



Green or Green Washing? A Review Paper on the Current State of Sustainability of Fashion Brands

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Abstract

Concerns regarding the environmental effect of clothing have grown in recent years. So too, has the practice of green washing. Right now, eco-conscious messaging is awash in fashion marketing, as manufacturers declare their items "sustainable" without conducting the necessary research to back up their claims. This paper intends to investigate if fast fashion and luxury fashion brands are sustainable. Are they walking the talk?

Keywords: Green washing; Sustainable fashion industry; Fashionable products; Traceability; Transparency

Introduction

Fashion brands are promoting themselves as sustainable this very idea made us go into a review of what brands are doing in the name of sustainability. We found some interesting facts about brands and this same information has been organized and put together in this paper. We found that brands are green washing customers in the name of sustainability this paper tries to bring some of the facts to the forefront.

The scope of this review paper has been limited to the year 2019 till 2021. And the brands have been limited to well-known brands like H and M, Zara, Uniqlo and the fashion luxury brand Burberry, to name a few.

The paper has been organized in a question-answer format. Section 2 summarizes the studied research literature which motivated us to work in this direction. Section 3 tries to establish what fashion and designer brands claim about sustainability and critical findings. Finally, section 4 concludes this work along with future directions for research.

Literature Review

Wearing a garment more than five times has become a task. Why?

A growing number of customers are complaining about a drop in quality food doesn't taste the same, cars don't last as long, appliances break down the list goes on and on. It's no different in the fashion sector [1]. As a result, our clothes appear faded, shapeless or worn out almost instantly. We are unable to keep up with the shifting trends. We keep buying only to keep up with the times. Fast fashion may be defined as mass manufacturing low-cost, throwaway clothes as defined by Oxford languages [2]. Countless new collections are released each year, making us feel continually outdated and encouraging us to buy more.

How are finite resources being used by the fashion world?

- Each year, 80 billion pieces of clothing are made.
- Instead of two seasons, brands now offer 52 micro collections per year.
- We now create 400% more clothing than we did 20 years ago.
- We wear clothes on average seven times before discarding them.
- In the United States, an average of 35 kg of textile waste is generated per person every year. Most women only wear 20% to 30% of their clothing in their wardrobe [3].

We now question are fashion brands sustainable as per their claim. As per our research, this is what the brands claim

From 2018 to 2019, internet searches on sustainability and keywords connected to sustainability in fashion climbed by 75%. In 2019, there were 27,000 searches for sustainable fashion on the internet each month. Furthermore, since the year *i.e.* 2019, searches for specific sustainable materials such as econyl had a 102 per cent increase (what is econyl? ECONYL is a regenerated-nylon yarn that may be recycled indefinitely without altering the material's quality. ECONYL yarn is created from recycled waste plastic gathered from landfills and oceans throughout the world.), organic cotton saw a 52% increase and tencel saw a 42% increase [4].

Sustainable denim and sustainable trainers were the most popular search product categories on the internet [5]. In terms of brands, those that initiated genuine environmental programmes are the coveted ones like Stella McCartney; Nanushka; Eileen Fisher; Katie Jones; Phipps; rag and bone, to name a few [6]. This search for sustainability includes utilizing more environmentally friendly products to start donation or recycling programmes to pursue resale or rental opportunities [7].

Also, according to Jeans company Levi's, wearing their jeans would help the environment. Fast fashion brand H and M is giving a discount in exchange for recyclable clothing that was started in 2013 and continues at the time of writing this paper and has launched a conscious collection. Most fashion businesses provide guilt free fashion, vegan fashion, recycled fashion, organic fashion, eco-friendly fashion and of course, sustainable fashion. Zara brand, owned by the inditex group of Spain, claims that by 2025, all of its clothing will be 100% sustainable [8].

Some of zara's clothes have the Join Life tag and are stamped by the forest stewardship council. The issue here is the stamp is just for

the tag. We can imply that the tag and only the tag is eco-friendly [9]. In our further research, we also found that zara is working with suppliers to improve the accessibility of fibers such as modal and viscose. This work supports the canopy style initiative of which Inditex is a founding member [10].

H and M claims its collection is conscious, but research on this subject could not find any material to explain how the alternative materials are better for the earth. On the flip side, what is H and M doing with the \$4.3 billion in unsold goods that the brand produced in 2018? Can the label H and M (Figure 1).

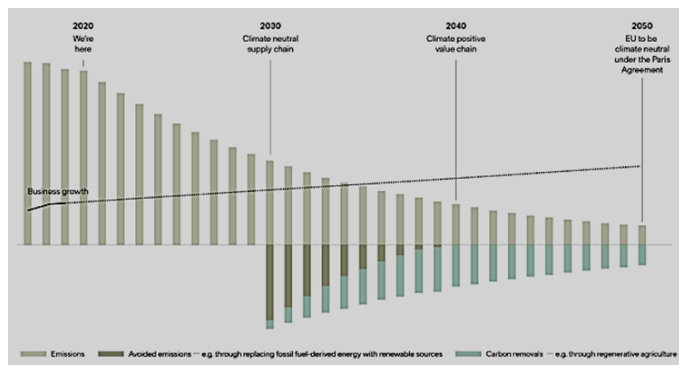


Figure 1: Sustainability performance report 2020 above illustrates what H and M intends to achieve by 2040.

Collection is conscious? The author could not find any information about where and what is H and M doing about this problem. By 2040, the H and M group states it would be carbon neutral. H and M claims it needs to cut CO₂ emissions in half every ten years to get there. The brand claims to accomplish this by gradually lowering its emissions while investing in CO₂ abatement technologies. By 2040, carbon reduction technologies will outweigh the emissions and the brand will run on 100% renewable energy.

What is the problem with the claim of H and M. H and M's plans to reduce greenhouse gas emissions by 40% before 2030? The emissions the author is talking about are as below;

- Direct emissions mean everything under H and M's control, such as heating, cooling, gas use, etc.
- The indirect emissions are produced by electricity purchased by H and M from the power grid.

H and M data shows that their total emissions from these emissions have increased by 18% in 2020.

On the other hand, we have brands like Prada working with textiles mills to come with products that do not harm the planet. Prada's Nylon backpack made its debut in 2019 with a capsule bag collection of six classic styles for men and women. The Prada Re-Nylon results from the collaboration between Prada and Aquafil, an Italian textile yarn producer with over a half-century of experience in manufacturing synthetic fibers. Aquafil has spent extensively in ground breaking research and development of sustainable materials over several years, creating new from old. Prada's collection was made from this very synthetic fibre called Econyl. The 2020 collection expanded and extended, translating into Prada ready to wear for the first time and reinventing Prada's signature nylon textiles in sustainable Re-Nylon fabrication: Nylon gabardine and nylon piuma. Along with ready to wear, the collection includes the first Re-Nylon footwear new iterations of the Monolith combat boots and shoes, low and high-top

sneakers, hats, belts and multiple bag silhouettes for men and women, including belt bags, backpacks, cross-body styles and an archival re-edition style drawn from 2000.

Expanding the Prada re-nylon offering renews a companywide estimation target for sustainability: To turn all Prada virgin nylon into regenerated nylon by the end of 2021. The author's research did not result in any claim from Prada as to how its re-nylon collection is sustainable. At the end of the life cycle (after continuous recycling) of the econyl, it will eventually end up in landfills. Nylon fabric takes an average of 30-40 years to decompose. So is Prada sustainable by using re-nylon in its collection?

Adidas produced 11 million pairs of shoes made from recycled ocean plastic in 2019. That's more than double what it earned last year. Fifteen million pairs of shoes in 2020 and the brand plans 17 million pairs in 2021. According to Adidas, this step has averted 2,810 tonnes of trash from entering the waters. The problem is that Adidas makes over 400 million pairs of shoes annually that are manufactured using other textile materials. Therefore Adidas is only making about 4% sustainable shoes out of the total number it produces yearly is this enough for sustainability?

Levi Strauss and Co., a denim manufacturer, recently unveiled a new climate action strategy to cut carbon emissions throughout its owned and operated operations and the worldwide supply chain by 2025. The company's factories will use 100% renewable electricity as part of the new sustainability push.

According to the denim manufacturer, its science based aims make the global apparel sector more sustainable. The purposes include a 90% decrease in greenhouse gas emissions at all owned and operated sites, which it hopes to achieve through investments in onsite renewable energy and energy efficiency upgrades.

Balenciaga is thriving in terms of sustainability. According to Cedric Charbit, the CEO of Balenciaga, the group is highly engaged in the sustainable development department. It is dedicated to delivering collections that represent its engagement for a better world and a sustainable future. Demna Gvasalia, creative director of Balenciaga, focused on the environmental impact of his clothing for the SS 21 collection. The show notes indicate that 100% of the print bases have sustainable certifications, while 93.5% of this collection's plain materials are certified sustainable or repurposed. In 2019, the brand teamed with farfetch to produce an eco-friendly collection to raise awareness about endangered animals. In general, the company has established a science-based target for reducing greenhouse gas emissions from its operations and supply chain and it is on course to accomplish that target. Canopy style has also implemented a policy to prevent deforestation of historic and vulnerable forests in its supply chain. It does, however, use a limited number of eco-friendly products, which is undoubtedly an area for improvement for the business.

Burberry's commitment to sustainability is historical, as claimed on its website, founded on the notion that to develop in the future, the brand must actively address the difficulties confronting the fashion and luxury industries and the world in which it operates. The brand is committed to lowering the environmental impact while promoting social growth. Recognizing the power of collaboration to effect genuine change, Burberry frequently collaborates with sector experts and Nongovernmental Organizations (NGOs) to achieve sustainability goals. The reason for this commitment could also be account of preventing its brand equity from dwindling due to the backlash of destroying garments worth \$36.8 million in excess inventory in 2018.

Waste campaigner Anna Sacks exhibited ripped purses she allegedly purchased from someone she said found them in a coach shop dumpster. Sacks questioned the practice in light of coach's (Re) Loved initiative, which encourages buyers to restore older coach merchandise or purchase pre-worn things from them.

Uniqlo has appointed green doraemon as global sustainability ambassador, but the problem here is that Uniqlo is not nobita, so how can doraemon, the fictional Japanese cat, help Uniqlo achieve its sustainable goals. What is Uniqlo doing as far as sustainability is concerned? As per their website, Uniqlo claims doraemon is here to show the world how little sustainable efforts can be the hidden tools in making the world a better place for everyone. At UNIQLO, the brand believes that the power of clothing can help them achieve this. Doraemon's promise to contribute to a brighter future is mirrored in his transformation from blue to green. Besides this, the author could not find anything the brand is doing in its efforts toward sustainability. Why does this brand then reflect in this paper? Doraemon as a sustainability ambassador, highlights the brand's apathy towards sustainability.

In its the chanel mission 1.50 report, chanel claims that Global Recycled Standards (GRS) guarantees a minimum of 20% recycled fibre composition in the fabrics it does not mean the balance of 80% of fibers in its clothes are harmless. The brand has committed 35 million dollars to install solar panels in California. The effort is part of Mission 1.5°C, which outlines a strategy to decrease the brand's carbon emissions across its entire value chain and "accelerate the transition to a more sustainable world." Chanel has vowed to invest in nature-based solutions, like forest and mangrove restoration, to help with carbon sequestration for the emissions it cannot reduce an inevitability when developing new products.

Discussion

As the author has stated, most of the brands claim to be environmentally conscious however, contrasting results as per the report released by the EU commission and following a deeper review, the commission and consumer authorities looked into 344 ostensibly dubious assertions in greater depth and discovered that:

- The business entity did not offer enough information for consumers to judge the claim's accuracy in more than half of the situations.
- In 37% of cases, the claim included vague and general words like "conscious", "eco-friendly" and "sustainable," all of which is intended to give buyers the false idea that a product had no negative environmental impact.
- Furthermore, the trader had not given easily accessible evidence to substantiate its claim in 59% of cases.

Authorities had grounds to suspect that the claim was untrue or deceptive in 42% of cases, based on their overall evaluations, which considered a variety of variables that might amount to an unfair commercial activity under the Unfair Commercial Practices Directive (UCPD).

Fashion brands claim to be environmentally friendly without specifying how. This false claim is known as green washing. This word connotes a diversion from the underlying problem. Fashion is intrinsically unsustainable because it produces greenhouse gases, consumes a lot of water and pollutes the water.

Cotton is the most prevalent natural fiber in apparel, accounting for approximately 33% of all textile fibers. Cotton is also a thirsty crop,

requiring 2,700 litres of water to manufacture one cotton shirt, equivalent to what one person drinks in two and a half years. According to the WWF, producing one kilogram (2.2 pounds) of cotton, which roughly equals one T-shirt and a pair of jeans, requires more than 20,000 litres (5,283 gallons). WWF has reduced water usage across the cotton apparel lifecycle, from dirt to shirts to garbage, but more work is required. Water is consumed and pollution is created throughout the garment manufacturing process. Garment manufacturing is responsible for almost 20% of all industrial water pollution. The world utilizes 5 trillion litres (1.3 trillion gallons) of water for fabric dyeing each year, enough to fill 2 million Olympic-sized swimming pools. Aral seas in Uzbekistan is a classic example of what havoc cotton farming has done to the environment. Fifty years of cotton farming has dried up the Aral Sea.

Meanwhile, washing garments discharges 500,000 tonnes of microfibers into the ocean annually, equal to 50 billion plastic bottles. Polyester, a material present in an estimated 60% of clothes, is one of such fibers. Polyester production emits two to three times the amount of carbon dioxide as cotton production and polyester does not degrade in the ocean. According to 2017 research by the International Union for Conservation of Nature (IUCN), the laundering of synthetic textiles like polyester is responsible for 35% of all microplastics in the ocean. Microplastics are tiny plastic that never biodegrades.

The fashion industry is responsible for 10% of global carbon emissions yearly than all international flights and maritime shipping combined. By 2030, the fashion industry's greenhouse gas emissions will have increased by more than 50%. The fashion industry generates 4% of the world's waste each year, contributing a whopping 92 million tons of garbage annually, a threat to our planet. We have seen over the years. Fast fashion has become a mantra. The same designs return to the market within years puff sleeves no longer require an era to resurface. While most clothes will survive for many years if cared for properly, shifting styles imply that consumers changing tastes artificially shorten their lifespan. According to industry estimates, modern apparel has a 2-10 years lifespan, with underwear and t-shirts lasting one to two years and suits and jackets lasting four to six years. Estimates say nearly three-fifths of all garments end up in incinerators yearly. And globally, an estimated 92 million tonnes of textiles waste is created each year and the equivalent of a rubbish truck full of clothes ends up on landfill sites every second. Globally, the fashion industry produces and sells between 80 billion to 150 billion pieces of clothing annually. Most of the apparel today has varying percentages of polyester as it is inexpensive. According to the council of fashion designers of America, polyester is the most extensively used clothing fibre globally. Yet, as a synthetic material made from plastic, it requires a lot of energy to make and is extremely water and air polluting. Polyester is wrinkle-resistant and can be washed at low temperatures. However, the laundry process emits tiny fibers known as microplastics, harming marine life. While polyester lasts for years, its longevity is a double-edged sword: Clothing can be worn many times but will likely end up in a landfill because it does not biodegrade.

The average number of clothing collections produced by all European apparel firms has quadrupled, from two per year in 2000 to over five per year in 2011. On average, consumers bought 60% more clothes in 2014 than in 2000, but they only kept the clothes for half as long. To substantiate the unsustainability point, fashion brands are creating more collections than ever, adding fuel to the fast fashion movement. Zara releases 24 collections per year, whereas H and M releases 12 to 16. A lot of this apparel gets thrown away. Social media

and especially influencers on Instagram are ready to sell you the latest trend every day there are articles to school you on how to pair a print with another. This model of fashion business is designed for you to shop frequently. The result is ever-increasing pollution. Apparel and footwear production is expected to rise 81% by 2030. Every year, the world will produce 102 million tons of these fashion goods.

The fashion brands will continue to produce collections to sell the governments need to step in and put a framework for the planet's future. France has taken the lead and banned the burning of surplus fashion goods Canada has brought in the carbon tax to create incentives for individuals and business organizations to reduce carbon emissions to help curb climate change. With the federal government's help, companies are helping to minimize fashion's carbon footprint.

Conclusion

We have a lot to cover as far as fashion sustainability is concerned. The governments need to step in and control the word sustainable from being used randomly. The fashion industry believes that using more environmentally friendly processes can solve sustainability. The premise is that the best approach to becoming more environmentally conscious is to keep manufacturing things differently. To be sure, this strategy may only yield incremental results. "We cannot truly address the problem by employing the same kind of thinking that produced it," Albert Einstein once observed. Future research should also look at how regulations can limit the number of collections, thereby capping production as the fashion brands will not stop. This research also points out how the fashion brands in our paper are not transparent in telling the whole truth to the consumers about being eco-friendly. Consumers are unaware of their carbon footprint at the other end of the spectrum. The fashion industry knows consumers will choose an organic garment or bag over a regular variety. We would prefer an organic pack of vegetables over a standard package of vegetables. However, food labels are being regulated by the government policies on food in most countries and sellers can be prosecuted for falsely using the organic tag. Nonetheless, the phrase "sustainable" is not contemptible by any government policies globally. A fashion executive will not go to jail for passing off regular cotton as organic cotton, which has not been demonstrated to be genuinely superior. Sustainable fashion is not the absolute truth washing our garments currently accounts for 35% of all microplastics in the ocean. The apparel business continues to be the second-largest water consumer. Fashion thrives on overconsumption since companies can't generate more money unless they manufacture more clothes. In the case of fashion, the bottom line and the planet are not compatible it is fundamentally unsustainable.

The study limitation is on particular retail brands as these brands strongly influence fashion and have a significant market share. This research can be a reference point for the state of sustainability in the fashion industry.

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