to the regular T-shirt – 8 euros difference.

Let's say you like them both and they are quite similar.
Out of the twos, which one would you go for?

50 out of 50 answered



Figure 15: Respondents on Sustainable T-shirt over Regular T-shirt with price differences. (Dang, 2021)

This question was formulated to give an additional idea to see whether price plays a factor in affecting the respondents' choice of actual purchase of sustainable clothing.

Figure 15 shows that 76% of the respondents' still insisting on supporting sustainable fashion would cost them more than buying the regular t-shirt, while 24% suggests otherwise.

Question: Would you be willing to support fashion brands that offer sustainable alternatives?

The respondents were asked to answer yes or no to supporting sustainable fashion. This question was given to see if the respondents willing to buy clothing that has more negligible environmental impacts – sustainable clothing options.

Would you be willing to support fashion brands that offer sustainable alternatives?

50 out of 50 answered



Figure 16: Support sustainable clothing (Dang, 2021)

According to Figure 16, it is clear that 100% (50 out of 50) of respondents claim that they would be willing to support fashion brands that offer sustainable options.

Additionally, comparing the data from Figure 16 versus Figure 15's above - where the price factor was added, the result is unmatched. However, the data is to gain a different theory and insignificant. Therefore, it cannot be used and based on it alone to analyse and validate whether the price factor would cause changes in the actual purchase. However, this could be studied more in a separate study where it focuses on price factors regarding buying sustainable clothing.

CONCLUSION

To study the examine the environmental issues of the fashion industry and introduce Sustainable Fashion while evaluating the interest of Female Consumers' in Finland towards Sustainable Fashion. According to the findings of this study, we have found that a key driving force for good in eco-friendly clothing, green materials, recycling clothing, and ethical clothing is that the consumers become aware of the issues of the Fashion industry in the first place. Furthermore, the study was carried out by examining previous studies on the topic mentioned in the literature review of the thesis and follow by an accordingly structured survey with a targeted sample group. As a result, the findings have well supported the theories and answered the research questions.

The study findings indicate that the awareness of the fashion industry's environmental impact is an essential factor in influencing their interest in Sustainable Fashion. Additionally, the study further supports Kotler's theory that driving consumers' behaviour starts with recognizing a problem/need. Again, in this case, consumers should first acknowledge the environmental impacts in the garment they purchase and use.

Additionally, many survey participants claimed that they recycled or NOT throw away their used/unwanted garments. However, there is no clear indication that they are aware of the actual impacts of their consumption and if the clothes are recycled. Correspondingly, there is a need for better strategies and practices to raise public environmental awareness, specifically on the ecological impacts of the Fashion industry and the impacts of clothing consumption knowledge, and motivate consumers to take more proactive steps to combat the problem. Moreover, clothing companies/brands should pay attention to the use of claims/labels to communicate the impacts of clothing with consumers as some responses show scepticism in Sustainable Fashion. Clothing brands should consider supporting indicators on sustainable fashion claims/titles. It is assumed from received data that lack of transparency in ways clothing brands communicate to their consumers and awareness regarding the industry's environmental impacts influences their interest in Sustainable Fashion.

Besides these studied factors, price factor was briefly mentioned in the survey; however, the data inconclusive. In addition, with data from previous studies in

the Literature Review, it is fair to conclude that the aim to examine the environmental issues of the fashion industry is met. However, due to the limited data gathered from the survey and its low reliability, it is invalid to claim whether the entire population of Female consumers in Finland is interested in Sustainable Fashion. Yet, based on the sample of 50 responses, it is assumed that the majority of female consumers are interested in Sustainable Fashion. Thus, further studies on female consumers in Finland need to be conducted on a larger sample group or bigger scale so that the findings can be validated and generalized. Therefore, future studies are suggested to take these factors into account.

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¹ Source: American Apparel and Footwear Association, International Trade Commission, the U.S. Department of Commerce's Office of Textiles and Apparel, and the Council for Textile Recycling.