

Resource Efficiency and Security

Assessment 2

**Scott Barclay
S30084519**

Word Count: 2398

Date: 07/05/2024

Introduction

Fast fashion growth has accelerated in recent years and has severe consequences for the environment. Due to its poor design and low quality, it results in high wastage, which in turn is incredibly inefficient for resource security.

Fast fashion is not only an environmental concern but a social concern globally due to the exploitative working practices of factories and sweat shops, often employing under modern day slave like conditions including under-age labour. Without these conditions the fast fashion industry, which is completely at odds with the concept of resource efficiency and security, wouldn't be possible.

The following essay will look at the complete lack of resource efficiency and resource security as well as the environmental damage which occurs directly from the fast fashion industry. Additionally, it will also look at the social implications from this industry from the foreign supply chains to the implications of the local clothing designers and retailers in the United Kingdom, and how government mechanisms should be used to protect the environment, consumers and protect the UK textile, retailing and fashion industries.

The Problem

Fast fashion is defined by the EU as “high volumes of lower quality garments at low price levels” (European Parliament, 2023). The fast fashion industry isn't new, the term was allegedly first used by the NY Times in 1990s when Zara, a European fashion-chain opened its first shop New York City (Ocean Generation, 2023).

Since the 1990s the industry has grown and evolved. The term “Fast Fashion” is quite broad and there is perhaps an argument that the industry can be split in two today. The original bricks and mortar fast fashion stores, now with an online presence such as Gap, Zara, Primark and H&M (as well as the supermarket offerings), and the modern day direct to consumer ecommerce fast fashion companies such as Temu and Shein.

As an industry, fashion is worth over \$90b annually and could almost double by 2030 (Kings Research, 2023). This is the result of the increase in ecommerce partially fuelled by increases in social media advertising and influencers. Globalisation and increased efficiency in textile growing, manufacturing and shipping has also contributed to this increase.

Increase in profit motives also contribute to the rise, with the holding companies of the major fast fashion brands like H&M and ZARA being publicly listed billion-dollar companies, they need to offer shareholder value via dividend payments from profits. This can be achieved by reducing costs or by increasing the market and their share – or by a combination of both.

There is an argument from the major players that fast fashion has democratised the fashion industry. It claims that quick turn arounds in manufacturing and low prices allows everyone regardless of their social class or income, access to the latest designs and trends that were once only available to high earners (Rosa, 2014).

While there could be an element of truth of this, with the constant changing in fashion seasons and trends by the luxury companies, and allowing the masses access to these designs via cheaper alternatives, it results in huge amount of resource usage and waste.

Per year, around 80b fashion garments are sold worldwide. In 2012, UK residents purchased 900,000 tonnes of fashion garments rising to 1.1 million tonnes by 2016, with an alarming estimation of over 300,000 tonnes going direct to landfill that year (UK Parliament, 2019).

With fast fashion companies continuing to operate on a linear model of “make, use, dispose”, and if similar income countries across Europe, Asia and North America have consumption and waste rates comparable to that of the United Kingdom, annually, millions of tonnes of textiles and clothing will be going to local or foreign landfills, which has catastrophic implications both environmentally and socially.

While some of the older and larger brands associated with fast fashion, particularly those in the UK, EU and USA who have to adhere to stricter labour and environmental legislation have made some progress with regards to these problems, the fast fashion industry has been disrupted by Chinese based and owned companies such as Temu and Shein.

These two companies in just a few years have managed to take huge market shares across Europe and USA (Jin et al., 2023). This has resulted in rapid growth of fast fashion thus increased wastage of textiles while also contributing further to social problems such as poor working conditions.

The introduction of TEMU and Shein may also contribute to a race to the bottom for the industry, as European and American companies struggle to compete with the new Chinese owned direct to consumer services. Via this model they can undercut the “traditional” brands like Primark, H&M and M&S, which may see these companies have to scale back on their environmental

commitments, such as “Sustain Clothing Active Plan” (UK Parliament, 2019) , to remain competitive in the market.

Resource Efficiency and Security - Environmental

First, I will outline the environmental impact of cotton and polyester, followed by the social impact of the linear fast fashion model.

While no data could be found for the UK, in the United States it was found that approximately 90% of clothing sold was made from cotton and polyester and that both materials contributed to significant health impacts from both manufacturing and production (Bick et al., 2018).

Cotton has several environmental impacts. Between 1997-2001 it is estimated that global cotton production required 256 Gm³ annually. As fast fashion has significantly increased since then, we can assume that the number is far greater today. With climate change (prolonged periods of hotter weather and increased drought), fresh water supplies can be in short supply (Chapagain et al., 2006).

To meet increased demand of fast fashion garments which are designed to be low quality, more cotton needs to be grown, resulting in further depletion of fresh water, resulting in less fresh water for drinking and crop irrigation in areas already affected by these shortages.

Furthermore, to meet increases in cotton demand, more chemicals such as pesticides are required. Between 1982-2006 Pakistan saw a 1371% increase in pesticides use, with cotton production accounting for 62% of this (Khan et al., 2010). Agricultural chemicals are environmentally and ecological destructive and can degrade soil, pollute waterways and can contaminate air and food (United Nations, 2024).

While fast fashion companies like H&M via their own sustainability programmes have made progress with cotton usage, which is their most used textile (60% of all textiles used), progress seems very slow and there is an argument it's simply greenwashing.

While Patagonia made a commitment in 1996 to only use organic cotton in their production (Patagonia, n.d.a), it took until around 2019-2020 for H&M to stop using non-organic cotton. Similarly, by 2024, 37% of Patagonia's cotton usage by weight was from recycled sources (Patagonia, n.d.b), compared to H&M's target of 30% by 2030, further showing how slow they are to adapt and change (H&M, 2023).

Polyester also has environmental issues with production and use. Polyester is a material derived from crude oil and production of this material is associated with VOC's, PM and acidic gases such as hydrogen chloride, which have an impact on human health by causing or aggravating respiratory disease (Claudio, 2007).

The production process requires huge amounts of energy in factories often powered by coal power plants in China (Carbon Brief, 2024), who are the global leader of PES fibre production, increasing output by 7 million tons in just four years between 2004-2008 to 18.5 million tons to fuel demand by industries such as fast fashion (Aizenshtein, 2006).

Further environmental impacts with polyester can be microplastics. Microplastics from human-made materials can affect marine biota and ecosystems (Fontana et al, 2020).

Due to the low cost, Shein admits that polyester makes up most of their textile portfolio. Similar to other fast fashion brands like H&M already discussed they too have a greenwashing sustainability plan. Their plan is for 31% of polyester use to come from recycled sources. While this is progress, it's still far too slow. As a comparison Finisterre reached 87% recycled polyester by 2022! (Finisterre, n.d.)

Also, Shein's targets appear to only apply to their own branded goods, which is just a tiny percentage of the estimated 600,000 products listed on their website. It's unclear whether 3rd party manufacturers who sell via Shein will have to adhere to these guidelines (Shein, n.d.).

Resource Efficiency and Security - Social

Fast fashion also has huge social implications. In 2013 the Rana Plaza in Bangladesh collapsed killing over 1100 workers. The collapse was caused by the owners extending the building upwards without authorisation, to meet demand by increasing workers and machinery. Fast fashion companies such as Primark (UK/Ireland), Walmart (USA), Joe Fresh (Canada) and Mango (Spain) all used the factory thus contributing to the deaths (O'Connor, 2014).

Despite improvements to workers conditions, exploitation within the fast fashion garment industry still occurs. Despite Shein laughably being a signatory to the UN's 12 SDG (Shein, 2021), UK investigative journalists found some Shein suppliers to be working up to 18 hour-days, no fixed time off and earning 3p per garment (Guardian, 2022) further proving fast fashion can only exist by exploiting people and planet.

The last social problem to discuss is dumping of fashion items into poorer countries. Greenpeace estimates that more than half of the items sent to Africa are worthless. The worthless items will be left in open-air landfills or burnt, polluting air and waterways (Nkatha, 2023).

The items that can be resold also have a social impact, as these bales of clothing are then sold in local thrift markets that vastly undercut local suppliers, which decimates local fashion industry and retailers (Hansen, 2004).

How to fix – Government

The UK proposed a “Extended Producer Responsibility” 1p or 5p levy in 2012 on imported garments. While this would raise £33m or £170m in revenue respectively (UK Parliament, 2019), it would do nothing to stem the flow of fast fashion items. It needs to go much further, like the proposed French Bill of introducing a ban on advertising of non-environmentally friendly textiles and a €10.00 import charge externally purchased fast fashion garments (Reuters, 2024).

This proposal from the French government would even the playing field for French/EU businesses who, while technically still being fast fashion companies, have made social and environmental progress and have to operate under more stringent conditions than the Chinese competitors.

Further governmental policy introductions should be the removal of VAT and potentially other tax-breaks and subsidies for repair and recycling services. Recently the Swedish government has reduced VAT on repairs from 25% to 12% (Starritt, 2016).

The UK and other nations should do similar, going as far as initially scrapping VAT on repairs. This would allow new businesses to start-up and scale-up while offering cheap repairs to consumers, which should hopefully greatly reduce the amount of textiles going straight into landfill.

The UK government should also be supporting new industries such as clothing rental and textile recycling. As brand-new industries it could offer new well-paid skilled jobs, especially in areas of poverty, while reducing the need for virgin materials in fast fashion. From luxury fashion to fast fashion and everything in between, recycled textile increase in use is only going to get bigger and could boost GDP and the UK economy.

Recently, Renewcell in Sweden filed for bankruptcy. Despite having customers such as Levi's and H&M it wasn't yet financially viable with the Swedish government offering little support

(Peters, 2024). This new industry should be backed by the UK government with subsidies and grants until such time its profitable. If environmentally destructive industries such as oil and gas are subsidised, why not a new environmentally industry such as this?

How to fix – Societal

While there are government mechanisms that can be applied to reduce fast fashion and the social and environmental impacts, we shouldn't be solely relying on them to fix the issue. Like corporations, government don't always do the correct thing and in competitive capitalist markets won't risk any reduction in economic output, so I think change has to be driven by us.

I feel this should be pushed by NGO's such as Fashion Revolution and Ellen McArthur Foundation. While they discuss the concepts of resource efficiency and resource security and have a wealth of information on their pages, I don't think they do enough to reach the end consumer. I hadn't heard of either organisation until I started this module.

I feel they should be pushing out how destructive fast fashion can be environmentally and socially as already discussed. I also feel they should promote alternatives to fast fashion as consumers, while not stigmatizing any group who relies on fast fashion due to low income.

If consumers started supporting transparent fashion companies who are B-Corp Certified, back the right to repair, use environmentally friendly designs incorporating circularity and ensure no worker exploitation occurs, it automatically puts pressure on other fashion companies to do similar as it shows you can be both sustainable and profitable (B-Corp, 2023).

I also feel as consumers we need a societal shift on how we shop. While its great there is less stigma surrounding by buying used clothes with enormous growth in websites such as Vinted (Vinted, 2024) driven by millennials, I feel we need to support emerging fashion industries such as products as a service (clothes rental) and textile recycling by ensuring we don't just dump or garments on the developing world to deal with, all of which will have a positive impact on the environment.

Conclusion

With the environmental and health impacts directly from fast fashion, which will be exacerbated as the industry grows due to new competition directly from China, and the need to increase profit margins and dividends across the markets of UK, EU, Japan and North American companies, it's clear this industry goes completely against the concept of resource efficiency and security, and that the impacts need to be addressed and the model changed from linear to circular.

While government policy can help, such as the UK's SCAP which aims to reduce carbon and water footprints and waste, it needs to go further by increasing import tax, banning influencers/advertisements and outlawing poor quality single-wear garments while supporting new recycling and repair industries.

Consumers also need to change by stopping needless consumption and by supporting transparent well-made garment companies. This proves fashion doesn't need to be exploitative and can be both profitable and sustainable.

References

- Aizenshtein, E.M. (2006) World production and consumption of polyester fibres and thread. *Fibre Chemistry*. 38 (3), 264–271. doi:10.1007/s10692-006-0081-5.
- B-Corp (2023) *Measuring a company's entire social and environmental impact*. 6 October 2023.
- Bick, R., Halsey, E. & Ekenga, C.C. (2018) The global environmental injustice of fast fashion. *Environmental Health*. 17 (1), 92. doi:10.1186/s12940-018-0433-7.
- Carbon Brief (2024) *China responsible for 95% of new coal power construction in 2023, report says*. 11 April 2024. <https://www.carbonbrief.org/china-responsible-for-95-of-new-coal-power-construction-in-2023-report-says/> [Accessed: 5 May 2024].
- Chapagain, A.K., Hoekstra, A.Y., Savenije, H.H.G. & Gautam, R. (2006) The water footprint of cotton consumption: An assessment of the impact of worldwide consumption of cotton products on the water resources in the cotton producing countries. *Ecological Economics*. 60 (1), 186–203. doi:<https://doi.org/10.1016/j.ecolecon.2005.11.027>.
- Claudio, L. (2007) Waste Couture: Environmental Impact of the Clothing Industry. *Environmental Health Perspectives*. 115 (9), A449–A454. doi:10.1289/ehp.115-a449.
- Dalla Fontana, G., Mossotti, R. & Montarsolo, A. (2020) Assessment of microplastics release from polyester fabrics: The impact of different washing conditions. *Environmental Pollution*. 264, 113960. doi:<https://doi.org/10.1016/j.envpol.2020.113960>.
- European Parliament (2023) *Ending fast fashion: tougher rules to fight excessive production and consumption*. 27 April 2023. <https://www.europarl.europa.eu/news/en/press-room/20230424IPR82040/ending-fast-fashion-tougher-rules-to-fight-excessive-production-and-consumption> [Accessed: 1 May 2024].
- Finisterre (n.d.) *Recycled Synthetics*. <https://finisterre.com/blogs/fabric-of-finisterre/regenerated-fibres> [Accessed: 7 May 2024].
- Guardian (2022) *Chinese fashion retailer responds after Channel 4 documentary alleged 18-hour days with one day off a month*. 5 December 2022. <https://www.theguardian.com/business/2022/dec/05/shein-admits-working-hour-breaches-and-pledges-12m-to-improve-sites> [Accessed: 7 May 2024].
- Hansen, K.T. (2004) Helping or hindering? Controversies around the international second-hand clothing trade. *Anthropology Today*. 20 (4), 3–9. doi:<https://doi.org/10.1111/j.0268-540X.2004.00280.x>.
- H&M (2023) *H&M Group Sustainability Disclosure 2023*. <https://hmgroupp.com/wp-content/uploads/2024/03/HM-Group-Sustainability-Disclosure-2023.pdf>.
- Jin, J., Li, M., Chen, Z. & Zheng, G. (2023) *Explosive Growth of SHEIN in the Global Market*. SAGE business cases. SAGE Publications: SAGE Business Cases Originals. <https://books.google.co.uk/books?id=5kGfzwEACAAJ>.
- Khan, M., Zia, M. & Qasim, M. (2010) Use of Pesticides and Their Role in Environmental Pollution. *World Academy of Science, Engineering and Technology*. 4.

Kings Research (2023) *Fast Fashion Market Size to Hit USD 167.50 Billion by 2030, Driven by Rising Customer Interest in Stylish Clothing, States Kings Research*. 7 August 2023. Yahoo Finance. https://finance.yahoo.com/news/fast-fashion-market-size-hit-151900251.html?guccounter=1&guce_referrer=aHR0cHM6Ly93d3cuZ29vZ2xlLmNvbS8&guce_referrer_sig=AQAAAJAKRmluJdXv6fBSzuhTLeHjZP8E56XL2I9VFVUIC6sMgTkdYqzY-qL8wYG3uJRTqSznAoYHUJL_FfjH0p7XU7DEiR-A1xnGutVe66gThnD7b3MF00TWd4u5iUkZVW8XLyXQxN6UsTq-NivCW0wGXE7s97u3Ik82XmCnFdHJ8Y8 [Accessed: 5 May 2024].

Nkatha, K. (2023) *How fast fashion is fuelling the fashion waste crisis in Africa*. 21 November 2023. Greenpeace Blog.

Ocean Generation (2023) *THE HISTORY OF FAST FASHION*. 31 August 2023. <https://oceangeneration.org/the-history-of-fast-fashion/#:~:text=When%20was%20the%20term%20fast,store%20%E2%80%93%20in%20only%2015%20days>. [Accessed: 5 May 2024].

O'Connor, C. (2014) *These Retailers Involved In Bangladesh Factory Disaster Have Yet To Compensate Victims*. 26 April 2014. Forbes.

Patagonia (n.d.a) *Cotton for Change*. <https://eu.patagonia.com/gb/en/our-footprint/cotton-for-change.html> [Accessed: 7 May 2024].

Patagonia (n.d.b) *Recycled Cotton*. <https://eu.patagonia.com/gb/en/our-footprint/recycled-cotton.html> [Accessed: 7 May 2024].

Peters, A. (2024) *This fabric recycling company was going to change fashion. Why did it suddenly go bankrupt?* 27 February 2024.

Reuters (2024) *French lawmakers approve bill to apply penalties on fast fashion*. 14 March 2024.

Rosa, A. (2014) *The evolution and democratization of modern fashion: from Frederick Worth to Karl Lagerfeld's fast fashion*. *Comunicação e Sociedade*. 24, 79. doi:10.17231/comsoc.24(2013).1777.

Shein (n.d.) *Sourcing Responsible Products and Materials*.

Shein (2021) *Sustainability & Social Impact*. 2021. <https://m.shein.co.uk/sustainability-social-impact-a-1212.html> [Accessed: 7 May 2024].

Starritt, A. (2016) *Sweden is paying people to fix their belongings instead of throwing them away*. 27 October 2016. WEF.

UK Parliament (2019) *Fixing fashion: clothing consumption and sustainability*. <https://publications.parliament.uk/pa/cm201719/cmselect/cmenvaud/1952/full-report.html#heading-8>.

United Nations (2024) *New initiative aims to curb the toxic impacts of agriculture*. <https://www.unep.org/news-and-stories/press-release/new-initiative-aims-curb-toxic-impacts-agriculture#:~:text=Despite%20their%20benefits%20for%20food,farmers'%20resilience%20to%20climate%20change>.

Vinted (2024) *Vinted delivers strong year of growth and reaches profitability, while investing for the future*. 29 April 2024.

