Impact of Socio-Economic Factors on Clothing Consumption and Disposal Behaviors amongst Tertiary Institution Staff-Members at Ile-Ife, Nigeria

[1]ADEJUWON, OO; [1]ONWUDIEGWU, CA; [2]AODU, BA

*[1]African Institute for Science Policy and Innovation, Faculty of Technology, Obafemi Awolowo University, Ile-Ife, Nigeria
[2]National Center for Technology Management, Federal Ministry of Innovation, Science and Technology, Abuja, Nigeria

*Corresponding Author Email: wadejuwon@oauife.edu.ng
*ORCID: https://orcid.org/0000-0003-2644-6281
*Tel: +2348037192343

Co-Authors Email: caonwudiegwu@oauife.edu.ng; aodutunde@yahoo.com

ABSTRACT: With the rising population and increasing demand for clothing in sub-Saharan Africa, alongside insufficient policy frameworks to address clothing waste, this study explores the impact of socio-economic factors on clothing consumption and disposal behavior amongst tertiary institution staff-members at Ile-Ife, Nigeria using appropriate standard methods. Results show that 53% of the respondents are male, while 40% are between 35 to 44 years of age. About 30% of the respondents earn a monthly income of between N30, 000 to N130, 000, while 22% earn more than N300,000 monthly. The results of the mean ratings (on a five-point frequency scale) revealed that respondents sometimes dispose used clothing with solid waste (3.32) and by burning (2.86). They however, rarely disposed of textile clothing in landfills (2.30); recycling platforms for reuse (2.14) and in water bodies (1.82). In addition, respondents often (4.04) buy clothing made from natural-based fibers, while they sometimes (3.10) buy clothing made from synthetic-based fibers and *aso ebi* (clothing for special occasions) (3.32). Data from respondents reveal that high-income individuals are more likely to use formal waste disposal systems ($r = .31, p < .05$) and engage in high clothing consumption ($r = 0.38; p < 0.05$), while lower income groups are more likely to prefer to purchase used clothing ($r = -.34; p < .05$). Older individuals are less likely to give away clothing for recycling ($r = -.29; p < .05$) possibly due to social influences and cultural beliefs. Younger people however, favor synthetic-based clothing ($r = -.31; p < .05$) and recycling ($r = -.29; p < .05$) and engage in improper disposal methods such as dumping used clothing in water bodies ($r = -.37; p < .05$). Individuals with higher levels of education are less likely to engage in buying *aso ebi* ($r = -.32; p < .05$). The study highlights the need for targeted campaigns for different socio-economic groups, and infrastructural development to promote environmentally friendly disposal practices. Policy recommendations focus on encouraging recycling and reducing the environmental impact of textile waste.

Growing human population, higher obsolescence rates of garments and low cost of textiles are substantially increasing global clothing consumption and thus, mounting pressure on the environmental impact of textile lifecycles in terms of production, use and disposal (Sandin and Peters, 2018). For instance, the annual consumption of textile products is estimated at 62 million tonnes, with a projected estimate of 102

*Corresponding Author Email: wadejuwon@oauife.edu.ng
*ORCID: https://orcid.org/0000-0003-2644-6281
*Tel: +2348037192343

million tonnes by 2030 (Peters *et al.*, 2019) and consequently, the growing global concerns on the sustainable management of textile waste. Other data show that an estimated 60 billion Kg of textiles is burned or landfilled per annum globally. In developed countries only about 1% of unwanted clothing is recycled, while 13 to 15% is exported to developing countries for reuse and the rest is incinerated or landfilled (Statista, 2022). To increase reuse, several developed countries are strategising to increase the export of used clothing to developing countries (European Parliament, 2022).

Increasing trade liberalization has led to a decline in local production of textiles and unprecedented increase in the import of relatively cheap textile products (new and used) into the Nigeria and indeed the African continent (Brooks and Simon, 2012; Isaac, 2019). In addition to the weak institutional framework mechanisms for solid waste management in Africa, the increasing importation of used clothing may exacerbate environmental challenges in the region. According to the United Nations COMTRADE database on international trade, about US$72.4 million worth of used clothing were imported into Nigeria in the year 2021. This has contributed significantly to textile waste generation and unwholesome disposal methods. Although all phases of textile lifecycle significantly has an impact on the environment (Zhang *et al.*, 2015), the disposal phase may be pertinent and key to sustainable management of textile waste in African countries in the light of dwindling production of textile materials. In Nigeria, the National Environmental (Textile, Wearing Apparel, Leather and Footwear Industry) Regulation 2009 is the only national policy on managing textile waste. However, a major drawback of this policy is its explicit focus on upstream production of textiles which is currently on a very small scale thus contributing minimal environmental damage. The importation of clothing apparels and concomitant effects of haphazard disposal methods on the environment however is completely neglected in the current policy milieu on managing textile waste. This may necessitate the development of adequate policy mechanisms to arrest the harmful effects of indiscriminate disposal of used apparels on the environment. Burning used fabrics and depositing in landfills may contribute to degradation of the environment. Most especially, the types of textiles and methods of disposal have different effects on the environment. Animal fibers and cotton can decompose in landfills, but the process releases methane, contributing to greenhouse gas emissions. Synthetic fabrics take a long time to decompose in landfills and release potentially harmful chemicals during breakdown (Niinimäki *et al.*, 2020). Cotton,

animal fibers and wool burn readily, producing carbon dioxide, water vapor, and ash and contribute to air pollution while synthetic fibers also release toxic fumes. Understanding consumer preferences and consumption and disposal patterns may help to design suitable strategies to curb the harmful effects of the disposal of used textiles on the environment. Socio-economic characteristics such as age, gender, income, and level of education may influence apparel purchasing decisions, usage, and disposal habits and analyzing these factors may inform strategies such as targeted awareness campaigns to educate consumers about sustainable apparel choices, care, and disposal practices and thus, may drive behavioral change. Therefore, designing appropriate policy towards the implementation of sustainable textile management practices in Nigeria requires sufficient understanding of socio-economic characteristics and disposal behavior. Studies have examined the environmental effect of textile wastes (e.g. Sharma *et al.*, 2021; Niinimäki *et al.*, 2020; Stone *et al.*, 2019) and environmental impact at each lifecycle phase of textile (Zhang *et al.*, 2015). However, the literature is yet to account for information on consumer preferences, patterns and disposal behavior in non-western settings for specific textile clothing types which can be used to design appropriate sustainable textile waste management mechanisms. This study is designed make a modest contribution towards filling this gap in the literature by evaluating the influence of socio-economic factors on textile consumption preferences, patterns and disposal methods of a small pilot survey of 150 staff of a Nigerian university. While this study does not intend to make sweeping generalizations due to the size of the sample, it may however shed some light on relevant policy issues and give some pointers to future research in a non-western context.

Post-consumer clothing waste refers to clothing that is no longer useful to end-users and thus discarded or abandoned without the intent of being re-used by the end user. Literature suggests that clothing consumption patterns in Nigeria and other regions in Africa are dictated by cultural, economic, religious and social factors which are in turn influenced by traditional fabrics and styles, western fashion and local and global trends. Traditional attire in Nigeria includes special garments which differentiates them from western clothing. These garments are made from specialized types of fabrics and styles which particularly identifies with particular ethnic persuasions and social identities (Ajani, 2012). According to Ajani (2012), consumption patterns and volumes are particularly influenced by *aso ebi* which are coordinated outfits made from the same fabric and design worn by family and friends of celebrants or

hosts of events such as weddings, funeral ceremonies of old persons, naming ceremonies and so on. The purchase of *aso ebi* usually spikes during wedding seasons in Nigeria. Other influencing factors of clothing consumption are events and occasions. Even without the influences of *aso ebi*, it is customary for most Nigerians to spend on new clothing for the whole family on events such as weddings, naming ceremonies, burials, religious holidays, and the New Year among others. Familusi (2010) reported that more clothing items are purchased by Nigerians on these special occasions than for daily wear. Western fashion trends also influence consumption patterns in Nigeria. These trends are usually more available in urban centers and are more affordable options for the youth and middle class (Familusu, 2010; Anyanwu and Chiana, 2022). Cultural factors have been found to play a role on reuse of clothing materials. Stroomer *et al.* (2020) report that individuals in the Lagos metropolitan area were reluctant to give up used clothing for reuse due to fear of occultic practices. Economic factors also play a crucial role in consumption patterns. Individuals in higher income brackets are more likely to purchase traditional and modern fashion and *aso ebi* while second-hand clothing provide more options for lower income groups (Familusi, 2010). The predominant waste disposal techniques for textiles in Nigeria are open burning, open land dumping, landfill, and recycling disposal methods (Ajila, 2019). Based on the kind of fibres they are made of, textiles are divided into three basic categories: natural (cellulosic or derived from animals or proteins), regenerated, or synthetic. These categories also help to distinguish the differences in the environmental effects of various disposal techniques (Moazzem *et. al*, 2021). For example, naturally occurring cellulosic textiles like cotton, flax, and jute burn easily and release ash, water vapor, and carbon dioxide as they burn. Despite coming from natural resources, extensive burning of these materials can aggravate air pollution. Similarly, textiles made from animal/protein-based fibres like wool, linen, and silk also burn to release carbon dioxide, water vapor, and ash. However, burning wool emits fewer toxic fumes compared to synthetic materials. Regenerated textiles are derived from the polymerization of natural fibres while synthetic textiles such as nylon, polyester, acrylic, and polypropylene terephthalate (PET) are manufactured from petrochemical resources. Burning this category of fibres release toxic fumes and hazardous chemicals such as carbon monoxide, dioxins, and other pollutants that pose risks to both human health and the environment (Okafor *et al.*, 2021; Shirvanimoghaddam *et al.*, 2020).

Indiscriminate disposal of textile wastes more often than not leads to buildup in landfills. The decomposition of textile wastes in landfills is significant as generation of methane, carbon dioxide and other greenhouse gases exacerbate global warming and climate change (Moazzem *et al.*, 2021). Other effects of the disposal of textile materials in landfills are fires and the leaching of toxic chemicals such as ammonia and mercury into the groundwater and soil; thus, endangering the health of nearby communities (Vasarhelyi. 2021).

Although most articles of clothing are typically a blend of different fibres, cellulosic and animal-based, textile clothing such as cotton and wool typically decompose emitting carbon dioxide and generating methane gas and trace amounts of non-methane compounds (Vasarhelyi, 2021). Furthermore, they may lead to leaching, migration and contamination of groundwater and soil with toxic harmful chemicals; harming neighboring ecosystems and endangering the health of nearby communities. Research has shown that synthetic fibres such as polyester, can subsist in landfills for about 200 years contributing to micro plastic pollution as they break down. However, the landfill process of natural apparel waste has been reported to contribute more environmental impact credit compared to synthetic apparel, as a result of the possibility of power generation from the methane gas captured from landfills (Moazzem *et. al*, 2021); with this environmental benefit depending on the ratio of natural fibre and synthetic fibre in discarded apparels. Therefore, contemporary policy drives towards a sustainable textile life cycle require the integration of consumer behavioral dispositions for textile clothing into textile waste policy design and implementation. Specifically, the understanding of consumer disposal behavior and the predisposing factors is very germane. Hence, the objective of this paper is to explore the impact of socio-economic factors on clothing consumption and disposal behaviors amongst tertiary institution staff-members at Ile-Ife, Nigeria

MATERIALS AND METHODS

Study area: The study was conducted among university staff members at the Obafemi Awolowo University, Ile-Ife, Nigeria. The staff members are mostly residents of the town of Ile-Ife which is located in Osun State in the Southwestern part of Nigeria. The town which can be classified as a semi-urban area is located on the map at Latitude 7.4667° N and Longitude 4.5667° E with a population of approximately 500,000.

Data collection: Data was collected via an online social media platform used for sharing information

among staff using *Fillout*; an online survey app. Questions were manually inputted into the app under different sections such as socioeconomic characteristics, textile clothing purchasing behavior and clothing waste disposal methods. The frequency of types of disposal methods and purchase of clothing were measured on a five-point Likert scale from 1 = never to 5 = always. Thereafter, a link was generated and shared with the targeted respondents twice via the online platform. Responses were automatically collected via the app for a period of one week. Consequently, the collated data were downloaded and imported into SPSS software for further statistical analysis.

Data analysis: The data was analyzed using frequencies, percentages, means, standard deviations and correlation analysis.

RESULTS AND DISCUSSION

Socio-economic characteristics of respondents: The socio-economic characteristics of respondents are shown in Table 1. One hundred and fifty responses were retrieved. There were more male participants in this study than females. The male category accounts for about 53% of the respondents. Moreover, 40% of the respondents are within the 35 to 44 years of age group. Two percent of the respondents were below 24 years of age. This is to be expected as not many in this age group can be found in a work environment. About 30% of the respondents earn a monthly income of between N30, 000 to 130,000 while about 22% earn more than N300,000 monthly. In terms of the marital status of the respondents, more than 81% are married while 16% are single. Majority (81%) of the respondents held postgraduate degrees, while 34% and 4% of the respondents held HND/B.Sc. and NCE/OND certificates respectively. This may be expected because of the educational requirements of workers of a university.

Types of textiles purchased and frequency of purchase: Table 2 shows the types of textiles purchased and frequency. The results show that the respondents sometimes (3.34) buy clothing for special occasions. In Nigeria, burial, birthday and marriage ceremonies are usually celebrated with guests wearing *Aso Ebi*, which is a shared identical fabric worn by the guests to an occasion. *Aso Ebi* is a deeply ingrained

cultural practice in Nigeria and it serves as a symbol of solidarity, celebration, and social identity (Ajani, 2012). These ceremonies may be few and far between which may be the reason why these materials are sometimes purchased. It may however promote total demand for textile products, with people constantly buying new clothes to keep up with social events and expectations. The results also show that the respondents indicated that they often (4.06) purchase new textiles while they sometimes (2.90) buy used textiles, which implies that most respondents buy new clothing items rather than used. In addition, it seems that natural textiles is the preferred choice among the respondents as they indicated that they often (4.04) buy this type of material for their apparels rather than synthetic fabrics which they indicated that the sometimes (3.10) buy.

Consumer textile clothing disposal methods: Table 3 below provides the mean ratings of the frequencies of the textile clothing waste disposal methods.

Table 1: Socio-economic characteristics of respondents

Variables	Socio-economic Variables	Frequency (%)
Gender	Male	81 (54)
	Female	69 (46)
Age	15 - 24	3 (2)
	25 - 34	39 (26)
	35 - 44	60 (40)
	45 - 54	33 (22)
	55 - 64	15 (10)
Monthly Income (Naira)	Less than 30,000	30 (20)
	30,000 - 130,000	45 (30)
	130,001 - 230,000	27 (18)
	230,001 - 330,000	15 (10)
	330,001 - 430,000	9 (6)
	430,001 - 530,000	12 (8)
	More than 630,000	12 (8)
Academic Qualification	NCE/OND	6 (4)
	HND/B.Sc.	51 (34)
	Postgraduate (M.Sc./PhD)	93 (62)

The result of the mean rating revealed that respondents sometimes (3.32) throw away textile waste in trash with other solid waste. They also indicated that they sometimes (2.86) disposed of textiles by burning. The mean ratings also indicated that the respondents rarely disposed of textile clothing in landfills (2.30); and textile clothing waste recycling platforms for reuse (2.14). The respondents also indicated that they rarely (1.82) disposed used apparels in water bodies.

Table 2: Types of textiles and frequency of purchase

Textile types	Always F (%)	Often F (%)	Sometimes F (%)	Rarely F (%)	Never	Mean	Std. Deviation
Special Occasions (*Aso Ebi*)	21 (14)	48 (32)	42 (28)	36 (24)	3 (2)	3.32	1.06
New Textiles	60 (40)	48 (32)	33 (22)	9 (6)	-	4.06	0.94
Used Textiles	21 (14)	30 (20)	36 (24)	39 (26)	24 (16)	2.90	1.30
Natural Textiles	57 (38)	54 (36)	27 (18)	12 (8)	-	4.04	0.95
Synthetic Textiles	18 (12)	45 (30)	39 (26)	30 (20)	18 (12)	3.10	1.22

Key: Never = 1; Rarely = 2; Sometimes = 3; Often = 4; Always = 5

Table 3: Consumer textile clothing disposal methods

Disposal Methods	Frequency (%)					Mean	Std. Deviation
	Always	Often	Sometimes	Rarely	Never		
Thrown away in trash/disposed with other solid waste stream	42 (28)	39 (26)	27 (18.0)	24 (16)	18 (12)	3.42	1.37
Directly to dumpsite/landfill	9 (6)	33 (22)	18 (12)	24 (16)	66 (44)	2.30	1.38
Textile recycling* giving away to family, friends and charity and/or deposited at textile clothing waste collection points	3 (2)	39 (26)	9 (6)	24 (16)	75 (50)	2.10	1.34
Burning	27 (18)	21 (14)	39 (26)	30 (20)	33 (22)	2.86	1.40
	6 (4)	27 (18)	3 (2)	12 (8)	102(68)	1.82	1.33

Key: Never = 1; Rarely = 2; Sometimes = 3; Often = 4; Always = 5

Table 4: Factors influencing consumer textile clothing behavior

		1	2	3	4	5	6	7	8	9	10	11	12	13	14
1	Gender	1													
2	Age	-0.11	1												
3	Income	-0.1	.47**	1											
4	Academic Qualification	-0.21	.30**	.32*	1										
5	Yearly Expenditure on Textile	0	.38**	.48**	0.05	1									
6	Purchase Special Occasion	0.25	-0.24	-0.21	-.32**	-0.03	1								
7	Purchase New Textiles	-0.11	0.07	0.01	-0.04	-0.26	.30**	1							
8	Purchase Used Textiles	-0.04	-0.19	-.34**	-0.15	-0.07	.50**	0.1	1						
9	Purchase Natural Textile	-0.1	-0.19	-0.26	-0.12	-.43**	.30**	.63**	.30**	1					
10	Purchase Synthetic Textiles	0.18	-.31**	-0.26	-0.16	-0.03	.67**	.32**	.48**	.33**	1				
11	Thrown away in trash/disposed with other solid waste stream	-0.04	-0.23	31**	-0.07	-33**	.32**	.32**	0.27	0.24	0.23	1			
12	Directly to dumpsite/landfill	-0.1	-0.19	-0.27	-0.06	-0.16	.41**	.50**	.40**	.29**	.41**	.52**	1		
13	Recycling*	-0.12	-.29**	-.29**	-0.26	-0.19	.59**	.29**	.56**	.30**	.52**	.31**	.71**	1	
14	Burning	-0.05	-0.09	-0.26	-0.11	-0.27	.33**	.39**	.43**	0.18	0.19	.32**	.51**	.47**	1
15	Water bodies	0.06	-0.2	-.37**	-0.26	-0.14	.55**	.48**	.60**	.29**	.56**	.40**	.75**	.64**	.59**

*** Significance at p ≤ 0.05 (2-tailed)*

These results imply that throwing away used clothing is done together with other solid waste which most likely end up in landfills (Ajila, 2019) while burning is the next most favored method of disposal. It is likely that most used clothing end up in landfills.

ADEJUWON, O. O; ONWUDIEGWU, C. A; AODU, B. A.

In summary, respondents generally preferred new textiles over used clothing, with natural fibers being the most frequently purchased. Disposal practices, however, reflect a lack of sustainable infrastructure, with most respondents throwing textiles away with other solid waste, contributing to landfill overuse.

The influence of respondents' socio-economic characteristics on consumer behavior, especially as it concerns expenditure on textile clothing, textile clothing preference and disposal method is indicated in Table 4. The age of respondent has a positive and significant relationship (r = .38; p < .05) with yearly consumer expenditure on textile clothing. There is a positive and statistically significant relationship between age and consumer annual spending on textile clothing. This implies the likelihood of consumer annual spending on textile clothing increases with the age of consumer. This result may be related to the result that age and income are positively correlated (r = .47; p < .05). Morgan and Birtwistle (2009) however reported that younger people in the United Kingdom purchase clothing items more frequently because they are more likely to desire to keep up with fashion trends. As expected, respondent income is moderately and positively correlated (r = .48; p < .05) with consumer yearly pending on textile clothing. Therefore, the likelihood of consumer annual spending on textile clothing is associated with higher income. This result is in line with DeVoy *et al.* (2021) who also reported that people with higher incomes generate more textile waste. In terms of the association between respondents' socio-economic characteristics and textile clothing preference, the results indicate that the academic qualification of respondent is statistically significant and negatively associated (r = -.32; p < .05) with consumer preference for textile clothing purchase for special occasions. Therefore, higher academic qualification of consumer reduces the likelihood for consumer purchase of textile clothing for special occasion. Furthermore, the income of the respondents is negatively associated and statistically significant (r = -.34; p < .05) with consumer purchasing preference for used textile clothing. This association infers that the likelihood of consumer preference for used textile clothing decreases with increasing consumer income. Used clothing is known to be cheaper than new ones. Wearing second-hand or recycled clothing is often stigmatized, especially among higher-income groups. This may discourage the reuse or donation of old clothes, leading to a preference for disposal via burning or dumping. This also indicates that people on higher incomes are more likely to purchase new clothing. Furthermore, there is a negative and significant correlation (r = -.31; p < .05) between respondent age and consumer preference for synthetic

textile clothing. This implies that the higher the age of respondent, the lower the likelihood of preference for synthetic type of textile clothes. Most synthetic types of clothing are apparently cheaper than natural types and most likely may be uncomfortable in hot weather (Ahmed *et al.*, 2020). It may be likely that older people earn more income and may seek more comfort in what they wear rather than looking fashionable. The preference for synthetic fibers among younger respondents may be driven by affordability, availability and fashion trends, while the older demographics' inclination toward natural fibers likely stems from traditional preferences and higher disposable incomes. These generational differences should be accounted for in any textile waste management strategy

The results in Table 4 reveal that age (r = -.29; p < .05) and income (r = -.29; p < .05) have significant and negative correlation with consumer preference for donating used clothing for recycling purposes. Consequently, the likelihood of recycling textile clothing in this manner decreases with consumers' age and income. This suggests that younger generations may prefer recycling options, possibly because they are more open to and informed about the practice of textile reuse. Stroomer *et al.* (2020) reported in a study conducted in Lagos, Nigeria that a key factor of hesitation of giving away clothing for reuse is the belief that such items could be used for rituals, witchcraft or occultic practices. This belief may be stronger among older than younger people. According to literature, higher incomes may indicate more access to recycling platforms (EPA, 2020) but in an area where avenues for recycling used textile is non-existent, this relationship may be borne out of the fact that younger people may be associated with lower incomes seen in this case where the study (sample) shows that age and income are significantly positively correlated (r = .47; p < .05). Furthermore, there is a negative and significant association (r = -.37; p < .05) between consumer income and consumer choice of disposing textile clothing in water bodies. The likelihood of disposing textile clothing in water bodies reduces as consumer income increases. Higher incomes may indicate access to housing with adequate waste disposal infrastructure which may provide alternatives to indiscriminate waste disposal practices (EPA, 2020; Ahmed *et al.*, 2020). The results also show that individuals with higher levels of income are more likely to dispose of unwanted clothing items along with formal waste disposal systems (r = .31, p < .05).

There is very strong indication as shown in Table 4 that the nature of consumer textile clothing preference

also predisposes consumer choice of textile clothing disposal. The association among the various consumer textile preference type and disposal method is generally positive and statistically significant. Comparatively, people that have higher penchant to purchase clothing for special occasion are more likely to dispose them into water bodies, burn them and recycle back into the system. Textile clothing purchased for special occasions has a moderate positive correlation with disposal by recycling ($r = .59$; $p < .05$), burning ($r = .33$; $p < .05$) and water bodies ($r = .55$; $p < .05$). In the same vein, new textile clothing is more likely to be disposed directly to dumpsite/landfill as there is a significantly positive correlation ($r = .50$; $p < .05$) between new textile clothing and disposing directly into dumpsite/landfill. Used textile clothing has a moderate positive correlation with recycling ($r = .56$; $p < .05$) and water bodies ($r = .60$; $p < .05$) disposal methods. Therefore, recycling and water bodies are more likely the main disposal method for consumers that prefer used textile clothing who are most likely to be from lower income groups. Most importantly is the preferred disposal method for synthetic and natural fibers. The positive and significant correlation between synthetic textile clothing with recycling ($r = .52$; $p < .05$), directly to dumpsite ($r = .41$; $p < .05$) and water bodies ($r = .56$; $p < .05$) indicates the likelihood of respondents that prefer synthetic clothing towards disposing synthetic textile clothing through recycling, dumpsite and water bodies. Similar findings were observed with disposal of natural fibers as there were positive and significant relationships with disposal by recycling ($r = .30$; $p < .05$), directly to dumpsite ($r = .29$; $p < .05$) and water bodies ($r = .29$; $p < .05$).

Conclusion: This study implies that unlike in western settings older people are likely the main group to be influenced on disposal habits because they buy more clothes and are less inclined to recycle used garments. People with higher incomes were observed to favour buying more clothing items and showed little interest in used clothing or recycling. Furthermore, they were also less likely to dispose of clothing in water bodies but instead rely on formal waste disposal systems. The results indicate that there were no significant differences in the methods of disposal of natural or synthetic fibers as both were most commonly disposed of directly in dumpsite or landfill, by burning, or, in water bodies where they can pose serious environmental hazards. Among respondents, disposal through formal waste management infrastructure and burning were the preferred disposal methods. This study underscores the critical need for Nigeria to enhance its textile waste management policies by extending them beyond production to include post-

consumption practices. Future research should focus on larger sample sizes and wider range of geographic locations to gain a more comprehensive understanding of textile waste practices in Nigeria.

Declaration of Conflict of Interest: The authors declare no conflict of interest.

Data Availability Statement: Data is available upon request from the corresponding author.

REFERENCES

Ahmed, I; Berg, A; Balchadani, A; Hedrich, S; Rolkens, F; Young, R; Poojara, S (2020). The State of Fashion 2020: Navigating uncertainty. McKinsey. p 108. https://www.Ahmed et al.com/~/media/Ahmed et al/industries/retail/our%20insights/the%20state%20of%20fashion%202020%20navigating%20uncertainty/the-state-of-fashion-2020-final.pdf

Ajani, OA (2012). *Aso Ebi*: The Dynamics of Fashion and Cultural Commodification in Nigeria. *J. Pan Afri. Stud.*, 5 (6), 108-118

Anyanwu, EC; Chiana, CA (2022). Socio-Cultural Influences on Fashion Consumption Behaviour of University Students. *ARRUS J. Soc. Sci Human*. 2(1), 47-65 https://doi.org/10.35877/soshum735

DeVoy, JE; Congiusta, E; Lundberg, DJ; Findeisen, S; Bhattacharya, S (2021). Post-consumer Textile Waste and Disposal: Differences by Socio-economic, Demographic, and Retail Factors. *Waste Manage.* 136, 303–309. https://doi.org/10.1016/j.wasman.2021.10.009

EPA (2018). Textiles: Material-Specific Data | US EPA. Available from: https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/textiles-material-specific-data Accessed 8th of June, 2024

Familusi, OO. (2010). The Yoruba Culture of Aso-Ebi (Group Uniform) in Socio-ethical Context. *Lumina*, 21 (2), 1–11.

Moazzem, S., Wang, L., Daver, F., and Crossin, E. (2021) Environmental impact of discarded apparel landfilling and recycling, *Res. Conserv. Recycl.*, 166, 105338, https://doi.org/10.1016/j.resconrec.2020.105338.

Morgan, LR; Birtwistle, G. (2009). An Investigation of Young Fashion Consumers' Disposal Habits.

Int. J. Consumer Stud. 33, 190–198. https://doi.org/10.1111/j.1470-6431.2009.00756.x

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T., Gwilt, A. (2020). The Environmental Price of Fast Fashion. *Nat. Rev. Earth Envir*, 1, 189 - 200. https://doi.org/10.1038/s43017-020-0039-9

Okafor, C.C; Madu, C.N; Ajaero, C.C; Ibekwe, J.C. and Nzekwe, C.A. (2021): Sustainable management of textile and clothing. *Clean Tech. Recycl.*, 1(1): 70–87.

Peters, GM; Sandin, G; Spak, B. (2019). Environmental Prospects for Mixed Textile Recycling in Sweden. *ACS Sustain. Chem. Eng.* 7, 11682–11690. https://doi.org/10.1021/ACSSUSCHEMENG.9B01742

Sandin, G; Peters, GM. (2018). Environmental Impact of Textile Reuse and Recycling – a Review, *J. Cle Pro,* 184, 353–365. https://doi.org/10.1016/j.jclepro.2018.02.266

Sandin, G; Roos, S; Spak, B; Zamani, B; Peters, G. (2019). Environmental Assessment of Swedish Clothing Consumption — Six Garments, Sustainable Futures. Mistra Future Fashion report number 2019; 05. p 167 http://mistrafuturefashion.com/wpcontent/uploads/2019/08/G.SandinEnvironmentalassessment-of-Swedish-clothing consumption.

Sharma, J; Sharma, S; Soni, V (2021). Classification and Impact of Synthetic Textile Dyes on Aquatic Flora: A Review. *Reg. Stud. Mar. Sc.* 45. 101802. https://doi.org/10.1016/j.rsma.2021.101802

Shirvanimoghaddam, K; Motamed, B; Ramakrishna, S; Naebe, M (2020). Science of the Total Environment Death by Waste : Fashion and Textile Circular Economy Case. *Sci. Tot. Envir.* 718, 137317. https://doi.org/10.1016/j.scitotenv.2020.137317.

Statista (2022) Distribution of Waste disposal in Nigeria (2018) www.statista.com/statistics/126873/distribution-of-waste-disposal-in-nigeria. Accessed 8th July. 2024

Stone, C.; Windsor, FM; Munday. M; Durance. I (2019). Natural or Synthetic – How Global Trends in Textile usage Threaten Freshwater Environments. *Sci. Tot. Env.* 718, 134689. https://doi.org/10.1016/j.scitotenv.2019.134689.

Stroomer, E., Kasper, M., Eno, A-E (2020). Textile Collection for Re-use and Recycling in Lagos, Nigeria: Context, Constraints, Opportunities – Final Report Feasibility Study Phase 1. Conducted for Africa Collect Textile. https://africacollecttextiles.com. p 26

Vasarhelyi, K (2021): The Hidden Damage of Landfills. A publication of the Environment Center, Division of Student Affairs of the University of Colorado. https://www.colorado.edu/ecenter/2021/04/15/hidden-damage-landfills. Accessed 8th of July, 2024

Zhang, Y; Liu, X; Xiao, R; Yuan, Z. (2015). Life-cycle Assessment of Cotton T-shirts in China. *Int. J. Life Cycle Ass*. 20, 994 - 1004. DOI10.1007/s11367-015-0889-4.