Relationship between Sustainable Eco-friendly Fabric Manufacturing with Versatile use of Fashion and Styles: Perspective from Clothing Fashion of Bangladesh

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Abstract

Extreme perception of three seasons named summer, rainy, and winter in Bangladesh. These three seasons have a strong impact on apparel art, and actually, it is dominated by these three weather change. Although the terms fashion and style are often used together, these two words express two different meaning in every sphere. Fashion is a popular style that is accepted by a majority of the group at a particular time span. Hence, clothing fashion aims at developing versatility and creativity through apparel which is based on peoples taste, habit, history, education, tradition, and culture. If fashion designers use eco-friendly fabric for bringing diversity into apparel art which is being comfortable and attract the consumer, the demand of eco-friendly fabric would be accelerated. Versatility of fashion and style can be a dynamic medium for the sustainable eco-friendly fabric manufacturing.

Keywords: Apparel Art; Weather Change; Eco-friendly Fabric; Sustainable; Fabric Manufacturing

1. Introduction

Fashion is forever. What we do and how we live its fashion that makes us all perceive. People have become more fashion conscious, mainly because in the competitive world that we face every day at present. Today, fashion is full of contradictions. People express that they are interested in sustainability, but continue to seek out fast, inexpensive fashions (Johansson, 2010). In many countries, there is a growing movement of “ethical consumerism” with consumers demanding that the goods they buy are made in ways that do not harm the environment or the workers who made them. Studies have indicated that consumers are often willing to pay more for “green” products or “sweat-free” goods (Gam et al., 2009; Kahn, 2009; Pookulangara et al., 2011). Eco fashion, sustainable fashion, eco-friendly fabric, green fabric, and green fashion/style all these terms have become familiar within the media over the past few years (Fashion Futures, 2025, n.d.). In fact, the apparel industry currently is dominated by fashion and just-in-time production leading to increased fashion trends (Sanjukta and Arlesa, 2013).

Eco-friendly fabric is a topic that has entered into the discussion in the textiles and apparel industry in the past few years. As scholars seek to define eco-friendly fabric, they examine contributing concepts such as eco fashion, social responsibility, sustainability, and transparency within the fabric manufacturing system. It is important to understand that fashion incorporates concepts such as using eco-friendly fabric, utilizing technology to reduce waste and pollution and other core concepts to improve businesses practices as well as maintain profitability (Fletcher, 2010). According to Nakano (2009) – “fashion that is not time-based, but is about producing, designing and consuming better.” The proposed subject will be exploratory in eco-friendly fabric and will analyze consumers’ perception of purchasing fashion garments.
2. Objective of the Research

Pollution, climate changes, and natural disasters have changed 21st century utilization tendencies toward eco-friendly attitudes; subsequently, many companies have made significant efforts toward the development of eco-friendly products and marketing strategies to find new opportunities (Sung et al., 2013). The term “social responsibility” has been used in business since about the mid-twentieth century. Many countries have established eco-friendly development, manufacturing, and supply policies to meet the demands of global markets. For example, the US and Japan made it mandatory to purchase eco-friendly products and services through the Green Consumption Act (Korea Fashion Association, 2012).

However, the circumstances and the conditions of our Bangladesh (3rd world country) are dissimilar from them. Greater part of our people is illiterate yet, on the other hand, those are literate, majority of them are not conscious about the ecosystem. Ecoconsciousness means that a consumer is more aware about environmental problems and follows a more environmentally friendly lifestyle that results in mitigated environmental problems in the purchase, use, or disposal of goods (Ahn and Park, 1998). Only the few peoples are exceptional. Again, though these few exceptional are conscious about the ecosystem, most of them are not know which are the fabrics those are eco-friendly. The challenge is that consumers often support socially responsible business practices, but are not equipped with the appropriate knowledge to make responsible purchases (Dickson, 2000). At this condition, my objective of the research is to bind the people to purchase eco-friendly fabric automatically, also encourage to take the initiative for create its availability and sustainability of eco-friendly fabric manufacturing. I think fashion designers of our country can play a key role on this sustainable development to make it success.

3. Theoretical Background

3.1. Apparel art: Fashion and style

Apparel art is the art of clothing design including fashion and style. Fashion design is the art of the application of design and esthetics. Fashion design is influenced by cultural and social latitudes and has varied over time and place.

The terms fashion and style are commonly thrown around these days, however many people find it difficult to distinguish between the two. According to Oscar de la Renta (Wikipedia), “Fashion is about dressing according to what’s fashionable. Style is more about being yourself.”

In layman’s terms, fashion is what is currently in fashion right now, that is, what is being featured in magazines, on TV and the fashion runways. Fashion is what is trendy right now. These can be anything clothes, makeup, shoes, accessories, etc., being made popular by fashion houses, model, actors and actresses. Style, on the other hand, is unique to everyone. This is the person’s own opinion, their own choice in clothes and accessories. Style is something that has been modified and customized on an individual level to suit each person’s own personality and body.

According to Wikipedia, Fashion is a general term for a popular style or practice, “Fashion” refers to a distinctive; however, often habitual trend in a look and dress up of a person, as well as to prevailing styles in behavior. “Fashion” usually is the newest creations made by designers and is bought by only a few numbers of people; however, often those “fashions” are translated into more established trends.

Fashion is very versatile. It keeps on changing. Things that are fashionable tend to go out of fashion by next year, or next season, or even next week. A person is only fashionable if they are following the current fashion, a thing hard put to do as fashion is for a limited time only.

Style, on the other hand, is considered more permanent and timeless, as it does not need to change. It may only change when the person does, or this style or personality is redefined. Style is not dependent on clothing; it can be associated with anything that makes you look stylish.

3.2. Weather change: Relation with apparel art including fashion and style

Weather is basically the way the atmosphere is behaving, mainly with respect to its effects on life and human activities. In most places, weather can change from minute-to-minute, hour to hour, day-to-day,
and season to season. There are really a lot of components to weather in Bangladesh. Weather includes sunshine, rain, cloud cover, winds, hail, excessive heat, and more. Weather is what conditions of the atmosphere are over a short period of time.

For many years, there has been a change of fashion from season to season because of temperature and weather change, but styles change more frequently, largely because of our in born desire for something new. Human being is an inquisitive and curious creature, so the fashion changes are motivated by the visual need for a new image according to the season. The fashion calendar during this time was primarily based on the fabric exhibitions; fashion shows and trade fairs that consisted of the basic pattern of three seasons such as summer, rainy, and winter ranges which typically resulted in developing a seasonal range in one full year (Vertica and Ann, 2009).

### 3.3. Eco-friendly fabric

There is so many eco-friendly fabric named Organic Cotton, Hemp, Bamboo, Soy Silk, Tencel/Lyocell, Hessian Cloth, Organic Linen, Recycled Polyester, Milk Silk, Alpaca, Organic Wool, and Ingeo. But all of them are not available in Bangladesh, Suppliers of our country are manufactures some of them fabric by exporting fiber from out of the country. Most of the times they export yarn directly.

For so following eco-friendly fabrics are available in BD and given an explanation of why the fabrics are eco-friendly:

- **Organic cotton**
  
  Organic cotton is the same as standard cotton, except it is grown without the use of chemical pesticides, synthetic fertilizers or genetic engineering. Cotton that is grown organically improves soil quality and often uses less water than conventionally grown cotton. Organic cotton retains all the qualities that anyone loves about traditional cotton; it’s soft, breathable and easy to care for. Because it’s grown without the use of harmful chemicals, everyone can feel good about looking great! “Supporting the organic cotton industry is a big green step,” says Rob Grand, owner of Grassroots Environmental Products.

- **Bamboo**
  
  Bamboo is a renewable resource. It grows incredibly fast, up to a foot per day, and does not require the use of pesticides, herbicides, chemical fertilizers or a lot of water. Rayon made from bamboo is strong, naturally wrinkle-resistant and machine washable. It tends to be warmer in the winter and cooler in the summer, which makes it an incredibly versatile option that is as easy on wallet as the environment. “Bamboo can be beautiful and is a very soft fabric, but there’s a chemical component to the manufacture that’s pretty toxic,” says Grand.

- **Tencel/lyocell**
  
  Made from the cellulose of wood pulp, Tencel is harvested from tree farms. The fiber is produced via a “closed loop” process, minimizing the impact on the environment by utilizing as little energy and water as possible, and recycling its non-toxic solvents throughout the production process. Tencel shares many of the features of other sustainable fabrics. Soft and absorbent, it resists wrinkles well and is very strong, even when wet. It can be machine washed or dry cleaned and drapes well.

- **Hemp**
  
  Hemp is considered a high-yield crop that produces a significant amount of fiber per square foot without exhausting the soil. It requires no pesticides, herbicides or chemical fertilizers and very little water. Hemp does not wear out - it wears in! Valued for its strength and durability, hemp gets softer every time anyone washes it. Not only is it strong, hemp also holds its shape, preventing garments from stretching out or becoming distorted. It is breathable and naturally mold and mildew resistant, making it a perfect choice for warm, humid climates.

- **Wool**
  
  Wool is made from the hair produced by animals such as sheep and goats. It’s been used for many years as the basis for many products, from clothes to bedding and other household goods. The wool from the merino sheep stands out in a crowd. It’s built for extremes - breathable in warmer weather, insulating in the cold and still remains lightweight and most of all, soft.
Polyester
Recycled polyester uses post-consumer waste like plastic bottles or polyester fabric remnants to create new polyester fabric. Not only are these materials kept out of landfills, but using them also reduces the need for raw materials to manufacture new fibers. Recycled polyester is just as soft, lightweight and easy to wash as the original.

3.4. Sustainable development

The modern concept of sustainable development is derived most strongly from the 1987 Brundtland Report; sustainable development is the organizing principle for sustaining finite resources necessary to provide for the needs of future generations of life on the planet. It is a process that envisions a desirable future state for human societies in which living conditions and resource use continue to meet human needs without undermining the “integrity, stability and beauty” of natural biotic systems. It was suggested that “the term “sustainability” should be viewed as humanity’s target goal of human-ecosystem equilibrium (homeostasis), while “sustainable development” refers to the holistic approach and temporal processes that lead us to the end point of sustainability.”

Sustainability can be defined as the practice of maintaining processes of productivity indefinitely—natural or human made—by replacing resources used with resources of equal or greater value without degrading or endangering natural biotic systems. Sustainable development ties together concern for the carrying capacity of natural systems with the social, political, and economic challenges faced by humanity. Sustainability science is the study of the concepts of sustainable development and environmental science. There is an additional focus on the present generations’ responsibility to regenerate, maintain and improve planetary resources for use by future generations.

According to Pujari et al., 2003, green products play a key role in the sustainable growth of companies and economies. These definitions focus mostly on the manufacturing processes of green products. Sustainable Fashion means have been given the information of where the clothing comes from, who makes it and what it’s processed with to ensure the item is worthy of the eco-friendly message it’s sporting (Green living Guides).

3.5. Fabric manufacturing

Fabric manufacturing is a major industry. It is based on the conversion of fiber into yarn, yarn into fabric. These are then dyed or printed, fabricated into clothes. Different types of fiber are used to produce yarn. There are many variable processes available at the spinning and fabric forming stages attached with the complexities of the finishing and coloration processes to the production of a wide range of products.

4. Methodology

Due to the limited imminent provided by literature about relation with fashion movement and eco-fabric, I have dependent on the consumer attitudes and perceptions. A questionnaire was used for the practical survey, and a survey was conducted on consumers who had fashion product purchase experience. The content of the questionnaire consisted of questions related to their preference about purchasing cloth and environmental-friendly product attitudes. The respondents were given sufficient time to read and think about each state of affairs before answering the questions.

4.1. Data collection

Data for this study were collected by a survey of the questionnaire from 250 respondents of Chittagong in Bangladesh (104 females and 146 males), aged 20-49 from November 5th to 20th 2016. The questionnaire consisted of six questions about demographic characteristics (name, present address, age, gender, occupation, and socioeconomic status). Except for the demographic characteristics, all
other items were measured consumers perception of their preference about culture or fusion, what are the things that they look for when do they purchase any dress, how many and also when do they want to purchase the dress.

4.2. Data analysis

To serve this purpose, an SPSS 20.0 program conducted the frequency analysis of reliability. Men and women were divided by gender to account for population statistical characteristics of the research target data. For age, there were in 20-29s (42.3%), 30-39s (31.6%), and 40-49s (26.1%) (Figures 1 and 2).

5. Result and Discussion

Analyzing each and every condition, can be stated that, if the fashion designer use eco-friendly fabric and also if possible use natural dye (though it has limited variations) to make their product by applying appropriate color combination, will make the design flexible and comfortable, will make the product according to the season and festival, and also will represent eastern and fusion culture for the Bangladeshi consumer of 20-49 aged then the consumer must be bound to purchase these eco-friendly fashion product repeatedly. After that, the demand of eco-friendly fabric would be accelerated. Versatility of fashion and style can be a dynamic medium for the sustainable eco-friendly fabric manufacturing.

On the following, I give a process of sustainability model to express my research result where I show how the designers can play their responsibility for create sustainability of Eco-friendly fabric manufacturing (Figure 3 and Table 1).

**Figure 1:** Analysis of consumer’s perception of what are the things that they look for when they select any dress

![Figure 1](image1)

**Figure 2:** Analysis of consumer’s perception of what’s the culture they prefer when they purchase any dress

![Figure 2](image2)
Table 1: Analysis of consumer’s perception of what are the things that they look for and their preference of culture when they select any dress

<table>
<thead>
<tr>
<th>Variables</th>
<th>Frequency (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Things that consumer look for</td>
<td></td>
</tr>
<tr>
<td>Eco-friendly fabric</td>
<td>10 (4.0)</td>
</tr>
<tr>
<td>Design and color combination</td>
<td>112 (44.8)</td>
</tr>
<tr>
<td>Fabric quality and longevity</td>
<td>50 (20.0)</td>
</tr>
<tr>
<td>Flexible and comfort</td>
<td>68 (27.2)</td>
</tr>
<tr>
<td>To see the brand name</td>
<td>8 (3.2)</td>
</tr>
<tr>
<td>No problem to wear anything</td>
<td>2 (0.8)</td>
</tr>
<tr>
<td>Preference of culture</td>
<td></td>
</tr>
<tr>
<td>Eastern and Fusion culture</td>
<td>162 (64.8)</td>
</tr>
<tr>
<td>Eastern culture</td>
<td>18 (7.2)</td>
</tr>
<tr>
<td>Fusion</td>
<td>56 (22.4)</td>
</tr>
<tr>
<td>Western culture</td>
<td>14 (5.6)</td>
</tr>
</tbody>
</table>

Several of the participants stated that they would love to buy eco fashion that was not only a quality product but also ethically produced. They would be willing to pay extra to ensure that the garments were manufactured in socially responsible conditions and were eco-friendly.

6. Conclusion

This research analyzed the effects of consumer environmental consciousness, behavior and eco-friendly attitude on the influential relationship with fashion product purchase intentions. The results of this study suggest a significance and implication of research. The research results show that appropriate
plans to create the fashion business such as usefulness of design and business value will need to be provided to fashion consumers and also to make the world for the next generation out of harms using and manufacturing eco-friendly fabric.

References


