## The Environmental Economic Principles Illustrated by Fast Fashion

Fast fashion is known for its rapid turnover of trendy clothing at very low prices, and has been incorporated more and more in our day-to-day clothing. However, behind the illusion of trendy and cheap pieces, this pressure to minimise costs and speed up production, leads to a complex range of environmental and economic implications. Some of the reasons fast fashion is becoming a progressively bigger issue for the environment includes its use of toxic and heap textile dyes, polluting waterways as well as the amount of landfill waste generated by the industry. According to Ting and Stagner (2023), the life cycle of clothing has been constantly shorter, starting from the 1980s. This means that we are using and disposing of clothes faster and faster. As it will be explored in this analysis, most of the unused or unwanted pieces end up in a landfill or are burned, contributing to climate change. Otherwise, research shows that about 450,000 tonnes of clothes exported from the United states becomes part of a second-hand clothing trade. This leads up affecting low and middle-income countries.

One of the main environmental economic principles shown by the fast fashion market is the inefficiency of resource extraction. This concept relates to the long and complex supply chain of the market. Starting from agriculture and petrochemical production (for synthetic fibre production, such as the famous polyester) to manufacturing, logistics and retails. Each step of the production of the garments has an impact on the environment due to chemical, energy, material and water use. The fast rate of production of the materials leads to the overexploitation of these resources, further contributing to environmental depletion and degradation of finite resources. Research shows that approximately 60% clothing is made from petroleum and 30% from cotton, thus having a large impact on the environment. Additionally, many of these chemicals used in the production of textile are harmful for both the factory workers, environment as well as the end consumers (Niinimäki et al., 2020). Hence, even though consumers are now aware of the environmental and personal impact of those chemicals, why do customers keep on buying these products?

Marketing is a very effective tool for every business when it comes to maximising profits. However, it becomes an even stronger tool when brainwashing consumers with the famous concept of "Green Washing". Green washing explains the behaviour of firms when engaging in misleading marketing strategies/ information about their firms' environmental performance or the environmental benefits of a product (Delmas & Burbano, 2011). In the documentary by CBC News on "Exposing the secrets of sustainable fashion (Marketplace)", the reporters questioned big companies such as Nike, Gap, Lululemon and H&M on their problem with polyester and its reliance on fossil fuel-derived synthetics. Greenwashing is an advertisement trick and aims to "capitalise the emotional appeal of eco-friendly practices", as stated by Ting and Stagner (2023).

Another environmental economic principle shown by the fast fashion industry is the concept of externalities, in this example pollution is a negative externality. A negative externality is the imposition of a cost by one party (in this example, a fast fashion firm) onto another. The process of manufacturing the clothes involved in producing the fast fashion items generate significant pollution. This includes, air pollution when producing textile, water pollution from dyeing fabrics and waste generation from packaging. Additionally, the growth of textile fibres, manufacturing and clothing assembly tends to take place in countries with cheaper labour, such as China and Bangladesh. According to Ting and Stagner (2023), there has been such an enormous increase in fast fashion during the past 10 years that firms had to increase supply, increasing the risk of slavery-like working conditions in those middle/low-income countries. Additionally, as this textile industry expands, these manufacturers are higher in hierarchy, even higher than its country's citizens, which means that water is then supplied to factories before people, further increasing the amount of negative externalities generated by the fast-fashion industry.

The industry of fast fashion can also be noticed when looking at how much waste is generated and how it is disposed, which is another environmental economic principle. One of the pillars of the increase in fast fashion is the rise in consumerism in society. A world with a culture of over-consumption and rapid disposal of goods, will consequently have problems with excessive waste in landfills. When it comes to the textile industry, it is challenging to recycle or biodegrade due to the complex nature of synthetic fibres which are the base for most fast fashion garments. The business model of fast fashion is designed to be unsustainable and by definition it is "a fast-response system that encourages disposability"

(Ting & Stagner, 2023). The problem with waste disposal in fast fashion is seen globally. At the same time, it is estimated that by 2050, global clothing sales could more than triple (The Economist, 2018) And as the quality of the pieces keep deteriorating, a lot more pieces need to be processed in order to be able to get good quality clothing for reselling purposes.

The documentary by the journal "The Economist" on "The true cost of fast fashion" investigates the flow-on effects of the improper disposal of fast fashion clothing. It is estimated that 80 million items are manufactured every year and most of these products end up in landfill. According to clothes recycling centres in the West, most unwanted clothes will end up in Africa or Dubai.

Ships arrive everyday with tonnes of unwanted clothes in the West Coast of Africa. The documentary by ABC News on "The environmental disaster fuelled by used clothes and fast fashion" explains this phenomenon as the so called "obroni wawu" in Ghana, meaning 'the clothes of dead white man'. Many of these clothes are being resold in those markets, however most of them arrive in unwearable conditions. While the re-selling of used clothes has created jobs in Ghana, it has also turned part of the country into a toxic landfill. Especially as Ghana is located in the tropics, when fierce rains come, the unwanted clothing goes into the city's open sewers and chokes its waterways, further leading to the ocean. Therefore, all of this waste ends up killing all aquatic life that once lived in those coastal areas. The extinction of those essential marine life that once inhabited the African coastal waters has a significant impact in the food chain and balance for the ecosystems. Such masses extinctions has happened before in history as stated in Barnosky et al., (2011) when it is analysed if there is a sixth mass extinction on Earth. As seen in the image 1 below, the results show that current mass extinction rates are higher than would be expected from fossil records, this emphasises the need for effective conservation measures.

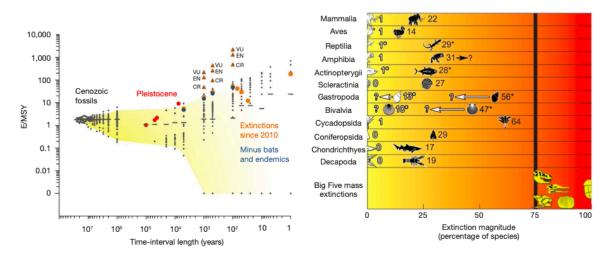


Image 1: The decline in percentage of species when compared to time-interval.

In conclusion, all consumers share a responsibility for this waste crisis that the fast fashion industry has created. The rapid pursuit of economies of scale in this industry leads to the expense of sustainability, as mass productions and global supply chains also allow fashion brands to keep their unsustainable business model. This practice leads to several environmental economic principles, such as negative externalities, resource extraction and depletion, waste disposal and labour exploitation. In order to address this issue, there is a need for a multifaceted approach that considers all factors such as social, economic and environmental. Sustainable alternatives, for instance circular economy models, ethical fashion practices, and consumer awareness campaigns are essential in order to mitigate the negative effects of fast fashion on the environment and on the people.

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