

A Study on the Importance of Sustainable Fabrics and Marketing Strategies to Increase its Awareness in Bangladesh

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Abstract

To live a healthy life, we need to protect our planet first and this planet is being polluted every single day. The apparel and textile industry are one of the largest in the world. But textile is a factor that causes environmental pollution. Considering an increasing demand for textile and apparel goods, the industry is in urgent need of improving the environmental footprint of its products. It is essential to promote sustainability in the textile sector when the world garment market and companies are focusing on environmentally friendly products. Very recently some of the textile companies in Bangladesh have started working on it and they are focusing on using sustainable fabrics which have benefits on the environment, economy and society of a country. This type of fabric can be recycled or reused without any negative impact on humans and the environment. The purpose of this study is to introduce some sustainable fabrics & their necessity to the customers & the market in Bangladesh. This study also shows customer perception of sustainability using qualitative data collection methods. In addition, it also highlights the comparisons between conventional fabric & sustainable fabric. Furthermore, it discusses some promotional ways as marketing strategy to increase awareness of sustainability and using of sustainable fabrics in Bangladesh.

Keywords: Sustainability; Sustainable fabrics; Marketing strategy

Introduction

The textile industry is increasing rapidly in the modern world. The primary goals of the textile and clothing industries are to design and produce fashionable, contemporary fibers, yarns, textiles, clothes, and accessories and supply and market them. According to the Textile Market Size, Share & Growth Analysis Report 2030, the value of the world textile market was estimated at USD 1,837.27 billion in 2023 and the revenue is expected to increase at a compound annual growth rate (CAGR) of 7.4% from 2024 to 2030. However, with the growth of the textile and clothing sector, environmental pollution has also increased worldwide due to the usage of energy, the use of hazardous chemicals, the discharge of contaminated wastewater, and the creation of solid wastes are the textile industry's main environmental problems. Thus, textiles have become a factor in pollution [1]. Over the last few decades, the textile sector has been a significant contributor to Bangladesh's (BD) economy. Bangladesh's textile sector currently exports nearly 28 billion USD per year, accounting for approximately 82% of the country's total export earnings. By 2021, the annual value of ready-made garment (RMG) exports is expected to be around \$50 billion. However, the growth of Bangladesh's RMG sector is associated with various environmental issues [2]. We have to change and evolve with it. Sustainability is currently a popular theme in the Textile industry. Nowadays industries are working with environmentally friendly materials & production processes to save the environment. Environmental benefits like eco-friendly, ecologically responsible, eco-safe, recycled, and green materials are often used to promote products with minimal negative

impacts, highlighting the importance of sustainability beyond ecological sustainability. Sustainability in the apparel industry includes economic, social, and environmental development pillars, which are independent but in the long run, their existence depends on each other [3]. Before sustainability discussion in the apparel industry focused mainly on environmental impacts. Today social concerns are also a part of the discussion due to the nature of the industry. With so many issues such as climate change, plastic pollution, deforestation, biodiversity loss, and water scarcity, the fashion business may not be the first thing that comes to mind as a solution. Unfortunately, the clothing industry is indeed dirty and a significant contributor to environmental & human damage [4]. The good news is that sustainable fashion addresses many of these issues that will help mankind. Many countries have adopted sustainable fabrics but, in our country, there is a small practice of it. We want to increase the production of sustainable fabrics to reduce environmental problems. By using these sustainable products, we can save natural resources, reduce carbon footprint and minimize water. Some emerging sustainable fabrics include Organic Cotton, Refibra, BCI, Eco Vero, Tencel, Modal, Viscose, and Repreve. We want to protect our environment from hazardous textile wastes & so we want to increase awareness regarding sustainable fabrics and their use in our country.

Background

Sustainability is the dominant issue of our time. Every action we take leads to greenhouse gas emissions, ocean pollution, and more erratic weather conditions. The textile industry has a significant impact on the economy and environment. Although it contributes to global value creation, it also has a significant environmental impact. To address these challenges, pioneers and role models are needed. Sustainable fabrics are made from renewable and certified raw materials. These fabrics are not only comfortable but also environmentally friendly as they are biodegradable and compostable. Once used, they return to the natural cycle without leaving harmful residues. In this study, some sustainable fibers are available to the growing world and fabrics which are made from these fibers have been introduced. This study also highlights the importance of sustainable fabrics and shows the comparison between conventional fabrics and sustainable fabrics. Sustainability creates more positive impacts and benefits for people and the planet. It also ensures our economic success. Our passion is to make sustainable fabrics available to the growing world. It also ensures our economic success. It will contribute towards improving environmental performance throughout the value chain and consequently in final products. Therefore, this study has suggested some promotional ways to increase awareness of sustainability and the use of sustainable fabrics.

Literature Review

The textile industry is promoting sustainability by reducing water, energy, and chemicals consumption, promoting waste reduction and recycling practices, and ensuring resource availability for future generations. The concept of sustainability originates in the Report of the UN World Commission on Environment and

Development of 1987, better known under the name Brundtland Report [5]. The Commission aimed to develop development and they wanted to meet present needs without compromising future generations' ability [6]. Today sustainability is seen in three dimensions: social, economic and environmental sustainability [7]. Researchers bridged the gap between consumers' environmental sustainability knowledge and companies' competitive advantage by examining consumer perceptions. They also analyzed the influencing factors in purchasing decisions for apparel and food items [3]. In another study, it was examined sustainability communication strategies employed by apparel companies. They mainly focused on their marketing efforts to consumers including sharing information about its social and environmentally friendly practices [8]. Researchers provided an overview of an apparel supply chain, and they highlighted phases, inputs, and environmental indicators. It identified misalignments between actual practices and recommended practices, facilitating the development of a conceptual model for an environmental sustainability assessment strategy [9]. It was explored that sustainability in the textiles supply chain focused on the designer's perspectives, natural fibers like cotton and wool, and new synthetic fibers. It was also mentioned that enzyme biotechnology, dyeing, and plasma technologies refer the supply chain sustainability [10]. Many technologists worked in concert in an integrated industry considering the diversity of fibrous waste and structures to have any noticeable impact on fibrous waste recovery. They mentioned several promising technologies and ideas for recycling systems [11]. Another study analyzed apparel companies' sustainability efforts, metrics, and industry level and categorized them by supply chain stage and dimension. They also ranked them to estimate their commitment to sustainability [12]. The previous study aimed to improve the textile recycling process by reusing or recovering second-hand and discarded clothing.

A simulation-based model for textile recycling was proposed to simulate several scenarios dependent on the model's input parameters. The model was separated into two sections: use and post-use phases. In general, the post-use phase is divided into four sub-models: recycling, remanufacturing, upcycling, and reuse [7,13]. The primary goal of the study would be to imitate the recycling process by introducing several production methods for the specified scenarios [14]. Similar emerging themes in the apparel business to those in general sustainability can be recognized. Perceptions of sustainability in the apparel sector include long-lasting items, methods, and products that help the company's future economic position while also being environmentally conscious [15]. Consumers, including those who are environmentally conscientious, have a poor degree of knowledge about the environmental implications of clothes production and marketing [16,17]. Furthermore, customers have little understanding of how clothes manufacture, distribution, and use harm the environment [3,8]. Within the apparel business, understanding and awareness of the environmental repercussions of clothes and textile products are even lower than with other items like fuel or soft drink bottles [18]. Self-expressed concepts of sustainability in the apparel business include organic material use and recycling [19]. Much research has

been conducted on environmental sustainability, environmental pollution and its treatments, textile recycling, and consumer attitudes toward sustainability around the world. However, in our country, no research has been undertaken to demonstrate the relevance of sustainable fabrics and promote them to the market and consumers. Customers are also unaware of what multinational and local brands in Bangladesh are doing to promote sustainable textiles. In this study, it was attempted to make them aware of the situation.

Methodology

A qualitative method is used to conduct this research by collecting primary and secondary data. This study is mainly exploratory type. Here, we have analyzed the importance of sustainable fabrics by interviewing 12 industrial experts and 25 customers who have already used sustainable fabrics for their purposes and also who are willing to practice sustainability in their organizations. In the field of customer perception, it is important to get a deeper understanding of the underlying reasons like what do customers associate with the term environmental sustainability? Asking and analyzing the thoughts of individuals provides the best answers to these questions. Therefore, interviews can be an appropriate approach to find out what really drives consumer demand and what factors negatively influence consumers' environmentally sustainable purchasing decisions for apparel. Furthermore, since there is little research done in this area, new insights and new ideas can be obtained by focusing on qualitative research. In this study, research is based on collecting primary data & secondary data. We are trying to show the comparison between conventional fabrics and sustainable fabrics by using secondary data which can be collected through observations, case studies, journals, websites etc.

Result and Discussion

By using the qualitative interview method, we have collected some information from people based on Bangladesh's perspective and using this information, we can reach some opinions which can be discussed below.

Sustainability awareness among people in Bangladesh:

When consumers are asked what their perception of sustainability, in general, their answers mostly include environmental issues, future and considerations of long-term effects and social and economic themes. Most of the people associated with sustainability have environmentally friendly ideas and practices with an emphasis on action rather than concern. They mention the need to protect resources and landscapes for the future, e.g., resource conservation or pollution prevention. On the other hand, some of the people who practice sustainability use it unconsciously because they are not properly educated about the positive effects of sustainability. In our study, findings also show that some of the respondents know about sustainability, but they don't have clear knowledge about its prospects and effects on our environment and society. Textile factories use sustainable fabrics for apparel production because of buyer requirements or to get certification. However, they are not conscious of its long-term prospects and recycling opportunities.

Factors that influence customers to use sustainable fabrics are buyer's responses, marketing stimuli products, marketing mix, future & consideration of long-term effects etc. Some internal and external barriers also negatively influence them to use environmentally sustainable fabrics like internal management cognition and attitudes, availability of the product and product-related information, high price etc.

Comparison between conventional fabrics and sustainable fabrics

Wearing clothing made with sustainable fabric is more than just an environmental choice. Conventional fabrics (not eco-friendly) are produced with harmful chemicals such as pesticides, insecticides, flame retardants and petrochemicals that are endocrine disruptive, cause skin irritations or increase the growth of cancer cells. Even after laundering, some of those chemicals remain in your clothing. We put ourselves at risk every day with the amount of toxins we are exposed to through our food, beauty products and clothing and we don't know how it is affecting us. People keep risking their lives without knowing how it will affect them and their children. Better quality and better fabrics will be worth the investment in the long run. Manufacturing conventional fabrics is leading to climate change, polluted waters and unlivable towns. Fabrics that are produced in the United States are somewhat better because wastewater and chemicals are either recycled or treated. The manufacturing process for conventional fabrics vs. sustainable fabrics is listed below:

A. Conventional fabrics

Nylon: Nylon fabric is made from petroleum and treated with chemicals such as formaldehyde to prevent shrinking. The production of nylon emits more greenhouse gases than carbon dioxide. Nylon is not biodegradable.

Polyester

Polyester is a petroleum-based material that is difficult to recycle and decompose. It contains carcinogenic substances that remain trapped in the fibers. Polyester disrupts the endocrine system, potentially causing reproductive organ damage or cancer.

Rayon

Rayon fibers, derived from wood pulp, are more sustainable than petroleum yet contribute to deforestation. The method of producing rayon is hazardous to both humans and the environment due to its high chemical content.

Cotton

Cotton is a natural and biodegradable fabric, but it is farmed using chemicals like insecticides, which have significant negative impacts. Cotton production requires significant amounts of water and energy. A single t-shirt uses approximately 700 gallons of water, while a pair of jeans requires 2,600 gallons.

B. Sustainable fabrics

Tencel: Tencel is a natural, man-made fiber derived from raw wood. Tencel is an eco-friendly fabric produced by a closed-

loop method that recycles the chemicals used in its creation. It is biodegradable and antibacterial.

Modal: Modal is a semi-synthetic fiber manufactured from the pulp of beechwood trees. These trees are self-regenerating and sustainable, requiring no planting. The manufacturing process is a closed loop, resulting in energy efficiency.

Refibra: The technology involves upcycling cotton scraps from garment production and wood pulp to create new virgin TENCEL™ Lyocell fibers for fabrics and garments. This commitment to innovation and ecology promotes circular economy solutions in the textile industry.

Ecovero: LENZING™ ECOVERO™ Viscose fibers are derived from sustainable wood and pulp, coming from certified and controlled sources. It lowers up to 50% of emissions and water impact than generic viscose. LENZING™ ECOVERO™ fibers have been certified with the EU Ecolabel as meeting high environmental standards throughout their life cycle fibers are robustly traceable in the final product, assuring you that your purchase contains genuine ECOVERO™ Viscose fibers.

Repreve: Repreve is created from recycled ocean waste plastic bottles. Eco-friendly fabrics are more expensive to produce due to their manufacturing process, lack of inexpensive chemicals, and environmental concerns. Polyester can cost as little as \$.99 per yard, whereas modal is around \$5 per yard. Producing a dress with eco-friendly fabric can cost up to five times more, without including labour costs in the United States.

Hemp: Hemp is a very sustainable crop that requires minimal water and can thrive in a wide range of soil types. It is also naturally pest-resistant, which eliminates the need for toxic pesticides.

Linen: Linen is derived from the flax plant, which is highly sustainable and requires less water and pesticides to thrive. Linen is also very durable and breathable, making it an excellent choice for apparel.

Bamboo: Bamboo is a highly renewable material that grows quickly and requires minimal water and chemicals. It is also naturally antimicrobial, making it appropriate for garments.

Importance of using sustainable fabrics

Sustainable and eco-friendly fabrics offer numerous benefits, including environmental protection, biodegradability, reduced water and energy consumption, comfort, breathable properties, and durability. They are made from natural and renewable sources, biodegradable, and have a smaller carbon footprint, making them suitable for sensitive skin and reducing waste. They are also more durable than synthetic fabrics, reducing waste and cost. Sustainable fabrics are manufactured in processes that are not polluting, conserve energy and natural resources, economically sound and safe for employees, communities and consumers. Industry must continuously look for less hazardous options for production and ensure proper mitigation plans accordingly. Using sustainable fabrics reduces the environmental impact of cotton production and also improves the livelihoods and economic development of

our country. It improves commitment throughout the supply chain and ensures credibility and sustainability among customers and suppliers.

Marketing strategies to increase awareness about sustainable fabrics

Different Promotional Tools can be used as marketing strategies for increasing awareness among customers about sustainable fabrics.

- a) **Offering Free Sustainable Bags:** As our product is sustainable, we don't want to hand over the products in any kind of poly bags. So, we will give free sustainable bags like jute bags with the products. This will attract customers.
- b) **Arranging fashion shows:** We can arrange a fashion show only for sustainable fabrics with unique styles and designs. These products will be designed by our country's famous designers so that people can take an interest in them and adopt them at least for showoff purposes.
- c) **Area-wise SMS campaign:** We can increase awareness of a particular area by using an SMS campaign. This kind of SMS will be sent to the people of that area when something new or innovative comes to a particular outlet or shop in that area.
- d) **Promotion through celebrities:** We can promote sustainable products through one of the celebrities of our country, Shayekh Siraj, who is a Bangladeshi journalist, media personality and agricultural development activities. We can use his programme "Mati O Manush" to promote sustainable products.
- e) **Promotion through textile fairs:** Different kinds of textile fairs are held throughout the year in Bangladesh. We can use these fairs to promote our products. International buyers also visit these fairs to learn about our sustainable products and make a purchase decision.
- f) **Sustainable corners in outlets of brands:** Brands like Aarong, Deshidosh, Sailor, and Yellow can introduce a sustainable corner in their outlets to promote sustainable products with proper decoration and healthy food service.
- g) **Social campaign:** We can arrange social campaigns in schools, colleges, and universities to increase awareness. We can arrange some competitions, games, food, and gifts for the students to make them feel interested in the campaign so that they can know about our products.
- h) **Special discount cards and coupons:** Brands can offer special coupons and discount cards for sustainable products to make the customer interested.
- i) **Online and offline promotion:** We can do some online promotions through online shops and Facebook. Blogs etc. and some offline promotions like newspapers, magazines, brochures, billboards etc to promote our products.
- j) **Government certifications and subsidies:** If Govt. emphasize producing sustainable fabrics and insists on having

required certificates then every factory will be bound to produce sustainable products. Govt. can also arrange a subsidy program for this.

Conclusion

Consumer's knowledge of environmental sustainability

A key factor that influences all phases of the consumer decision-making process is consumer knowledge. Consumers are willing to use sustainable fabrics if they know about more benefits of using them. Sustainability means achieving a certain standard which has a positive impact on the environment, society and economy. Sustainability encompasses an organization's economic, social, and environmental responsibilities. Any type of sustainable product has recycling, reuse and recovery opportunities. Knowledge about the advantages of sustainable fabrics can be increased by using promotional tools and marketing strategies.

Challenges to Overcome

The biggest challenge is to achieve sustainability without losing competitiveness in the market. So, we have to emphasize the development of the technological fundamentals of the industry -looking for more sustainable technology options. The textile industry should invest in R&D and improve collaborations between industry and institute. It should also improve the innovative capacity of the industries.

Limitations

During the research work several limitations appeared like as factories import cotton from India, they also have lack of information about the cotton production, land, water and fertilizer use. Some industry experts showed a defensive attitude to giving information and data. To transform from a low-price RMG-producing industry to a producer of value-added items, there is the possibility of high time and cost consumption.

Recommendations

Textile organizations should focus on long-term business planning and sustainable products with gradual organizational transformation. Concerned persons should strengthen the Universities and institutes by upgrading the curriculums, improving internship options and exchange programs and providing continuous training to the employees on sustainability issues. Associations should play a big role in increasing awareness and auditing. More and more dialogues and discussions should be arranged with govt., the associations, buyers and other important stakeholders focusing on sustainability.

Implications for further research

During the research process some areas for further research have been identified. Research will be to find out the actual market size and share of sustainable fabrics in Bangladesh and also globally. Researchers can analyse the prospects of using sustainable fabrics from Bangladesh's perspective. It will be interesting to find out if consumers could change something with their buying decisions and consumption behaviour by focusing on sustainability. It will

analyse the effectiveness of environmentally sustainable marketing campaigns and the knowledge and buying decisions of other social groups and compare similarities and differences. Changes with a higher exposure to environmentally sustainable marketing campaigns and an increased availability of environmentally sustainable products.

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Conflict of Interest

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References

1. Alkaya E, Demirer GN (2014) Sustainable textile production: a case study from a woven fabric manufacturing mill in Turkey. *J Clean Prod* 65: 595-603.
2. Hossain L, Sarker SK, Khan MS (2018) Evaluation of present and future wastewater impacts of textile dyeing industries in Bangladesh. *Environ Dev* 26: 23-33.
3. Caniato F, Caridi M, Crippa L, Moretto A (2012) Environmental sustainability in fashion supply chains: An exploratory case based research. *Int J Prod Econ* 135(2): 659-670.
4. Cheah I, Phau I (2011) Attitudes towards environmentally friendly products: The influence of ecoliteracy, interpersonal influence and value orientation. *Mark Intell Plan* 29(5): 452-472.
5. Kuhlman T, Farrington J (2010) What is Sustainability? *Sustainability* 2(11): 3436-3448.
6. 9241561483.pdf.
7. Urmi SS, Emu AS, Khan S (2023) A study on sustainable disposal behaviour of used clothes & motivational factors towards such behaviour in Bangladesh.
8. Karlsson A, Karlsson O (2023) Swedish consumers' attitudes toward sustainable products within the fast fashion industry.
9. Mahmud-ul-Islam S (2013) Approaching sustainability in textile and garment industries, Bangladesh.
10. Dangelico RM, Pontrandolfo P, Pujari D (2013) Developing sustainable new products in the textile and upholstered furniture industries: Role of external integrative capabilities. *J Prod Innov Manag* 30(4): 642-658.
11. Wang Y, Zhang Y, Polk MB, Kumar S, Muzzy JD (2003) Recycling of carpet and textile fibers. In: *Plastics and the Environment* (1st edn), Andrady AL (Ed.), pp. 697-725.
12. Agbonkhese SE (2010) Measuring environmental and social sustainability in the apparel supply chain. *Supply Chain*, pp. 68-73.
13. Connell KYH (2010) Internal and external barriers to eco-conscious apparel acquisition. *Int J Consum Stud* 34(3): 279-286.
14. Yavari R (2019) Analysis of a garment-oriented textile recycling system via simulation approach.
15. Claxton S, Kent A (2020) The management of sustainable fashion design strategies: An analysis of the designer's role. *J Clean Prod* 268: 122112.
16. (2012) Papers of the 37th annual Macromarketing Conference. SI Macromarketing Society.

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17. Dickson MA (2000) Personal values, beliefs, knowledge, and attitudes relating to intentions to purchase apparel from socially responsible businesses. *Cloth Text Res J* 18(1): 19-30.
18. ÇetiNer M, Tunca MZ (2022) A literature review on sustainable fashion marketing. *Süleyman Demirel University Journal of Faculty of Economics and Administrative Sciences* 27(2): 391-315.
19. Hansen EG, Schaltegger S (2013) 100 per cent organic? A sustainable entrepreneurship perspective on the diffusion of organic clothing. *Corp Gov Int J Bus Soc* 13(5): 583-598.