

# Influencing factors of young consumers clothing disposal habits in Bangladesh

Moni Jafar Pingki<sup>1</sup>, Hridika Nusrat Kuntala<sup>2</sup>

<sup>1</sup> Department of FDT, BGMEA University of Fashion & Technology,  
Dhaka, 1230, Bangladesh

<sup>2</sup> Department of AMT, BGMEA University of Fashion & Technology,  
Dhaka, 1230, Bangladesh

## Abstract

Bangladesh, a country of approximately twenty crores people where the economy is rapidly growing because of the ready-made garments sector since few decades. There are more than 5000 garment factories in Bangladesh which helps us to earn a big amount of foreign currency. On the other hand, it also increases the disposal behavior of consumers. Especially the young consumers dispose a lot. This study aims to investigate the reason why young consumers dispose of their clothing frequently. A huge number of textiles are being produced every year, purchased & disposed of in landfill sites, which is extremely affecting our environment. This research has identified the reason for increasing purchase behavior & the propensity to keep clothing for a shorter time. Qualitative method is adopted to identify the main themes relating to clothing consumption & disposition. This study also identifies consumers ignorant of how this behavior affects our environment.

**Keywords:** *Clothing disposal, young consumer, industry, perception, fast fashion, environmentalism.*

## 1. Introduction

Bangladesh is a developing country & the 8 most populous country in the world. More than 30% people are young & we know mostly the young generation are fascinated with trends then provably any other age group. Fast fashion & low prices have become increasingly popular to the young generation & this prospect has led to consumers purchasing and disposing of ever-larger quantities of clothing. The trend towards disposable 'fast' fashion meant the amount of discarded material had increased sharply in recent years. [1] This kind of discarded materials are affecting our environment very badly. Low-quality dresses aimed at young people are said to be made by workers on illegally low wages and are discarded almost instantly, causing mountains of non-recycled waste to pile up. [2] Whether the whole world is at high risk of global warming where this unsustainable behavior is very alarming for our environment. This paper aims to survey the purchase behavior of young consumers & the disposal habits which is creating a large number of wastes to pollute our environment. [1]

## 2. Literature review

### 2.1 Fast fashion trend

Fast fashion can be defined as cheap, trendy clothing, that samples ideas from the catwalk or celebrity culture and turns them into garments in high street stores at breakneck speed to meet consumer demand. [3] The idea is to get the newest styles on the market as fast as possible, so shoppers can snap them up while they are still at the height of their popularity, and then, sadly, discard them after a few wears. It plays into the idea that outfit repeating is a fashion faux pas, and that if you want to stay relevant, you have to sport the latest looks as they happen. It forms a key part of the toxic system of overproduction and consumption that has made fashion one of the largest polluters in the world. By the 1960s and 70s, young people were creating new trends and clothing became a form of personal expression, but there was still a distinction between high fashion and high street. [3] In the late 1990s and 2000s, low-cost fashion reached its zenith. Online shopping took off, and fast fashion retailers like H&M, Zara, and Topshop took over the high street. These brands took the looks and

design elements from the top fashion houses and reproduced them quickly and cheaply. With everyone now able to shop for on-trend clothes whenever they wanted. [3]

### 2.1.1 Fast Fashion Impact on young consumers

Morgan and Birtwistle argue that the relationship between clothing waste and fast-fashion is unmistakable. [4] It is impacting our young consumers, encouraging the “throw-away” culture because of both the built-in obsolescence of the products, and the speed at which trends are produced. Fast fashion makes us believe we need to shop more and more to stay on top of trends, creating a constant sense of need and ultimate dissatisfaction. [3]

### 2.1.2 Fast Fashion Impact on environment

Fast fashion’s impact on the planet is huge. The pressure to reduce costs and speed up production time means that environmental corners are more likely to be cut. Fast fashion’s negative impact includes its use of cheap, toxic textile dyes—making the fashion industry the second largest polluter of clean water globally after agriculture. That’s why Greenpeace has been pressuring brands to remove dangerous chemicals from their supply chains through its detoxing fashion campaigns through the years. Cheap textiles also increase fast fashion’s impact. Polyester is one of the most popular fabrics. It is derived from fossil fuels, contributes to global warming, and can shed microfibers that add to the increasing levels of plastic in our oceans when it’s put through the wash. But even “natural fabrics” can be a problem at the scale fast fashion demands. Conventional cotton requires enormous quantities of water and pesticides in developing countries. This results in risks of drought and creates huge amounts on stress on water basins, as well as competition for resources between companies and local communities. The speed at which garments are produced also means that more and more clothes are disposed of by consumers, creating a huge amount of textile waste. In Australia alone, more than 500 million kilos of unwanted clothing end up in landfill every year. As well as the environmental cost of fast fashion, there’s a human cost. [5]

## 2.2 Clothing Disposal

The disposal of garments that are worn only a few times is characterized as disposable fashion or throwaway fashion. [5] Evidence about this issue can be seen in the UK where, between 2001 and 2005, the consumer spending on clothing increased by 21 per cent for women’s garments and by 14 per cent for men’s. Moreover, prices decreased by 14 per cent therefore sales volume increased by 37 per cent. [6] Consequently, the proportion of textile waste rose from 7 per cent to 30 per cent between 2003 and 2008. This phenomenon is also known as the “Primark Effect”, due to UK’s giant fast fashion retailer. According to Ha-Brookshire and Hodges, on an average basis an individual discard around 30 kg of used clothing and textiles every year in the USA. In the UK, one million tons of textile solid waste deriving from households as well as from commercial activities end-up in landfill. [4] This figure might be even higher according to a report for the University of Cambridge where it is claimed that the total waste of clothing and textiles in the UK reaches 2.35 million tons. From this amount 13 per cent goes to material recovery, 13 per cent to incineration and the remaining 74 per cent (that is 1.8 million tons) end-up in landfills. More specifically, regarding clothing waste 30 per cent is disposed in charity shops and clothing banks, 10 per cent is incinerated and the rest 60 per cent goes to landfills. [6] In Europe the legislative framework changed, and in 2008 textiles were included in the legislation directive 2008/98/EC on waste. According to this directive, by 2020 50 per cent of certain materials from households and other sources similar to households should be prepared for re-use and recycling.[7] This means that, with the implementation of the appropriate programs, textiles and clothing should be collected in specific bins separated from other waste in order to be further treated in an efficient manner.[8] As argued above, the main method of textile waste disposal is land filling, regardless of the fact that garments and textiles disposed into landfills contribute to environmental problems caused to air and soil. Besides that, they primarily produce methane emissions to air when they decompose, they also pollute the groundwater due to toxic leachate. [8]

## 2.3 Disposal in Bangladesh

Readymade garments (RMG) sector of Bangladesh has been raised as the biggest earner of foreign currency. In RMG sector of Bangladesh, there are more than 5000 garment factories (private statistics) at the current time. Along with the development of this industry, the waste management of this sector has also become very much important. Bangladesh

annually produce 18 crores to 20 crore pieces of garments, mostly T-shirts, which are exported to India, Malaysia, and Bhutan. [10] The total volume of annual leftovers from the country's garment units is around 400,000 tons. More than 25 percent of resources are discarded in fabric and garment factories, which can go up to 47 percent in some cases. Even if the country's 4,500 active garment units gain efficiency and ensure optimum use of fabrics, there is unavoidable waste at different stages of production while designs are cut out in making garment items, stitching and dyeing them. [11] Relatively comprehensive laws on solid waste handling do exist, but enforcement is hardly taking place and systematic disposal of different types of waste is rather limited. More than 11,200 tons of knit fabric solid waste is produced in Bangladesh each day. [13] In 2025 it is expected that the number will be 43,000 tons of solid waste and only a fraction of it will be systematically handled however, 60-72% of the knit industrial solid waste is untreated and pose a major potential for production of manure and ingredients etc. [14] Despite legislation effluent and other fabric solid waste and untreated industrial solid waste products are often released directly to the environment or dumped without treatment at municipal landfills. [13] However, with economy growth more and more focus is being placed on environmental and health risks and more companies are taking initiatives to install treatment plants or other measures. Nevertheless, the know-how and technical abilities of installing and handling knit industrial solid waste in Bangladesh is limited and market opportunities exists for almost all kinds of technologies that deals with knit industrial solid waste whether it is in regular knit, composite knit, compliance knit or other areas. According to a 2002 study, the knit apparel industry needs at least 3.155 km of disposal ground or pipeline. Cleanliness capacity is available to about 40% of the industry only. Thus the solid waste of the remaining 60% or about 90 million people are left to the environment Technologies to work with and improve the waste management system are needed, but also working with e.g. human manual effort to generate day solution etc. seems obvious. [15] The massive production accelerates the environmental footprint of clothes through the whole life cycle. At the first stage of the production vast amount of fabric and materials such as pesticides are needed to grow and produce cotton and after fabric solid waste. [12]

## 2.4 Clothing disposal behavior

Consumers dispose of clothing for a number of reasons such as poor fit, outdated style, boredom and/or wear-out. [16] In order to get rid of their no-longer-needed textiles, consumers have several options: discard, donate, reuse, trade or sell. [17] Shim interviewed college students and identified eight clothing disposal motivations and linked each to specific clothing disposal behaviors: (1) economically motivated resale; (2) environmentally motivated resale; (3) charity-motivated donation; (4) environmentally motivated donation; (5) economically oriented reuse; (6) environmentally motivated reuse; (7) convenience-oriented discarding; and (8) unawareness-based discarding. [18] While these behaviors were separately examined and linked to their primary motivation, Shim noted that there may be multiple motivations that drive certain disposal behavior. [18] One individual may choose resale not only to get economic return but also to preserve the environment. Further, it is typical that a consumer engages in more than one disposal behavior. [18] Koch and Domina found that donation to non-profit organizations and passing on to family and friends are common options for clothing disposal. In their study, respondents indicated that the most frequently used charities for clothing items were the Salvation Army and Goodwill. [16] Consistent with purposes of such organizations, altruistic concern (e.g. helping others and raising money for a cause) is the primary motivation of donations among consumers. [18] Selling of used goods for economic benefits is well understood. Studies have found that monetary incentives or rewards promote pro-environmental behaviors such as recycling and reusing. For example, Jacobs and Bailey (1982) found that any type of incentive, especially monetary incentives, increased consumer recycling behavior. [17] Unwanted garments may be sold directly to other consumers through consignment/vintage stores or online to generate income. [18] Claudio reported that about 12%–15% of Americans shop at resale stores. [19] Due to recent popularity of online shopping, consumers use online auctions (e.g. eBay), which allows selling goods (e.g. vintage, used, new and even celebrity clothing items) directly to other consumers. According to Neilsen ratings, eBay's clothing site has more visitors than Victoria Secret's. [20] Recently, clothes wrapping and swishing are becoming popular and allow another way consumers participate in clothing recycling. Swishing and swap web sites (e.g. swishing.com) allow consumers to exchange valued but no-longer-used clothing with other consumers.

## 3. Methodology

This paper investigated the reasons behind the unplanned and unsustainable disposal behavior of clothing and textile products. By directing this qualitative research in Bangladesh, the authors tried to discover the factors behind the frequent

disposing of clothing by the young generation as they are the highest followers of fast fashion. Additionally, this study can contribute to the solid structure for future research related to the subject.

### 3.1 Data Collection

Both primary & secondary data is used to conduct this research. Primary data is collected through an online survey in February 2019. Participants are from Dhaka, the capital city of Bangladesh. The total sample consisted of 260 participants who completed the online survey. Regarding the age groups, 67 participants are between 23-25 years old, 143 are between 19-22 years' old and 50 people belong to the group age from 16-18 years old. As it concerns the educational level, 188 studies in university, 28 are college students, 5 are studying masters, 5 from others. The participation in the survey was voluntary and anonymous. For this paper, the secondary data is collected from Internet and relative journals, all of which are marked as reference source.

### 3.2 Methods of analysis

Consumers are presented with three options when disposing of a product: save it (save it or use it), temporarily remove it (loan or rent) and dispose of it permanently (give it away, give it to someone else, donate it to friends / family, sell it, trade it or leave it). [21,27] To understand the overall psychological aspects of the addressees we have distributed the Questionnaire into six diversified scales which are perspective scale, disposition scale, influence scale, social aspect scale, habitual scale, motive scale, directional scale.

## 4. Results

An analyses were performed to examine the influence of motivational factors on each disposal behavior. Perspective scale consists of an individual's choice, rules, morality, sentiments about the impacts of clothing disposal on the environment and socio-economic condition that a person achieves from the experience. In this scale 55% participants strongly agreed and 40% agreed that throwing old clothing to the conventional garbage is harmful for the environment. 52.9% participants strongly agreed and 44.5% agreed that throwing the old clothing to the conventional garbage is an irresponsible behavior to the world's environment. And only 2-3% participants disagreed with these concepts. To put it simpler, youngsters of Bangladesh agreed about disposing of old clothing to the regular trash bin is hazardous for the global environment and acting in such a way consists of and doing so entails misconduct.

Disposition scale portrays the purchasing and disposing behaviors and parameters of the audiences which are the core investigations of this study. Among the participants about 40% purchase 5-9 dresses yearly where 25% purchase 10-14, 22% purchase 1-4 and 14% purchase 15-20 dresses yearly. Elsewhere 65.6% are disposing 1-4, 23.8% disposing 5-9, 6.6% disposing 10-14, 4.1% disposing 15-20 garments yearly. It shows that the purchasing amount is partially bigger than the disposing amount which is a positive indicator towards sustainability. This scale also indicates the factors influencing the purchasing and disposing of clothing. Here 80% participants purchase for more availability of clothing of famous global brands with cheap prices, 42% purchase occasionally, 18% participants are influenced by social media and 10% are influenced by celebrities. This chart also portrays that around 75% people dispose their clothes for changing body shape, size and weight, 55% participants for fading up or torn apart the dresses, 26% participants for cleaning the excess off clothing, 26% people for keeping updated with latest fashion, 20% for or lack of storage space and 16% for the fashion retailers offering new collections every few weeks at competitive prices. The positive sign which we got from this survey is 91% participants choose an alternative way to dispose of their old garments instead of throwing it conventional garbage. In that way 73% participants choose to donate old clothing to charities, 50% give it to a friend or family member, 40% people prefer to turn it into cleaning rags. Influence scale refers to the emotions a person feels when he thinks about a certain behavior. It conveys the idea of happiness, joy, disapproval or moral satisfaction. Among the participants about 92% participants do not support throwing old clothing to the conventional garbage and rarely throw their old clothing to the trash bin. 70% participants donate their old clothing in a reusable stage. Social aspect scale portrays the ethics and perceptions that influence a person's aspiration and rationality. Ethics and perceptions define the concept that some habitual practices or activities are meticulous and some are negligent, in short to do or not to do. Clothing disposal behaviors is a vital issue for the global environment where the sustainable practice is highly encouraged where the opposite is observed as hazardous. In

this section the 83% participants supported donating or recycling the old clothing rather than throwing them into conventional garbage.

The Habitual Scale is a powerful factor of attitude because it accumulates repetition of particular habits which motivates a person not to behave in a fake or multiple way. Furthermore, if the individual receives positive and frequent reinforcement by conducting a particular behavior in the past it is highly likely to perform this behavior again due to his/her expectation of this further reinforcement. [21] On this scale 81% participants don't support throwing away old clothing without thinking twice and 90% don't support automatically throwing old clothing to the conventional garbage. On the other hand, only 38% participants wear a single garment until faded or torn apart. 22% wear a single 3-6 months, 22% wear 6-12 months, 18% wear 1-2 years. So the duration of clothing disposition before fading out or torn apart is much more frequent.

The immediate antecedent intent to the behavior is considered as motives. Motives can be either specific or general (specific intentions consist of the manifestation of different general intentions), only specific intentions are connected to behavior because behavior is organized, sequential, and directly related to a specific goal. [21] Among the participants here about 85% do not agree with disposing clothing frequently in future. 96.5% will choose an alternative way of disposing their old clothing other than throwing it to the conventional garbage. 96% participants have the intention to recycle or donate their old clothing and also have the intention to implement this behavior for their family to protect the environment. 98% agree that it will make them feel good to give old usable clothing to charity shops. Whatever the habitually or motives exist in people's nature, the circumstantial facilities which encourage these attitudes have the equal importance in their implementation. In this research the directional scale shows the infrastructure facilities and educational engagement of our country regarding clothing disposal. In this scale 97% participants think that there in our country has a lack of infrastructure facilities in responsible clothing disposition. 94% think there is a lack of social awareness and educational campaigns about this too. On the other hand, 25% participants do not have enough time to search for alternatives about other ways of disposing of old clothing except from throwing it into the conventional garbage. Henceforth the questionnaire was set about the clothing disposal behavior of the last two years among the young generation of Bangladesh. The perception of the author is that a two years' time frame is standard to judge the clothing disposal behavior of a person. Additionally, the summary suggests that the participants' individual and combined clothing disposal behavior is not that much sustainable or environment friendly but they want to improve their overall disposal behavior positively in terms of social responsibility. The conclusive result shows that participants purchase clothing beyond necessity mostly because of more availability of clothing of famous global brands with cheap prices and for participating occasions. On the other hand, participants dispose of clothing mostly because of changing body shape, size and weight and for fading up or tearing apart the dresses. Some other vital reasons are for cleaning the excess off clothing, for keeping updated with the latest fashion. Overall the consequences show our youth purchase various designed clothing at a cheap price but the product quality is not that much long lasting so the rate of fading up and tearing apart is much frequent. Moreover, getting budget friendly clothing they want to get updated with new fashion. So the disposing rate of clothing is much more often.

## 5. Findings & Discussions

This study endeavored to subsidize the study on consumers clothing rejection and disposal behavior. Mainly the result of the study suggests that the causes of clothing disposal can be categorized into four phases: serviceability, self-indulgence, vulnerable trend and sustainability.

**Serviceability:** These responses are associated with quality, service, storage and maintenance, which have been chosen by the participants as one of the vital reasons such as changing body size, weight, and shape, cleaning unusual or unnecessary clothes and also because of lack of storage space which results in chronic cloth damage that refers maintenance issue.

**Self-indulgence** These reasons speak about the tendency of helping the unprivileged. The result shows positive responses related to the disposal of clothing and reuse. Young generations feel pleased to help needy people.

**Vulnerable-trend:** Some responses relate fashion sensitivity of consumers where the aesthetic value of outlook of the clothing and keeping updated with the vulnerable trend seems to be a vital aspect in their lives influencing the need for more shopping.

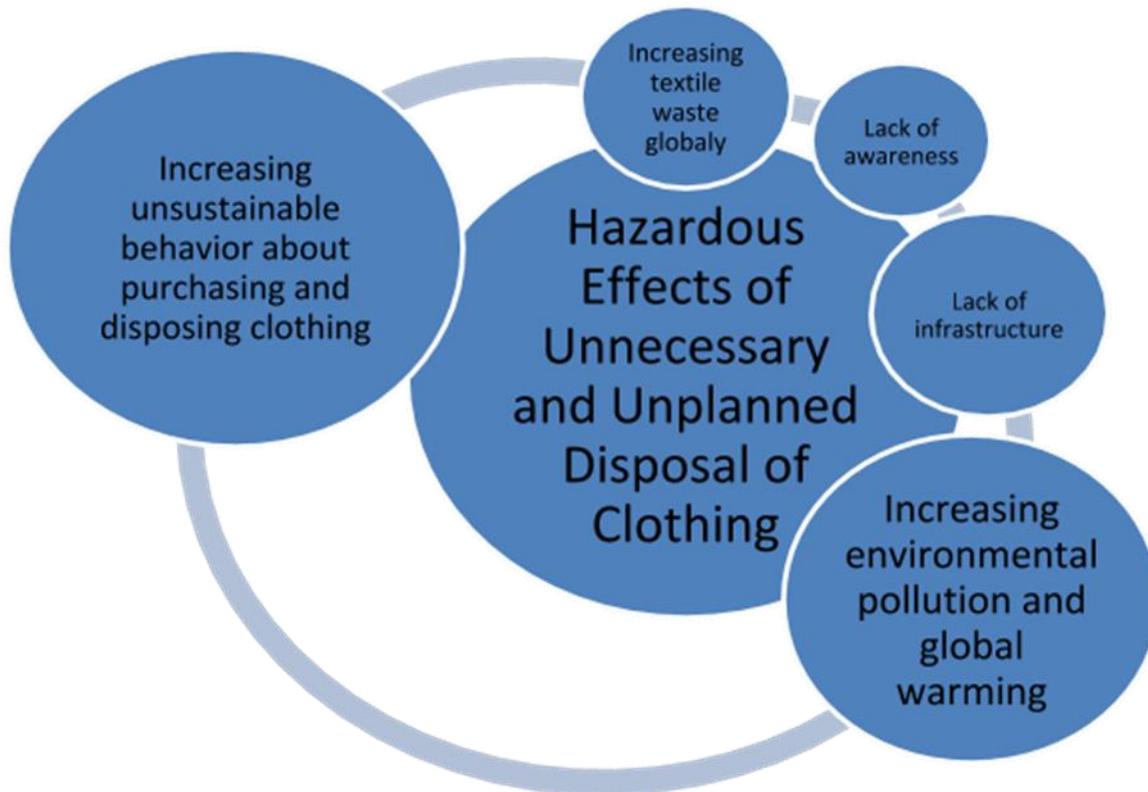
**Sustainability:** Considering the environmental, socio-economic aspects participants emphasized that apparel, footwear and accessories should be manufactured and marketed in most sustainable manner.



**Figure 1 Clothing disposal habits of young consumers**

### 5.1 Problems related to clothing disposal behavior

With the enhancement of industrial revolution, the global environment impacted brutally since the last few decades. This industrial revolution also involves the Fashion industry and RMG sector in a vast way. The fashion industry is evolving with emerging retailers offering new collections every few weeks at competitive prices, thus profiting from customers’ impulsive purchases. [23] And the consumers especially the young generation are their main target audience as they follow fast-fashion solely. As they are adopting this behavior and purchasing clothing’s often so they need to dispose of the older ones frequently. For the purpose of this review, disposal behavior refers to the act of getting rid of something, i.e. the end of life stage of the clothing with the present owner, regardless of whether the clothing is discarded as waste or delivered to recycling or reuse. [24] This fast-paced fashion is defined as cheap fashion that is not durable and is rapidly disposed by consumers. [25] Garments and textile products are less efficient and less sustainable due to product characteristics such as performance or feature, and due to mental issues such as and social factors such as vulnerable fashion trends, surroundings lifestyle, likes or dislikes. This unsustainable clothing disposal behavior causes severe destructive effects on our global environment. The effects are shown via the following chart.



**Figure 2 Hazardous effects of unnecessary and unplanned disposal of clothing**

## 6. Conclusion

This research clearly indicates that the young generations of Bangladesh (target audiences) are mostly environment conscious and are interested to act in a responsible manner about the clothing disposal behavior issue. Our youngsters are following different ways of disposing of clothing. Among the most frequent are storing them idly in wardrobe, temporarily keeping them as trash, permanently disposing them, donating them to any welfare organization or to family/friends. On the other hand, this survey illustrates that there is a lack of infrastructure and arrangements about sustainable disposition of clothing in Bangladesh. To resolve the issue some steps from the government should be taken with immediate effect. There are many other studies that have also attempted to research the attributes of different consumers of various ages and areas about their clothing disposal behavior. Moreover, the clothing items they are purchasing are not that much of good quality as they have to purchase mostly within the student budget. So these types of clothes can't sustain so long (though depend on use and care) so they need to be disposed of more frequently and their buying habits depend on this too. Besides their buying habit also involves vulnerable fashion trends, product quality and sustainability, difference of desirability and acceptability. If the buying habit remains the same then the possibility of changing the disposing habit will not be that much satisfactory. Some other factors are also correlated such as expanding education regarding sustainable clothing disposal behavior, finding the relationship between consumer psychology and clothing disposal behavior through more studies, creating more infrastructural facilities, expanding environmental and social awareness through different campaigns as CSR activities. This topic should be taken as a burning issue by the consumers, researchers, environment specialists and government because this needs a huge attention which will help us to reduce global warming and produce an unwanted garbage free world in near future.

## 7. References

- [1] M. Uddin, "Clothes that don't stain the environment," Dhaka Tribune, Dhaka, 2019.
- [2] D. report, "Fast fashion and low prices are responsible for clothing disposals," Textile Today, Dhaka, 2018.
- [3] S. Rauturier, "Good on you," 10 May 2020. [Online].
- [4] M. a. G. Birtwistle, "Morgan, Louise R., and Grete Birtwistle. "An investigation of young fashion consumers' disposal habits.," *International Journal of consumer studies*, vol. 33, no. 2, pp. 190-198, 2009.
- [5] D. Thomas, *The Price of Fast Fashion and the Future of Clothes*, French: Penguin Press, 2019.
- [6] J. M. S. E. L. C. M. D. R. Allwood, "Well Dressed," *The Present and Future Sustainability of Clothing and Textiles in the United Kingdom*, 2006.
- [7] L. R. Luttenberger, "Waste management challenges in transition to circular economy- case of Croatia," *Journal of Cleaner production*, vol. 256, p. 120495, 2020.
- [8] K. Fletcher, *Sustainable fashion & textile : Design journeys*, Routledge, 2013.
- [9] D. Koukouvinos, "Psychosocial Factors Influencing Young Consumers' Clothing Disposal Behaviour in Greece," 2012.
- [10] Desk, "Apparel waste is a growing business in Bangladesh," Textile focus, Dhaka, 2019.
- [11] B. Devnath, "Turning waste into fashion," The Daily Star, Dhaka, 2017.
- [12] S. I. a. M. T. Tanvir, "Solid waste for knit fabric: quantification and ratio analysis," *Journal of Environmental and Earth Science*, vol. 4, pp. 68-80, 2014.
- [13] S. J. a. M. S. B. Kadolph, *Textiles*, pearson, 2016.
- [14] A. a. L. G. a. S. R. L. a. B. K. H. Yu, "The landscape of family business outcomes: A summary and numerical taxonomy of dependent variables," *Family Business Review*, vol. 25, pp. 33-57, 2012.
- [15] T. a. K. K. Domina, "Consumer reuse and recycling of post-consumer textile waste," *Journal of Fashion Marketing and Management: An International Journal*, 1999.
- [16] M. a. R. N. Solomon, "Consumer behavior in fashion . Saddle River," 2009.
- [17] S. Shim, "Environmentalism and consumers' clothing disposal patterns: an exploratory study," *Clothing and Textiles Research Journal*, vol. 13, pp. 38-48, 1995.
- [18] H. E. a. B. J. S. Jacobs, "Evaluating participation in a residential recycling program," *Journal of Environmental Systems*, vol. 12, pp. 141-152, 1982.
- [19] C. a. K. C. a. R. K. a. W. D. a. H. J. a. M. M. Holbrook, "Pre harvest aflatoxin contamination in drought-tolerant and drought-intolerant peanut genotypes," *Peanut Science*, vol. 27, pp. 45-48, 2000.
- [20] L. Claudio, "Waste couture: Environmental impact of the clothing industry," 2007.
- [21] W.-M. a. L. Y.-J. Roth, "Vygotsky's neglected legacy": Cultural-historical activity theory," *Review of educational research*, vol. 77, pp. 186-232, 2007.
- [22] J. W. Hanson, "A proposed paradigm for consumer product disposition processes," *Journal of consumer affairs*, vol. 14, pp. 49-67, 1980.
- [23] H. C. Triandis, "Theoretical framework for evaluation of cross-cultural training effectiveness," *International Journal of Intercultural Relations*, vol. 1, pp. 19-45, 1977.
- [24] V. a. F. A. Bhardwaj, "Fast fashion: response to changes in the fashion industry," *The international review of retail, distribution and consumer research*, vol. 20, pp. 165-173, 2010.
- [25] K. Laitala, "Consumers' clothing disposal behaviour--a synthesis of research results," *International Journal of Consumer Studies*, vol. 38, pp. 444-457, 2014.
- [26] C. a. B. G. Bianchi, "Sell, give away, or donate: an exploratory study of fashion clothing disposal behaviour in two countries," *The International Review of Retail, Distribution and Consumer Research*, vol. 20, pp. 353-368, 2010.
- [27] J. a. M. A. Bernardes, "clothing disposal behaviour: we do we stand," 2019.