

Evaluating Sustainable Apparel Consumption Practices: Purchasing, Maintenance, and Disposal Behaviours among Ghanaian Youth

Stella Daah Siaw¹, Moses Opoku², Sarah Baiden², Diana Oppong³

1. Department of Home Economics, Wesley College of Education
2. Department of Visual and Industrial Art, Sunyani Technical University
3. Department of Fashion Design and Textile Studies, Kumasi Technical University

*Email of the corresponding author: moses.opoku@stu.edu.gh

Abstract

The study seeks to evaluate sustainable practices in apparel consumption in the area of purchase, maintenance, and disposal behaviours among the youth in Ghana. Disposal of apparel in the environment and its sustainability has been an issue in the 21st century. Pollution in Ghana is a serious problem and all manner of waste ranging from plastic to clothes is causing the environment so much. The research objectives are to assess how often apparel is purchased, how the apparel is cared for, and disposal behaviours in Ghana.

This research assess the current trend among the youth hence, online questionnaire was administered to collect data for the study. The design used was descriptive and 328 students pursuing different kinds of academic programme at varied levels were conveniently selected since the online questionnaire was not limited to students in the Industrial Art Department of the KNUST. The biographical data and the data for the three research objectives were analysed with frequencies to establish the prevailing situation among the students. The results had established that cost, parents and current styles of apparel won by certain groups of people do influence apparel selection. The results have also shown that the youth care for their apparels by washing them and keeping them safe from being damaged. Proper disposal of old apparel that is no more needed should be disposed of by taking into account the environment.

Keywords: Environment, Behaviour, Apparel, Pollution, Ecosystem, Sustainability

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1. Introduction

The ecosystem's preservation is becoming a concern to advocates in the sense that the destruction of vegetation and living creatures is throwing the ecosystem off its balance. The fashion industry is becoming one of the sectors in the economy that contributes so much CO₂ emissions, and it is estimated that about 1.2 billion tons of waste garments are disposed of into the environment annually (Ellen MacArthur Foundation, 2017). Pollution in the environment with respect to dumped waste clothes from developed economies to low-income countries is very disturbing. Kantamanto Market in Accra, Ghana, receives over 15 million articles of second-hand clothing per week (Ahiabile & Triki, 2021). The second-hand clothes imported into the country last for a while since they are almost worn out, and within some days, they are disposed of indiscriminately, causing land pollution. The choice of consumers in recent times has called for regular production of apparel to meet such demands, and the old ones are continuously being disposed of on a regular basis. The disposed apparel ends up in the environment, and since the chemicals employed in the production of the fabrics are not biodegradable and eco-friendly, they end up causing serious problems for the environment.

The choice of apparel to use differs across ethnicity, religion, and the social appeal of fashion in Ghana. The identified factors in choosing apparel may influence what apparel to purchase. However, it seems this could not necessarily be one of the factors in choosing apparel in the context of Ghanaian youth at Kwame Nkrumah University of Science and Technology (KNUST). Consumers always want value for their money; therefore, find ways to achieve that. However, apparel bought needs to last long before being disposed of. The available studies so far in Ghana did not look at how to care, disposal behaviors, or sustainability among Ghanaian youth in KNUST. This has therefore created a knowledge gap that needs to be filled in the apparel usage among Ghanaian

youth in KNUST. The purpose of this paper is therefore to assess the sustainability of purchasing, caring, and disposable behaviors among Ghanaian youth. The research objectives are to assess how often apparel is purchased, how the apparel is cared for, and disposal behaviours in Ghana.

2. Literature Review

2.1 Behaviorism Theory on Apparel Disposal in the Environment

Behaviorism, according to Watson (1913), has to do with the person's mind, and it has stimulus, response, and learning as its components. The theory of behaviorism was seen as the best fit to be used in this study because the stimulus is the subjective norms that surround the consumers of apparel. Exposure to certain behaviours with regard to how used apparel is disposed of is sometimes learned from the user's immediate community and electronic media. What the users of apparel see people do motivate them positively or negatively as to how they dispose of their old apparel.

When society behaves well by disposing of old apparel, the environment will be protected from pollution in different forms. Environmental pollution comes in several forms, and this goes a long way toward entering the food chain for humans. Aside from the nasty things seen on old apparel, it makes the environment unattractive and prevents others from visiting such communities. Tourists would love to visit clean environments. Hence, the wrong disposal of old apparel is not the best. Furthermore, the breeding of mosquitoes and other associated insects may also cause diseases. The economic loss from the wrong disposal of apparel because of negative behaviour can be so damming to society.

2.2 Purchasing Apparel for Use

A study carried out by Ocran and Cai (2019) indicates that the purchasing of apparel online for use among the youth in China and Ghana was found to be on the higher side (97%), especially in the case of China. The results further suggest that the advancement in technology and reliable internet services in China are some of the factors that have influenced the findings. It can be deduced that delivering services in China may be better and more reliable than in Ghana. The opposite could be the case for Ghana, where internet penetration is a negative factor in shopping online. The economic factor is one of the influencing factors that makes the Chinese youth do more online shopping than their Ghanaian counterparts (Ocran, Ji, & Cai, 2019). It is common knowledge that online shopping deals with foreign currency, so this has a built-in cost to Ghanaian consumers by way of changing the cedi to a dollar, renminbi, or any other international currency.

The perceived value for money has been the cardinal reason for some Ghanaians to engage in e-buying of fashion clothes since it is presumed they would have value for their money (Boyetey & Antwi, 2021). Again, the results from the study show that Ghanaian consumers have more confidence in online shopping for fashion apparel than in traditional or local shopping for the same commodity. Paying for apparel that may cost a lot is not an issue for some customers in view of what they would get in return as a quality product (Peng & Liang, 2013).

2.3 Caring for Apparel for Longevity

Caring for clothes is as good as buying new apparel to wear. Enzymes as natural catalysts help in removing starch from apparel as a way to protect the fabric, and they aid in the longevity of the apparel (Duraismy & Kandhavadi, 2021). In the case of using hot alkali and other auxiliaries, it destroys the wall of the fabric and eventually makes the apparel lose its quality. Apparel that needs to be cared for using alkali and other cleaning agents, according to Duraismy and Kandhavadi (2021), can be detrimental to the environment and other living organisms. The ecosystem is thereby poisoned in such a way that living organisms that come into contact with such chemicals are killed. This might result in an imbalance in the ecosystem. Caring for garments or apparel increases the chance of them being kept longer. A study has shown that sharing apparel with others for re-use increases the lifespan of the garments (Wiedemann, Biggs, Nguyen, Clarke, Laitala, & Klepp, 2021).

2.4 Disposal Behaviours of Apparel

The disposal behaviour among females from Australia and Chile has shown that they are most concerned with how to recycle their old apparel (Bianchi & Birtwistle, 2012). Women from these countries at times give out apparel they are not comfortable with to charity as a way of disposing of them (Bianchi & Birtwistle, 2012). This approach to disposing of old apparel may be good, but the final person's way of disposing of it becomes an issue. Due to consumers's awareness of how disposal of old apparel could impact the environment, elderly females in some jurisdictions hesitantly donate their apparel (Bianchi & Birtwistle, 2012). Perhaps they are thinking about how the final consumers of their old apparel are going to dispose of them, which might affect the ecosystem.

3. Materials and Methods

The study adopted a descriptive research design to assess sustainability in the consumption of apparel, care, and disposal behaviors among the youth in KNUST. The design was used based on its relevance to guide the study and the added advantage it has over other designs. Descriptive design guided sampling, instrumentation, data collection, analysis, and reporting of preliminary findings from participants (Erickson, 2017). The study would not have any variables to be manipulated to determine cause and effect. Instead, it was to report what was prevailing among the youth at KNUST.

The participants for the study were 328 Ghanaian youth based in Kumasi. The sampling of the participants was done using convenient sampling. Convenient sampling was adopted as the appropriate technique in view of the students not being available regularly at the lecture halls. The students were pursuing different programs, and their time schedule for lectures varied. The best way to get the youth in the department to participate in the study was to adopt a convenient sampling approach.

A closed-ended questionnaire was designed based on the research questions. The questionnaire was a five-point Likert scale to measure the various constructs. The questionnaire was in four sections (biographical information, purchasing apparel, caring for apparel, and disposal behavior of apparel). The instrument has a total of 37 items, which were then transferred to a Google form to be administered online.

The questionnaire was transferred onto a Google Form, and the link was posted to the students' WhatsApp platforms for their responses. A brief introduction was added to the Google form link for the participants to know ahead of time what they would be working on. The responses to the questionnaire were retrieved from the Google Drive for IBM-SPSS analyses.

The retrieved responses from the Google form were analyzed using the appropriate statistical tools. The biographical information of the participants was analyzed using frequency and percentage. The research objectives were analyzed using frequency to detect what was happening on the ground. The results from the biographical information and the research objectives were presented in tables for further discussion.

4. Results and Discussion

The results from the study have been presented in Tables 1–4 for discussion. The first part of the result is the biographical data, and the second part is also for the responses to the research objectives. The biographical data is on the gender and age of the participants who took part in the study.

Table 1: Biographical data for the participants

Characteristics	Frequency	Percentage
Gender		
Male	84	25.6
Female	244	74.4
Age range (years)		
15 – 20	102	31.1
21 - 26	24	7.3
27 - 32	50	15.2
33 - 38	57	17.4
39 – 44	71	21.6
45 years and above	24	7.3

Field survey (2022)

The online survey indicated that more of the female participants took part in the study as compared to their male counterparts. This result suggests that more females are pursuing fashion and textile-related programs. It could be a reflection that more women were in the department and showed interest in answering the online survey.

In the case of the age range of the participants, the youngest (15–20 years) had more participants than double that of those in 27–32 years. The next highest numbers of participants were in the age range of 39–44 years. The least number of respondents were in two different ranges (21–26 years and 45 years and above).

Influencing factors in Purchasing Apparel for Use

The factors that do influence the purchasing of apparel among the youth in KNUST have been presented in Table 2. The measuring scale was the Likert scale, which had five options. For the purpose of analyzing the results, strongly disagree and disagree have been put together as disagree. A similar approach was taken for agree and strongly agree.

Table 2: Response on purchasing apparel for use

Item	SD	D	N	A	SA
I do purchase my own apparel most times	22	40	50	96	120
My parents at times purchase apparel for me as a youth	37	47	64	140	40
I often purchase my apparel	22	40	50	96	120
Purchasing apparel in recent times is a challenge to me due to cost.	40	10	72	128	78
I usually have one or more outfits of the very latest style	14	30	60	166	58
I am more concern to dress smartly everyday	17	4	58	166	83
I love to shop for clothes	25	52	113	109	29
When I must choose between fashion and comfort, fashion is the option	30	83	45	133	37
I prefer to buy designer labels rather than store-branded merchandise.	33	46	83	127	39
I usually get bored with clothes if I keep them too long.	37	62	69	109	51
My apparel selections are strongly influenced by clothing worn by people I admire.	36	91	65	113	23
I would spend my money on clothes before I would spend it on most other things.	62	112	70	68	16
I am very conscious about the apparel brands around me	15	32	76	177	28

Field survey (2022) **SD** = Strongly Disagree; **D** = Disagree; **N** = Neutral; **A** = Agree; **SA** = Strongly Agree

The result in Table 2 has the frequency count for the responses to all the items. The majority of the participants (216) had the view that they do purchase their own apparel most of the time and 62 indicated otherwise. The participants have also indicated that their parents do purchase their apparel for them as youth, with 180

responses. Meanwhile, 84 of the respondents disagreed with that assertion. “I often purpose my apparel” had 216 responses in agreement, while 62 of the respondents disagreed. The cost of purchasing apparel is a contributory factor; 208 respondents indicated that purchasing apparel is a major challenge. Only 50 of the respondents disagreed with that statement.

Most (224) of the respondents have indicated that they usually have one or more outfits of the very latest style for use, while 44 of the respondents disagreed with that assertion. Dressing smartly every day had 249 of the respondents agreeing with the item, while 21 of the respondents disagreed with it. “I love to shop for clothes” had 138 respondents agreeing to it, while 77 of the respondents disagreed with the same item. Fashion and comfort as items in driving the effort to own apparel were agreed upon by 170 respondents. In the same vein, 113 disagreed with the assertion. The item “I prefer to buy designer labels rather than store-branded merchandise” had 166 respondents agreeing to it, while 99 of the respondents also disagreed with the same item. The respondents agreed with the frequency count of 160 responses that keeping clothes for long does bore them, and 99 of the respondents thought otherwise.

Another influencing factor in selecting clothes is the people the individuals choose to buy from. This assertion was agreed to by 136 of the respondents, while 127 disagreed with it. Most of the respondents disagreed with 174 responses that they would spend money on clothes before other demands. Those who agreed to the item were 84, and 70 of the respondents gave neutral responses. In the case of the last item, which talks about apparel brand choice, 205 of the respondents agreed with it, while 47 disagreed on the other hand. Those having neutral responses to the same item were 76.

The results of the influencing factors in purchasing apparel among the youth varies, pointing to factors like cost, the latest style, and perceptions from external factors (parents’ choice, designers’ brand, and role models’ outfits). The cost element in deciding on what apparel to purchase due to economic ability is the same factor that was found in the earlier study of Ocran, Ji, and Cai (2019). The current finding is consistent with Boyetey and Antwi's (2021) findings that Ghanaians buy fashionable clothes for use. Parents buying apparel for their children could be the result of selecting the best clothes for them or reducing the cost through the good bargaining powers of their parents. The youth have a sense of good taste in the nice apparel on the market because of what their models prefer to wear, which informed their choice pattern of apparel.

Caring for Apparel

The responses on caring for apparel for use are in Table 3. The items for the responses are on a Likert scale with five options. In making the analysis simple for understanding, the responses for strongly disagree and disagree have been put together as one to be ‘disagree’ and the same was done for strongly agree and agree for ‘agree’. Less attention was given to the ‘neutral’ responses since they do not influence the discussion much.

Table 3: How respondents care for their apparel

Item	SD	D	N	A	SA
I do wash my apparel often	29	24	44	159	72
Washing my apparel when dirty is not paramount to me	82	79	57	92	18
I can leave my apparel any where	127	102	41	49	9
Caring for my apparel is not an issue to me.	127	102	41	49	9
Taking good care for my apparel to last long is not necessary to me.	128	86	30	74	10
Proper washing of my apparel is not a border to me.	83	71	20	134	20
Apparel does not really need proper caring to last longer	124	114	25	51	14
After washing my apparel, it could be left at the mercy of the weather	100	62	52	98	16
New apparels always come to the market so there is no need to care much about what I already have.	107	105	42	57	17

Field survey (2022) SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree

The results in Table 3 show the responses to the items. Most of the respondents (231) indicated that they do wash their apparel often, while 53 of the respondents disagreed with the assertion. “Washing my apparel when dirty is

not paramount to me” was disagreed to with 161 responses, while 110 of the respondents agreed to the same statement. The majority (229) of the respondents disagreed with the fact that they can leave their apparel anywhere, while 58 of the respondents agreed with it.

The negative statement “Caring for my apparel is not an issue to me” was also disagreed with 229 responses, and 58 of the respondents also agreed to the statement. Not taking care of apparel to last longer was disagreed to with 214 responses, and 84 of the respondents also agreed to the item. “Apparel does not really need proper care to last longer” was disagreed with 238 responses, while 95 of the respondents agreed to the same item. Most of the respondents (162) disagreed with the statement that “after washing my apparel, it could be left at the mercy of the weather,” while 114 also agreed with the same statement.

The last item in Table 3, which focused on new apparel, is always flooding the market, so there is no need to care for old ones that have been bought. 212 of the respondents disagreed with it, while 74 of the respondents consented to the assertion. The analysis of the responses in Table 3 has shown clearly that the youth care for their apparel to last longer for them. The results point to the fact that the youth do not mishandle their acquired apparel, and they do wash them regularly to keep them neat. The washing of the apparel may involve the use of detergents and other forms of liquid to keep them clean and lasting.

How Youth Dispose their Apparel

The responses of the respondents have been presented in Table 4, which has a five-point Likert scale. The disagree and strongly disagree have been put together as "disagree," while the strongly agree and agree have also been put together as "agree."

Table 4: Response of youth on how they dispose their apparel

Item	SD	D	N	A	SA
I dispose my old apparel by burning	130	96	37	49	16
I dispose my old apparel by sending it to refuse dump	130	96	37	49	16
I dispose my old apparel by burying them in a hole	90	118	40	59	21
I dispose my old apparel by leaving it in a nearby bush	127	116	54	28	3
I dispose my old apparel by giving them out to people	12	15	76	125	100
I throw my old apparel in nearby stream or river.	169	102	32	16	9
I dispose my old apparel in gutters	176	23	43	23	3
I dispose my old apparel by packing them at a special place.	23	37	84	144	40
Disposal of my apparel is a task to me	30	67	84	125	22
Where and when to dispose my apparel when it is old is not my task	43	129	56	78	22
Apparel disposal needs not be given any time to think about.	16	112	66	110	24
Waste collectors help in disposing my old apparel	46	97	59	107	19

Field survey (2022) SD = Strongly Disagree; D = Disagree; N = Neutral; A = Agree; SA = Strongly Agree

Disposing of old apparel by burning was disagreed to by 226 respondents, while 65 of the respondents did agree to the same item. Most of the respondents (226) disagreed with the fact that they dispose of their apparel by dumping them on the refuse dump, while 65 of the respondents also agreed with that assertion. The responses to burying old apparel in a hole was disagreed with by 208 responses, and 80 of the respondents also agreed with the statement. Disposal of old apparel in a nearby bush had 243 responses for disagreement, and 31 of the respondents had agreed to the statement.

In the case of “I dispose of my old apparel by giving it out to people,” the majority of responses were 225, while a few (27) of them disagreed with the phenomenon. Disposing of old apparel in a nearby stream or river was disagreed with by 271 respondents, and 25 respondents did agree with it. Disposing of old apparel with the help of waste collectors was disagreed with by 143, while 126 of the respondents also responded affirmatively.

The analysis of the result pinpoints the proper direction in which the youth dispose of their old apparel. The youth are conversant with the environmental consequences when old apparel is not properly disposed off. The

current result is in line with an earlier study by Bianchi and Birtwistle (2012), which found that females were more concerned about their environment when disposing their old apparel. The biographical results in the current study suggested the females were more than the males, so the results in proper disposal can be attributed to how many females took part in the study. The responses to some of the items in Table 4 clearly suggested that the respondents care more about the environment being damaged when old apparel is not properly disposed.

Conclusions and Recommendations

Acquiring apparel to use is a human phenomenon that cannot be done away with, as is its disposal. The study tried to assess the current trends that exist among the Ghanaian youth on the KNUST campus. The results clearly suggested that there are factors that do influence the acquisition of apparel for use. The acquisition of apparel for use among the youth is done by their parents and the youth themselves. There was no emphasis on which of the parties (parents or youth) matters in acquiring apparel for use. The cost of the apparel and other influencing factors, like youth's model and apparel choice, do greatly impact how they choose their clothes.

Caring for apparel by the youth was found to be positive among them. Washing and keeping them neat most of the time has been established by the current study. The result has established the fact that caring for the apparel would keep them longer than not keeping them clean and in a safe place. The youth have been conscious of their environment and that improper disposal of old apparel could pollute the environment. Apparel use, care, and disposal behaviour can be confirmed to be positive among the youth in the Industrial Art department of KNUST.

However, the study recommends that similar studies should be conducted in other tertiary institutions in Ghana. Though, many people know how to dispose of their old apparel, there should be a national policy on the proper way of discarding old items.

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