



To Study on Sustainability as a Trend in Fashion Technology

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Abstract

The evolution of textile and fashion items involves a number of steps that involve the transformation of fiber into yarn, yarn into fabric, and fabric into garments. Numerous historical examples show that the manufacturers of clothing and textiles did not pay much attention to sustainable practices during these operations. The fashion and textile industries have taken steps to provide sustainable solutions in their production lines in response to the growing consumer knowledge of sustainability issues and the interest in it on a worldwide scale.

India, a center for industry and retail, is a prime example of the externality of depleting finite resources more quickly than they can be replenished. The industrial fashion model has to incorporate bio centric and socio-ecological concepts due to the growing threat to the planet's safe operating zone. Along with psychological and financial obstacles, localizing sustainability is motivated by both internal and extrinsic values.

Keywords: - *Fashion Industry, Sustainability, Challenges.*

The study aims to locate, examine, and compile data from various fashion industry stakeholders and stages.

Introduction

According to Geissdoerfer et al. (2017), sustainability strives for the equal development of people, planet, and profit. This is known as the triple bottom line. It establishes methods for the market to effectively employ finite resources (supply) to satisfy limitless demands (demand) (Ponnath, 2016). The adoption of those systems and the reduction of cognitive and ethical dissonance regarding environmental challenges are motivated by both extrinsic and internal incentives for the stakeholders (Angelis & Devetag, 2019). In a product's life cycle, sustainable fashion takes into account both concrete and abstract factors (Thorpe, 2007). It tackles issues relating to workplaces, material sourcing, price regulations, labor practices, information pools, and consumption and disposal routes (Stlund et al., 2020). To address these issues, it makes use of instruments like the circular economy, economic policies, educational programme, multi-stakeholder cooperation, product design and production, smart textiles, etc. (Fletcher, 2014). Fashion items may be divided into rapid and slow categories. Many consumers who enjoy switching up their wardrobe regularly are drawn to the idea of rapid fashion, which compromises sustainable production. To meet customer expectations, businesses like Zara, Union, and H&M place a strong focus on quick fashion. Even though many modern customers are already concerned about sustainability from a young age, the mass consumer creates mountains of trash clothing due to the constant rise in demand for more fast fashion. But slow fashion, which employs environmentally friendly technology and sustainable production practises, lives up to both social responsibility and environmental sustainability standards. Due to complexity, several producers, and a lot of idealism, the push to attain sustainable fashion is a somewhat gradual one.

Due to growing consumer awareness and stronger international regulations, sustainability challenges are gaining momentum in a number of production sectors, including the fashion and textile industries. Up until recently, a number of fashion manufacturers used lax rules and a lack of environmental consciousness in poor nations to obtain low manufacturing costs. Various levels of environmental and social issues are affecting the related sectors that produce clothing and fashion accessories.

The manufacture of clothing naturally has a negative influence on the environment since it uses a lot of energy and water, emits greenhouse gases, produces hazardous waste, and releases toxic effluent into the ecosystem that contains dyes,

finishes, and other chemicals. The employment of child labor, terrible working conditions, lengthy workdays, and low pay, and safety and health dangers are only a few of the societal effects of the fashion industry.

Shopping online. The most popular online shopping categories throughout the world are included in statistical rankings on the Statista.it website, classified by the percentage of internet users who have made online purchases from certain categories. This site claims that 57% of all internet users made online fashion-related purchases in 2018. Online channels have gotten more and more significant in the fashion business over the past few years [10]. With their own private label fashion offers, several platforms, like Zalando, Amazon, and Myntra, already participate in the fashion sector. Online platforms are expected to expand in the premium and luxury markets as well; in this environment, fashion firms are working to enhance the customer experience and broaden the range of services available. Fashion firms have been compelled to work with online platforms as the importance of online buying for mass market and premium fashion products grows. Because they are afraid of losing some control over their brand or firm, the majority of traditional fashion companies are still wary of collaborating with large online e-commerce competitors. It is necessary to negotiate terms that will benefit both sides when companies and internet platforms commit to a relationship. Fashion firms cannot ignore e-commerce any longer, and forming a collaboration with major online players may be a smart strategy to stay in business, raise the likelihood of selling goods in new countries, and boost brand recognition all at once.

Objective

The study's objectives are to:

- Examine the state of sustainable business practices in the fashion industry;
- Examine the difficulties in sustaining sustainable business practices in the fashion industry.

Research methodology

This paper was prepared using information from the collection of review and research articles available in different databases, such as Google Scholar, Web of Science, Scopus, EBSCO host, and Sci-founder. The database search was based on the keywords used in the context of sustainable fashion and textile production. Major keywords that were used included: "sustainable fashion", "sustainable textile", "ecofriendly textile processes", "textile effluent treatment", "fashion and social accountability", "fashion/textile products" combined with "life cycle assessment", "green fashion", "green supply chain" combined with "fashion/ textiles" and "green textile production". The timeframe was primarily based on the last 15 years of work, but in some cases earlier papers were also included, as they were relevant to the review. The type of papers included mainly published articles in various journals, conference proceedings, and research theses (Masters and PhD). In some instances, creative sustainable works produced by fashion institutes and newspaper blogs were also included. A total of 217 articles were collected and closely inspected for their abstract and research outcomes. Out of these, a total of 180 articles were selected for the study, as the remaining papers did not fully align with the primary focus area of this review.

Search and selection of secondary resources

Using terms like "behavioral economics," "circular economy," "corporate social responsibility," "ethical brands in India," "fashion retail," and "sustainability," among others, convenience sampling was used to perform the search. With the exception of four resources from the 20th century, digital databases were used to compile materials dating from 2000 to 221. There were 3 types of resources: Audio-visual materials including documentaries, interviews, news segments, and webinars Textual materials include evaluation reports, blog posts, company audit reports, conference proceedings, discussion papers, field reports, journal articles, lecture notes, nonfiction books, policy papers, PowerPoint slides, primers, lists of restricted substances, surveys, theses (bachelor's, master's and doctoral), toolkits, training manuals, and white papers.

(3) Visual: example and diagram.

Requirements of Sustainability

Due to the inherent nature and fast-pace of the fashion industry, several fashion manufacturers in the past have used unsustainable practices to meet demand and gain increased profitability. As there is an increased global trend towards sustainable fashion, many of the current fashion brands are now adopting sustainable practices in the three pillars of sustainability [14]. The most important sustainability factor is the environmental impact created during the production of fashion and textile items. Furthermore, the social accountability and economic aspects of in fashion and textile production is neglected in many countries, which is a global concern. It is believed that the fashion items produced by sustainable practices can alleviate the ecological and social strains in addition to providing an ethical choice for sustainable-conscious consumers to buy sustainable product.

Economic sustainability

Economic sustainability in the fashion industry guarantees that the company achieves its desired profitability while using resources sustainably (i.e., without endangering the environment or consuming excessive amounts of resources). As a way to increase economic sustainability, an increasing number of businesses are taking their ties to the community into account.

The economy of a nation is directly or indirectly impacted by the production of fashion goods there for domestic or

international consumption. The problem of resource depletion should not be disregarded by fashion sustainability practices [46]. Currently, the rate at which resources are being consumed to meet human demands worries economists. The development of economic models that take into consideration resource depletion, the non-renewability of natural resources, and economic development.

Challenges to sustainability in the fashion industry

The industry's existing approach is more anthropocentric than bio centric or socio-ecological (Thorpe, 2007). It values commercial growth instead of social change (Mukendi et al., 2020). There is a need to understand the cross-scale and cross-level externalities (Palm et al., 2021). However, to focus on only increased profits and imitable trends as the sole causes of a wicked problem is incorrect (Frame et al., 2010). The following paragraphs illustrate how macro-changes in socio-economic systems drive the existence of unsustainable fashion.

Conclusion

Sustainable fashion production is gaining significant importance due to the global trend for sustainable products, and increased consumer awareness regarding sustainability. In order to reduce production costs, some fashion producers in developing countries are taking advantage of lenient regulations and low environmental awareness. However, many popular fashion brands such as H&M, Adidas and Uniqlo are incorporating sustainable practices into their production, supply chain, and retail management. The emphasis of these brands on sustainability is helping to achieve improved labor standards which are generating socially responsible products and services and a safer environment. Several international organizations and private firms are working to monitor, assist and evaluate the performance of fashion manufacturers and retailers. These organizations work on sustainability aspects such as licensing, permits, and compliance requirements in managing waste, energy and water. Furthermore, several standards have already been developed to provide guidelines supporting the three pillars of sustainability.

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