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The Feasibility of Full Sustainability in the Fashion Industry

Yue Ge Qu

Havergal College, Canada

ABSTRACT

The fashion industry exerts substantial environmental impact with its significant carbon footprint, extensive water pollution, and microplastic contamination. This study investigates the feasibility of sustainable fashion and analyzes the main roadblocks to achieving it, including greenwashing, consumer overconsumption, and waste during production and recycling. A survey study was done to garner information regarding the public sentiment toward sustainable fashion, which showed an overwhelming response of uncertainty towards the prospect of sustainability. The results of this study may be used to advise the practice of major fashion corporations in improving their business models and seeking more sustainable alternatives for profit.

Introduction

The fashion industry, responsible for significant amounts of carbon footprint, is at the forefront of global sustainability issues. It accounts for 2-8% of the world's greenhouse gas (GHG) emissions, a fifth of the world's wastewater, and approximately 100 billion dollars due to inadequate recycling and pollution, in addition to devastating numbers of microplastic losses into waterways (Adamkiewicz et al., 2022, p.1). However, despite its undoubted environmental impact, it also generates income for nearly 300 million people and is estimated to be valued at around $2.4 trillion (Adamkiewicz et al., 2022, p.1). This juxtaposition raises critical questions about how to modify the current practices to be more environmentally friendly while doing minimal damage to the economic sector. This study aims to critically examine the effectiveness of existing initiatives in the fashion industry, aiming to discern the reliable and enduring approaches from the less permanent ones. Through a comprehensive review of current strategies and their outcomes, this research contributes valuable insights into the potential for more sustainable practices within the fashion industry, highlighting areas that need urgent improvement. This study aims to summarize whether our current approaches and responses to sustainability are reliable and long-term solutions.

The Low Feasibility of Sustainable Fashion

Fashion sustainability has many obstacles, with greenwashing at its forefront, which is the practice of companies deliberately misleading consumers about the environmental credentials of their products (Blazkova et al., 2023, p.2). This often involves adapting the green label as a marketing strategy to attract customers. Expanding on this perspective, others have argued that incorporating environmental responsibility can serve as a competitive edge (Famularo, 2023, p.20). Furthering this viewpoint, leveraging the integration of environmental practices and transparency demands, they can alter consumer consciousness regarding their corporate environmental accountability.

There are inherent contractions within the fashion industry's efforts towards sustainability. For example, the sustainability reports were aimed to reveal the sustainability issues of companies yet turned into a

marketing strategy and a trendy green label. It seems that these sustainability checks are merely taken advantage of by companies to advance their own schedules. Entrenched business models present formidable obstacles in shifting towards more sustainable practices. A specific instance is H&M's attempt (*How Eco Friendly Is H&M Conscious? Greenwashing or Not?*, 2023) to make an eco-friendly collection, Conscious Collection of Spring 2019 (*H&M Conscious Exclusive 2019 Mixing the Beauty of Nature With Sustainability Innovation at a Star-Studded Event in Los Angeles*, 2019), flaunting recycled polyester, tencel, and organic cotton. Starting in 2010, the fashion giant has promoted its cloth-making by highlighting their sustainability. They boasted their current edge techniques like plant-based pigments and eco-friendly materials; in 2019, H&M announced that 57% of their materials were sourced sustainably (*On the Way Towards Using 100% Sustainable Materials*, 2019). Norway's Consumer Authority investigated H&M's supply chains and stated they were indeed greenwashing, likely trying to influence the demand and supply of goods through false marketing. The clothing labeled Conscious merely gave consumers the impression of sustainability without substantial proof of action. Additionally, H&M is known to provide little to no evidence on their Conscious clothing manufacturing nor do they mention the working conditions and wages (*How Eco Friendly Is H&M Conscious? Greenwashing or Not?*, 2023).

H&M's actions beg the question: Why are they greenwashing? As such a big conglomerate that is consciously greenwashing, they must have a reason. The answer lies in H&M's business model which is set around creating fast fashion, short-lived pieces that do not last more than a season. To keep up with the fast fashion trend and also sound more sustainable, inevitably leads to the sacrifice of one of the two criteria. For instance, when examining H&M's recycling program, The Guardian's analysis reveals that it requires 12 years for H&M to repurpose 1000 tonnes of textile waste in their products, which mirrors the amount smaller fashion companies produce in two days (Siegle, 2016). Third-party organization: I:Collect, responsible for donating these clothes, say only 35% of the clothes from H&M are actually recycled. It is obvious that trendy fast fashion is the cause of the majority of the unsustainable actions of these companies (Matteis & Agro, 2018).

Due to the pervasive nature of greenwashing, it not only exists in upfront company activities but also in their supply chains. Supply chain greenwashing is defined as an immoral practice employed by retailers whereby they selectively disclose information regarding upstream suppliers after exaggerating the environmental benefits of their fake green products to consumers (Chen & Duan, 2023, p.1). Retailers often selectively disclose their official sustainability report information to exaggerate their claims of fake green products to customers. For instance, some Chinese firms have failed to disclose "more than two-thirds of the GRI indicators and preferred to use declarative information rather than quantitative data" (Zhong & Wang, 2023, p.2). Due to the aforementioned transparency issues and greenwashing, it is hard to determine how to progress towards a more sustainable fashionable future.

Other scholars acknowledge this through research into how the major section of sustainability information is disseminated through social media. The significant impact of social media includes "updated features, including removing media intermediaries, breaking the elite's control, and higher timeliness and dynamics", which make it an amazing tool for green campaigns to use to their own advantage (Zhong & Wang, 2023, p.3). They essentially guide customer reactions to their business. The misleading statistics paint them in a "green" light as they align themselves with fashionable environmentalism. Firms provided a large amount of disclosure yet "tend to provide information for some non-professional information users and more supplementary information" (Zhong & Wang, 2023, p.2). This indicates that the shared information is neither risky nor damaging information that could change the company's reputation. Both in their supply chains and in broad information dissemination campaigns, companies provide ancillary information that intentionally or unintentionally mislead customers.

This predicament segues into the subject of corporate initiatives. Research on corporate communication of carbon footprint reduction to consumers reveals that companies engage in a wide array of activities to forge relationships with stakeholders, customizing these efforts to meet their specific needs. This trend indicates a move towards prioritizing stakeholder interests, particularly in the realm of ecological sustainability within

corporate social responsibility (CSR) (Penz & Polsa, 2018, p.3). Firms now focus on engaging with entities impacted by their operations—such as customers, regulators, partners, or competitors—by offering resources that foster positive connections. Research further notes that corporate strategies for ecological sustainability enable organizations to choose initiatives that align with their greenhouse gas (GHG) emissions reduction objectives. According to the Resource Based View (RBV) theory, such strategies can potentially offer a competitive edge, implying that the information shared with consumers is often strategically framed (Blazkova et al., 2023, p.2). This manipulation of information leads to concerns over transparency and diminishes consumer trust in green products and services. Such skepticism impedes progress towards a greener transition and undermines the efforts of organizations genuinely investing in meaningful social and environmental advancements. Other investigators highlight that due to consumers' inability to identify deceptive practices, misleading green marketing by companies engaging in greenwashing may lead to increased sales of falsely advertised green products, inadvertently causing environmental damage (Blazkova et al., 2023, p.2). This phenomenon not only misleads consumers but also fosters a negative perception of sustainable fashion, diminishing hope in its viability when instances of greenwashing are exposed (Blazkova et al., 2023, p.2). It's further explained that greenwashing accusations can severely damage a retailer's reputation, eroding trust among eco-conscious consumers, diminishing brand loyalty, and altering social perceptions. Such repercussions may result in reduced demand for their products (Chen & Duan, 2023, p.7).

Beyond the issue of diminished demand stemming from consumer disillusionment, sustainability in fashion also faces the challenge of overconsumption. Scholars observe the social stigma attached to wearing the same outfit to multiple events, as evidenced by social media trends. This societal pressure, particularly noted among Generation Z, discourages wearing clothes more than once, driving overconsumption (Prokop & Herold, 2023, p.6). Furthermore, Earth.org notes that premature disposal of clothing, rather than recycling, leads to significant waste, with estimated losses of around $500 billion annually (Igini, 2023). Exacerbating this issue, it's reported that fashion production has more than doubled since the early 2000s, with projections suggesting it may reach 102 million tonnes by 2030, valued at $3.3 trillion. This surge is largely attributed to a culture of buying more and wearing less, resulting in vast amounts of textile waste either ending up in landfills or being incinerated, posing significant challenges to the sustainability of fashion (Igini, 2023).

In addition to the corporate aspects of the fashion sustainability issues, the globary worry also revolves around the environmental impact of textile waste. Textile waste is a major contributor to landfills, yet the majority of these textiles are recyclable. The current recycling rates, especially in developing countries, are low. Microplastics from polyester are becoming more and more commonly used, posing even larger threats to organisms (Khulbe & Athalye, 2023, p.1). According to a study on recycling, statistical data present that the standard recycling rate of discarded textiles in developed countries is approximately 16% compared to the 10% or less in developing countries (Khulbe & Athalye, 2023, p.1). According to a study on recycling, statistical data show that by standard the non-recycled percentage of discarded textiles in developed countries is 84%, and in developing countries, an astounding 90% or more (Khulbe & Athalye, 2023, p.1). For example, the United States throws out more than 34 million items of used textiles, which is approximately more than a hundred pounds of textiles per citizen each year (*Textiles: Material-Specific Data | US EPA*, 2023). The reason these numbers are so damaging is that non-recycled clothing and textiles can take more than 200 years to decompose in landfills (*Textiles: Material-Specific Data | US EPA*, 2023). To put into context, that is around two average human lifespans, which means that the clothes we discard will likely outlive us. Moreover, up to half of the recycled materials end up shipped overseas into other land wastes due to poor waste management systems (*The Environmental Crisis Caused by Textile Waste*, n.d.). A scholar explains in a news article that the current fashion system is the reason for the large loss to landfills and incineration; the current fashion uses high volume non-renewable resources such as petroleum, to produce clothes that are worn for short periods of time (Beall, 2020).

Despite the above-mentioned challenges on the feasibility of fashion sustainability, there have been emerging efforts and initiatives that showcase a push towards a more sustainable and environmentally friendly future. The transition from a traditional linear economy, characterized by a "take-make-use-dispose" model, to a circular economy that emphasizes "take-make-use-reuse" is gaining recognition among governments and business leaders as essential for the future of fashion (Zhu et al., 2010). These recycling initiatives all belong to this concept of circular economy, defined as described by experts in the field, which involves extending the life cycle of resources as much as possible, maintaining their value during use, and ultimately repurposing them to generate new products (Shirvanimoghaddam et al., 2020). However, the numerous efforts seem to still come short with the ever-increasing amounts of textile waste and lack of recycling. It is clear that to create a sustainable fashion industry, consumers, the industry, and governments must cooperate.

To conclude, there are many concerns about the pervasive nature of greenwashing. The widespread misleading information about fashion products effectively prioritizes marketing over genuine environmental responsibility. With the lack of regulations for such marketing tricks, it is unlikely that fashion sustainability will truly exist in the near future.

Survey Study

In order to gather relevant data, an online survey was published through Instagram and at Havergal College, Canada through a simple Google Form questionnaire to gather primary evidence on the opinions of consumers on fashion sustainability. The survey was used to generate data into consumer habits and interests. As shown in Figures 1 and 2, there were 33 survey answers with 84.8% being students. 84.8% were reported to be from the 10-20 age range.

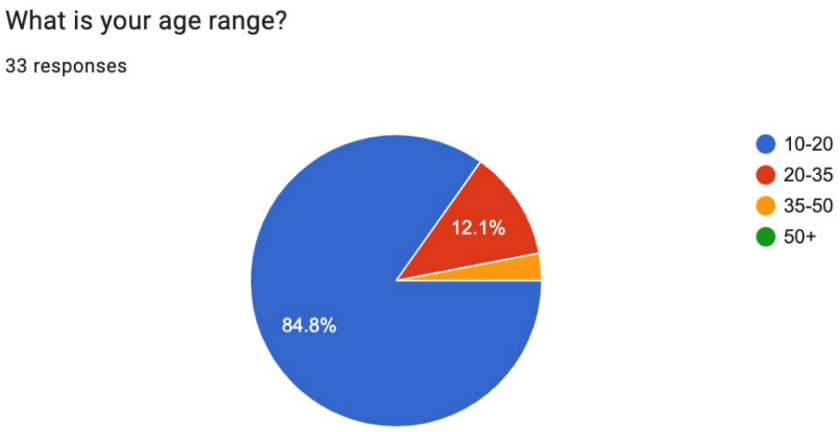

Figure 1. The Age Demographics of Survey Respondents

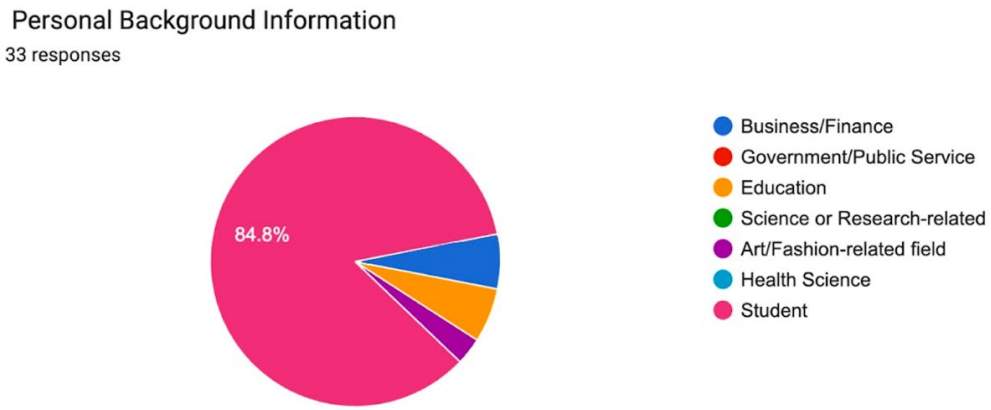

Figure 2. Personal Background Information

63.6% have selected utility as their primary motivation for a purchase at the question “What is generally your primary motivation for a purchase? ”. Trends only stood for 6.1% of the answers, a very obvious difference. Although students aged 10-20 years old make up the bulk of the survey respondents, the four non-student responders have also selected utility as the primary drive for new purchases. A total of 63.6% of respondents prioritize utility over trends in their purchasing decisions, which could indicate a shift in public sentiment towards more practical and long-lasting choices in fashion consumption. This preference for utility could align with sustainable fashion principles, which emphasize quality, longevity, and minimal environmental impact. However, the low percentage of respondents motivated by trends also highlights a potential gap in awareness or interest in sustainable fashion trends, suggesting that while consumers are practical, they may not be fully informed or motivated by sustainability in fashion.

Additionally, in Figure 3, many have displayed an unsure or negative response to the question “Do you think it is possible to have a fully sustainable fashion industry”. 36.4% answered “No” and 33.3% answered they are uncertain. The mixed responses to the possibility of a fully sustainable fashion industry reflect widespread skepticism and uncertainty about the feasibility of achieving 100% sustainability. A few explanations provided included “many brands are adopting sustainable practices, achieving 100% sustainability in fashion will require multifaceted efforts over time” and “I think there is room for improvement but not an impossible one”. However, other respondents stated they were neutral because it wasn’t an area of interest to them. The acknowledgment that achieving full sustainability requires "multifaceted efforts over time" and that there is "room for improvement" indicates an understanding that progress is possible but will be gradual and complex.

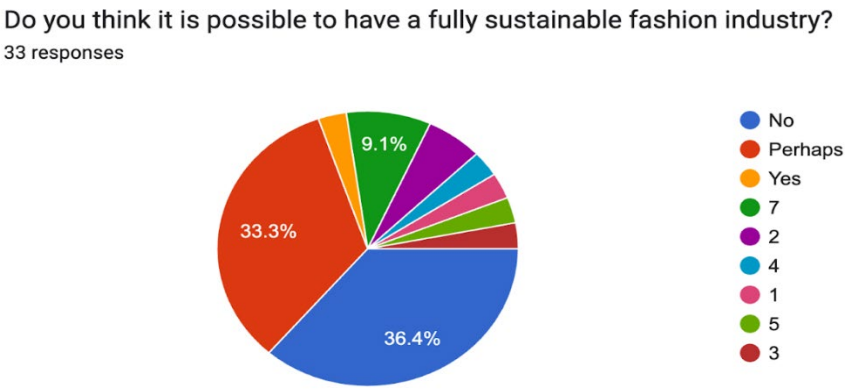

Figure 3. The distribution of responses regarding whether it is possible to achieve fully sustainable fashion

As shown in Figure 4, when asked "Who do you think should take the most responsibility in creating a sustainable fashion industry", the majority (51.5%) selected the government from the following array of choices: Consumers, Businesses/Fashion Industry, Governments, Education, and Scientific Research. Some responders elaborated that "policies and government support will largely influence market/business behaviors". The emphasis on government action suggests that while individual and corporate efforts are important, systemic change driven by legislation, regulation, and public policy is seen as more effective in creating lasting impact. Along with governments, the second highest choice was businesses at 27.3%. Some responders have elaborated that "businesses can prioritize sustainability throughout supply chains, but it won't be sustainable if consumers aren't buying into it. Everyone plays a part in building a sustainable fashion ecosystem". There is evident pressure on the fashion industry to produce change but also on businesses. Overall, these perspectives potentially point to a recognition of the limitations of market-driven solutions alone in addressing the complex challenges of sustainability. It implies a call for a more holistic approach where governments play the central role in creating the conditions for sustainable practices to flourish.

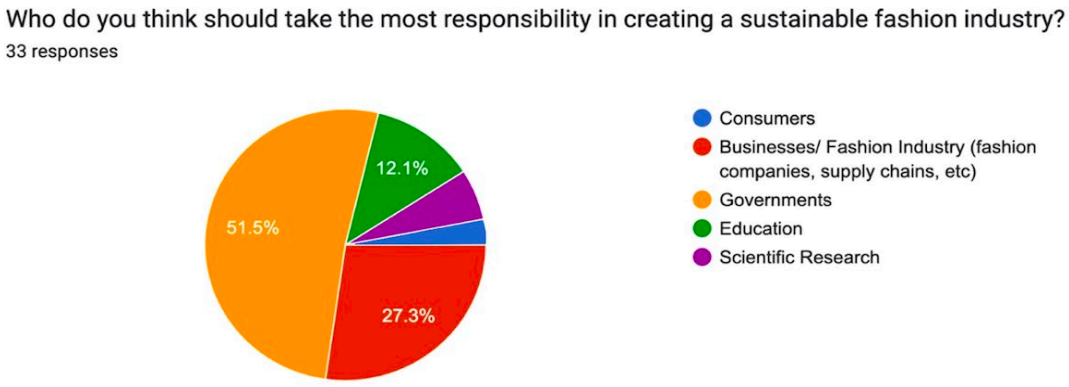

Figure 4. Responsibility Allocation of the Sustainability in Fashion Issue from a Consumer's Perspective

There are a few limitations to the survey to consider. To begin with, since the majority of the respondents were students and young, a sampling bias may be present as many students lack purchasing power, work experience, and a need for workplace fashion. Additionally, there is a limit to the variety of professions of the respondents due to a lack of responses from working adults in higher age groups. Only one responder works in the field of art/fashion, and no response was recorded from those with professional backgrounds in government and public service, science or research-related fields, and health sciences. This lack of variety in the response may make the analysis from the data procured less robust.

To conclude, the survey highlighted the importance of policy change to enforce more commitment to sustainability in the fashion industry. The survey results provide valuable insights into consumer attitudes and habits such as their preference in utility and the widespread skepticism towards achieving full sustainability. There is a recognition for needing multifaceted efforts from consumers, companies, governments, and all stakeholders.

Conclusions

Despite the major benefits that making fashion sustainable may bring to energy consumption reduction and global warming deceleration, sustainable fashion remains difficult to achieve due to a combination of major

obstacles like greenwashing, entrenched business models, misdirection and misinformation, consumer overconsumption, and textile waste and incompetent recycling initiatives. Results from the survey suggest that the current public sentiment toward the outlook of a fully sustainable fashion industry remains grim, and that in order to combat the skepticism towards the fashion industry achieving full sustainability, consumers expect combined approaches from multifaceted aspects, including consumers, companies, governments, and various other relevant stakeholders.

Additionally, the research has highlighted greenwashing as the main cause behind the lack or slow progress towards sustainable changes in the fashion industry. Numerous companies have disseminated misleading information that can intentionally or unintentionally deceive consumers through both their information sources for their supply chains and their broad informational campaigns. The strategy of manipulating marketed information, specifically green information, can potentially offer a competitive edge, underscoring the incentive behind strategic manipulation of information from companies. It is an exploitative practice that hampers the industry's development towards sustainability and is also an environmentally damaging practice.

Furthermore, the research highlights the overconsumption fueled by the generational and societal pressure, especially apparent amongst Generation Z, that discourages repeated wearing of outfits. This overconsumption leads to an increased number of clothing and textiles needed to be recycled. Since there is already an insufficiency of recycling efforts, with considerable portions of textiles ending up in landfills or being incinerated, the increased consumption only leads to more textile waste Along with the notable inadequacy of recycling initiatives, there are also significant environmental impacts of polyester garments, which shed microplastics that pollute waterways and damage ecosystems. The industry's high reliance on non-renewable resources like petroleum–the main ingredient to polyester–is also a main challenge to become environmentally friendly.

In summary, the above analysis suggests that without a fundamental restructuring of the industry's approach to production, consumption, and waste management, coupled with a concerted effort to combat greenwashing and promote genuine sustainability initiatives, achieving true sustainability in fashion remains an elusive goal. Stemming from the results of this paper, future research could focus on analyzing the types of governmental policies that would be most effective in promoting positive change toward a more sustainable fashion industry. This includes more regulations on supply chain disclosures, transparency disclosure, or a limit on carbon footprint. Research may also be done into the creation of a third-party data verifier to ensure the authenticity of the information published by companies in order to hold them accountable. This would be a great way to limit greenwashing, which is one of the main obstacles to sustainable fashion. While it is not imperative nor practical to achieve full fashion sustainability overnight, every bit of progress is valued in moving toward such a goal.

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