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21 An Environmental Sustainability Model for Ghanaian Clothing: A Fashion Cycle Approach

Abstract: Sustainable practices are demanded by stakeholders in the fashion industry due to the negative impact of the production and consumption of clothing. Accordingly, there is a call for ensuring that the stakeholders – producers, consumers and government – in the fashion industry become key sustainable agents. This chapter argues that the fashion industry is one of the world's worse pollutants. The industry, therefore, requires the development of a new model. Securing this model is complex given the diverse activities required in the production of clothing. Given this perspective, the chapter examines barriers to sustainable practices in Ghana as well as strategies that the stakeholders in the industry can put in place.

Keywords: clothing, fashion cycle, environmentally sustainable model, Ghana

Introduction

The importance of environmentally sustainable fashion is generally accepted, as researchers have pointed to the importance of creating brands that have little or no harmful effects on the environment. This is the premise of the observation by Cho (2021), that the fashion industry is responsible for the creation of 10% of the human-caused greenhouse gas emissions and 20% of global wastewater, as well as using more energy than the aviation and shipping sectors combined. Globally the fashion industry is expected to grow from \$1.5 trillion USD in 2020 to approximately \$2.25 trillion by 2025, indicating a continuous growth in demand for fashion products (Ikram, 2022) with its resultant negative effects.

Likewise, the United Nations reported that the greenhouse gas emission produced by the fashion industry will increase by more than 50% by 2030 if it is not controlled. Unless sustainable strategies are adopted by stakeholders in the clothing industry, these negative effects will worsen (Napper, Barrett & Thompson, 2020).

Despite these harmful effects of the fashion industry on the environment, the industry is key to economic development (Ikram, 2022), especially for developing economies where tourism and exports of non-traditional products are being used as strategies for economic development. The industry is also vital for job creation. For example, it created a net of 15.8 million new jobs in South Africa (Parschau & Hauge, 2020). In Ghana, the

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fashion industry is a key contributor to the gross domestic product (Amoah et al., 2022). In Accra and Tema, for example, Do The Right Thing Apparel is an exported-oriented clothing business that offers employment to thousands of young people.

Actors in Ghana's fashion industry have come up with innovative technologies to accelerate the fashion industry's green transition (Gaulithy et al., 2022). The industry also contributes to the generation of foreign exchange from the exportation of fashion products.

The importance of the fashion industry to the Ghanaian economy is seen by the government's efforts in its promotion as a foreign exchange earner. Accordingly, technical and vocational education has been revamped with modern infrastructure at both secondary and tertiary levels, to equip graduates with quality demand-driven employable and entrepreneurial skills needed for successful functions in the fashion industry.

As the global population is expected to be 8.5 billion people by 2030, it will increase annual apparel consumption. This calls for the creation of a sustainable fashion industry that aims at developing socially responsible and eco-conscious materials and production practices (Kutsenkova, 2017). This has been embraced by international fashion retailers including Bodice Raw Mango and Stella McCartney, among others, who are highly committed to the transformation of their material sourcing and downstream supply chains to a more sustainable approach (Khandual & Pradhan, 2019).

The negative effects of the fashion industry on the environment have to be understood as strategies that can be used to prevent and minimise negative impacts. This is vital for developing economies that are constrained with resources and therefore have become a recipient of rejected clothing from the factories or those retailers that are not able to sell – “store rejects” and second-hand clothing known as “*Obroni waawu*”, literally meaning “the dead white man” to signify the clothes that came from Europe (D'Adamo et al., 2022; Norris, 2012;).

An appropriate starting point in this conversation is the recognition that fashion is embedded in the environment, with a network of complex activities from the extraction of raw materials to the production, distribution, wearing and disposal of items. Consequently, this study responds to calls for research to be driven toward the creation of sustainable fashion practices (Barrera-Verdugo & Villarroel-Villarroel, 2022; Ikram, 2022).

In paying attention to the Ghanaian context, this chapter examines: (1) the barriers to sustainable clothing in Ghana; and (2) strategies from the perspectives of stakeholders that are key for the creation of a sustainable Ghanaian model for clothing. Securing this model is complex given the diverse nature of the activities involved in the sector.

Accordingly, this chapter draws on the fashion cycle model created by Julie's Bicycle and Centre for Sustainable Fashion (CSF) at the London College of Fashion, University of the Arts London and its concepts of design, make, acquire, use and reuse/disposal. The argument is that combining these perspectives provides a conceptual

framework to understand the creation of environmentally sustainable fashion strategies. This study is part of the discourse which argues that environmental sustainability in fashion takes place through a series of practices (Mazzarella, Storey & Williams, 2019; Radtke, de Almeida & Espartel, 2022).

Overview of Fashion in Ghana

Ghanaian fashion can be traced back to the pre-colonial era when Ghanaians used the barks of trees and hides of animals to clothe themselves. Fashion generally is a particular style that is popular for a period (Arthur, 2020). It comprises all sorts of clothing items, textiles fabrics, shoes and bags among others. Clothing fashion refers to trendy styles worn by people within a certain period. In this study, the focus is on clothing as it makes up the bulk of imported second-hand items into developing economies (Eppinger, 2022).

Clothing in Ghana is made up of both locally produced and imported ones. Locally produced ones are generally made with kente, cotton and synthetic materials such as polyester and wax print, while the imported ones are mostly made up of synthetic materials. The taste of Ghanaian fashion can be observed in all ethnic groups (Kwakyee-Opong, 2014) as each group – Akans, Gas, Ewes and Northerns – has its own kind of colourful kente (see Figure 21.1).



Figure 21.1: Different types of Ghanaian kente (photo: Fanny Adams Quagrainie).

Kente is used for royalty and special social occasions such as weddings and graduations (Amissah, 2022; Swazan & Das, 2022), funerals, naming ceremonies, puberty rites and other social gatherings, with culture playing an important role in the choice of styles (Buami et al., 2022). The common kente styles worn by females are the *kaba* blouse and “*slit*” (a long wrap skirt) that is designed and sewn by fashion designers.

Ghanaian clothing has undergone a complete overhaul because of globalisation. For example, the colonial period witnessed the introduction of wax prints (see Figure 21.2).



Figure 21.2: Dutch wax prints (photo: Fanny Adams Quagraine).

The prints are inspired by African designs and colours to suit the African market taste.

Most of the wax print has names such as “*sika wo ntaban*” which means “money has wings” and it can fly away when it is not well managed. Another name is “*Min Sumor bo tamo sh3*”, which means “I love you like sugarcane”. The wax is versatile and used for various items that are used for all occasions.

Due to the collective nature of the Ghanaian social system, every occasion leads to an assembly of people with different styles. Accordingly, people especially women scramble through the gathering for new designs. It is common for women looking out for uniquely designed flamboyant dresses to either take a picture or request the contact details of the fashion designer. Table 21.1 gives a summary of what some Ghanaian top-class fashion designers do.

Table 21.1: Ghanaian top fashion designers.

Name of fashion designer	Fashion activities
Christie Brown	Infuses modernism into the traditional African aesthetic
Kabutey and Sumaiya Dzieror	Created a luxury bridal collection
Abrantie	Uses African print to design dapper shirts, ties and pants
Atto Tetteh	Produces contemporary African aesthetic streetwear brands, for men
Leslie Wiredu	Designs stage and movie costumes

The Environmental Disaster of the Fashion Industry

While the global fashion industry has various advantages for the Ghanaian economy, it has also become an environmental hazard. The Ghana Watsan Journalists Network (GWJN), a group of journalists interested in the promotion of good environmental and health issues, is creating awareness of the problems associated with poor-quality items that end up in landfill sites and bodies of water. Creating awareness is important as 40% of the 15 million items of second-hand clothing that arrive in Ghana weekly are classed as being of poor quality. This view is illustrated by the position of UN Goodwill Ambassador Roberta Annan: “You can’t take it out. You have to dig. It’s buried. It’s stuck. Some of these clothes are polyester and, I would say, synthetic fabrics that also go into the waterway and choke the fish and marine life there.”

Currently, many materials used in the fashion industry are synthetic. Synthetic materials are chemically made and are the primary cause of plastic microfibers found in bodies of water. Most of these fibres are made of polyester, consisting of plastic that releases carbon emissions. Plastic harms the environment in that it takes a long time to degrade in both the ocean and land. Even worse, when it finally breaks down, it releases a toxic substance that is harmful to marine and land ecosystems. A key concern of such activity is that these plastic microfibers end up in aquatic life, causing many health issues for people who consume seafood.

The fashion industry uses much water. Faded jeans are dipped into blue-dye solutions to brighten their colour. Paa Kofi reports: “we need to get the colour right, to increase its value and get more money for it.” Such activity is dangerous in that fabric dyes find their way to bodies of water.

When synthetic cloths are washed, the fabrics release microplastic elements from their fibres which are disposed into bodies of water. For Ghanaians, clothing is normally used once due to the hot weather, meaning the clothing has to be washed each time it is worn. Studies have found that about 35% of microplastics in bodies of water come from the fashion industry; these become part of the food chain. Microplastics are dangerous to humans when consumed as they can damage cells, inducing inflammation, immune reactions and carcinogenesis (Kumar et al., 2022).

The Kantamanto Market in Ghana’s capital, Accra, is a hub for second-hand clothing. In this market, one finds all kinds of people with different statuses daily hastily sorting the piles of clothes to grab the best bargain. However, 40% of this clothing is considered to be of poor quality. These end up in gutters, bodies of water and landfill sites polluting entire ecosystems.

Likewise, in Accra, the capital city of Ghana, exposure to the negative effects of perineal flooding has been a major concern to city authorities and residents alike. According to Karley (2009), flooding is caused by poor solid waste management practices including clothing waste clogs in major open drains. Thus, rotting wasted clothing blocks gutters and stops the flow of water generated by the rains, resulting in the cre-

ation of life-threatening floods and the spread of water-borne diseases such as malaria, typhoid and cholera.

One way of disposing of waste in Ghana is dumping then at the landfill site. One key site in Ghana is the Kone landfill site. The site is overwhelmed with wasted fashion items mostly from poor quality clothing. This creates sanitation issues for residents living around these sites as they have to breathe in the toxic methane gas created by the landfill sites.

Seldom used clothing can be recycled into new clothes. Once an item of clothing is discarded it is at the mercy of the environment. While clothing made from natural fabrics like cotton and linen is easy to degrade relatively quickly, synthetic fabrics can take many decades to break down.

Sustainable Fashion

Sustainability as a concept is ostensibly understood (Henninger, Alevizou, & Oates, 2016), making it embedded in context and situation. Sustainable fashion stands in opposition to fast fashion which is known for the promotion of cheaper clothes, high volumes of production, shorter fashion cycles, higher disposal rates and unsafe and unstandardised methods of production (Arrigo, 2020; Mcintry, 2019).

Sustainable fashion is associated with slow fashion as it emerged in response to the negative effect of fast fashion (Henninger et al., 2016). Ertekin and Atik (2015) define sustainable fashion as a complex and difficult balanced approach to fashion production, which fosters long-term relationships, builds local production and focuses on transparency as well as promoting ethical conduct, reduced fashion production and purchasing quality over quantity clothing. Sustainable fashion has a bearing on both the employees and production processes. While it seeks to improve production techniques as well as using organic recyclable raw materials, it also empowers employees with sustainable dealings throughout the supply chain (Chauhan, 2022). Bañon et al. suggested that “sustainability does [not] apply to the physical environment in itself, but rather our human relationship with the world” (2011, p. 180).

Fashion clothing can be said to be sustainable when clothing items are designed, produced, distributed, used and disposed of in ways that lead to social, economic and ecological gains in society. This results in responsible production-consumption processes that reject labour exploitation, fabric wastage, etc. (Mukendi et al., 2020). Although scholars consider sustainable fashion from a practical point of view, the concept is used as an umbrella for many practices (Aakko & Koskennurmi-Sivonen 2013; Fletcher, 2015). Aakko and Koskennurmi-Sivonen (2013) summarise the complexity of fashion sustainable practices to cover taking and returning resources, sourcing materials, treatment of fabrics by using less harmful processes, production methods, societal implications, saving resources, information and transparency.

This chapter adapts the position of Mukendi et al. (2020) that sustainable fashion is a production practice that creates products that are perceived to be more sustainable by the consumer. While there is evidence to suggest that sustainable fashion remains key in environmental sustainability literature, there is an agreement that creating sustainability is a complex process (Aakko & KoskennurmiSivonen, 2013). These complex processes are examined using the fashion cycle approach.

Fashion Cycle

The fashion cycle refers to the periodic changes and reappearances of fashion (Andreozzi & Bianchi, 2007). In other words, it is a period during which fashion exists, moving through the five stages from introduction through obsolescence. It is also the period in which a fashion clothing trend emerges, peaks and move out of style. This means that fashion clothing moves through five different stages – design, make, acquire, use, reuse, or disposal – during its existence.

Design in fashion can be defined as fashionable or luxury items made by a fashion designer (Watanabe et al., 2022). Designers come out with new styles, textures and combinations of colours. Designers are key in the fashion industry as the choices they make affect the entire supply chain. The design activities begin with research which is aimed at coming up with a concept for an item. This is followed by the development of a pattern – a template for the item. Then the pattern is traced into a fabric and thereafter cut out according to the pre-determined measurements. This results in the coming up of a draft of the final design. Normally, cheap materials are used for these activities. Due to the key role they play in the making of clothing, designers are recognised as having the capacity to champion environmental sustainability practices by selecting and designing with the most appropriate materials and processes. The second activity is the making of the item.

People are always prepared to wear and use fashion items that are in vogue. Once an item is purchased it should be delivered. The massive production of clothing and its delivery to customers negatively affects the environment. For instance, the clothing journey from manufacturers to customers increases the carbon footprint of a product.

The use stage represents the wearing of the clothing designed. The washing/ laundry process, either hand or machine-washing, releases microfibre pollutants that make their way into the food chain and our bodies (Rathinamoorthy & Raja Balasaraswathi, 2022).

In the last phase of the fashion cycle, sales for an item decline due to boredom or distaste for the style. This stage is known as consumer obsolescence as customers discard a style because it is out of fashion. Shakespeare described it as “fashion wears out more apparel than the man” (Crane, 2020). At this stage, people either resell or

dispose their items. Retail stores also put declining styles on sale racks to make room for new styles. When retail outlets are not able to sell these in developed economies, they are sent to developing economies as part of store rejects. At this stage, fashion consumers will have already turned to new styles, thus beginning a new fashion cycle. The advent of globalisation and rapid development in telecommunication has shortened fashion cycles.

Making Fashion Environmentally Sustainable

To address the objective set for this chapter, to develop a Ghanaian environmental sustainability model using the fashion cycle as a lens, this section provides the responses obtained from interviewing representatives of 30 enterprises including sellers of fabrics, fashion designers, tailors and seamstresses and also 30 customers of fashion.

Barriers to Environmentally Sustainable Fashion in Ghana

Using the fashion cycle model, the responses obtained in respect of barriers to environmentally sustainable fashion in Ghana are presented below. The responses revealed that various barriers make it very difficult in achieving environmental sustainability in the fashion industry in Ghana.

According to Titi, a problem arising from a small seam allowance is that it becomes impossible to change the measurements of clothes when one gains weight. She added “if it is possible to undo the seams it would be easier to extend the life span of a dress as it can be worn for a long time”. The need to start the clothing process with sustainability was indicated by Lizzy, a fashion designer. She pointed out the need to use high quality but cheap fabrics for the creation of *etoiles*.

Macchion et al. (2018) observed that the dynamic taste for new designs puts a lot of pressure on the fashion industry to come up with new products and this put immense pressure on the designers and producers to escalate their production lifecycles. This is associated with fast fashion. This has led to designers regularly introducing new designs. Ghana is a collective society and therefore every special occasion such as a naming ceremony, knocking, which is asking for a girl’s hand in marriage, engagements, weddings, funerals, graduation, promotion at work, among others is an occasion for an assembly of friends and family members. Most of these ceremonies are celebrated with a specific fabric designed into dresses, gowns, shirts and “kaftan”. It is sad to say that most of this special clothing is worn once and may not be used

again. This view is supported by the view of Nana, a customer: “I had two expensive dresses made for my engagement and a gown for my wedding. I have not worn any of them after then for three years. They are still hanging in my wardrobe”.

The creation of a sustainable fashion brand involves much investment (Kumar & Suganya, 2019), which most producers do not have. For fashion designers, using expensive fabric like cotton makes the design of clothing very expensive as the Ghanaian market is flooded with fast fashion cheaper clothing from Asian countries. In addition, the customers do not have the means to demand very good quality clothing. Ghanaians are very fashion-conscious and are always on the lookout for new trends, but they are challenged by low-income levels. This implies that to meet their fashion needs, most Ghanaians have to turn to second-hand clothing. It is therefore not surprising that Ghana has a lucrative second-hand clothing industry. Kwame, a fashion designer, commented: “I come across various customers who are interested in quality clothing. However, as we say in Ghana, the coins are not there to take them to the clothing store. Their best alternative is to go for the first selection of second-hand clothing which is known as the bend boutique”.

A key issue to address sustainability is the recycling of items. Recycling implies that items produced are to be used and later circulated in the industry in their most usable form. However, most clothing when not in use is left to the environment to decompose. In developing economies most raw material used is not recyclable as the industry lacks the technology for recycling. Furthermore, there is a mindset that it is only the poor that have to recycle their clothing items. The following excerpt illustrates this: “we all dispose of our unwanted clothing just like any other rubbish, into the trash bin they go” (Afua, a customer).

A means of dealing with pollution is to create awareness of its negative effects on the environment. To address this challenge, champions of sustainable fashion such as Christopher Raeburn consider awareness as the first step to sustainability. Similarly, 92 signatories of the Global Fashion Agenda 2020 Circular Fashion System Commitment committed to educating 100% of their design teams in sustainable design principles; however, most key players in the Ghanaian fashion industry are yet to fully embrace this strategy. A key underlying reason may be the lack of policy to compel producers of fashion items to be responsible as consumers are increasingly asking for the industry to address its negative effects on the environment. According to Mensah, a tailor: “Yes, I have heard of sustainable fashion. From where I stand it involves doing more for less. My question is what is the government doing to promote it?”

Making Clothing Environmentally Sustainable in Ghana

The identification of activities that related to five areas of the fashion cycle – design, make, acquire, use and reuse/ disposal – emerged from the analyses. Additionally, content analyses revealed two activities: (i) the production of sustainable fabrics; and (ii) awareness creation. Neither is highlighted in the fashion cycle model. The point can be made that the production of sustainable fabrics reflects the need of starting the fashion process with sustainability in mind. Awareness creation conceived as an activity of the fashion cycle reflects a strong commitment to the promotion of the value concept in the creation and maintaining sustainability in the supply chain of the fashion process. Table 21.2 shows the environmentally sustainable fashion strategies in Ghana.

Table 21.2: Environmentally sustainable fashion strategies in Ghana.

Fashion cycle activities	Example of strategies
Production of fabric	Sustainable fabrics
Design	Sustainable design; multipurpose styles
Process	Change of attitudes; multipurpose styles
Acquire	Affordable quality fabrics; multipurpose styles
Use	Sustainable clothing
Reuse/ disposal	Policy; upcycling; cash back programme; renting clothing
Awareness creation	Social media, education; transparency

Production of Fabrics

Based on the data gathered, several activities associated with the production of sustainable fabrics were identified. Sustainable fabric is made up of eco-friendly or recyclable materials. As highlighted by Flo (a retailer of fabrics), Nana Ama (a fashion designer) and Kiki (a seamster) the availability of such fabrics is the key to dealing with the negative effect of present fashion clothing challenges on the environment. Nana Ama said: “a Ghanaian proverb says you kill a snake only by cutting its head, these environmentally sustainable challenges can only be addressed when sustainability issues are included at the beginning of the clothing processes. I mean ensuring that materials used are sustainable”.

Consequently, stakeholders can learn from other best practices in the production of such fabrics. For example, bio couture, the use of bacteria to produce materials that can be used to manufacture fabric as it has been accepted by the industry as an environmentally sustainable material. Businesses and researchers are also looking for ways to use materials such as bamboo, hailed as a sustainable fabric as it does not

require much water or pesticides to grow (Borowski, Patuk & Bandala, 2022). Likewise, Ghana can learn from brands such as North Face and Patagonia which are using organic or regenerative cotton that is grown without chemicals such as pesticides and fertilisers with organic fertilisers that can be produced in Ghana. H&M is also using cupro, a material made from cotton waste, while Flocus produces biodegradable and recyclable yarns and fabrics from the fibres of kapok tree pods. As Ghana abandons a lot of natural materials, the government and academics can partner with both local and foreign organisations to engage in such ventures.

The government should provide incentives for research into moving the industry towards sustainable practices. For example, commissioning technical universities to study and develop sustainable fabric and organic dyes and finding solutions to the waste disposal challenge of fashion items. Likewise, the government could commission a research institution to look into Colorifix, Norwich's use of microorganisms which is grown from agricultural by-products for the use of dyes. This is laudable as Ghana has a lot of agricultural products.

Design

Comments related to the sustainable design of clothing were also extracted from the responses. The underlying point was that designers can champion environmental sustainability practices by selecting and designing with the most appropriate sustainable fabrics and processes. Two activities – sustainable design and multipurpose styles – were mentioned by only consumers as key design activities. Two views worth highlighting for explaining sustainable designs are

“styles that do not require a lot of fabric to make” (Ami) and “I think these are simple, uncomplicated styles that can be worn for various occasions with the addition of some clothing touch-ups like scarfs” (Kwaku).

It also involves designing clothing the “Petit Pli way”. This calls for designing clothing that can grow with the customers, especially for children whose clothing has a short lifespan. For adults, the clothing needs to have an extra seam allowance that can be undone to expand the clothing as one gains weight later in life.

The customers also called for the design of multi-purpose styles. These are styles useful for “many occasions,” as well as being “one-size-fits-all”. The underlying goal for such a style is that it can be worn to various events. It reduces the demand for more fabrics, leading to less clothing being produced with an ultimate reduction in disposed of clothing finding its way to the landfill site. As noted by Maggie: “A dress sewn for church functions should be good for all formal functions like attending an interview, graduation, and the like”.

Process

With the recognition that consumers are increasingly demanding clothing that is friendly to the environment, fashion designers are interested in the making of sustainable clothing. Literature details that the fashion industry uses these values to express identity. A value in the Ghanaian social structure is to use different clothing to celebrate different occasions. The more ceremonies one has to attend the more clothing he or she has to procure. As mentioned by Esi, a consumer: “we need to change the way we use clothing to depict who we are. The fact that you have different clothing for different occasions does not change your status in life in any way. Dealing with this will go a long way to addressing the sustainability issues we are trying to address.”

In line with this, the consumers called for the making of multi-purpose clothing. Such clothing has versatility and longevity. Versatility enables a consumer to wear one piece of clothing to different events, looking different each time. Some clothing found in the literature that meets the feature of multi-purpose is wrapped dresses, shirt dresses and blouse-to-dress. Nevertheless, these dresses, according to self-concept theory, are expected to enhance consumers’ self-images, identities and values (Legere & Kang, 2020).

Acquire

In Ghana, acquiring a fashion item comes in a package that is normally made up of single-use plastics/ wrapping, expected to be soon disposed of. This plastic waste has a drastic negative effect on the environment. Both the consumers and producers indicated the need to address this menace. They called for the government to ban the use of single-use plastics/ wrapping with the implementation of the resolution by Heads of State, Ministers of Environment and other representatives from 175 nations at the UN Environment Assembly (UNEA-5) in Nairobi which called for addressing plastic pollution through a legally binding agreement by 2024. A recommendation was hence for the government to enact a policy that makes the production and sale of single-use plastics/ wrapping very expensive.

The importance of acquiring a multipurpose dress was also cited in this stage of the fashion cycle. Adoma said, “everybody especially women need to have at least three multipurpose dresses, with some clothing accessories these dresses become useful for a family gathering, a date or be worn to the office”. However, the low level of income was cited as a barrier to the procurement of quality clothing. Therefore, both producers and customers need to be assisted to achieve this goal. According to Margaret Howell, good quality involves wearing good quality material that gets better with age and is good for the purpose. She added “it is like getting to know a person you like – you don’t just dispense with them”.

Use

The social judgment theory posits that using a product is dependent on consumer preferences (Quagraine, Dankwa & Kabalan, 2021). This is based on the premise that consumers accept and commit to a brand when the brand's personality is congruent with their self-image. Sustainable clothing is ethically made and friendly to the environment (Chang & Watchravesringkan, 2018). Hannah acknowledged the need for some incentives for making sustainable clothing. This includes an incentive for “purchasing sustainable clothing” and “using recycled paper bags for packaging”. In this regard, sellers of clothing items have to invest in sustainable packaging materials that can be recycled and reused.

Reuse/Disposals

The government is a key stakeholder in the Ghanaian fashion industry and has a role to play in the promotion of environmental sustainability. This can be done with the enactment of policies and the introduction of regulations and incentives aiming at the reduction of the import of second-hand clothing while efforts are put in place to promote the production of affordable recyclable clothing. Taking advantage of these requires importation and local development of recycling technologies.

Upcycling is vital to address the negative effect of fashion on the environment as it prolongs the shelf life of clothing which helps in reducing the resources needed for producing fashion items. Additionally, customers should think of repairing their clothing, donating them to their social group members, or putting them back in the recycling bin to make new clothes as well as buying less clothing to combat negative excessive consumerism. As Patagonia's Chief Product Officer Lisa Williams said, “The most environmentally sustainable jacket is the one that's already in your closet.”

Everybody has searched, identified, and bought desirable clothing but has only ended up wearing it only once or twice. To make something of this item of clothing, one can consider renting it out. Renting clothing rather than buying has also been advocated as a means of creating environmental sustainability. This not only leads to a reduction of fashion waste but also enables a person to wear prestigious clothing. This practice is common in Ghana where funeral clothing for men is rented for the mourning period. Adopting such a strategy has a positive effect on the environment as it results in the usage of less water, saves energy, reduces CO2 emission and reduces pressure on raw materials and primary production (Pandey et al., 2020).

Awareness

In fashion sustainable theory, the behavioural reasoning theory has been used to study sustainable consumption behaviours (Qin & Song, 2022). The findings from these studies revealed that there is a knowledge gap about the negative effects of unsustainable clothing behaviour (Leclercq-Machado et al., 2022). For this reason, effective strategies and policies have to be developed to create awareness campaigns (Ikram, 2022; Sinha, Sharma & Agrawal, 2022). Low income for the purchase of sustainable clothing (Wang et al., 2022), unavailability or limited options for sustainable clothing (Sinha et al., 2022; Weissmann & Hock, 2022), non-involvement of consumers in the product development journey (Di Giulio et al., 2022) and lack of sustainable styles (Sinha et al., 2022) are some of the behavioural reasons for not engaging in sustainable consumption behaviours. For consumers to relate to sustainable clothing, the government must implement effective sustainable awareness promotion.

The importance of creating sustainable awareness is noted by Christopher Raeburn, a champion of sustainable fashion who reports that awareness creation is the first step to sustainability. A key strategy advocated by the personality trait theory is word-of-mouth on social media towards sustainable fashion. This is important as Salem and Alanadoly (2020) found that the increasing impact of sustainable behaviours could be resolved by the availability of sustainability concepts on social media. Accordingly, brand champions can be recruited to post blogs and messages about sustainable fashion on social media. For example, customers should also be educated on how to shop for items. This is based on a proposition that humans are responsible for sustainable change as human actions are shaped by the environment (Pan, et al., 2022).

There is a need to create more awareness of the negative effect of the fashion industry on the environment. This calls for the creation of public awareness of the negative effect of climate change and the promotion of sustainable environmental practices at all levels of education and social gatherings.

Schiros, the cofounder and CEO of the startup Werewool, a biomaterial business inspired by nature, develops sustainable biodegradable textiles, using colour and other attributes found in nature. For fashion to be sustainable, Schiros calls for the inclusion of collaboration with traditional artisans and Indigenous communities to produce materials that address the environmental facet of sustainability.

Associated with sustainability is the issue of transparency. Transparency ensures consumers hold brands accountable for their activities and how they affect the environment. Thus, fashion brands are to be ethical in both the management of their operations and human resource. Greenwashing – intentionally deceiving consumers or overselling their efforts to be sustainable – should be outlawed.

Due to the urgent need to address the negative effects of fashion, stakeholders in the fashion industry need to find viable and sustainable solutions to transition the industry towards a sustainable one in the future. Collaboration among these stake-

holders is key to ensuring the availability of resources and other factors needed for the creation of an environmentally sustainable clothing model in Ghana.

Conclusion

There has been a call for more research in making fashions environmentally sustainable, against the recognition that the fashion industry is one of the key pollutants of bodies of water. This calls for the creation of a sustainable fashion industry that aims at developing socially responsible and eco-conscious materials and production practices (Kutsenkova, 2017).

It could be argued that the fashion cycle model for sustainable production and consumption of clothing shown in Figure 21.3 represents a relevant set of sustainable activities for clothing.

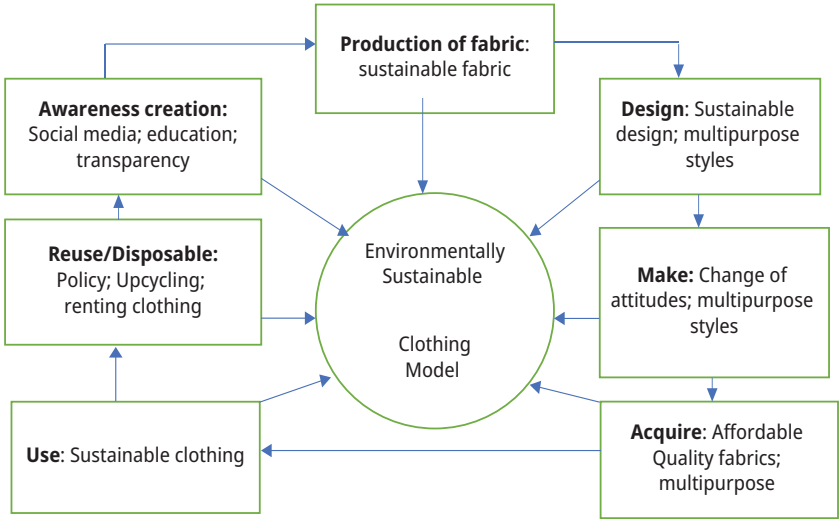


Figure 21.3: Environmental sustainability model for clothing.

This chapter indicates that the key sustainable strategies lie within the activities of producers and consumers of clothing. This is an important practical and theoretical development that is worth pursuing as it may lead to a fuller understanding of what constitutes marketing in SMEs.

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