Consumer Clothing Behavior and Associated Environmental Impact

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Abstract: Consumer, as one of the vital stakeholders of fashion supply chain, has a significant role to play to transition fashion industry into sustainable direction. From purchasing and care practice to donation and disposal, every step of their decision has impact on the environment. Various internal and external variables, including culture, custom, value, belief, norm and assumption, economy, gender, and education etc. influence forming that decision. The result of the decision not only directly impacts the environment and society, but also consumer culture and future business opportunity. This study synthesizes a wide spectrum of consumer behavior related to clothing consumption and associated environmental impact. Building on the synthesis, a holistic discussion is offered which can provide relevant behavioral guideline to consumers as well as other stakeholders.

Keywords: sustainability; consumer behavior; clothing; clothing behavior; environmental sustainability; fashion; textiles; fashion sustainability; clothing sustainability; textile sustainability

1. Introduction

This study utilizes Jacoby’s [1] idea in defining consumer behavior related to clothing product as acquisition (purchasing), maintenance (keeping, using, and maintenance) and disposition of clothes (everything after primary owner’s use), as shown in Fig 1. Although Winakor [2] defines clothing consumption as acquisition, use, maintenance and discard, using Jacoby’s idea helps organizing various clothing related actions of consumers into different segments.

![Figure 1 Consumer clothing behavior](image-url)
Sustainable clothing behavior adds extra layer in usual clothing behavior. It refers to putting social and environmental consideration into acquisition, maintenance and disposal phases of clothing. Therefore, sustainable clothing behavior of consumer can be understood from three perspectives: sustainable purchasing, sustainable care and sustainable disposal. This behavior involves a range of psychological equation guided by one’s value, belief, assumption, financial condition, education, family history, and culture etc. [3]. Consumer awareness and commitment mainly contribute to sustainable apparel acquisition. Sustainable clothing care is determined by the number of uses, laundering frequency, washing methods, drying and ironing methods [4]. The environmental impact from apparel disposal phase can be determined by recycling (upcycling and downcycling), donation and reuse, throwaway (landfill or incineration), and keeping in the closet [3,4]. The greatest environmental benefit can be achieved by consuming less and keeping garments for longer. The other options are reusing (direct or indirect), recycling, energy recovery and landfiling in order of higher to lower environmental benefit [5]. Landfiling (throwaway) is the worst of all types of clothing disposal [5]. Sandin and Peters [6] reviewed 41 published literatures to synthesize findings related to environmental impact of textile reuse and recycling. Laitala [7] reviewed literatures related to consumer clothing disposal behavior from 1980-2013. However, no previous study reviewed a wide spectrum of consumer behavior related to clothing and its impact on the environment. This study offers a comprehensive review of the published literatures dealing with clothing acquisition, care and disposal and their associated environmental impact. The following questions guided the researcher during organizing and synthesizing papers:

I. What is the current norm of clothing acquisition, care and disposal behavior?
II. What is the sustainable way of clothing acquisition, care and disposal?
III. What is the impact of usual and sustainable clothing consumption?

2. Clothing Acquisition

Mainstream consumers, today, are fast fashion oriented which started around early 2000s [4,8]. Fast fashion is characterized by cheap and low-quality materials. Due to cheap quality materials, apparel losses its appeal quickly and due to rise in purchase power, consumer can afford buying new clothes many times a week. By offering new collections swiftly and crafting planned obsolescence with them, brands allure consumers to refill their wardrobe by throwing away used clothes that have still their useful life left. Along with them, brands’ attractive marketing strategy, traditional and social media, opinion leaders, bloggers, celebrity, and peers play important role to influence consumers consume fast fashion [9,10]. As a result, clothing consumption has been doubled in the last decade whereas consumers keep clothing half as long as they did 15 years ago [11]. Their usual apparel purchasing decision is mainly driven by fit, color, style, durability and easy care etc. [7,12]. Mainstream consumers do not care about other side of the clothing (i.e., how it impacts our environment and society. Most of them have poor understanding of how clothing is made and the impact of their consumption [13–15]. They have limited knowledge of sustainable care practice [16]. They also have poor understanding of how their disposal behavior affects the environment negatively [17]. They do not know where to dispose them and how [18]. Therefore, educating, measuring and improving sustainability knowledge of consumers should consider all these aspects of clothing consumption, D’Souza, et al. [19] proposition, and key areas of air, water, chemical, energy, land etc.
Consumer knowledge and awareness of sustainable apparel mainly influence their purchasing decision. However, it is not true that highly knowledgeable consumer will always buy sustainable clothing. There exist many other factors that impact the decision. For example, a knowledgeable consumer might have financial limitation to buy a sustainable piece of apparel (by paying a higher price) [20]. Moreover, it is difficult for consumers to research and identify sustainable clothing during their purchasing. They mostly rely on their perception about brands they are purchasing from and justify their purchase through the lens of reputation of those brands [20]. Harris, Roby and Dibb [15] mentioned three reasons why consumers fall short of demonstrating sustainable behavior despite having sustainable clothing option: 1) clothing sustainability is complex and consumers lack knowledge, 2) Consumers are diverse in their concern and 3) sustainability is less important in consumer purchase decision criteria.

Talking about obstacles, Hiller Connell [14] identified two internal and four external barriers. Internal barriers include knowledge about eco-conscious apparel acquisition (ECAA) and attitudes about environmentally preferable apparel (EPA) and external barriers include limited availability of EPA, economic resource, less-enjoyable second-hand store, and society’s expectation. Consumers have limited knowledge of what materials are more environmentally friendly, how apparel is manufactured and associated impact on the environment. On the other hand, spending extra money, putting extra work in acquiring ECAA and less of social acceptance play their part for consumers not purchasing EPA. Kang and Kim [21] identified and classified perceived risk of consumers that shape sustainable apparel purchase decision into four main categories: financial, performance, psychological and social. During forming purchase decision, consumer carefully consider possible monetary loss, functional deficit, compromise of self-image and social unacceptance.

Among the enablers, ethical commitment in apparel purchase and ethical values were mentioned by Niinimäki [22]. However, product attributes are key to attract consumers to buy EPA in [14,22]. If EPA cannot compete with fast fashion in terms of attributes and price, the process of consumer acquisition of EPA would be slow. Creating competitive sustainable fashion having the same appeal as fast fashion is easier than making consumers aware of the environmental issues and driving them to act. Six overarching values drive consumers’ sustainable apparel acquisition: self-expression, self-esteem, responsibility, protecting the planet, sense of accomplishment, and social justice [23]. On the other hand, consumer knowledge of green industry initiatives and green brands, beliefs relating to corporate responsibility, subjective norms, motivations to research, search and buy green apparel, and attitudes toward purchasing green apparel were found to influence purchase intention and purchase behavior of green textiles and apparel [24]. Consumer demography (i.e., geography, age etc.) has influence on sustainable clothing purchase [25,26]. For instance, younger consumers show more favorable attitudes towards environmentally responsible clothing consumption [26]. In addition, subjective norm plays important role in shaping consumer purchase decision of sustainable apparels [24,27,28].

Consumers’ belief that they can positively impact environment through their buying of sustainable apparel (a term called as ‘perceived consumer effectiveness’) positively impact purchase intention of sustainable apparel. Similarly, consumers’ belief that a particular match their personal style and value (a term called as ‘perceived personal relevance’) has positive impact on purchase intention of sustainable apparel too [28]. The subjective perception of ease or difficulty of engaging
in any particular behavior (termed as ‘perceived behavior control’) has association with sustainable apparel purchase [29].

However, Hiller Connell and Kozar [30] reported that environmental knowledge did not translate into behavior. Likewise, Brosdahl and Carpenter [31] found that knowledge of the environmental impact of textile and apparel production did not positively influence environmentally friendly consumption behavior. Belleau, Summers, Xu, and Pinel [32] found that Generation Y (i.e., millennials) did not feel social pressure to comply with peers or referents in forming purchase intention of merchandise made of ‘emu leather’. Therefore, it is understandable that knowledge, values, beliefs, attitudes, commitment, subjective norm, demographics and external factors, as well as different types of internal and external barriers play big role in consumer intention and decision making towards acquiring EPA (Figure 2). These variables, when in favorable circumstances, can drive consumers to purchase sustainable apparels.

3. Clothing Maintenance

Usual clothing maintenance is mainly influenced by everyday habit, custom, social norm and culture [20,33]. Most of the consumers do not know the impact of their clothing maintenance activities. A very negligible portion of the consumers might know the impact; however, they do not necessarily act due to attitude-behavior gap and lack of infrastructure. For example, in most of the developing countries, like India and Bangladesh, hand washing, and line drying is prevalent. Therefore, the reduced impact from clothing maintenance of those consumers is due to the social norm and infrastructure, not due to the awareness. On the other hand, machine washing and drying is the social norm in United States and other developed countries. As a result, the environmental impact of consumer clothing maintenance is simply result of culture. Since, the western countries are on the demand side of clothing supply chain, emphasis should be given in that region to change the current norm. Few European countries are promoting line-drying (for example, Denmark, Sweden and Germany), yet more efforts are needed to accelerate the move.

Figure 2 Factors affecting sustainable clothing purchase
Clothing care practice in the consumer use phase has massive impact on the environment depending on the types of the product. In case of cotton t-shirt, 60% of its life cycle energy consumption comes from use phase [16]. A slight modification of consumer behavior in use phase might bring significant environmental benefit. For instance, elimination of tumble drying and ironing along with washing in low temperature setting, might lead to 50% reduction of global climate change impact of clothing product [16]. A lot of other factors determine the environmental impact associated with clothing care, for example, types of clothing cared for, lifetime number of washes, washing machine type (i.e., efficiency, front-loading/top-loading), washing machine setting (i.e., cold or hot), geographical location, cultures etc. [16,33,34]. In case of automatic washing machine, the environmental impact is determined by the machine type (i.e., horizontal vs vertical loading), age of the machine, temperature setting, load size, number of washes etc. Whereas, the impact of manual washing is determined primarily by the water and chemicals used. The wash cycles vary by the country and size of the household, so do the energy and water consumption. Japan was found to carry out the greatest number of wash cycles per households followed by North America and Australia [33]. The average water consumption per cycle of washing also varies by the type of washing machine used. Vertical axis machine requires twice as much water as that of horizontal axis machine per cycle. Water consumption per wash cycle is greatest for north America followed by south Korea and Japan [33]. Electricity consumption per wash cycle was found to be greatest for Turkey followed by East Europe, West Europe and North America [33]. The annual electricity consumption per household for North America from clothing wash was reported as about 124.3 kWh [33]. This variation in wash cycles, and energy and water consumption suggest that different kind of interventions is needed for different geographical locations in order to make clothing care habit sustainable. Changing consumer clothing care practice is not easy, rather ingrained in multiple layers of knowledge, cultures, habits, customs and geography (Figure 3).

Moreover, benchmarking environmental impact from clothing care requires knowing the number of times consumer washes different types of apparel. Most of the literatures assumed either

![Figure 3 Factor affecting clothing care practice](image-url)
25 or 50 wash cycles [16,34,35]. However, in updating the data, Daystar, et al. [4] conducted a survey of 6,000 respondents from China, Germany, Italy, Japan, the United Kingdom and United States to characterize the use of T-shirts, knit collared shirts and woven pants. They determined the global average of total washes per lifetime as 17.3, 22.2 and 23.5 washes for T-shirts, knit collared shirts and woven pants respectively. Therefore, it seems that assumption of 25 cycles is logical. The average first-life use period was determined as 37, 40 and 42 months for t-shirts, knit collared shirts and woven pants respectively. This result suggests greater overall maintenance impact for t-shirt as it has shorter lifetime. Anyway, diverse types of apparel and more geographical locations need to be included into future study to upgrade the global average.

4. Clothing Disposal

Waste generation from throw-away clothes is a big problem which has its root in fast fashion. The fast fashion is produced in shorter lead time period, typically made with low quality materials, inexpensive, and built in planned obsolescence [4,8]. Low price of garments, coupled with increased individual purchasing power, entice consumers to buy a lot of fast fashion, often impulsively [36]. However, they loss interest of the products quickly because of the low quality and obsolescence of the fast fashion. As a result, most of these items are thrown away long before their real usability ends, a phenomenon termed as “throwaway culture” [18]. The average American throws away 82 pounds of clothes every year [37]. In 2015, United States generated about 16 million tons of textile waste of which 65.7% went into landfill, 19% to incinerator and 15.3% was recycled [38]. An average UK consumer throws away about 66 pounds of clothing and textiles (total reported as 2.35 million tons), of which 74% went into landfill, 13% to incinerator and 13% went into material recovery [16]. The average European Union consumer generates 57 pounds of textile waste [39].

Three scenarios might arise during consumer decision making of garment disposition: 1) keep it (i.e., reuse, downcycling etc.), 2) permanently dispose of it (throwaway, giveaway etc.) and 3) temporarily dispose of it (loan, rent etc.) [1]. Based on Jacoby’s [1] classification, the factors impacting the decision of disposing garments can be grouped into three categories: psychological attributes of the decision maker (personality, attitudes, learning etc.), intrinsic value the product (condition, fit, durability etc.) and factors extrinsic to the product (finances, fashion change, legal etc.), shown in Figure 4. Laitala [7] synthesized published literatures focusing on consumer clothing disposal behavior from 1980-2013. Those literatures mainly provide knowledge in the following four categories, as reported in Laitila [7]:

I. Destinations: Mainly focuses on where clothes go after disposal. Primary channels identified as charity, giving away to friends and family, and donation etc.

II. Motivations: Focuses on the reasons behind choosing specific disposal methods. Main motivations identified as convenience of recycling, donating as a form of helping others, and social and environmental concern etc.

III. Disposal reasons: Focuses on why consumers dispose of their garments. As Laitala [7] synthesized, disposal reasons can be categorized into wear and tear, fit or size, fashion, taste or boredom and other reasons.

IV. Demographics: Focuses on effect of gender difference on clothing disposal behavior.
4.1. Clothing Reuse and Recycle

Prolonged use of garment has potential to reduce the overall environmental impact of the supply chain. Prolonged use can be direct reuse or reuse by others as long as the products have some value in it. Prolonged use of garments would reduce the associated manufacturing need and hence minimizing environmental impact from the production phase. Allwood, et al. reported, “Extending the life of clothing so that demand for new products is reduced by 20% leads to a reduction of about 20% in all measures in the producing country” [16,p.40]. Other studies also reported the greatest energy and CO₂ equivalent savings from direct reuse of the clothing [40,41]. Reducing clothing need requiring 1 kg of virgin cotton fibers through using second-hand clothing or reusing might save 65 kWh. In case of polyester, it might save up to 90 kWh [42]. Farrant, et al. [40] investigated the extent to which second-hand clothing reduces the uses of new clothing through a questionnaire survey on 200 consumers of Denmark, Sweden and Estonia, followed by actual estimation using a quantitative method. Utilizing that data in the estimation, the result of their study showed that using 100 second-hand garments can save between 60 and 85 new garments depending on the place of reuse. It also shows that reusing 100 pieces reduces 14% global warming burden from the life cycle of 100% cotton t-shirt and 23% of the 65/35 polyester/cotton trouser. This suggests that establishing a reuse mechanism of synthetic fibers (i.e., polyester, nylon) is more important than natural fibers. Fisher, et al. [41] estimated the environmental benefit of reusing cotton t-shirts and woolen jumpers in UK. They reported that direct reusing (e.g., from charity shop and eBay) saves approximately 6.6 lbs. CO₂ eq for a cotton t-shirt and 8.8 lbs. for a woolen jumper. Sandin and Peters [6] reviewed the published literatures focusing on environmental impact of textile reusing and recycling. Their review backed the understanding that reuse and recycling are better choices than incineration and
landfill, with reusing be the better option than recycling. However, there are cases where reusing and recycling might not be environmentally beneficial. For example, if the use of use of recycled garment does not reduce purchasing of new clothes (i.e., low replacement rate), if the recycling is powered by fossil energy and if the avoided production as a result of the reuse is environmentally clean. About half of the published literatures did not consider collecting and sorting stage associated with reusing and recycling in the estimation of environmental benefit. So, there is a clear gap of comprehensive understanding of the issue. In addition, the assumption of 'replacement rate' (garments avoided as a result of reusing) needs to be more studied in order to bring a clear understating of true environmental benefit from reusing textiles.

4.2. Clothing Donation

Literatures reported both self-oriented reasons and other-oriented reasons behind clothing donations [43]. Self-oriented reasons are freeing up closet space, being guilt-free etc. [44] and other-oriented reasons are social and environmental concern, helping others etc. [45,46]. The main motivation of donating clothes is to free up the closet space [44]. Cloth donation is not primarily influenced by social consciousness and consumers do not regard donating clothes as valuable as donating money or food [44]. Consumer keep the expensive and high-quality items as long as they can. They try to donate those items they do not want to keep them anymore. They throw away those items even after onetime use, long before their actual useful life [18]. The subjective evaluation of quality of the garment and sentimental value attached with it play a significant role in deciding what to donate and what not. If sentimental value is higher, consumers tend to not donate the item regardless physical condition, for example, an item that reminds a past memory or incident. Consumers also hesitate donating intimate items, for example underwear [44]. Consumers feel guilty about how much clothing they own and their limited use of them [44]. Putting in monetary term, Ellen MacArthur Foundation [47] reported that the industry loss $500 billion USD each year due to unutilization of clothes. Close family members and friends are the first choice for clothing donor [44]. Charity donation is another common method of sustainable clothing disposal [18]. Convenience of donation channel is the important factor determining where the clothes would be donated [44]. Through the overall act of donation, consumers gain both hedonistic (i.e., good feeling) and utilitarian value (i.e., freeing up the closet space) from donating clothes [44].

On the other hand, consumer who shops for donated clothes from second-hand, thrift store, vintage shops etc., presumably do so for both self-oriented reasons (to look different, unique etc.) and other oriented reasons (economy, sustainability, recycling etc.) [48,49]. There exist attitudinal and contextual barriers in acquiring second-hand apparels [50]. Attitudinal barriers include consumers’ evaluation of second-hand shop as unhygienic, unattractive, less socially desirable etc. Whereas contextual barriers include unappealing store ambience, unattractive product offerings and the price mix [50]. Among the motivations, not-wastefulness and economy were found to be important [51]. Whatever the case, the second-hand clothes need to compete with mainstream fast fashion products in terms of fulfilling basic attributes of clothes like price, style, fit and attractiveness. A detail perspectives of clothing donation is given in Figure 5.
Donation is important to extend product life. Extending product life potentially save virgin materials and reduce waste. Binning apparels that still have their useful life remaining is a waste of valuable resources. Use of 100 pieces of second-hand clothes can save between 60-85 new clothes [40]. As mentioned earlier, reusing 100 pieces can reduce 14% of global warming burden in case of 100% cotton t-shirt and 23% for 65/35 Polyester/Cotton shirt [40]. Donation also diverts clothing from going to landfill. If replacement rate of reused clothing is 50% for a certain geographical location, it means a reduction of 50% clothing waste load from landfill/incinerator. In case of United States, it might divert 10 million ton from landfill, 3 million from incinerator, assuming those clothes were still in their useful life [38]. Considering global scale of textile waste, the number would still be significant if 10% of all textile waste were still in usable condition.

4.3. Clothing Landfill and Incineration

The ultimate textile and clothing waste that cannot be used anymore are sent to either landfill or incinerator. The incineration with energy recovery is proved to be the better option than landfill. Incinerator generates thermal energy which is used to produce electricity whereas landfill generates energy in the form of methane gas which can be converted into electricity later. Assamoi and Lawryshyn [52] conducted a Life Cycle Assessment (LCA) study of incineration vs landfill. The data was collected from the city of Toronto, Canada and used in two scenarios. Scenario one considered the entire waste going to the landfill and scenario two considered 50% going to landfill and 50%
going to incinerator. The result showed that while landfiling is financially favorable in the short term, incineration is environmentally beneficial in the long run. The incineration facility produces more electricity than landfill, reducing dependency on fossil fuel.

The main problems associated with incineration are greenhouse gas emission and ash generation. On the other hand, the main problems associated with landfiling are land use, groundwater pollution, leachate generations, greenhouse gas emission. Therefore, if textile and clothing wastes are sent to incinerator with heat recovery, it reduces the need for land use. On the other hand, incineration has issues with emission and ash. Therefore, those environmental cost also needs to be considered in calculating true savings from landfill or incinerator.

The generated thermal energy from incineration of textile and clothing waste reduces the need of using fossil fuel. If the incineration happens in and near the facility that generates textile and clothing waste, it further reduces the environmental burden from transportation activities otherwise required to send the waste to landfill. Nunes, et al. [53] conducted a study where they characterized the textile waste (i.e., briquettes) and compared the energy potential and economic benefit of textile waste over fuel-oil, wood chips and wood pallets. The reported the calorific value of textile waste as 16.8 MJ/Kg, which is very close to the one (i.e., 16 MJ/Kg) reported in Ryu, et al. [54] study. Their findings showed that using textile waste as a means of thermal energy in boiler reduced fuel cost 80%, 75%, and 70% in comparison with fuel-oil, wood pallets and wood chips. The pay-back period is 0.7 years, lower than 1.25 years and 1.08 years for wood pallets and wood chips respectively. This result suggests a clear environmental benefit of using textile waste as thermal energy in boiler. The benefit primarily comes from reduced use of fossil fuel, transportation need to send the waste to landfill and greenhouse gas emission reduction from landfill.

5. Discussion and Conclusion

Extending clothing lifetime is important as it reduces the need for buying new clothes. Clothing lifetime can be either functional or perceptional. Consumer showed different lifetime value for clothing based on functional durability and perceptional durability [4]. Therefore, it is not sufficient to use only durable materials to extend the clothing lifetime, rather incorporating emotional element into the product is important [55].

If garment loss its appeal to the primary consumer but still has its useful life, it should be channeled to reuse (donate, swap, garage sell etc.) by others. Giving away with needy family and friends is better option then putting garments into donation and recycling bin. The less the clothes travel for the purpose of being reused, the better. For example, collecting garments from US households and then sorting in and selling in USA is better than collecting garments from USA and sending it to be sorted and sold in some African countries. Poor infrastructure of donating and reselling channels hinders proper management of used clothes and accelerate garment waste generation [3]. Therefore, infrastructural development is the key to encourage donation, proper channeling of donated apparels and reduce waste.

If garment cannot be directly reused, it should be recycled (either upcycle or downcycle). Using recycled products might reduce the need for buying new clothes. Considering a 1:1 replacement rate, using recycled products have significant positive impact on the environment under favorable condition.
If garment does not have any appeal at all, both functional and appearance, it should be sent to incinerator for capturing energy. The energy recovery incinerator has environmental benefit over landfill. On the other hand, for a wet processing mill (i.e., dyeing) which produces textile waste (i.e., briquettes) in the facility, it should use those textile waste as a fuel in its boiler. If that is not possible, the waste should be sent to incinerator. The end of life hierarchy of clothing from sustainability viewpoint is shown in Figure 6.

![End of life hierarchy of clothing from sustainability viewpoint](image)

**Figure 6 End of life hierarchy of clothing from sustainability viewpoint [5,6]**

During care phase, consumers should wash less, utilize full load of machine, use cold temperature setting (30°C or less), select right detergents (i.e., liquid detergent), use softener (to reduce friction and fiber breakage), reduce spin speed, empty residual lint into bin (not in sink) and finally air dry clothes [33,56]. Extending clothing life is important to minimize environmental impact. Some consumers show unique use-phase behavior associated with jeans. They avoid washing their jeans in order to create a fade aesthetic [57]. This kind of products requiring less maintenance need to be encouraged. Self-cleaning or superhydrophobic textile fiber can be another alternative too.

It is very difficult to change consumer habits of washing clothes unless they realize a real impact of their behavior (for example, electricity bill goes up significantly or they need to pay for the water they use). If consumer understands the difference of their clothing care practice in terms of money, labor and time, they might change their behavior. So, consumers need to be educated of the benefit of the sustainable care practice [20]. Improved technology can offer options to reduce the environmental impact from washing and drying, but it would always be on consumer hand to choose those technologies and their useful options. Therefore, consumers are considered to be the key in reducing the environmental impact from care phase [58].

Consumer knowledge of the impact of clothing is considered ‘the best hope for sustainability’ in TA industry [59, p A454]. Therefore, they need to be educated of how to acquire, care and dispose clothing sustainably. Alternatively, a brand-focused mindset of consumer might
help them to deal with lack of knowledge [20]. For instance, if brands are held liable to produce apparels sustainably, consumers can easily follow any brand without dealing with complex knowledge of sustainability. This approach seems easier than changing habits and norms of consumers because brands and retailers operate within certain policy frameworks. Egels-Zanden and Hanson [60] found that improved transparency of company has positive impact on consumer willingness to buy product from that company. Nevertheless, a sector-wise ethics and sustainability guideline needs to be set up from legislating body as individual initiative from any brand might put itself in disadvantage [20].

Sustainable disposal is mainly influenced by knowledge, habits and infrastructure. As usual, knowledge does not ensure a reflection in the disposal behavior [46]. Habits and routines of consumers influence disposal behavior more than their knowledge [20]. Clothing disposal is mainly motivated by convenience and saving money [46]. Therefore, infrastructural change is needed in order to offer convenience and monetary saving to consumer. For instance, Harris, et al. [15] suggested monthly doorstep textile collection as an option.

Among all three aspects of sustainable clothing behavior, it seems that it would be easier to bring a change in sustainable clothing care behavior than purchasing and disposal [20]. However, barriers towards sustainable clothing are ingrained in individual level, social and cultural level and industry level [15]. Therefore, it is not possible to bring change overnight. It would take interventions in all three level and obviously it would be a slow process.

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References

2. Winakor, G. The process of clothing consumption. J. of Home Eco. 1969, 61, 629-634


