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# UNIVERSITY OF BIRMINGHAM

## **An evaluation of whether the perception and usage of Fast Fashion differs between Gen X and Gen Z.**

A dissertation submitted by

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# **Abstract**

## **Background**

Fast fashion is a recent emerging phenomenon, concerning garments that are rapidly mass produced at a low cost. Fast fashion causes detrimental damage to the environment and at a human cost. Fast fashion encourages 'throw-away', 'one-use' consumption, increasing waste and landfill disposal, contributing 10% to the global carbon footprint and polluting waterways. Working conditions in factories significantly impact human life, with neglect of human rights, unsafe buildings, and frequent child labour. The aim of this research was to assess the perception and understanding of fast fashion, along with the volume of usage. Throughout the extensive literature search, there were two identified knowledge gaps regarding the impact that Covid-19 and the cost-of-living crisis had on the shopping habits of individuals, forming the novel aspects to this research.

## **Method**

Two target audiences were selected, Gen X and Gen Z. Data was compared and contrasted, observing any differences between the generations with regard to awareness and usage of the industry. A mixed method approach was employed combining both quantitative and qualitative aspects of research. Surveys were conducted using Google Forms, collecting 200 responses. Data was presented in the forms of graphs and statistical analysis was performed, testing for statistical significance. Interviews with 10 focus individuals were conducted to introduce depth and nuance arguments, to add explanation to research findings.

## Findings

In summary, Gen Z individuals had increased awareness and understanding of fast fashion in comparison to the Gen X cohort. Gen Z individuals, however purchased a larger volume of fast fashion, contributing significantly to the burden of the industry. Qualitative analysis explained that Gen Z participants were limited by cost, therefore restricting their access to sustainable alternatives. Statistical analysis, however, concluded the observed differences between generational awareness, as not statistically significant. Findings concluded that Covid-19 accelerated online purchases, in turn increasing the global carbon emissions of the industry. The cost-of-living crisis was found to have little effect on the shopping habits of majority of Gen Z individuals. The crisis, however, forced several individuals to alter their shopping habits to cheaper fast fashion alternatives due to the decrease in disposable income. The research project highlights the necessity of further educating individuals about the notoriously polluting and damaging aspects of fast fashion. The study is beneficial for future research into targeted approaches towards Gen X and Gen Z.

**Key words:** Fast Fashion, carbon footprint, 'throw-away' fashion, sustainable alternatives.

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**Glossary:**

**Fast Fashion:** the rapid mass production of high-trend clothing garments at a low cost.

**Generation X (Gen X):** the demographic cohort, born between 1965 and 1980, preceding the millennials. Age range: 43 – 58.

**Generation Z (Gen Z):** individuals born between the years 1997 and 2012, succeeding the millennials. Age range: 10 – 25.

**Throw-away fashion:** due to the clothes being of a low-cost and following styles that are changing rapidly, there is frequent purchasing and disposing of clothes after little wear.

**Sustainable:** resources that are able to be maintained at a certain rate or level, continuing over a prolonged period of time.

# **Chapter 1: Introduction & Literature Review**

## **1.1. Introduction**

This research project analyses individuals' usage and awareness of fast fashion, primarily focusing on the environmental impacts of this industry. Although fast fashion is experiencing global scrutiny due to enhanced understanding, the cheap manufacturing and rapid mass-production of low-cost garments, ensures that the fast fashion industry maintains high popularity (Bhardwaj and Fairhurst, 2010; Niinimäki *et al.*, 2020).

The purpose of this project is to explore the perception and usage of fast fashion by individuals in Gen X and Gen Z. Gen X concerns the cohort of individuals born between 1965 and 1980 (Oxford, 2020), whilst the Gen Z population involves those born between 1997 and 2012 (Seemiller and Grace, 2019). The study will compare and contrast consumer behaviour and awareness of fast fashion between the generations.

With support of the outlined surrounding literature, a range of knowledge has aided the formation of six research questions and identified knowledge gaps which this research project aims to fulfil. A particularly novel aspect of this study is analysing the effect of the cost-of-living crisis on fast fashion and its subsequent environmental impact.

Firstly, there will be an extensive review of relevant literature encompassing the narrative of the industry and its environmental and human impact. A methodology

chapter follows, justifying the selected mixed method approach, the qualitative aspect involving interviews and the quantitative phase analysing survey data. Subsequently, the results chapter follows, revealing results and relevant findings. The discussion section will address the key research questions in context. Finally, a concluding chapter will highlight the benefits of this research study, limitations, and future research avenues.

## **1.2. Literature Review**

### **1.3. Fast Fashion**

Fast fashion is the term used to describe the rapid mass production of readily available and low-cost clothing garments (Bick *et al.*, 2018; Saxon, 2022). The success of fast fashion brands is predominantly due to business model and manufacturing speed whereby fashionable trends are fabricated whilst consumer demand remains elevated (Caro and Martinez-de-Albeniz, 2015). The dynamics have evolved significantly over the previous three decades, forcing retailers to alter their clothing design and quality, to maintain a profitable position in the demanding market (Bhardwaj and Fairhurst, 2009).

Fast fashion causes extensive damage to the environment and human livelihoods (Hall, 2018; Camargo, 2020). It is estimated that approximately 100 billion garments are produced annually, of which, 92 million tonnes result in landfill (Igini, 2023). This is 400 times more than 20 years ago, highlighting the extent of fast fashion growth (True Cost, 2015).

The growing popularity of fast fashion consumption drives production of clothing garments which remain at an inexpensive cost due to outsourcing production to low- and middle-income countries where labour is underpaid and textiles are cheap (Birk *et al.*, 2018). The fashion industry is the greatest labour-dependent industry in the world, with 65 million garment workers world-wide (Fashion Revolution, 2021).

Moreover, fast fashion contributes 10% to the global carbon footprint, the second-largest industrial polluter (Niinimäki *et al.*, 2020). In addition to the fossil fuel production, it is estimated that the industry consumes 79 trillion litres of water annually (Niinimäki *et al.*, 2020).

The emergence of a 'throw-away' fashion culture is a practice whereby a garment of clothing is disposed of after minimal wears, most frequently a single use (Bhardwaj and Fairhurst, 2010). This generates an extreme amount of waste, negatively impacting the environment, for example, land use for disposal sites (Raj and Bajpai, 2022), biodiversity loss (Simmons, 1999), carbon dioxide production (Joung, 2014) and water consumption (Cooper, 2013).

Thus, the model is completely unsustainable; therefore, it is vital for fundamental changes to occur throughout the entire supply chain, from sourcing materials to garment production (Niinimäki *et al.*, 2020). A shift in consumer behaviour is required to decrease fast fashion usage (Niinimäki *et al.*, 2020; Saxon, 2022). The impacts of fast fashion will subsequently be discussed through exploring relevant literature.

There are 130 fast fashion brands in the UK that have absorbed consumerism from high-street shops and designer outlets (Besma, 2020). Zara and H&M are two primary brands that at the forefront of this industry, embracing the fast fashion culture (Tokes, 2022). Urban Outfitters and Next are also branded fast fashion, which can be considered surprising due to the higher-price label and increased quality.

Fast fashion brands utilise effective marketing techniques, encouraging consumers to purchase garments in high quantities, assisting industry growth (Nurnafia, 2021). Cookies and algorithms ensure the reappearance of garments across social media platforms (Trusov *et al.*, 2016). This consumer targeting approach incentivises individuals to purchase items from fast fashion brands. Websites, regularly promote discounts, sales, and multi-buy bundles, alerting customers to the potential limited quantities of a particular garment, aiding the likelihood of purchase (Roseley, 2018).

#### **1.4. Ultra-Fast Fashion**

Ultra-fast fashion brands are predominantly online retailers which release trending garments daily, at lower prices but with a greater environmental cost (Dzhengiz, 2023). Since 2017, the popularity of ultra-fast fashion brands has dramatically increased, accelerating specifically during the coronavirus pandemic. Online brands are easily accessible with thousands of styles in every size and colour and are heavily promoted on social media. Delivery is cheap and rapid, further encouraging popularity.

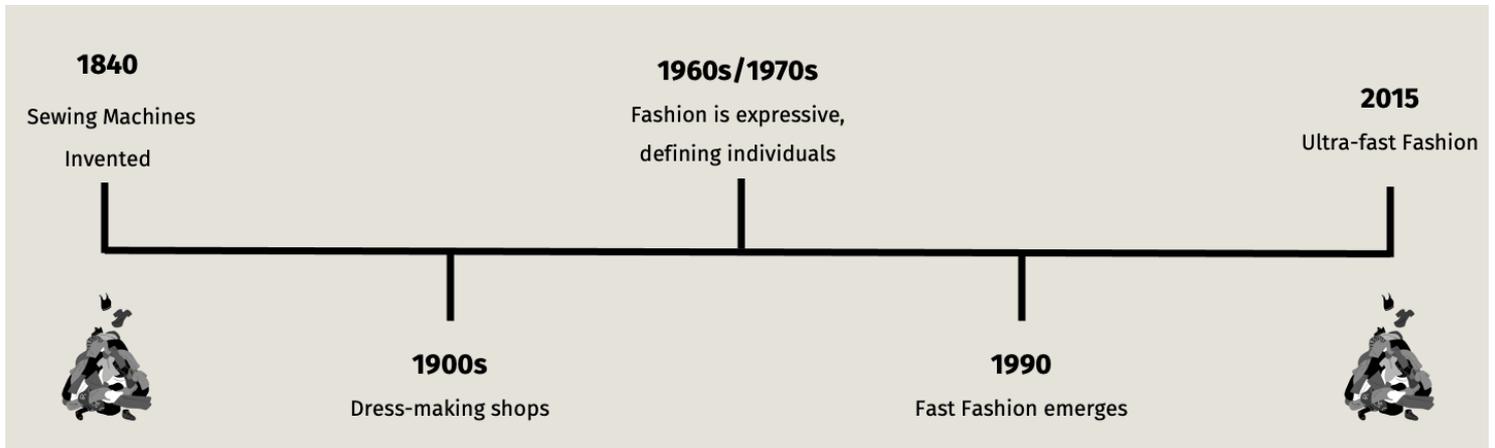
Shein, an ultra-fast fashion brand, commenced production in 2015 reaching its highest net worth, \$100 billion, in 2022 (Eisen, 2023). Shein has increased its supply by 400% since 2017 and is now available in 220 countries (Holmes, 2022). In comparison to

Zara which introduces new clothing garments twice a week, Shein, posts over 6000 new clothing items daily (Harju, 2022). Shein's business model collects data on its users, producing algorithms and publishing relevant garments (Harju, 2022). Shein encourages unnecessary purchasing and excessive waste, by introducing large discounts of a larger amount (up to 80%) the more the consumer spends (Shein machine, 2022).

Temu is an ultra-fast fashion brand, originating in the US and promoting itself as permitting 'individuals to shop like billionaires' (Temu, 2023). Temu, launched in 2022, is second most downloaded app of 2023 in the UK, rivalling Amazon, (Field, 2023). In September 2023, Temu was sued by Shein in high-court for replicating advertisements (Field, 2023). This ongoing feud has been televised across news channels, further promoting brand recognition and popularity.

## **1.5. History of Fast Fashion**

This section delves into the origins of fast fashion (Fig.1). During the 1800s, fashion was a time-consuming process where designers were required to source raw materials (Rauturier, 2023). In 1840, amid the Industrial Revolution, the invention of sewing machines revolutionised the production of clothing garments (Wong and Chen, 2017). In the 19<sup>th</sup> century, dress-making shops accelerated and can be characterised as the earliest sweatshops, with a regrettable resemblance, that persists today (Camargo *et al.*, 2020; Rauturier, 2023).



**Figure 1:** The History of Fast Fashion. A timeline showing the progression of the fashion industry, from the development of sewing machines in 1840, to the introduction of ultra-fast fashion in 2015 (Source: Personal Collection).

Clothing was rationed between 1941 and 1949 as a consequence of war, whilst forcing garment workers into alternate occupations (IWP, 2022). In the 1960s and 1970s, fashion became a form of expression, defining characteristics of individuals (Rauturier, 2023). Gradually, a contrast between high-street fashion and designer brands evolved (Rauturier, 2023).

During the 1990s, the fashion industry drastically changed. The alteration from seasonal clothes to daily new trends emerged, increasing the popularity of fast fashion brands (Idacavage, 2016; Haynes, 2022). These brands had the ability to replicate designer, catwalk clothes rapidly for a fraction of the cost (Cameron, 2022). H&M and Zara were the dominant brands of the 1990s with a consumer base worldwide (Sull

and Turconi, 2008; Idacavage, 2016). Zara was the foremost brand to pioneer the shortest manufacturing approach, 15 days, from design to sale (Sull and Turconi, 2008; Rauturier, 2023). Since 1990, popularity has continued to accelerate at an extraordinary rate.

In 2015, ultra-fast fashion brands surfaced, producing garments at unprecedentedly low prices, further enhancing the throw-away culture (Camargo *et al.*, 2020).

## **1.6. Fast Fashion Impacts**

The impacts of fast fashion are classified into two principal categories: environmental effects and human cost. In this section of the research project, relevant literature is examined to provide support and context for the study.

## **1.7. Environmental Impacts**

Fast fashion places significant stress on the environment and its non-renewable resources (Igini, 2023). The industry affects the environment throughout all steps of the supply chain, beginning with agriculture and fibre production, to the manufacturing stage, logistics and retail (Niinimäki, 2020). Overproduction and consumption of clothing garments has resulted in the industry becoming one of the largest polluters worldwide (Jimenez, 2023).

Irresponsible engagement with fast fashion is potentially depriving environmental future, therefore understanding, and addressing the impacts is crucial to support and promote sustainability and responsible consumerism (Ting and Stagner, 2023).

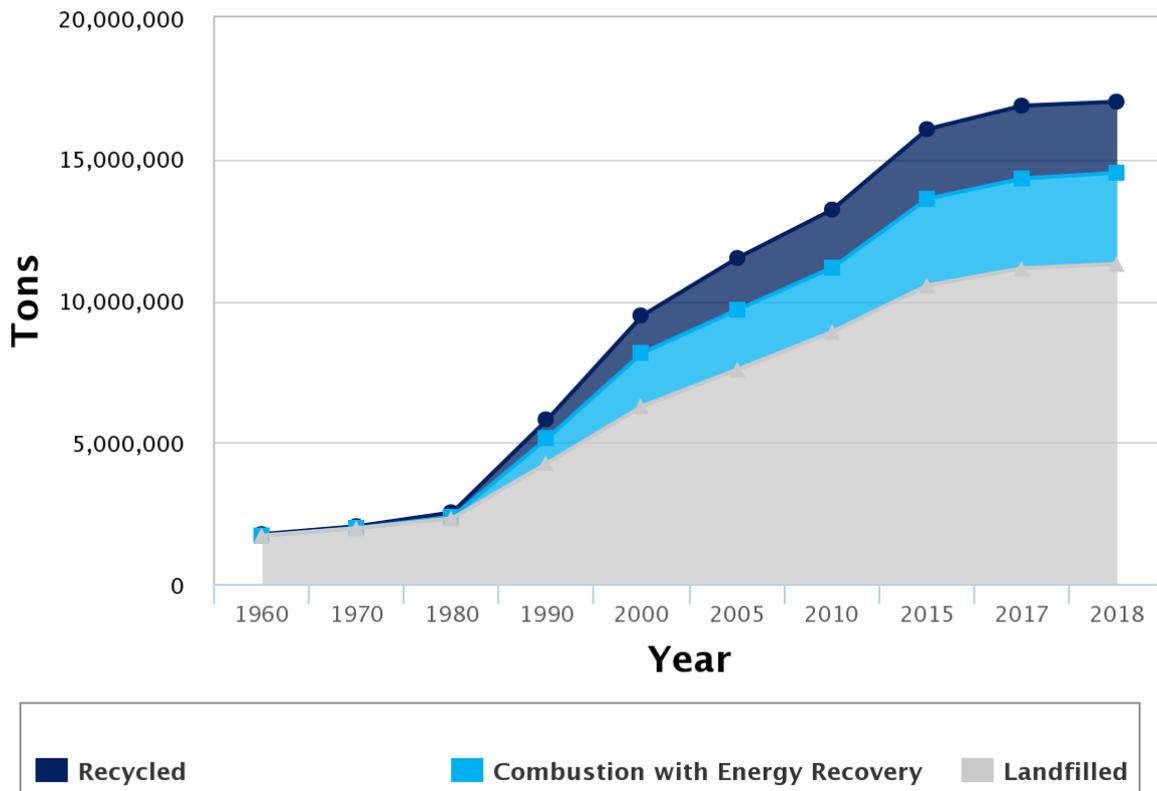
### **1.7.1. Waste**

Predominantly, waste generation is a significant result of fast fashion, which has accelerated due emergence of a 'throw-away culture' (Bhardwaj and Fairhurst, 2010). 100 billion clothing pieces are manufactured annually, of which 92 million tonnes results in waste (Napier and Sanguineti, 2018). If the acceleration of the industry continues at the same pace, 134 million tonnes of waste will enter landfill annually by 2030 (Igini, 2023).

The concept of fast fashion is producing low-cost, non-durable clothes (Buzzo and Abreu, 2018). In comparison to the beginning of this century, clothes are purchased twice as frequently and lasting half as long (Buzzo and Abreu, 2018; Niinimäki, 2020).

Studies conducted by the EPA, Environmental Protection Agency, conclude that the United States consumes the largest number of clothing garments, with 85%, 14 million tonnes, terminating in landfill annually (Bick *et al.*, 2018; EPA, 2018; Ting and Stagner, 2023). Expansion of the industry is unmistakably reflected in the increased volume of waste. Figure 2 demonstrates the US textile waste management, indicating garments that resulted in landfill, were recycled, or combusted with energy recovery (EPA, 2018). A limitation of this study was the reliance on estimates of recycling rates, from multiple companies (EPA, 2018).

## Textiles Waste Management: 1960–2018



**Figure 2:**Textile Waste Management between the years 1960-2018. A breakdown of what happens to waste that has been generated from the fast fashion industry (EPA, 2018).

Landfill is often exported to low-to-middle income countries where the garments are re-sold on second-hand markets (Joung, 2014;Bick *et al.*, 2018). However, due to vast volumes of garments and poor quality of items, the majority becomes textile waste (True Cost, 2015). Several countries lack appropriate municipal waste systems, therefore obstructing rivers, forests, and beaches, additionally creating environmental health hazards (Bick *et al.*, 2018). For example, evidence demonstrates that Ghana receives 15 million garments a week (True Cost, 2015). Polyester and synthetic fibres are washed into the ocean.

Furthermore, studies suggest that the economy of countries receiving the waste is affected, as local clothing businesses are no longer sourced due to the vast quantity of second-hand garments that are sold (True Cost, 2015; Bick *et al.*, 2018).

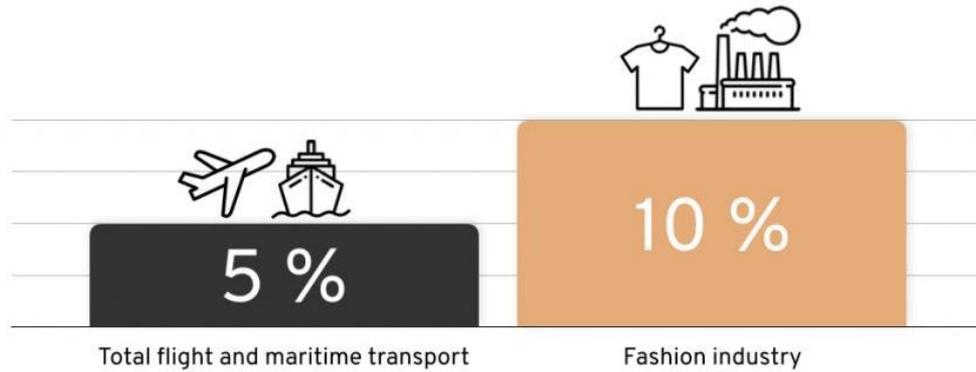
Once in landfill, garments take over two hundred years to decompose and during this decomposition process, additional greenhouse gases, including methane, are produced (Brown, 2021). Toxic chemicals exiting the clothes from the dyes enters groundwater and soil, having detrimental impacts on surrounding communities (Brown, 2021).

Additionally, brands are likely to destroy unsold clothing, dead stock (Napier and Sanguineti, 2018), by combustion to prevent other companies from reselling their products. The incineration of textile waste in itself, pollutes the environment (Rabl *et al.*, 1998).

### **1.7.2. Carbon Dioxide Emissions**

Fast fashion accounts for 10% of the global carbon footprint annually, making the industry, second highest polluter (Brewer, 2019; Ninnimäki, 2020). Significant carbon emissions are produced through production and supply chain therefore the industry contributes to climate change (Conca, 2015; Brewer, 2019). During textile production, 1.2 billion tonnes of greenhouse gas emissions were produced in 2015 (Brewer, 2019). This exceeded the carbon footprint of all aviation and shipping transportation worldwide (Fig.3) (Brewer, 2019; Johnson, 2019). If the carbon dioxide emissions continue to accelerate, 26% of the global carbon footprint will account for the fashion industry in 2050 (SANVT, 2022).

### CO<sub>2</sub> consumption in comparison

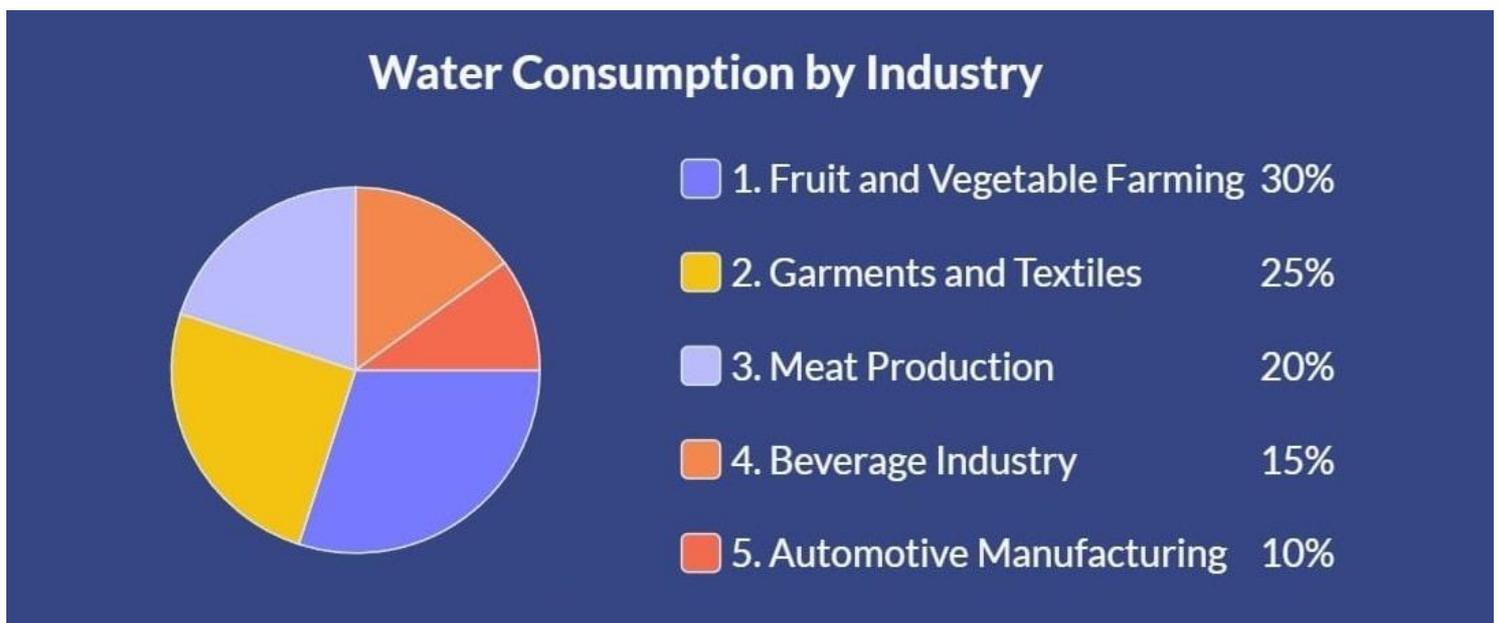


**Figure 3:** The CO<sub>2</sub> gas emissions produced by the fashion industry compared to the global carbon footprint of all aviation and shipping transportation. The fashion industry accounts for 10% of the global carbon footprint (SANVT, 2022).

Taking transportation into account, clothing garments are transported to consumers worldwide, releasing significant amounts of CO<sub>2</sub> (Alfieri *et al.*, 2019). Online shopping exacerbates the carbon footprint, especially when deliveries are returned. Optoro (2020) estimated that 16 million tonnes of CO<sub>2</sub> emissions were produced by returning online orders in 2020, equivalent to annual emissions from 3.5 million cars (Optoro, 2020; Igini, 2023). Consumer behaviour contributes to the carbon footprint, as frequent small orders compared with a less-frequent, larger order, yields higher carbon emissions (Bhardwaj and Fairhurst, 2010).

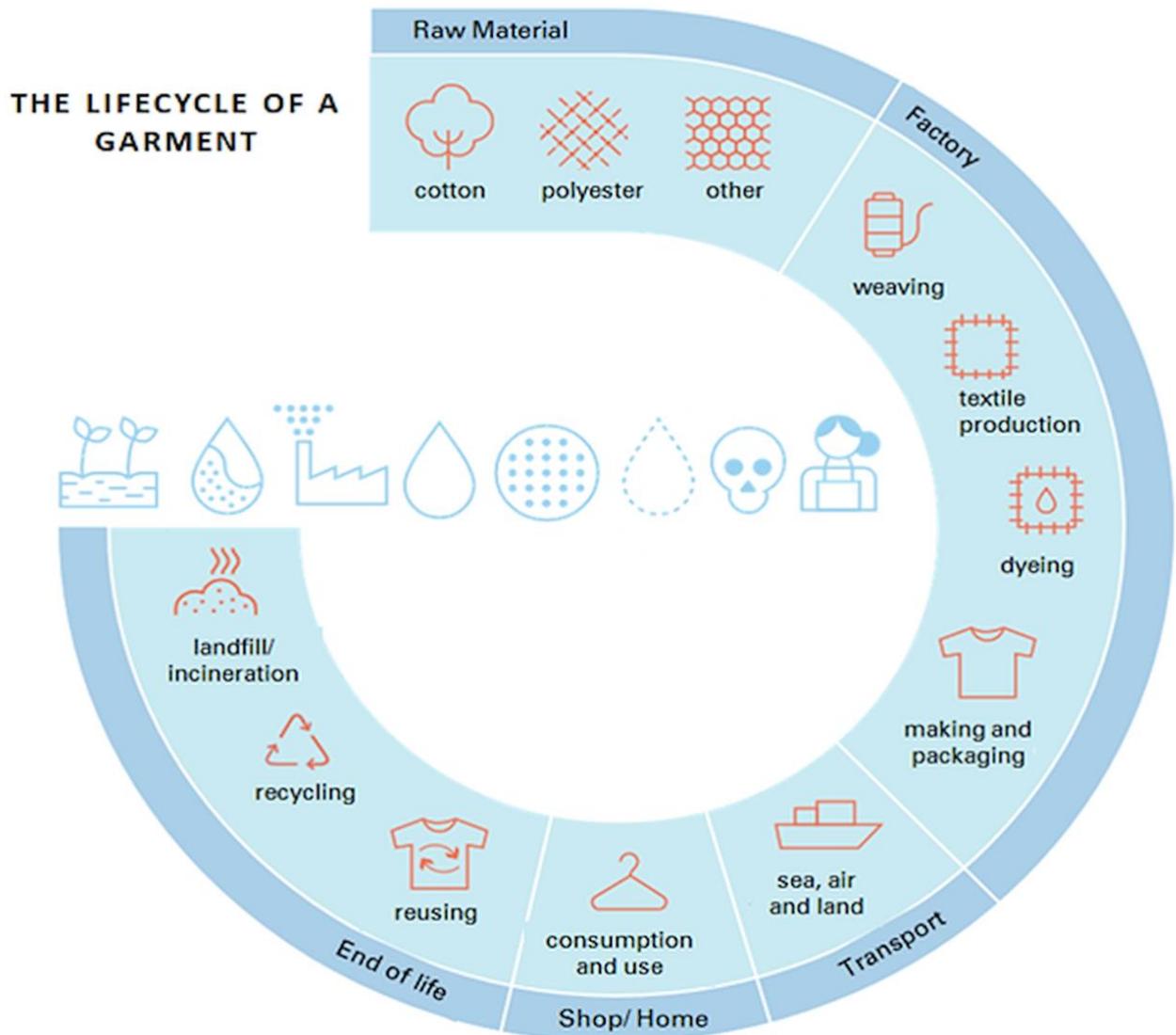
### 1.7.3. Water Usage

Fast fashion has a significant impact on water consumption, depleting approximately 79 trillion litres of water annually (True Cost, 2015; Niniimäki, 2020). The fashion industry as the second largest consumer industry of water (Fig.4)(Igini, 2023). Water consumption is estimated to reach 120 trillion litres by 2030 (Hawthorn, 2023).



**Figure 4:** A pie chart showing the water consumption rates from different industries. The fashion industry, (garments and textiles) is the second largest consumer of water, 25% (Frenchies, 2021).

During the lifecycle of a plain t-shirt (Fig.5), 2700 litres of water is consumed, and approximately 9000 litres of water is used to create jeans (Kleiderly, 2019). 100 litres of water are deployed in a singular laundry cycle, further evidencing the vast consumption of water in this industry (Rawat, 2021).



**Figure 5 :** The lifecycle of a plain T-shirt from raw material collection to the end-of-life treatment. Each stage consumes large quantities of water and raw materials, producing significant carbon and greenhouse gas emissions (YRE, 2021).

The depletion of water sources in low-to-middle income countries, aggravates drought conditions, placing stress, on already scarce, waterways (Hugo *et al.*, 2021). Due to

limited water resources, there is competition between companies and communities (True Cost, 2015).

#### **1.7.4. Resource depletion**

The industry relies heavily on finite resources, depleting non-renewable materials, causing environmental strain.

Fast fashion involves an energy-intensive supply chain, depleting energy significantly (Niinimäki *et al.*, 2020; Ecohz, 2021). The combustion of non-renewable fossil fuels, is utilised to generate electricity, consequently contributing to gas emissions and global warming (Peters *et al.*, 2021). Transitioning to materials which require less energy to produce would decrease the energy depletion (True Cost, 2015; Ecohz, 2021). A future avenue for transitioning to renewable energy sources, including solar power, could significantly reduce the carbon footprint (Guney, 2016).

Deforestation is linked to the impact of fast fashion, as over 200 million trees are cut down annually to transform land to areas for cotton crop development (Ciornea, 2020). Additionally, the demand for fast-growing natural textile fibres including rayon and viscose require tree material (Ciornea, 2020). Deforestation also indicates a loss of biodiversity (Yu, 2018).

Due to continuous requirement for significant amounts of cotton, genetically modified (GMO) cotton crops, which are resistant to insects and bacteria, have been produced worldwide (Bennett *et al.*, 2004). This ensures that growth continues regardless of the season, temperature, or bacterial exposure (Naranjo *et al.*, 2008).

Majority of garments are made from nylon, acrylic or polyester which are created with petroleum, a non-renewable source (Teens, 2022). Petroleum also renders garments almost non-biodegradable (Thiagamani *et al.*, 2019).

#### **1.7.5. Pollutants**

Untreated textile dyes frequently pollute water sources that are essential for environmental and human development (Lellis *et al.*, 2019). Textile dyes are rendered highly toxic and potentially carcinogenic if left untreated or permitted to accumulate in (Sharma *et al.*, 2018). In particular, azo dyes are quickly absorbed from garments, and can cause skin allergies and dermatitis (Wilson, 2022). The toxic dyes can be detrimental to animal and human life, especially in developing countries where medical resources are scarce (True Cost, 2015). The dyes are soluble organic compounds which are difficult to remove once present in water systems (Mahapatra, 2016). Dyes discolour water bodies damaging aesthetic nature, preventing light penetration and limiting algae photosynthesis and consequently oxygen levels (Imran *et al.*, 2015; Lellis *et al.*, 2019).

Conventional cotton growth requires extensive quantities of water and extensive employment of pesticides to ensure continuous production (Carvalho, 2017). Pesticides can dissolve into water particles or pollute soil molecules. Ingesting pesticides is harmful to organisms and the inhalation of pesticide particles can cause respiratory conditions in humans (Schleiffer and Speiser, 2022).

Pollutants employed to manufacture garments pose significant health risks to consumers (Duroske, 2023). Numerous literature studies suggest that fast fashion brands prioritise profit over consumer health (Pointing, 2023). A study conducted by marketplace, found that one in five clothing items contained elevated levels of harmful chemicals including lead and phthalates (Duroske, 2023). In support of this finding, Greenpeace International (2022) analysed 47 Shein products concluding that 15% contained chemical quantities that breached the EU's regulation limits, highlighting the dangerous impacts of fast fashion (Duroske, 2023). However, both studies were limited by a small sample.

Approximately 8000 synthetic chemicals are engaged with in the textile industry (Wilson, 2022). Lead is a natural heavy metal found in cotton fibres that are utilised in garment production (Table 1) (Bharwana *et al.*, 2013; Wilson, 2022). However, lead influences biodiversity loss, reduces plant growth and initiates neurological damage in animals (CARB, 2023).

**Table 1:** A table showing the chemicals that are present in clothing garments. The Yellow tick symbol represents short term or acute exposure. Purple tick symbol represents prolonged or extensive exposure (Wilson, 2022).

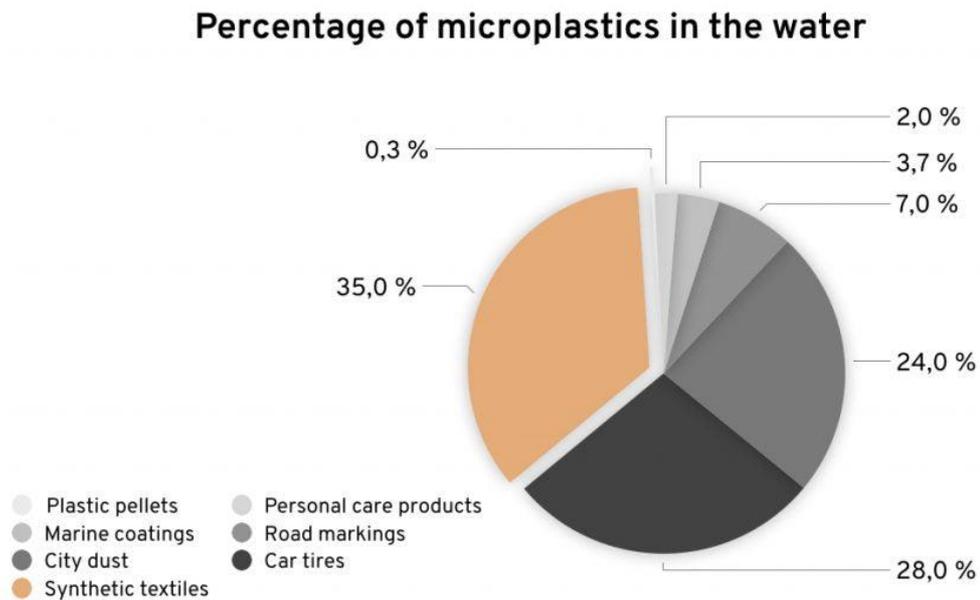
Chemicals:	Flame Retardants	PFAS	Lead	Chromium	Phthalates	Chlorine Bleach	Azo dyes	VOCs
Probable Carcinogens	✓	✓ ✓	✓	✓	✓	✓ ✓	✓	✓
Skin irritants	✓	✓	✓	✓	✓	✓ ✓	✓	✓
Hormone Disruptors	✓	✓	✓	✓	✓	✓	✓	✓
Environmental degradation (Water pollution)	✓ ✓	✓ ✓	✓	✓	✓ ✓	✓	✓	✓

Furthermore, waste generated can pollute water, air, and soil. Landfill sites are a source of soil pollution due to heavy metals, toxic chemicals and microfibres (Baziene *et al.*, 2020). The garment waste can be incinerated; however, this results in air pollution (National Research Council, 2000).

### 1.7.6. Micro-shedding

Microfibres, miniscule plastic particles, are shredded from synthetic materials (Mukopadhyay and Ramakrishnan, 2008). Cheap, low-quality fabrics, in particular polyester, sheds microfibres that increase levels of plastic within the ocean. Micro-shedding occurs in the manufacturing process and the wearing and washing of garments. Washing clothes releases 500,000 tonnes of microfibres into oceans annually, equivalent to 50 billion plastic bottles (Brophy, 2020). A project conducted

by IUCN discovered that 35% of ocean plastic pollution is due to the production and maintenance of clothes (Fig.6) (Brophy, 2020).



**Figure 6:** A pie chart demonstrating where microplastics initiate before entering the water sources. (IUCN, 2017).

Hartline *et al.*, (2016) analysed the amount of micro-shedding from a designer jacket compared with a fast fashion jacket. The study concluded that fast fashion garments shed a greater quantity of microfibres.

Microfibres are not biodegradable, therefore have drastic impacts on the environment and human health (SANVT, 2022). Aquatic life is frequently affected, delayed growth and oxidative damage is common (Li *et al.*, 2021).

Microfibres can enter the food chain via fish consumption into human bodies (Hartline *et al.*, 2016). Microplastics, if accumulated, causes irritation, chemical toxicity and the release of endocrine disruptors which can harm the reproductive-system and cause cancer (Lee *et al.*, 2023). Microplastics, if inhaled, cause respiratory diseases and metabolic disorders (Lee *et al.*, 2023).

### **1.7.7. Animal Life**

As aforementioned, toxic dyes enter waterways and are ingested by animal and marine life (Rauturier, 2023). Toxin bioaccumulation occurs throughout the food chain and can be carcinogenic in large quantities (Rauturier, 2023; Lellis *et al.*, 2019).

Animal-derived products, leather, and fur, directly place animal welfare at risk (Rauturier, 2023). Endangered animals are targeted, whereby they suffer cruel trapping and skinning methods (Assoune, 2020). Although, an illegal practice, poaching continues for fashion purposes. In recent years, the inhumane conditions of fur farms have resulted in real fur production being vastly accessible and cheap (Rauturier, 2023). Investigations of the Romwe scandal in 2020, confirmed real fur was branded as 'faux fur' (Farhoud, 2020).

## **1.8. Human Lives**

The fast fashion industry has a profound impact on human lives. It is most labour-dependent industry, with a complex supply chain (McCosker, 2023). Primarily, clothing garments are made in developing countries, where outsourcing labour is cheapest and rapid production lines are accessible (McCosker, 2023). Evidence suggests that the

economic attraction for companies to use these factories is more prioritised for retailers than the safety of garment workers (Brooks, 2019; Shein machine, 2022). China has the highest number of garment factories globally (Simpson, 2020).

Exploitation of garment workers, illegal working conditions and violation of human rights are fast fashion consequences (Rauturier, 2023). 'Modern day slavery' is a term used to denote the reality of the industry (Rauturier, 2023). The effects on human life are extremely apparent, however, many studies suggest the reason for popularity is due to consumer denial (Fush, 2018).

Acknowledging the human costs of fast fashion is crucial to promote ethical, safe, and sustainable practices (Siddiqui and Uddin, 2016; Geneva Environment Network, 2021). The humanitarian issues associated with fast fashion will be subsequently discussed.

### **1.8.1. Labour Exploitation**

Bick *et al.*, (2018) interpret fast fashion as a global environmental injustice, rendering those who work or live near garment factories with the burden of health hazards (Bick *et al.*, 2018). Developing countries that house these facilities lack support, finance and resources to enforce occupational safety procedures to protect human health (Bick *et al.*, 2018, Rauturier, 2023).

Women have increased vulnerability due to the gender concentration of the garment industry, approximately 80% of the workforce is female (GIJ, 2020). Due to the high levels of poverty, women are forced to return to work quickly after childbirth, therefore

bringing new-borns to factories. This presents a health hazard, as young children are exposed to unsafe conditions, toxic chemicals, and dangerous machinery.

Garment workers' rights are violated, many do not permit maternity leave, sick pay, or a stable income (Shein machine, 2022; Rauturier, 2023). Inconsistent wages and job insecurity supplied by zero-hour contracts can have detrimental effects on mental health. Factories have little light, ventilation and space which can worsen mental health. In June 2022, news articles reported that Shein clothes had 'help me' messages written by garment workers on clothing labels (Clark, 2022). Social media erupted with multiple cases, highlighting desperation, and worker exploitation (Clark, 2022; Rauturier, 2023).

The True Cost documentary (2015) highlighted extreme working hours; garment workers expected to work until every order is shipped. Garment workers are often provided with zero-base salaries and only paid once quotas are met (Shein machine, 2022). Consumers returning items can additionally decrease, the already unliveable wage (Assoune, 2020). Similarly, if mistakes are made within garment production, wages will be deducted (True Cost, 2015). An Oxfam, 2019, report concluded that 0% of Bangladeshi garment workers earned a living wage. McCosker (2023) reported that factories in Bangladesh provide only two days off per month.

A study conducted by Global Slavery Index (2018) found that 40.3 million people were currently victims of 'modern-day slavery', of which 33% were within the fast fashion industry (Fush, 2018). Findings concluded that workers are subjected to exploitative conditions, poverty wages, forced and unpaid overtime, insecure income and health

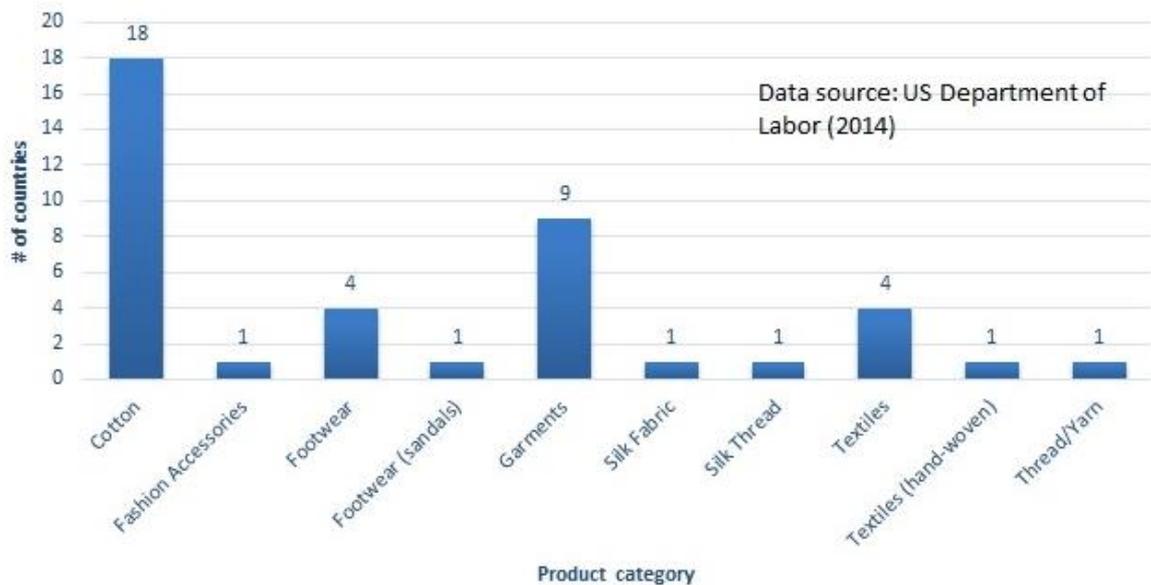
and safety risks (Global Slavery Index, 2018). Although, UK government are stricter with occupational regulations, imported garments, made in slavery conditions, are permitted to be purchased and sold within the country (Global Slavery Index, 2018).

Conversely, the fast fashion industry creates a vast amount of employment opportunities; more than 300 million people are employed (Assoune, 2021). In some instances, garment production can be interpreted as enhancing the country's economic prosperity.

### **1.8.2. Child Labour**

Child labour is deeply concerning in the fast fashion industry. Metz, (2016) reported approximately 10 million children, aged 4-14 years old, were employed in garment factories throughout Asia, Africa, and Latin America, working 80 hours a week (Metz, 2016). Child labour further minimises the cost of garment production (Igini, 2023). The US Department of Labour report, 2018, found evidence of forced child labour in garment production across several countries including Turkey, and Vietnam (USDOL, 2018).

Figure 7 highlights the number of countries that employ children to produce clothing garments (Lu, 2014). Although this data originates from a reliable source and uses a significantly sized data base, the findings are established from factories nine years prior to this research project. Therefore, the extent of child labour may not be as substantial in 2023, when compared to 2014 (Undo, 2014).



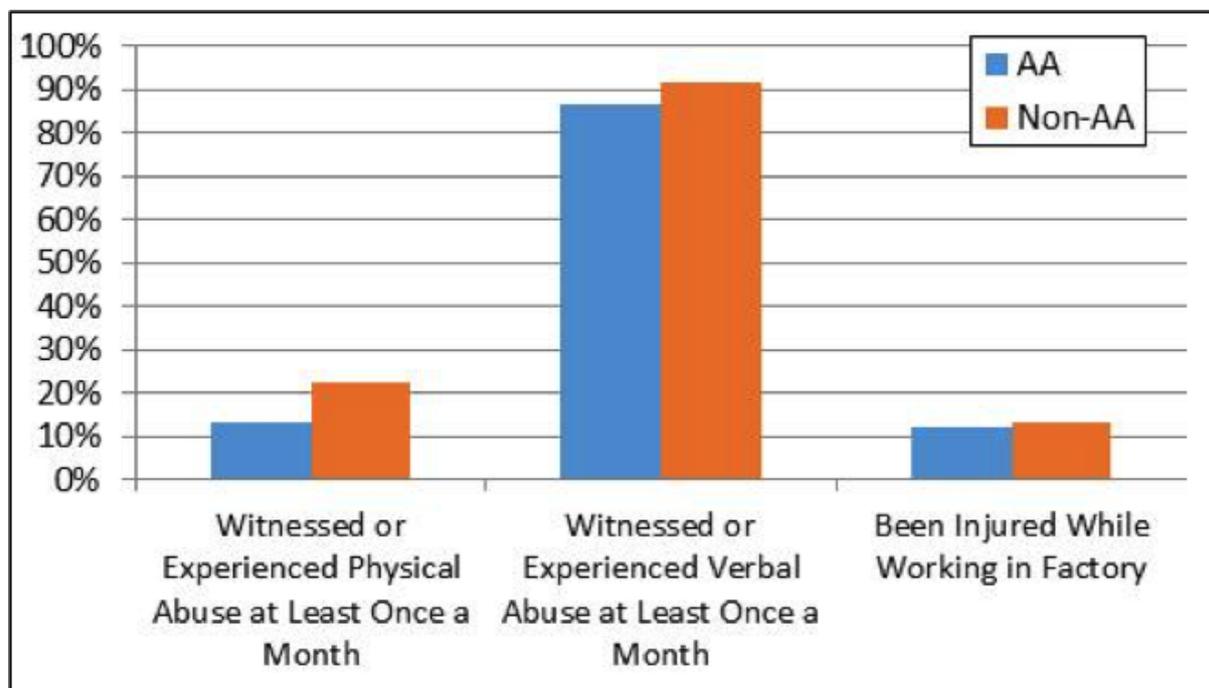
**Figure 7:** A graph showing the number of countries that were found to use child labour within the fast fashion and textiles industry. Data was collected by the US Department of labour in 2014. (Lu, 2014).

### 1.8.3. Rana Plaza

In April 2013 the Rana Plaza disaster occurred; an eight-storey, multi-complex garment factory collapsed in Bangladesh. This resulted in the death of 1134 people and injured over 3000 (True Cost, 2015). Rana Plaza was termed a mass-industrial homicide, illustrating the danger garment workers face as a result of cheap, mass-produced clothing (Chowdhury, 2017). Workers had previously reported structural cracks within the building but were ignored by higher authorities (True Cost, 2015).

Rana Plaza highlighted the sustained failure of the Bangladesh government to address safety in employment (Rahman and Rahman, 2020). In criticism, it took disasters to occur to catalyse legislation to prohibit illegal and unsafe conditions (Hobson, 2013; Ashwin *et al.*, 2018). Shortly after, two regulations were implemented:

the Accord on Building and Fire Safety in Bangladesh and the Alliance for Bangladesh Worker Safety, hereinafter referred to as the 'Accord and Alliance' (Rahman and Rahman, 2020). This was a breakthrough in global labour governance, with reports deeming the development of a safety-culture (Ashwin *et al.*, 2018; Rahman and Rahman, 2020). A study was conducted with 1500 Bangladeshi workers to assess Accord and Alliance legislation within the workplace, Fig.8. The graph shows that incidences of injury, physical and verbal abuse within the Bangladesh garment factories had decreased since the Rana Plaza tragedy, suggesting developed safety within the workplace. However, the study was conducted five years after the legislation was implemented and the improvement in the number of incidences was only fractional (Ashwin *et al.*, 2018). A further limitation to Ashwin *et al.*, (2018) study was that workers were fearful of reporting true accounts of unsafe working conditions, anxious the survey would not remain anonymous.



**Figure 8:** The graph demonstrates the results from a survey conducted with 1500 Bangladeshi garment workers. The orange bars represent incidences encountered prior to the Accord and Alliance legislation. The blue bars represent incidences post Accord and Alliance implementation (Ashwin *et al.*, 2018).

Safety procedures add expense to retailers, therefore, to ensure clothing remains at a low cost, factories are frequently forced to cut corners (Rahman and Rahman, 2020). As fast fashion brands did not increase garment prices, factories did not receive financial assistance but were still expected to implement costly improvements (Ashwin *et al.*, 2018).

Rana Plaza is not the only fast fashion disaster to occur, highlighting once more the human cost of fast fashion (Taplin, 2014).

#### **1.8.4. Chemical usage**

Farmers attending cotton crops face significant health hazards. Conventional cotton requires more chemical pesticides, 6%, than any alternative crop, and employs 16% of the total amount of insecticides despite cotton only covering 2.4% of cultivated land (EJF, 2020). Consumers contribute to this chemical toxicity by purchasing fast fashion garments. Farmers suffer severe health consequences due to exposure of elevated pesticide and insecticide quantities (True Cost, 2015; EJF, 2020). In 2017, 50 farmers died from suspected pesticide poisoning, whilst 1000 individuals were hospitalised (BBC, 2017). Exposure to high levels of pesticides can cause chronic ill health and birth defects (Blair *et al.*, 2015; Kim *et al.*, 2017; EJF, 2020). Punjab, India, uses the largest number of pesticides annually to produce conventional cotton for fast fashion

brands. This significantly impacts the health of communities in Punjab, evident by over 80 children in villages facing severe mental retardation and physical handicaps, as a result of pesticide poisoning (ECCHR, 2015; True Cost, 2015).

In addition to physical health hazards, farmers receive minimal profit, earning less than \$2 daily (PAN, 2019). PAN, (2019) reported that the expense of chemical costs has resulted in debt for numerous farmers leading to elevated suicide levels.

### **1.8.5. Independent Businesses**

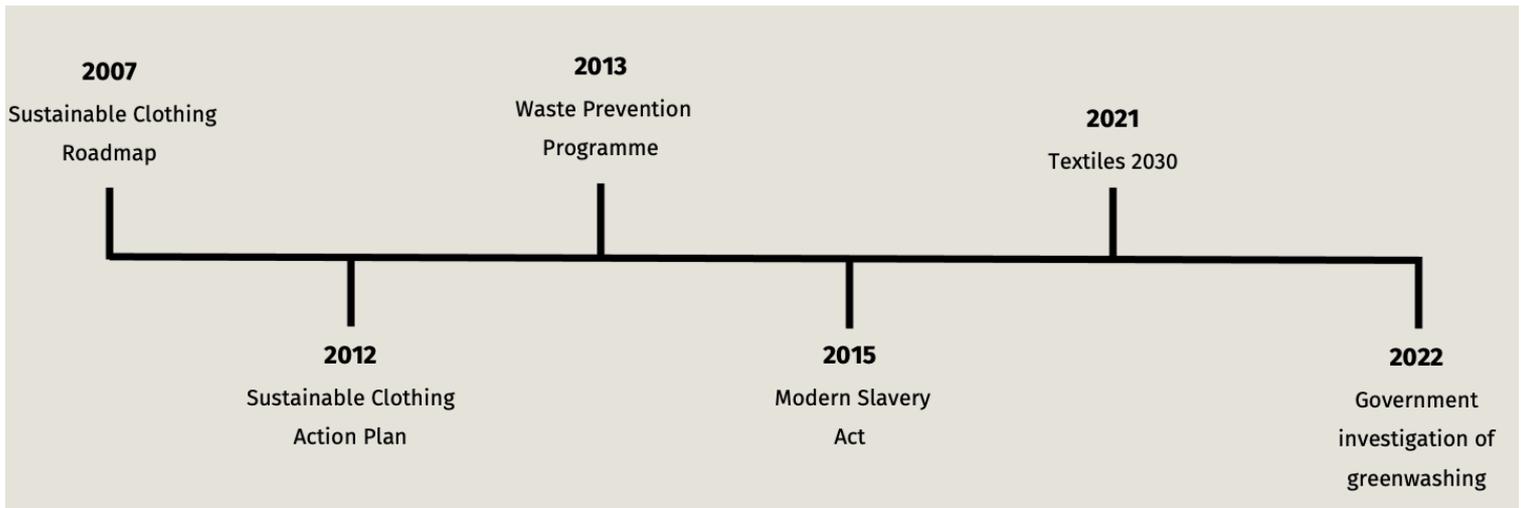
Independent businesses face challenges to protect their personal designs from fast fashion brands. Ideas are imitated and rapidly mass-produced at low costs (Shein machine, 2022). Shein is rumoured to have mimicked designs for a fraction of the cost (Shein machine, 2022; Hamilton, 2023). Often independent designers lack legal and financial resources to confront suppliers. The process of stealing ideas is unethical but could affect individuals' economic status (True Cost, 2015). The time and effort incorporated into producing a design is immense, therefore if a design is copied it would be demoralising.

## **1.9. Legislation surrounding Fast Fashion**

During an extensive literature analysis, a gap in knowledge was highlighted regarding fast fashion legislation (Lawbite, 2022). Government action could be positively exploited to create legal aspects to the fast fashion industry.

There are government led approaches, Fig.9, to initiate sustainable clothing alternatives; Sustainable clothing roadmap (DEFRA, 2017), Sustainable Clothing

Action Plan (Moore, 2021). Textile waste and landfill accumulation has been targeted via the Waste Prevention Programme, 2013 (Moore, 2021), and the Textile 2030 plan, focusing on decreasing waste and carbon dioxide emissions. The Modern Slavery Act, 2015 (Lawbite, 2015) prohibits worker exploitation.



**Figure 9:** A timeline showing government led approaches to initiate sustainable fashion alternatives as well as waste management. The modern slavery act was published to mitigate worker exploitation in industry (Source: Personal Collection).

### 1.10. Sustainable alternatives

On account of environmental consequences, it is crucial to explore sustainable alternatives to alleviate impacts. Sustainability is defined as fulfilling the needs of current generations without compromising the requirements of future generations (UN, 1987; Mukendi *et al.*, 2020). Alterations stress the requirement for an urgent transition away from cheaply, mass-produced, non-durable garments (Niinimäki *et al.*, 2020).

Sustainable alternatives involve purchasing from approved brands, such as Patagonia which supports workers in low-income areas and uses renewable energy (Hudson, 2021). Obtaining garments from ethical clothing lines and recyclable fabrics would be beneficial (Hudson, 2021). Consumer behaviour could be altered to a sustainable approach, purchasing only necessary items, of a higher cost, from a respectable brand and with a higher quality in order for the garment to have increased durability (Aakko and Koskennurmi, 2013;Niinimäki, 2015).

Purchasing garments from second-hand stores is another alternative. Vinted is a mobile platform employed to sell and buy clothing items. Vinted (2023) reported an analysis via Vaayu technology that concluded second-hand fashion avoids 1.8kg of carbon dioxide per item. Use of such platforms is beneficial to the environment as opposed to purchasing directly from fast fashion.

Sustainable alternatives are restricted by inequalities and affordability, limiting access and availability (Henninger *et al.*, 2016). Cost may prevent individuals from purchasing sustainably.

Defining criteria to confirm sustainable fashion is vital to avoid greenwashing from brands that imply a eco-friendly approach (Henninger *et al.*, 2016). Greenwashing refers to the deliberate wrongdoing and falsifying of information regarding sustainability of garment production (Netto *et al.*, 2020).

### **1.11. Covid-19**

Various studies conclude that the Covid-19 pandemic accelerated online fast fashion, increasing the carbon footprint. Considering the airmiles of deliveries and returns, online shopping has a greater environmental impact (Vatamanescu *et al.*, 2021).

The promotion of online shopping specifically accelerated ultra-fast fashion brands (Kleidery, 2022). Shein's net worth expanded from £5 billion prior to the pandemic in 2020 to £100 billion in 2022 (Samanta, 2023). Shein had a prolonged delivery process of around three weeks prior to 2020, however, Shein's orders can now, arrive next day (Shein machine, 2022).

Many hardships fell onto vulnerable members of the supply chain, the workers, as income became increasingly scarce (Fashion Revolution, 2021). Over 30 million garment workers lost their jobs as a result of the coronavirus pandemic; the beginning of an economic crisis (Bynum, 2021; Fashion Revolution, 2021). Due to store closures, clothing line productions were cancelled causing economic and environmental waste.

### **1.12. Cost-of-living crisis**

The cost-of-living crisis refers to the drastic fall in disposable incomes, declared a public emergency in January 2022 (ONS, 2021). The crisis has resulted in the inability of many individuals to access basic amenities such as heating, water, and food (LSE, 2023). A novel aspect of this research assessed whether the 2022 cost-of-living crisis, affected fast fashion shopping habits of individuals (Gov, 2022). In addition, the research project will assess whether the cost-of-living crisis has decreased consumerism and in so doing has positively impacted the environment.

This is an identified gap in current literature and this feeds into investigating usage across different socioeconomic backgrounds. The research will further previous literature, obtaining data investigating the impact of income, lifestyle, accessibility, and availability of alternatives on fast fashion consumption.

### **1.13. Social Media**

Social media has an extreme impact on the success of the fast fashion industry, encouraging consumerism (Bilińska-Reformat and Dewalska-Opitek, 2021; Rauturier, 2023).

Fast fashion brands collaborate with social media influencers, content creators and celebrities (Suutari, 2023). Multiple studies suggest that excessive consumption of fast fashion is attributed to social media influence (Buzzo and Abreu, 2018). The popularity of TikTok rose exponentially throughout the pandemic (Suutari, 2023). Evidence suggests that 'Shein hauls', individuals showcasing purchases from Shein, accelerated the growth of the brand. In January 2023, 8.1 million TikTok's had been produced using the hashtag '#shein haul' (Suutari, 2023). Micro-influencers that promote fast fashion usage are not paid, therefore are thought of as accountable and reliable (True Cost, 2015).

Algorithms and cookies promote fast fashion across social media platforms (True Cost, 2015). Evidence produced by Bain (2022) suggests algorithms successfully encourage individuals to purchase clothing garments (Suutari, 2023). Marketing techniques, rely on consumer awareness that there is a limited availability of each

garment (True Cost, 2015). This manipulates the buyer into rapidly purchasing items before they sell out.

Fast fashion brands advertise discounts and multi-buy bundles. Temu launched a novel campaign, incentivising consumers to refer users to app downloads, in return for credited items (Temu, 2023).

#### **1.14. Social Change**

The perception towards fast fashion is versatile. Certain individuals view fast fashion positively as it is accessible and affordable, encouraging creativity and personal expression (Siera, 2021). Affordability, suggested as being the predominant reason for fast fashion selection, accelerates the popularity.

Other individuals predominantly observe negative impacts, aware of effects (Niinimäki *et al.*, 2020). The controversy regarding fast fashion is developing as awareness increases and issues are vocalised, depicting the culture as socially unacceptable (Rauturier, 2023).

In addition, influencers and celebrities have begun to actively advocate against fast fashion, e.g., Emma Watson (McClymont, 2019). Emma Watson drives ethical and sustainable fashion, promoting the use of the 'Good On You' app (McClymont, 2019). The purpose of this app is to allow consumers to view sustainability ratings (McClymont, 2019). There is elevated promotion of Vinted across social media platforms. Gen Z are likely to be impacted greater by this attribute (Dolot, 2018).

Evidence suggests that as statistics, news articles and images expose realities, consumers are less likely to excessively purchase garments (Neumann *et al.*, 2020). The social change in the perception of fast fashion due to increased education and understanding, is an avenue that has been identified as a gap in current knowledge.

### **1.15. Gen Z**

Generation Z are individuals born between 1997 and 2012 (Seemiller and Grace, 2019). However, this age range is challenged by Prakash and Rai (2017) stating that Gen Z concerns individuals born between 1991 and 2017. The defining years of Gen Z are disputed; however, the research project predominantly focused on undergraduate students.

A significant proportion of existing literature denotes Gen Z individuals as highly targeted consumers due to their ubiquitous access to the internet and social media (Dolot, 2018). Individuals from this generation are constant social media users, therefore algorithms that promote fast fashion advertisements are more frequently viewed and likely to have a greater impact on this cohort (Bari, 2020;HVE, 2019).

### **1.16. Gen X**

Generation X is the cohort of individuals, preceding the millennials, born between 1965 and 1980 (Oxford, 2020). Gen X are likely to have an amplified disposable income in comparison to Gen Z, therefore potentially accessing sustainable alternatives with increased ease (Jacimovic, 2013). Gen X are often parents of Gen Z individuals. By

obtaining data from individuals, aged 43-58, the research project predicted the volume and perception of fast fashion across Gen X, comparing it to Gen Z data.

### **1.17. Identified Research Gaps**

An extensive literature search was conducted to highlight gaps in current knowledge. The effect of educating individuals on the impacts of fast fashion is an avenue which lacks research. Fulfilling this research gap, allows investigation of whether increased knowledge has the ability to alter social perception. The research project will also permit the evaluation of the underlying motivations that drive consumers to engage with fast fashion brands.

The impact of cost-of-living crisis on fast fashion has not been addressed previously. Thorough research is required to assess whether the cost-of-living crisis has impacted the alternate generations and to what extent this has positively impacted the environment. By addressing this research gap, the study will provide a novel aspect which can be employed in further projects.

With regard to legislation, there is no current, specific legislation addressing fast fashion or any restrictions on the import of garments. The potential role for government involvement will be evaluated, suggesting future avenues for research. For example, the development of structured criteria that a brand has to follow to be classified as sustainable.

Finally, a research gap was highlighted when considering the Covid-19 impacts on the garment industry. Although various studies suggest a higher prevalence of online shopping post-coronavirus pandemic, there is little evidence to demonstrate this

alteration in shopping habits. The research project aims to address this knowledge gap in order to determine to what extent the pandemic effected the industry, and in turn, the environment.

These identified knowledge gaps have formed the basis of this research project. The aims of the research dissertation are explained below, along with an introduction to the research questions which ultimately strive to fill the aforementioned research gaps in existing literature. Addressing these research gaps can provide valuable insights into consumer behaviour and ways to promote sustainable alternatives.

## **1.18. Aims and Objectives**

### **Aims**

To assess the awareness of fast fashion and the volume of its usage across Gen X and Gen Z, comparing the different perceptions of fast fashion and to see whether the cost-of-living crisis, or Covid-19 pandemic has any impact on this.

### **Objectives**

1. Determine understanding and perception of fast fashion in the target groups.
2. Compare and contrast the understanding and perception of fast fashion in Gen X and Gen Z.
3. Collect data, quantitatively and qualitatively, on the usage of fast fashion of Gen X and Gen Z.
4. Identify similarities and differences in usage of fast fashion between Gen X and Gen Z.

5. Gather qualitative data to identify the explanation for fast fashion usage and perception in Gen X and Gen Z.
6. Assess the data to determine any links between perception of fast fashion and knowledge of the subject.
7. Identify any impact on fast fashion habits from the Covid-19 pandemic and the 2022-23 cost-of-living crisis.

### **1.19. Research Questions**

1. What is the overall understanding and perception of fast fashion in Gen X and Gen Z?
2. Is there a difference in understanding and perception of fast fashion between Gen X and Gen Z?
3. What is the usage of fast fashion within Gen X and Gen Z?
4. Is there a difference in the usage of fast fashion within the two focus groups?
5. Is perception towards fast fashion changed due to increased education and knowledge?
6. Did the Covid-19 pandemic change fast fashion habits to predominantly online? What impact has this had on the environment?
7. Has the cost-of-living crisis impacted fast fashion habits and in turn the impact that fast fashion currently has on the environment?

## **Chapter 2: Methodology**

### **Method**

#### **2.1. Overview**

This chapter discusses the methodology applied in this research project. The selection of a mixed method approach is explained and justified, followed by a detailed discussion of ethical considerations, and limitations of method components are acknowledged.

#### **2.2. Target Audience**

The intended target audience for this research project comprised of two study groups; Gen X and Gen Z. The study's aim was to predict the current volume of interaction with fast fashion across both Gen X and Gen Z. The critical analysis of results compared individuals' perceptions of fast fashion, assessing if there were significant differences in viewpoints, environmental awareness, and usage between the generations.

Gen Z are individuals aged 10-25, born between 1997 and 2012 (Seemiller and Grace, 2019). This target audience was selected as Gen Z individuals are most likely to purchase from fast fashion retailers, amounting to 40% of global fast fashion consumers (Desfiandi, 2020; Fashion Revolution, 2021). Nine in ten students, surveyed as part of a recent study at Sheffield University, have purchased from fast

fashion brands, further justifying the target audience selection (Barker, 2022). Due to ethical considerations, this research project will only involve participants aged 18 and above, therefore drastically narrowing the Gen Z age range (Francis and Hoefel, 2018). It is acknowledged that this will decrease the reproducibility of the research as extrapolation of the collected data set will be required to make a generalisation about Gen Z awareness. However, this limitation is negligible, as children aged 10-15 are unlikely to purchase their own clothes and are unlikely to be wholly aware and educated of any environmental concerns, therefore minimising the value of their inclusion in this study.

Gen X is the cohort of individuals, preceding the millennials and succeeding the baby-boomer generation, born between 1965 and 1980 (Oxford, 2020). This generation was selected to use in comparison to Gen Z as the fast fashion industry is a recently new phenomenon, late 1990s, therefore Gen X individuals will have first-hand experience of the shift within the industry (Ritichie, 2002;Bhardwaj and Fairhurst, 2010). Additionally, whilst Gen X have personally witnessed this fast fashion alteration, they, as a generation, did not have access to the internet or social media during their upbringing (Oh, 2022). This introduced an avenue to explore any potential differences between Gen X and Gen Z regarding social media influences. By obtaining data from individuals from Gen Z, aged 18-25, and Gen X ,aged 43-58, the research study aimed to predict the volume and awareness of fast fashion, and through statistical analysis, critically evaluate if there is a significant difference between these perceptions.

### **2.3. Mixed Method Approach**

The research employed a mixed method approach combining both qualitative and quantitative methodology, collecting and analysing both types of data (Shorten and Smith, 2017). The application of a combination of methods is valuable, overcoming the disadvantages of selecting a singular method, for example survey data lacks context (Schuman and Presser, 1996) whilst interview data is collected in only a minimal sample, whilst enhancing the accuracy and depth of self-reported data collection (Pool *et al.*, 2010; Östlund *et al.*, 2011). Engagement with both qualitative and quantitative data allowed examination of different aspects of the research questions, broadening the data scope (Fetters and Molina-Azorin, 2017). Qualitative data was used as an explanation tool for the survey data produced, analysing why, in increasing detail, participants used fast fashion (Pool *et al.*, 2010).

The quantitative aspect of this methodology was the production and formulation of mass online surveys accessed and completed by individuals from the two study groups. Questions addressed previous and current fast fashion usage, access to sustainable alternatives and awareness of fast fashion. In addition, face-to-face interviews were conducted with 5 individuals from each generation in order to understand, in greater detail, their use and perception of fast fashion, examining their awareness of the associated environmental concerns.

This research project was taken with an iterative approach; the continual development of themes and adjustment of research questions throughout the data collection and analysis (Morgan and Nica, 2020). This enabled the research to develop further when new data and findings were encountered.

In summary, the mixed methods approach used in this study produced numerical data from surveys which was supported through the qualitative interviews further justifying any conclusions made. The results of both methods were separately interpreted and then combined to generate a holistic view on the generational differences of fast fashion usage and environmental awareness.

## **2.4. Sampling**

The research project involved collecting data from 200 participants during the survey process. Using the sample size calculator (SurveyMonkey, 2023), the recommended minimal sample size was calculated, with 95% confidence level and 5% margin of error, was 377 (Appendix 1). Ideally a 2.5% margin of error would result in enhanced reliability, however it requires a considerably larger sample size of 1428 (SurveyMonkey, 2023). However, due to the nature of this time-restricted research project, the sample size obtained was only 200 participants, 100 from Gen X and 100 from Gen Z, resulting in a 6.87% margin of error.

There are limitations regarding the sample size, as the data obtained may not accurately represent the entire population. The nature of a small sample size may prevent findings from being extrapolated and inferred to the rest of the population whilst also restricting the reliability of the data (Faber and Fonseca, 2014).

The type of sampling methods used within this research project are primarily convenience sampling and snowball sampling. Despite acknowledging that these sampling methods are prone to bias due to the target audience being notifiable in convenience, this is adequate for a time-restricted master's dissertation. Convenience

sampling involved using respondents that were known to the researcher or other participants (Sedgwick, 2013). The surveys were uploaded online and emailed to participants. The survey was also promoted via social media platforms, encouraging further respondents. The student demographic was heavily targeted purely due to the convenience; the easy access to a large number of individuals whilst studying at university. Snowball sampling was also utilised, whereby a participant forwards the survey onto their peers in a continuous cycle (Kirchherr and Charles, 2018). This was particularly exploited during the qualitative interview stage of the research project. In addition, there was an element of self-selection for the interview component as survey participants were asked to leave their email if they wanted to volunteer and participant in this stage. Volunteer bias is also acknowledged (Khazaal *et al.*, 2014).

Due to the type of sampling methods, it is likely that inferring the findings to a wider population will be difficult and the conclusions may not be representative of the population in its entirety. In addition, as the majority of the Gen Z population were students, the results obtained may not represent other people of the same age, especially when considering income differences. Convenience sampling, predominantly, limits the ability to draw upon statistically significant conclusions from the data collection (Vehovar *et al.*, 2016).

Furthermore, there could also be additional bias identified within the sampling group due to the nature of convenience sampling whereby both generational participants are likely to be of a similar socioeconomic background to the researcher.

## **2.5. Surveys**

The quantitative component of this research project involved obtaining data from 200 participants, 100 Gen X individuals and 100 Gen Z individuals. The survey questions addressed the themes illustrated by the research questions. A blank copy of the survey is available to view in Appendix 2.

The survey was formed with a mixture of question categories: scaled, multiple-choice and ranked questions. The scaled questions were based on the Likert scale, a five-point scale which allows the participant to express how much they relate to a particular statement (Mcleod, 2023). The responses are easily quantifiable and subjective to computer analysis, whilst also allowing the respondent to answer in a degree of agreement aiding the ease of survey completion (Mcleod, 2023). A single ranking question was used in order to investigate participants priority when purchasing clothes. However, this question type was difficult to analyse, and surrounding literature suggests that this question type is likely to confuse respondents (Cint, 2021).

Google Forms was the survey platform opted for, as surrounding literature depicts the platform as appropriate for participants to navigate easily (Hsu and Wang, 2017). Google Forms allowed the survey to be distributed effectively online whilst providing data in an accessible form to analyse and present graphically, further justifying my selection (Raju and Harinarayana, 2016).

Preliminarily, a pilot survey was conducted with 10 individuals to determine the correct wording of questions along with the most appropriate order (Roopa and Rani, 2012). During this pretesting process, two questions were highlighted as vague and were

altered appropriately in regard to the feedback acquired (Roopa and Rani, 2012). This ensured the questionnaire was accessible to the target audience.

The survey ended with an open question where the participant was invited to ask questions or add any additional information surrounding the topic and their thoughts. This aligned with subsequent studies whereby respondents were given the opportunity to reveal their personal perspective which can contribute to further analysis (Qualtrics, 2023).

Demographic questions were purposefully placed towards the end of the survey, as current research suggests this order aids higher completion rates (Stevenson, 2017). The purpose of demographic questions is to allow the understanding of background characteristics of the designated target audience and to ensure individuals fulfil the requirements in order to participate in the research project (Stevenson, 2017).

Additionally, if participants fail to complete the survey the valuable data required for research will still be obtained. To further justify this approach, Stevenson (2017) concluded that participants have increased engagement at the beginning of the study, therefore questions that require more thought should be asked when the respondent retains attention. It is also likely that the respondent will provide reliable demographic answers after survey completion, when they acknowledge that the survey is not intrusive or sensitive (Hopper, 2012).

## **2.6. Interviews**

To produce a qualitative aspect to the methodology, face-to-face interviews, with five individuals from both generations, were conducted. This data was collected in order to understand, in greater detail, individuals' engagement and perception of fast fashion, examining their awareness of the associated environmental concerns.

The interview participants were selected according to their age criteria, via convenience sampling, relying on my own personal Gen Z network and the Gen X participants were selected from my parents' acquaintances. The representative nature of the sample is questioned due to potential bias as aforementioned. Originally, 10 individual interviews from each focus group were considered, however after reaching a saturation point (Bryman *et al.*, 1990), where no extra information was arising, interviews ceased, therefore only 5 individuals were required from each generation.

The interview was in a semi-structured format, constructed around six main themes; usage of fast fashion, fast fashion awareness, sustainable alternatives, social media influences and the impact that the Covid-19 pandemic and the cost-of-living crisis has had upon the fast fashion industry and in turn the environment. Every theme had baseline questions, Appendix 3, from which the interviews were built upon, and from that each interview had a different structure depending on the nature of respondents.

Semi-structured interviews are a popular data collection method in qualitative research as they are open-ended and allow for flexible discussions (George, 2022). Whilst compared to unstructured and structured interviews, semi-structured interviews allow the researcher to enquire about participants answers whilst remaining in line with the predetermined topic (Mueller and Segal, 2015). Throughout the interview, orders of the topics changed, for example, social media was discussed by participant 5 early on

in the interview, which altered the schedule of the interview. Furthermore, wording of the questions were altered depending on the participants previous knowledge and awareness of fast fashion. Although, the employment of a semi-structured interview was justified for this research project, it would be an appropriate method for large samples or to conclude statistical representation.

The interview data remained confidential and pseudonym numbers were given to the participants to ensure anonymity. The quotations obtained from interviews highlighted attitudes and perceptions of fast fashion in greater detail, introducing depth and nuanced arguments to the research study, in support of the quantitative data. Therefore, the qualitative data obtained from the interviews was invaluable for this research project.

The interviews were conducted as a mixture of both in-person and online, due to convenience and availability of participants. The interviews were conducted across the month of July 2023 and the average duration of interview was 27.5 minutes. Online interviews were beneficial as it allowed for flexible scheduling (Keen *et al.*, 2022). An improvement to this method would be to consider using the same platform for all interview participants as surrounding literature suggests that conducting all interviews in the same manner would be beneficial when comparing responses to eliminate the potential risk of participants acting differently online to how they would in-person (Krouwel *et al.*, 2019). Communication difficulties can arise during online interviews, which could compromise their effectiveness. However, a recent study by Gray *et al.*, (2020) suggests that conducting online interviews instead of in-person interviews

should not negatively affect participants willingness or the content of their responses (Gray *et al.*, 2020).

Both the face-to-face and online interviews were recorded using the Otter.ai voice recording and transcribing software which increased the efficiency of the transcribing process. A limitation to using this software is that the researcher is initially less familiar with the dataset (Keen *et al.*, 2022), however by directly viewing and editing the transcript immediately after the interview ceased, this limitation was mitigated. The familiarisation of the data aligns with step one of Braun and Clarke's (2006) thematic analysis method. Wengraf (2001) also suggested that immediate transcription is superior to delaying the reviewal of the recording. An example of a transcript can be viewed in Appendix 4 (Gen X) and Appendix 5 (Gen Z).

Each interview began with five data consent questions followed by a projection completion technique where participants were asked five brief questions along with the task to finish five incomplete sentences with their first initial thought, see Appendix 6 (Donoghue, 2000). This technique was used to uncover a general opinion surrounding fast fashion and a level of knowledge and awareness possessed by each participant. It allowed the researcher to form an overview of each participants' generic opinion before focusing on individual research questions.

## **2.7. Using a Film within the interviews**

As part of the qualitative method, photo-interviewing was utilised. The video clip was taken from the Shein documentary 'True Cost' and it demonstrates the reality behind fast fashion, highlighting the consequences the industry has on the environment and

human livelihoods (True Cost, 2015). The clip, approximately two minutes in length, includes emotive language and imagery and the transcript can be viewed in Appendix 7.

The deliberate selection to display the video half-way through the interview was encouraged by scientific research, suggesting that videos encourage participant discussion and regain concentration (Tinkler, 2013). As the interview was approximately 27 minutes long, a video break around the 15-minute mark allowed participants to re-focus and provoked new thoughts. Research suggests that visuals are processed more rapidly than words therefore, participants often express stronger feelings towards imagery, triggering more thoughtful reactions (Tinkler, 2013). According to surrounding research, using a film within interviews facilitates dialogue encouraging further discussion and reflection (Harper, 2002; Pink, 2007).

The film also directly links to research question 5, 'Is perception towards fast fashion changed due to increased education and knowledge?' as individuals' responses were analysed prior to the film clip and afterwards. The interview transcripts were analysed to identify if the individuals changed their perception after the two-minute clip. This is further discussed in the findings chapter, considering the effect of education on fast fashion awareness and in turn, usage. The quotations attained during the interviews added depth and creativity to the research, especially once the film had been viewed.

## **2.8. Statistical analysis**

Survey data was analysed using Excel and SPSS platforms. Graphs and frequency charts were constructed and are presented in the research findings. The data was

examined to generate descriptive statistics, averages, and standard deviations, to evaluate the usage and awareness of fast fashion.

Statistical analysis was performed, where data appeared different, in the form of a Wilcoxon Signed-rank test, in order to investigate any significant differences between observed results for each generation. Spearman's rank calculations and Chi-squared tests were attempted but were deemed inappropriate for the data type, as it was non-parametric and not ordinal (Greenwood and Nikulin, 1996; Sedgwick, 2014).

The data was checked for reliability through the conduction of a Cronbach's alpha test, measuring the internal consistency and reliability of the survey data (Frost, 2023).

## **2.9. Interview analysis**

Following the participants' interview, transcripts were generated for interpretation and analysis. Raw qualitative data was analysed following Braun and Clarke's (2006) approach to thematic analysis. Thematic analysis is an increasingly common method for analysing qualitative data which encompasses highlighting patterns and themes within interview transcripts (Mihás, 2023). Similarities and differences were detected between participants, taking into consideration any potential repeated themes and ideas (Braun and Clarke, 2014). Data was categorised into themes within the transcripts which aligned with the original seven research questions. Separate documents were used to gather quotes regarding each of the research questions. The quotes obtained from each individual identified both resemblances and variances between the generations. The qualitative results are used in support of the findings from the data obtained from the quantitative survey data. The analysis is presented in the results chapter.

## **2.10. Ethical Considerations**

Ethical considerations are essential in both qualitative and quantitative techniques (Creswell, 2007). The research project follows the code of practice for research adopted within the University of Birmingham's guidelines. The ethics form produced prior to research commencing was complied with throughout the project.

For both the survey component and interview component participants were informed about the study purpose and their role within the research. Confidentiality and anonymity were guaranteed for each participant; therefore, no participant names are included in this research dissertation. The insurance of anonymity reduced social pressures and encouraged truthful answers within the survey component. Subsequently, advice on withdrawal from the study was provided and contact details specified in case of future queries regarding both their participation and research findings.

Before the interview preceded each respondent was provided with a participant information sheet (Appendix 8) explaining the terms of the interview and objective of the study. Each participant was required to sign a consent form, see Appendix 9, which made them aware of the confidentiality of the data. In addition, individuals were also made aware of the recording conditions. Alongside the written consent, initial consent

questions were asked when each interview commenced. Individuals were notified that direct quotations could be used in the research dissertation, although confidentiality would remain.

Both the survey data and the interview data were kept secure on a USB stick and will be disposed of after the research project has ceased.

## **Chapter 3: Results**

### **Results**

#### **3.1. Overview**

This chapter reports on the key findings obtained from the data collection methods. This section is split into categorised themes, identified from the qualitative interviews analysis, which correspond to the research questions. Survey results are presented in graphical figures and tables, showing the population entirety, before dividing the data into the two focus groups: Gen X and Gen Z. Any observed differences are addressed, and statistical analysis was performed where appropriate, evaluating their statistical significance. Quotes from the interview transcripts were employed to provide nuance and in-depth responses and explanation for the obtained survey results. Table 2 shows the participant number and correlating generation.

**Table 2:** Table showing the participant number and their denoted generation. To align with data anonymity and confidentiality a participant number was given to each interviewee.

<b>Participant Number</b>	<b>Denoted Generation</b>
Participant 1	Gen Z
Participant 2	Gen Z
Participant 3	Gen Z
Participant 4	Gen Z
Participant 5	Gen Z
Participant 6	Gen X
Participant 7	Gen X
Participant 8	Gen X
Participant 9	Gen X
Participant 10	Gen X

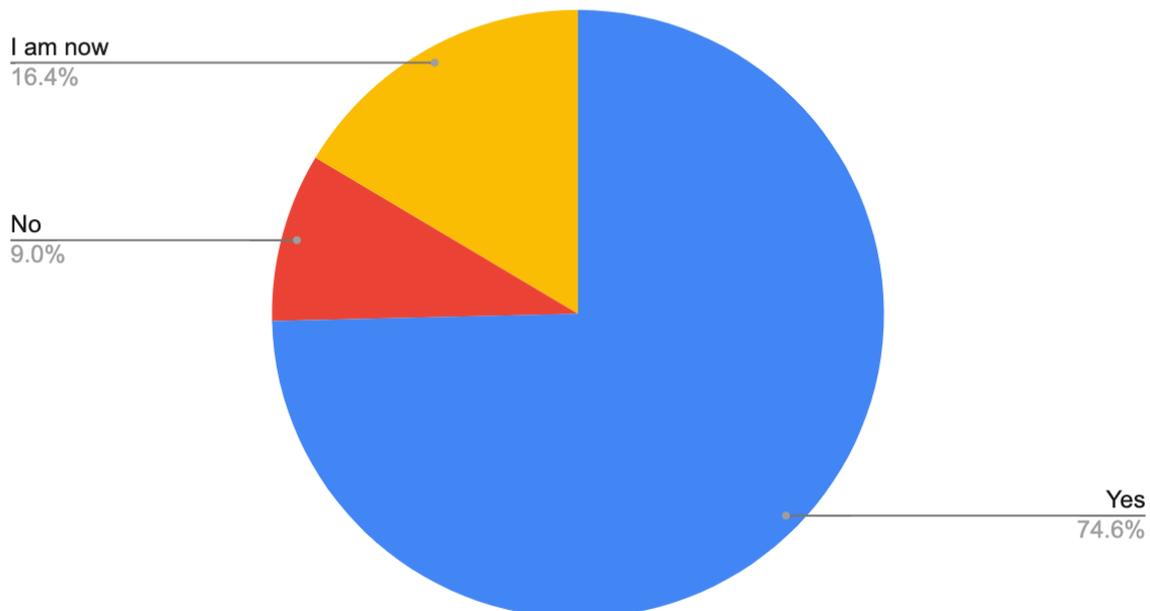
To firstly check the reliability and consistency of the data, a Cronbach's Alpha Test was completed using the statistical software package, Excel, confirming the coefficient as 0.7 (1dp). Refer to Appendix 10 for the calculation. The internal consistency of the survey items is acceptable, implying that there is a significant agreement between questions, therefore the data is reliable (Frost, 2021).

### **3.2. Awareness of Fast Fashion**

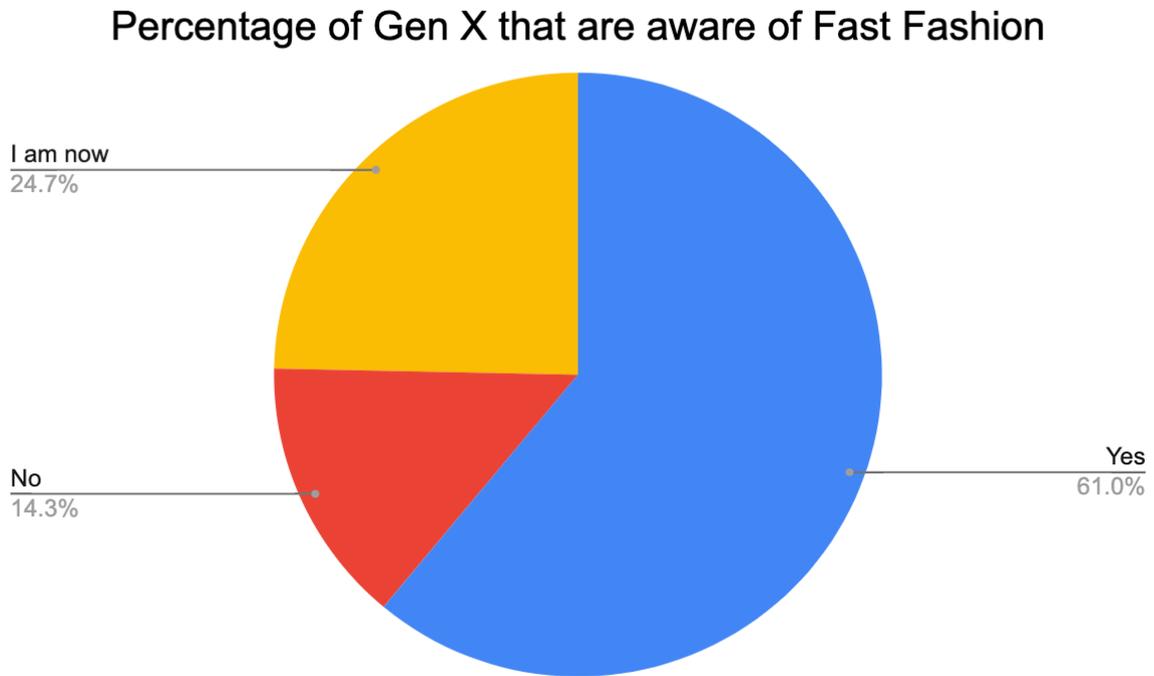
In general, fast fashion awareness is more apparent in Gen Z, with obtained data concluding participants of this focus group had increased education regarding the industry and its consequences. Figure 10 demonstrates the survey results (Yes = 150, No = 17, I am now = 33) when participants were questioned whether they were aware of the term fast fashion. Results were then divided into the two focus groups, Gen X and Gen Z (Fig.11 and Fig.12 respectively). To compare, 83% of Gen Z were aware of the term, whereas only 61% of Gen X were aware.

When tasked with defining the term, fast fashion, participants frequently used ‘cheap’, ‘rapid production’, ‘excessive waste’, ‘trendy’, ‘disposable garments’, ‘constant stream of new clothes’. Participant 4 explained further, using the example of Barbie ‘short-term trends...brands are releasing Barbie clothes...which will only remain popular for a matter of weeks before the next trend is initiated’.

Percentage of Gen X and Gen Z that are aware of Fast Fashion

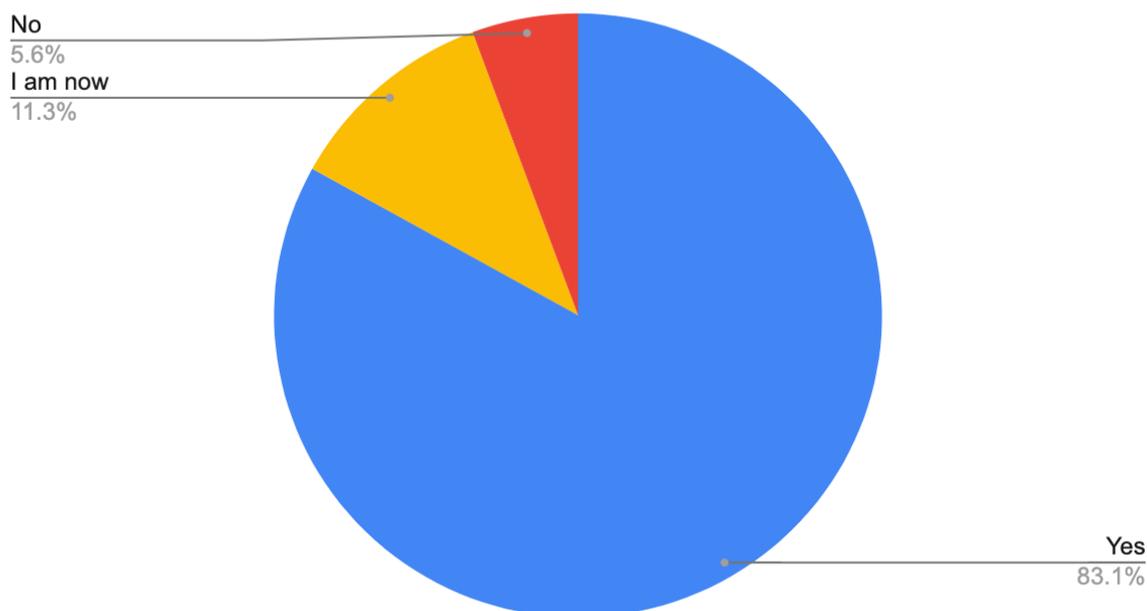


**Figure 10:** Pie chart showing the results of Question 1 from the survey “Are you aware of the term fast fashion?” for the entire survey population (Gen X and Gen Z combined).



**Figure 11:** Pie chart showing Gen X participants’ (aged 43-58) results from Question 1 of the survey, “Are you aware of the term fast fashion?”.

## Percentage of Gen Z that are aware of Fast Fashion



**Figure 12:** Pie chart showing Gen Z participants' (aged 18-25) results from Question 1 of the survey, "Are you aware of the term fast fashion?".

The descriptive statistic 'mode' was calculated for the data collected. The most frequent fast fashion brand identified was Shein, followed by Primark and PLT. Table 3 reports the frequency of selection; brands that were identified less than 5 times were discarded. Online-dominant brands: Shein, PLT, Asos and Boohoo, were more frequently named than the majority of high-street shops e.g., Zara, Next and Urban Outfitters. In support of this, interview participants were surprised when learning that the named high-street shops were still classified as fast fashion. Participant 7 stated '*I expected these well-established brands to be better for the environment as they are more expensive*'. Participant 8 added '*I am shocked, I saw Next as a premium brand*'.

In contrast, Participant 5 was less surprised *'Next, Urban are the same there is constantly an influx of new clothes'*, further highlighting that Gen Z individuals have increased understanding of the industry.

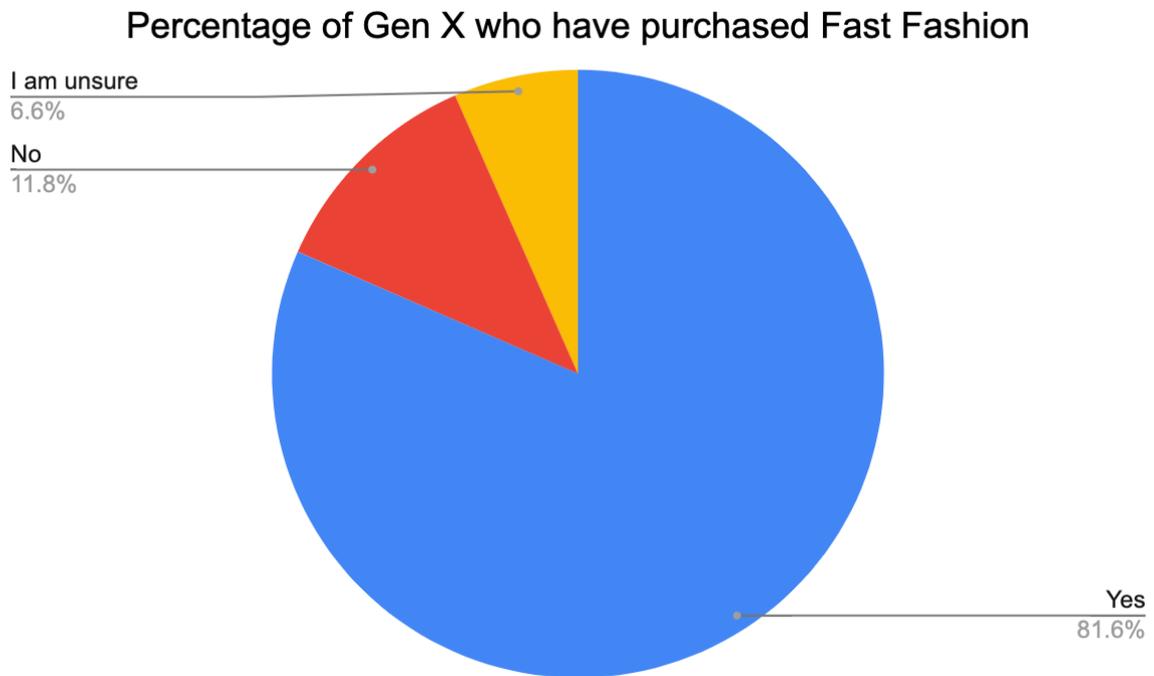
**Table 3:** Fast Fashion brands that were named by participants and the frequency of selection.

<u>Fast Fashion Brand</u>	<u>Frequency of Selection Gen X</u>	<u>Frequency of Selection Gen Z</u>	<u>Total Frequency of Selection</u>
Shein	42	70	112
Primark	42	47	89
PLT (Pretty Little Thing)	38	48	86
H&M	41	37	78
ASOS	46	30	76
Boohoo	45	28	73
Zara	13	10	23
Topshop	5	9	14
Next	10	4	14
New Look	7	6	13
Adidas/Nike	5	8	13
Urban Outfitters	5	2	7

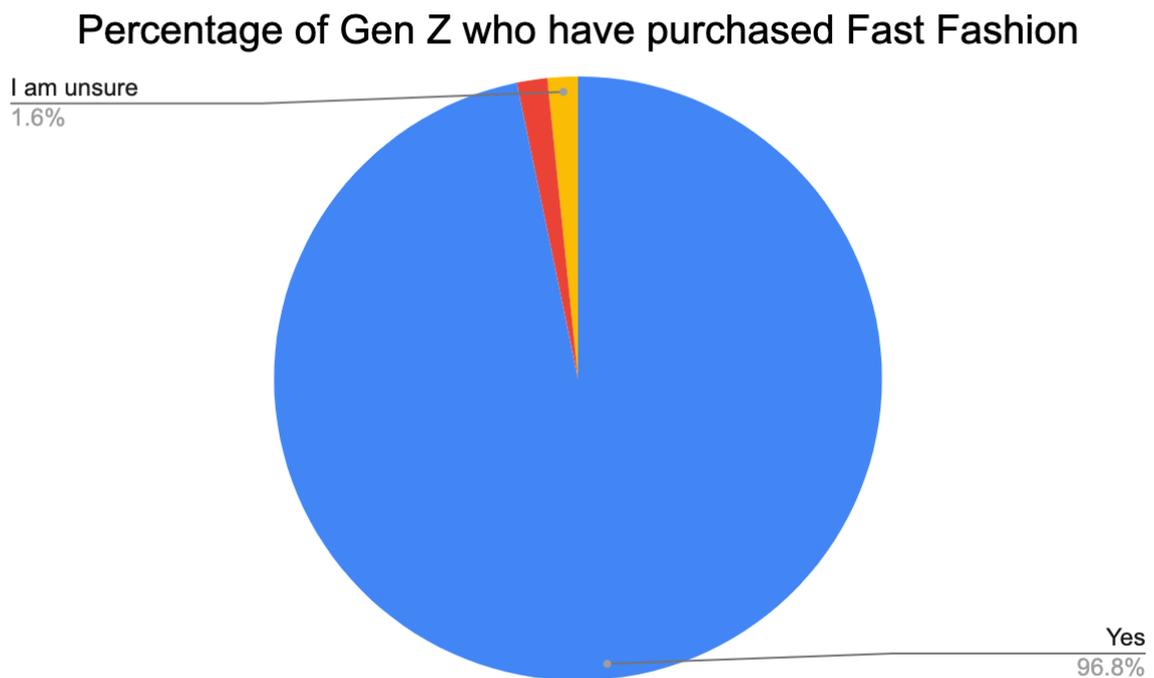
### 3.3. Usage of Fast Fashion

Analysis of the interview transcripts concluded that individuals from Gen Z use fast fashion in greater quantities than those in Gen X. Participant 2 specified *'the majority of my clothing is fast fashion brands'*. Whereas Participant 7 claimed *'I would never knowingly purchase from a fast fashion brand'*, further supporting this finding. However, Participant 7 added *'although you have now highlighted that my brand preference surprisingly comes under the fast fashion umbrella'*. This suggests that Gen X participants are unaware of specific brands, therefore evidencing their lack of understanding towards their contribution to this industry.

Survey results conclude 96.8% of Gen Z confirming purchase from a fast fashion brand (Fig.14), compared with 81.6% of Gen X individuals (Fig.13).

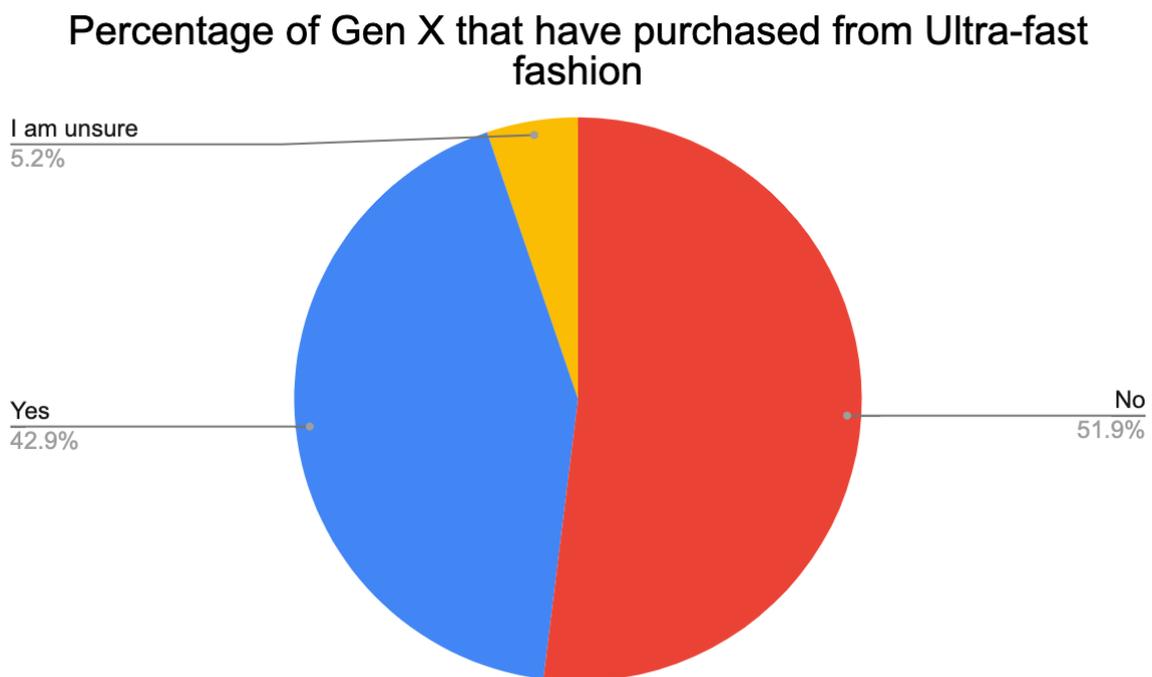


**Figure 13:** A chart to show the percentage of Gen X individuals who have purchased fast fashion, either online or in-person.



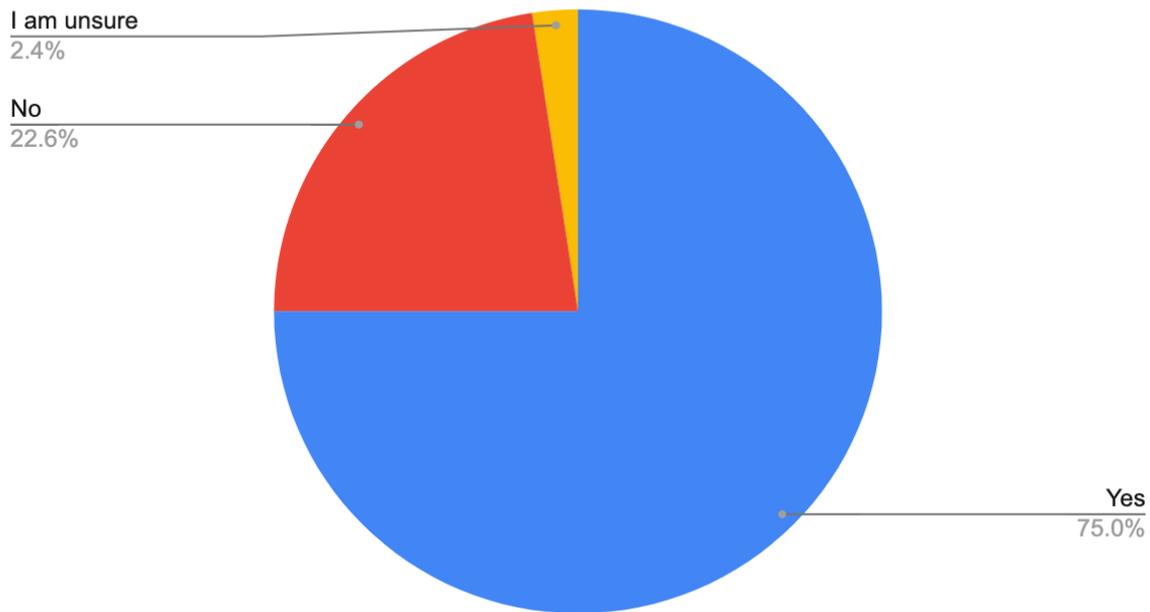
**Figure 14:** A chart to show the percentage of Gen Z individuals who have purchased fast fashion, either online or in-person.

The observed difference between the two focus groups, is considerably more (29.3%) when questioned about previous purchases from ultra-fast fashion brands (Fig.15, Fig.16). This percentage difference further supports the conclusion regarding fast fashion usage; Gen Z individuals have a higher usage of fast fashion when compared to Gen X. Moreover, Participant 2 added *'I purchased many garments from Shein and continue to use the plastic packaging, which I know is considerably bad for the environment, when I travel'*. Participant 1 stated *'I am encouraged to purchase off Shein, due to the multi-buy bundles and frequent discounts'*.



**Figure 15:** A chart showing the percentage of Gen X individuals that have previously purchased from Ultra-fast fashion brands (e.g., Shein, PLT, Boohoo).

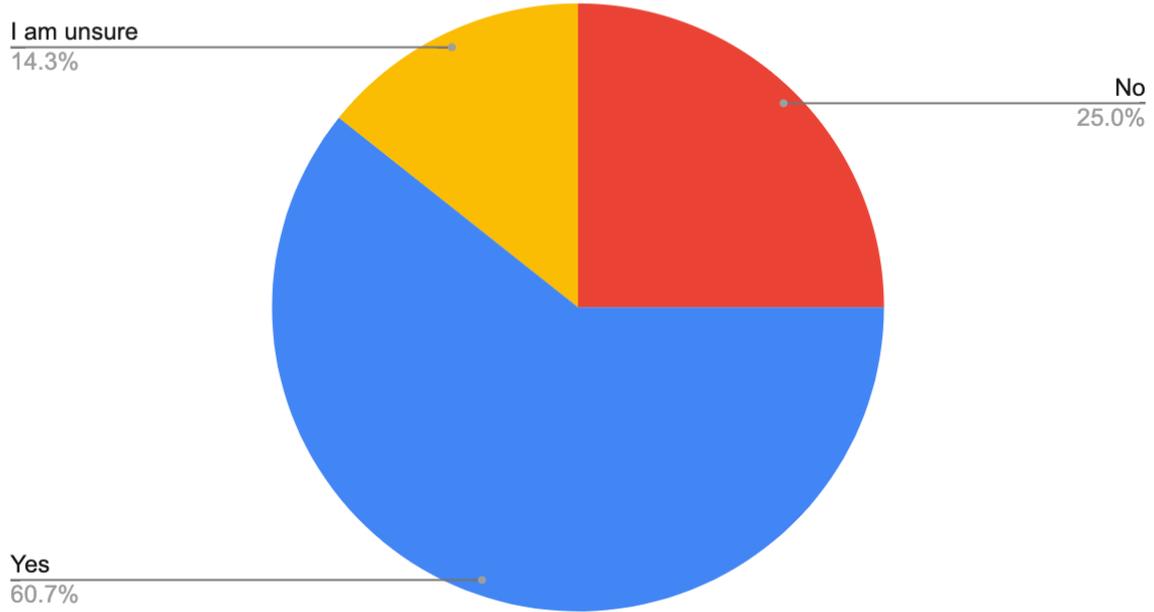
## Percentage of Gen Z who have purchased Ultra-Fast Fashion



**Figure 16:** A chart showing the percentage of Gen Z individuals that have previously purchased from Ultra-fast fashion brands (e.g., Shein, PLT, Boohoo).

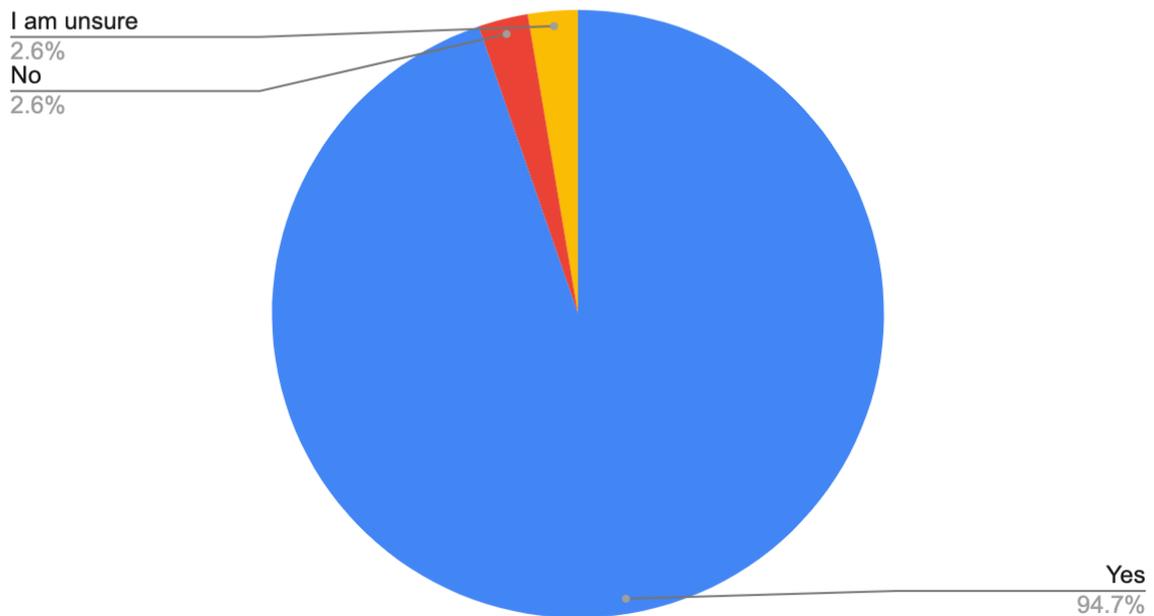
Upon dividing the focus groups further into gender, there was little difference, 4%, between Gen X and Gen Z females. However, there was a difference of 34% between Gen X (Fig.17) and Gen Z (Fig.18) males who have previously purchased fast fashion. Participant 3 added *'females are bigger contributors to the industry as they are more fashion-oriented, whereas males are more brand-orientated therefore will purchase higher-quality, more-expensive garments than females'*.

### Percentage of Gen X Male who have purchased Fast Fashion



**Figure 17:** A chart showing the percentage of Gen X male participants that have previously purchased from the fast fashion industry.

### Percentage of Gen Z Male who have purchased Fast Fashion

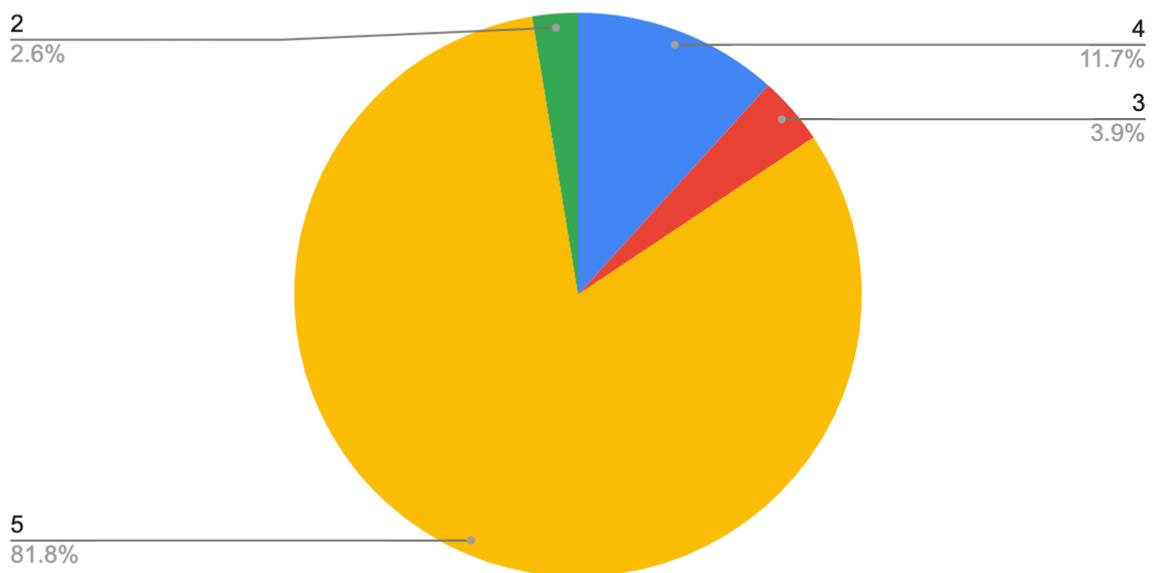


**Figure 18:** A chart showing the percentage of Gen Z male participants that have previously purchased from the fast fashion industry.

In addition, the interview transcript analysis highlighted that Gen Z participants were more likely to be contributors to the 'throwaway culture' in comparison to Gen X participants. Participant 1 *'I purchase new clothes purely for Instagram pictures'*, therefore demonstrating their desire for frequent new outfits. Participant 6 quoted *'my daughter is obsessed with not re-wearing outfits, I think it's a generational thing'*.

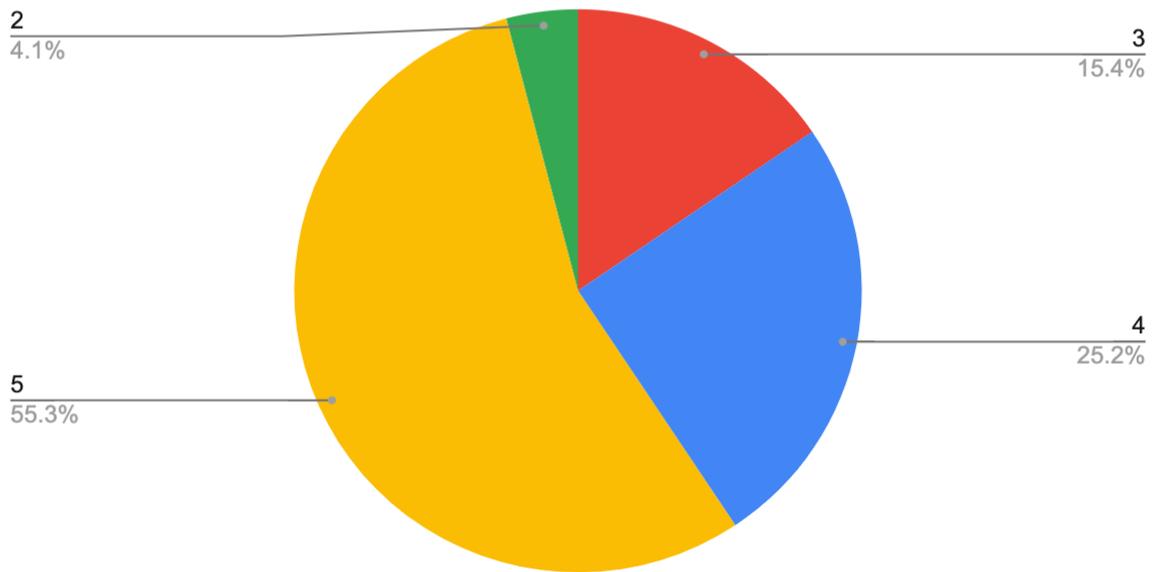
The survey results also evident this finding, with approximately 25 more participants from Gen X (Fig.19), compared to Gen Z (Fig.20), stated that they always wear a clothing garment more than 3 times.

Count of how often Gen X participants wear an item of clothing more than 3 times.



**Figure 19:** A chart demonstrating the count of, on Likert scale of 1-5, how often Gen X participants wear an item of clothing more than 3 times. 1 – Never, 5 – Always.

Count of how often Gen Z participants wear an item of clothing more than 3 times.



**Figure 20:** A chart demonstrating the count of, on Likert scale of 1-5, how often Gen Z participants wear an item of clothing more than 3 times. 1 – Never, 5 – Always.

A component of the survey inquired what a participant did with a garment after completion of use. Frequency Table 4, indicates the results, concluding charity as the most dominant response.

**Table 4:** A frequency table illustrating what a participant chooses to do with a clothing garment after completion of its use.

<u>What do you do when finished with a clothing garment?</u>	<u>Frequency of Responses</u>
Charity	89
Give to Family/Friends	31
Vinted	28

Sell online (excluding vinted)	24
Keep it (wardrobe, use in house, pjs, hoarding)	21
Throw away	21
Recycle	9

### 3.4. Awareness of the Environmental Consequences

Herein, the data collected identifies the participants awareness of the environmental consequences of the fast fashion industry. In summary, Gen Z individuals had increased awareness of the environmental impact in comparison to participants from Gen X. Figure 21 shows the results from question 8 of the survey (See Appendix 2), concluding that the majority (80) of participants rated the environmental impact as '4'. Figure 22 splits the respondents into the two focus groups, comparing the difference in ratings. Whilst only two members of the Gen Z population regarded the impact as below '3', there were twelve Gen X individuals that did not deem fast fashion as affecting the environment. Hence, suggesting that Gen X are not as aware of the environmental concerns as the Gen Z population.

In support of this finding, Participant 3 *'fast fashion affects almost every environmental area e.g., water usage, landfill, CO<sub>2</sub> emissions and water pollution'*. In comparison to a quote from Participant 9 *'I am not aware of any environmental consequences other than the wastage'*. Participant 1 stated *'the global carbon footprint of the industry is 10% and will only increase with airmiles as online shopping increases in*

*popularity....the industry is depleting non-renewable resources'*, therefore highlighting awareness.

The arithmetic mean and standard deviations were calculated using the SPSS platform, Table 5. The standard deviation values are below 1 for both focus groups, therefore the data values are highly clustered around the mean. The mean rating, to 1sf, is equivalent for each generation, illustrating instead that both generations had equal awareness of the environmental consequences of the industry.

**Table 5:** A table of values calculated for the impact rating of fast fashion on the environment. Mean average and standard deviations are shown.

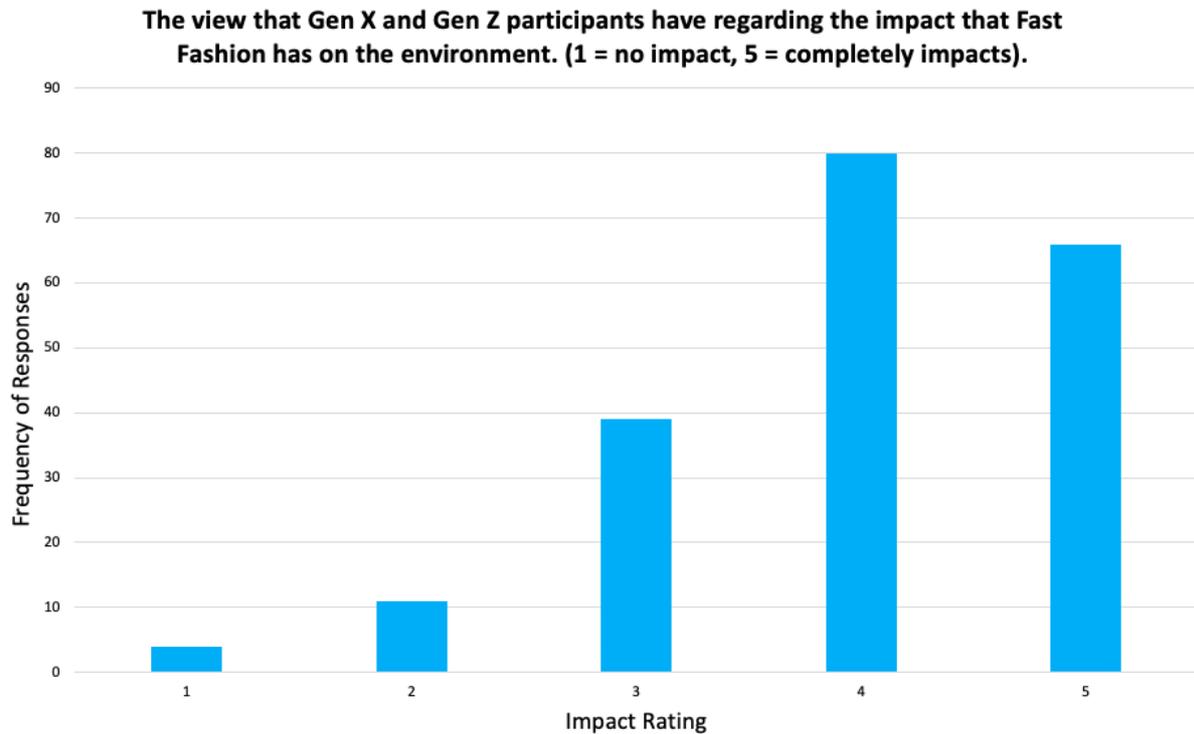
<b>Generation</b>	<b>Arithmetic Mean</b>	<b>Standard Deviation</b>
<b>Gen X</b>	3.89	0.97
<b>Gen Z</b>	4.14	0.82

Furthermore, when specifically asked the question 'Do you think Gen X or Gen Z is more aware of the environmental consequences?' participants from both generations stated Gen Z were more aware.

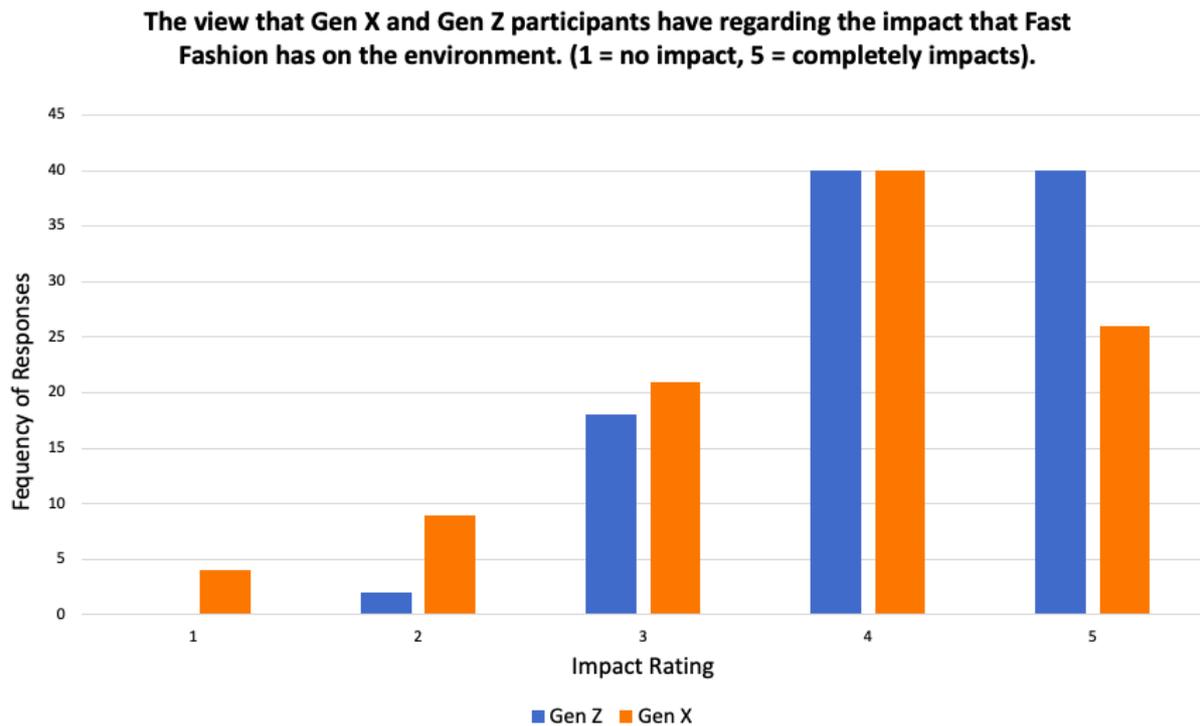
Participant 7 '*Gen Z because they are more environmentally conscious in every aspect*'. Participant 8 '*Gen Z are more conscious, however purchase more frequently....therefore a moral compass conflict*'.

Participant 2 *'I think our generation, we engage with it more and act accordingly'*.

Participant 1 specified *'I think Gen Z are more aware, even though I do use fast fashion currently because alternatives are not economically feasible whilst I am a student'*.



**Figure 21:** A graph depicting the results taken from Question 8 in the survey 'On a scale of 1-5 what impact, do you think, fast fashion has on the environment?'. 1 – No impact, 5 – Completely impacts.



**Figure 22:** A graph depicting the results taken from Question 8 in the survey ‘On a scale of 1-5 what impact, do you think, fast fashion has on the environment?’. 1 – No impact, 5 – Completely impacts. Blue columns depict responses from the Gen Z population. Orange columns represent the responses from the Gen X population.

However, results from question 9 dispute this finding, as 44.2% of Gen X participants (Fig.23) correctly identified the global carbon footprint of the fast fashion industry, 10%, in comparison to just 41.9% of Gen Z individuals (Fig.24). Although this proposes that Gen X individuals are more educated, the percentage difference is negligible and therefore, not significant.

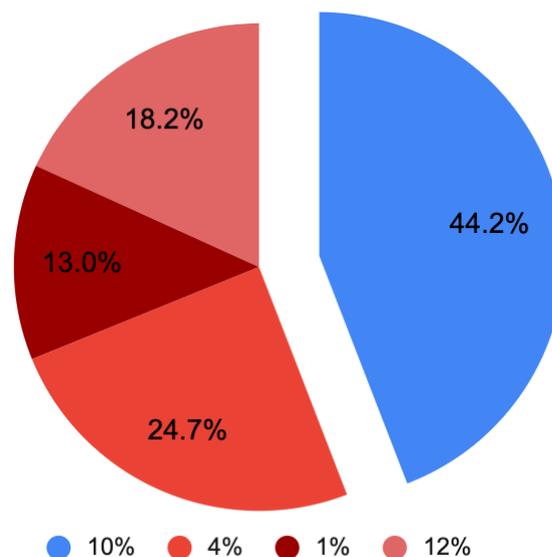
A Wilcoxon signed-rank test was conducted using the Excel platform to confirm whether the observed difference in the data sets was statistically significant. The null hypothesis and alternative hypothesis are stated below.

H<sub>0</sub>: There is no significant difference between the two groups, Gen X and Gen Z.

H<sub>A</sub>: There is a significant difference between the two groups, Gen X and Gen Z.

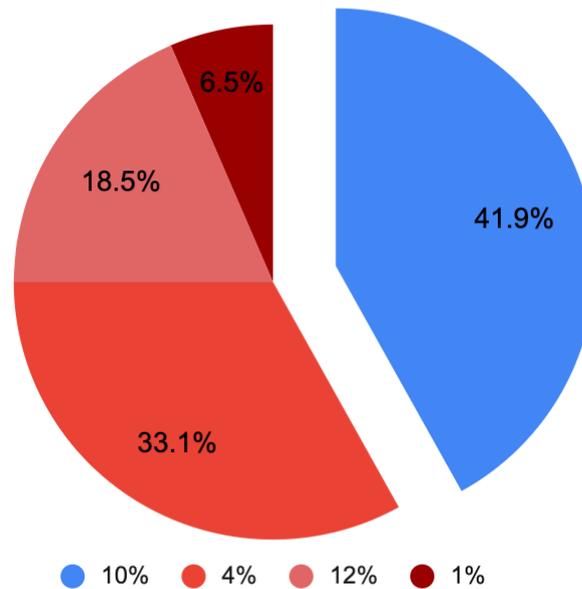
The test statistic (z-score) was calculated as 413 and the sample size is 47. The critical value corresponding to  $\alpha=0.05$  is 413. Since the test statistic is greater than the critical value, we accept the null hypothesis, therefore rejecting the alternative hypothesis. This concludes that the observed difference between the generation's awareness is not statistically significant.

Percentage of Gen X that correctly identified the carbon impact of Fast Fashion



**Figure 23:** A graph demonstrating the percentage of individuals from Gen X that correctly identified the global carbon footprint of fast fashion (Blue – 10%).

## Percentage of Gen Z that correctly identified the carbon impact of Fast Fashion



**Figure 24:** A graph demonstrating the percentage of individuals from Gen X that correctly identified the global carbon footprint of fast fashion (Blue – 10%).

### 3.5. Consequences of Fast Fashion on Human Life

Analysis of interview transcripts found that participants generally had increased awareness of the impact of fast fashion on human lives, compared to the environmental consequences. Participant 9 stressed that *'I feel I am more aware of the impact on garment workers than the environmental affects...because I have sympathy for the workers'*. Participant 1 *'they are human beings just like us, I know more about the human impact...guilty-conscious is triggered more'*.

However, survey results indicate the opposite, as only 97 individuals rated the impact of fast fashion on human livelihoods as '4' and '5' (Fig.25), whereas 145 individuals rated the environmental impact of fast fashion as '4' and '5' (Fig.21). The responses were then divided into the two focus groups (Fig.26), using the Excel filter component,

which highlighted that Gen Z had increased awareness. This supports the conclusion that Gen Z are more aware of fast fashion consequences, overall, compared to Gen X individuals. To further support this finding, Participant 5 stated '*triggers the phrase modern-day slavery*' when discussing the working conditions, therefore is aware of the human cost.

Excel statistical analysis demonstrates the arithmetic mean and standard deviations Table 6. The standard deviation values are above 1 for both focus groups, therefore there is variance in the dataset. The mean rating is equivalent for both generations, suggesting there is equal awareness between the two focus groups.

**Table 6:** A table of values calculated for the awareness of fast fashion on human livelihoods. Mean average and standard deviations are shown.

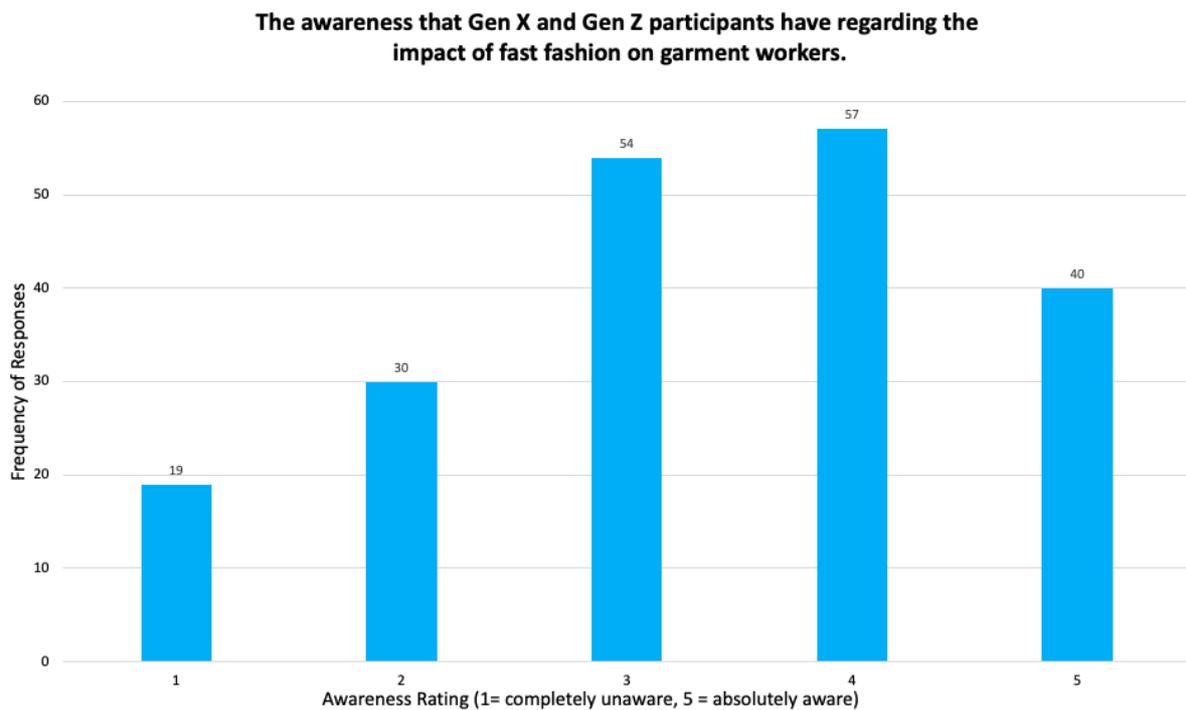
<b>Generations</b>	<b>Arithmetic mean</b>	<b>Standard deviation</b>
<b>Gen X</b>	3.26	1.12
<b>Gen Z</b>	3.35	1.32

A second Wilcoxon signed-rank test was conducted on Excel, to confirm the significance of the observed difference. The null hypothesis and alternative hypothesis are stated below.

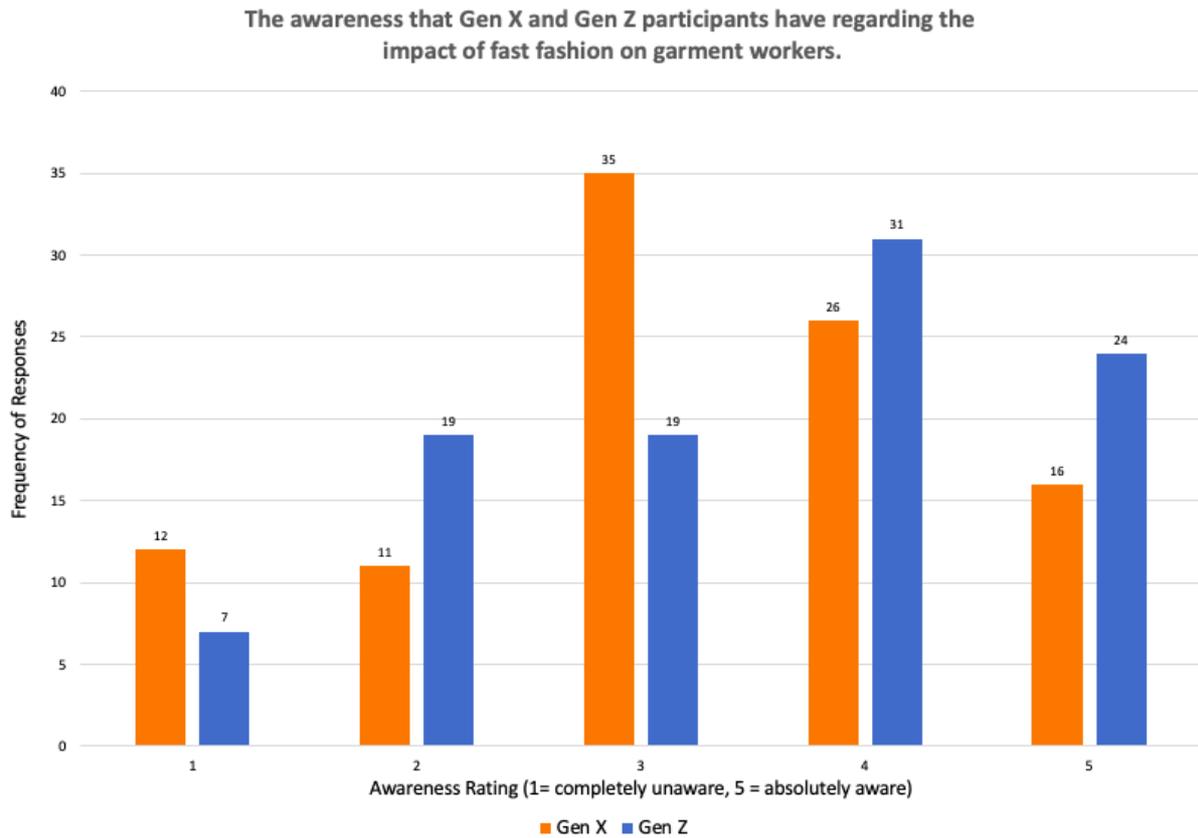
H<sub>0</sub>: There is no significant difference between the two groups, Gen X and Gen Z.

H<sub>A</sub>: There is a significant difference between the two groups, Gen X and Gen Z.

The test statistic (z-score) was calculated as 861 and the sample size is 61. The critical value corresponding to  $\alpha=0.05$  is 719. Since the test statistic is greater than the critical value, the alternative hypothesis is rejected. This concludes that the observed differences between the awareness of human consequences of fast fashion for Gen X and Gen Z is not statistically significant.



**Figure 25:** A graph depicting the results taken from Question 11 in the survey ‘On a scale of 1-5, how aware are you of the impact that fast fashion has on human livelihoods?’. 1 – completely unaware, 5 – completely aware.

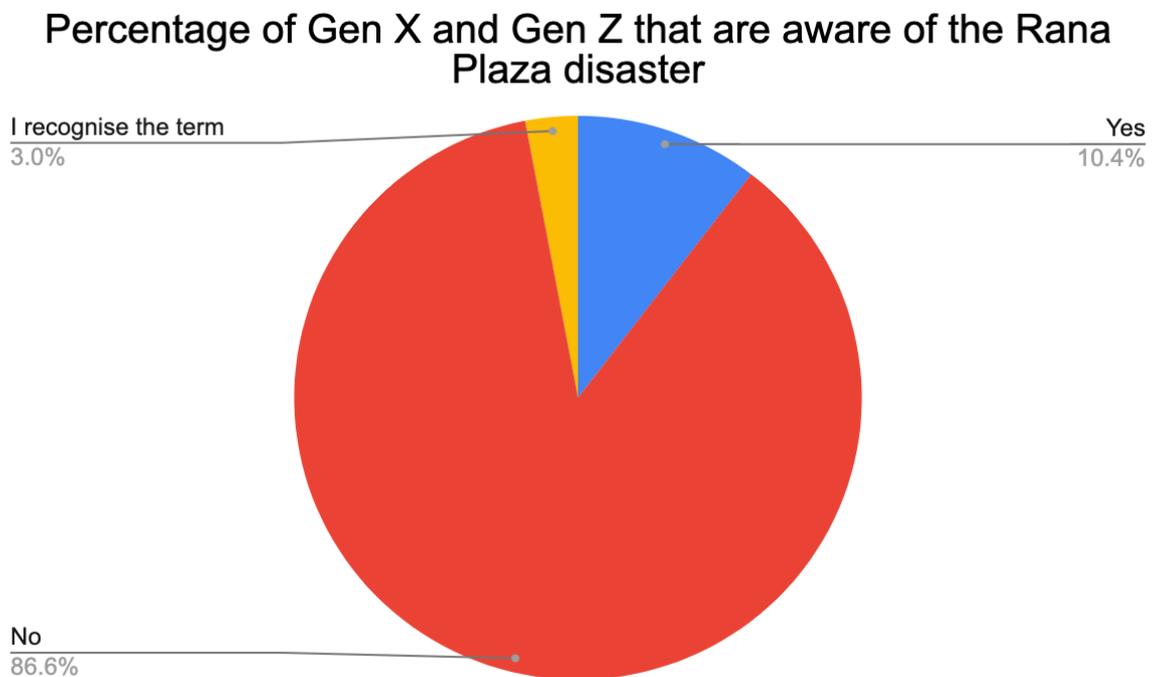


**Figure 26:** A graph depicting the results taken from Question 11 ‘On a scale of 1-5, how aware are you of the impact that fast fashion has on human livelihoods?’. 1 – completely unaware, 5 – completely aware. Blue columns depict responses from the Gen Z population. Orange columns represent the responses from the Gen X population.

The interviewees were then asked about their knowledge regarding the Rana Plaza disaster and its display within the media. Three Gen Z individuals had heard of the disaster through A-Level Geography education, *‘being a Geography study I am aware...but would only estimate 10% of Gen Z that would also be aware’*. The remainder of participants were unaware of this tragedy *‘I had no previous idea of this tragedy...makes me question if the media are hiding the realities of fast fashion’*.

Participant 7 added *'things like this are not publicised enough, it's a three-day news cycle unfortunately...clearly hidden by the media'*.

Likewise, survey results demonstrated that only a small proportion, 10.4%, of the sample were aware of the Rana Plaza disaster (Fig.27). There was an insignificant difference between the generations, only four more individuals in Gen X that had heard of Rana Plaza than in Gen Z.



**Figure 27:** A pie chart showing the percentage of Gen X and Gen Z survey participants that were aware of the Rana Plaza tragedy in 2013.

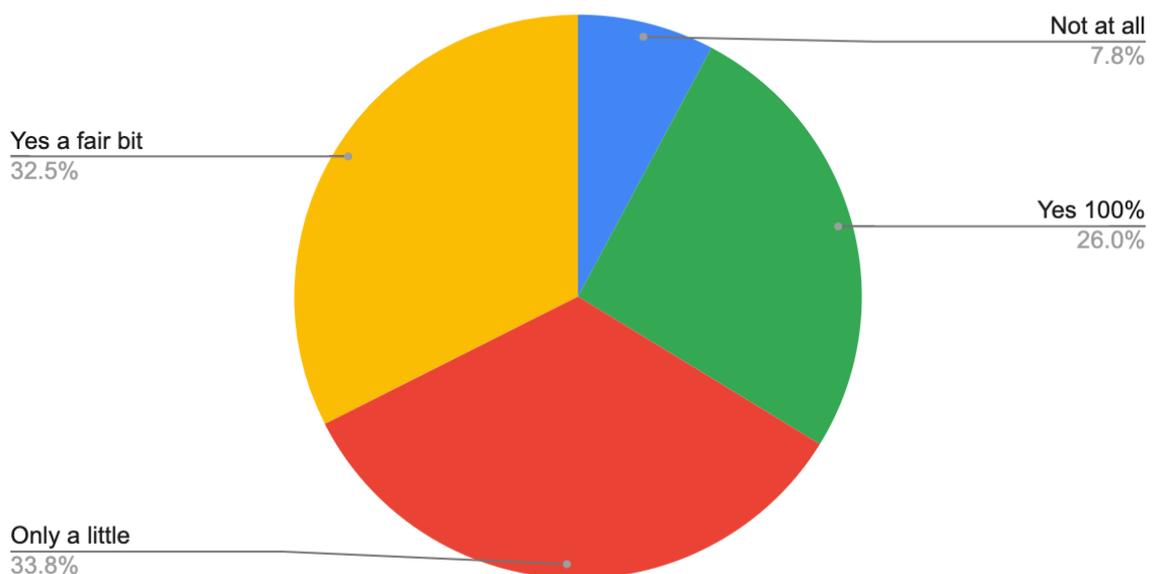
### 3.6. Cost of Living

Results obtained from the survey demonstrated that there is minimal difference between the two generations when considering the impact of the cost-of-living crisis (Fig.28, Fig.29).

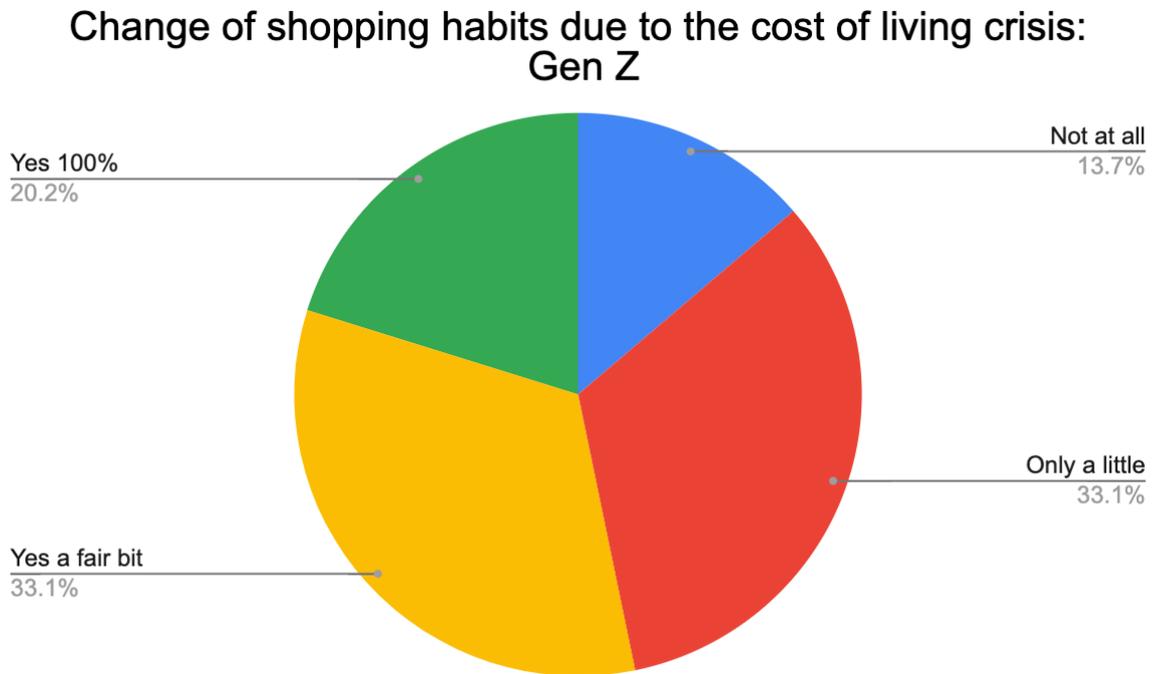
Interview analysis demonstrated that the shopping habits of Gen Z participants were not altered by the cost-of-living crisis. Participant 5 *'my disposable income remains the same'* and Participant 3 *'not having to pay bills, therefore not affected'*. The nature of being a student, therefore not owning their own property, was denoted as the reason why the participants had not been affected by the cost-of-living crisis.

In comparison, Participant 9 stated *'I buy fast fashion to balance the cost-of-living'*. The other interviewees from Gen X expressed an opposite view *'luckily jobs have remained...but understand price would be a prominent figure in difficult times'*.

Change of shopping habits due to the cost of living crisis:  
Gen X



**Figure 28:** A graph showing the percentage change of shopping habits for Gen X participants, as a result of the cost-of-living crisis.

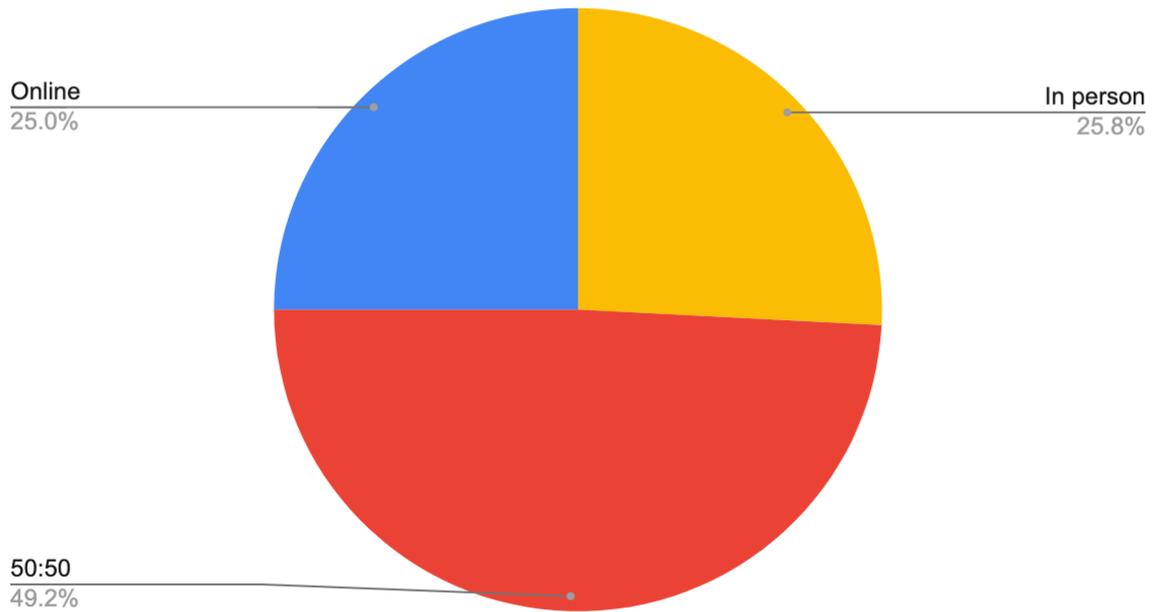


**Figure 29:** A graph showing the percentage change of shopping habits for Gen Z participants, as a result of the cost-of-living crisis.

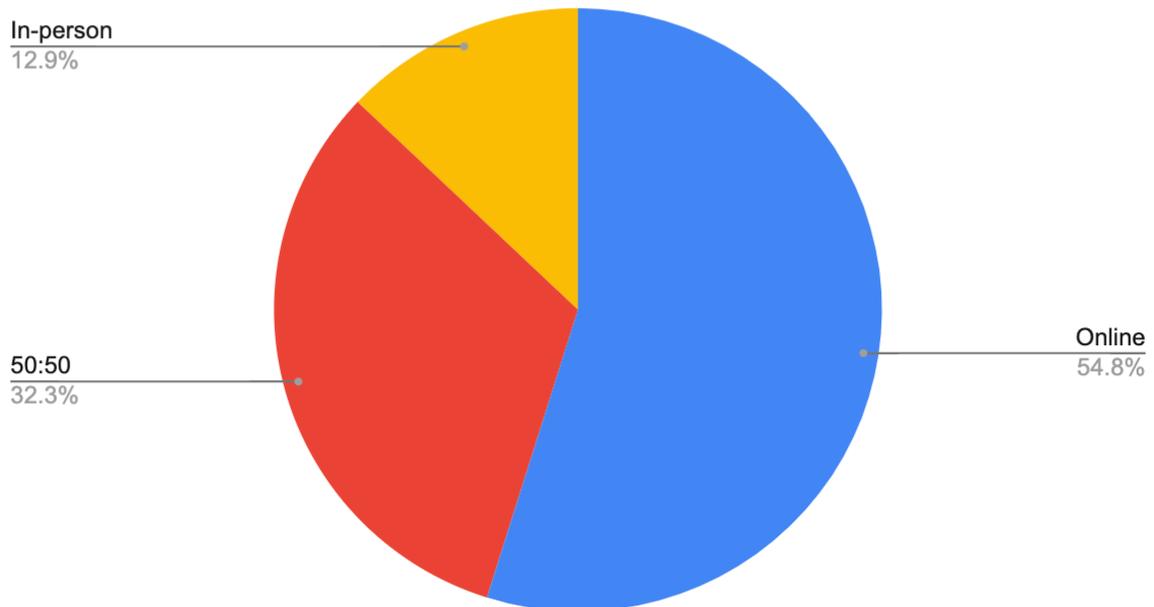
### 3.7. Covid-19

Analysis of the quantitative data, using Excel, illustrated that both Gen X and Gen Z participants had succumbed to a change in shopping habits due to the coronavirus pandemic. It is hypothesised that a greater quantity of Gen Z individuals shop online (54.8%) and less in-person (12.9%) compared to Gen X individuals, 52.6% and 19.7% respectively. Results conclude that 29.8% of Gen Z transitioned to online shopping over the course of the Covid-19 pandemic (Fig.30), in comparison to 25.3% of Gen X individuals (Fig.31).

### Shopping habits of Gen Z prior to the coronavirus pandemic

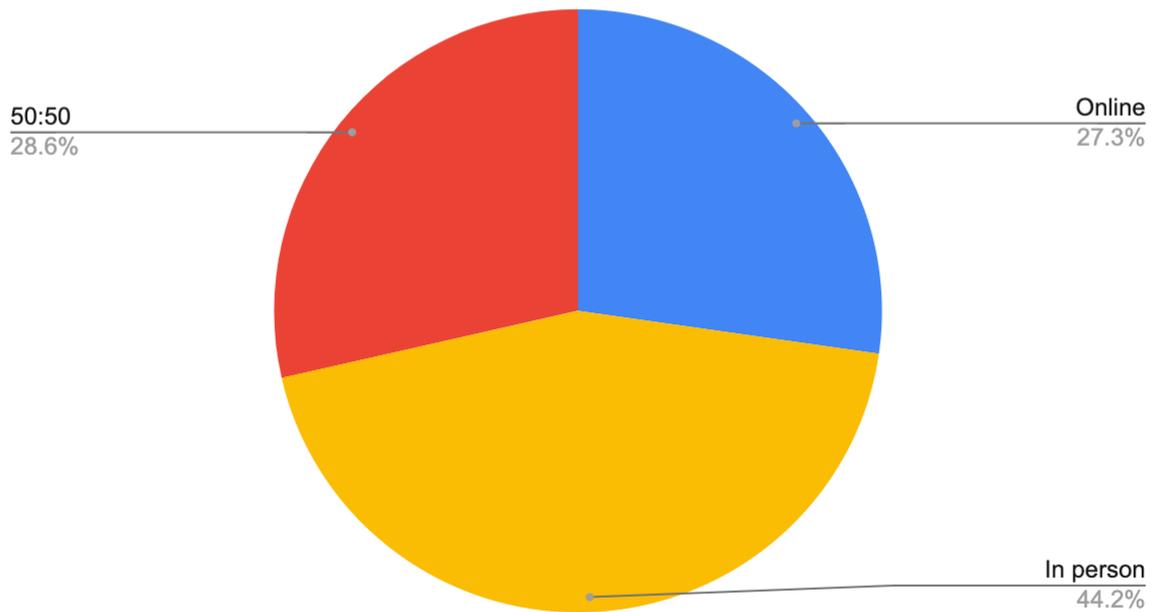


### Shopping habits of Gen Z post coronavirus pandemic

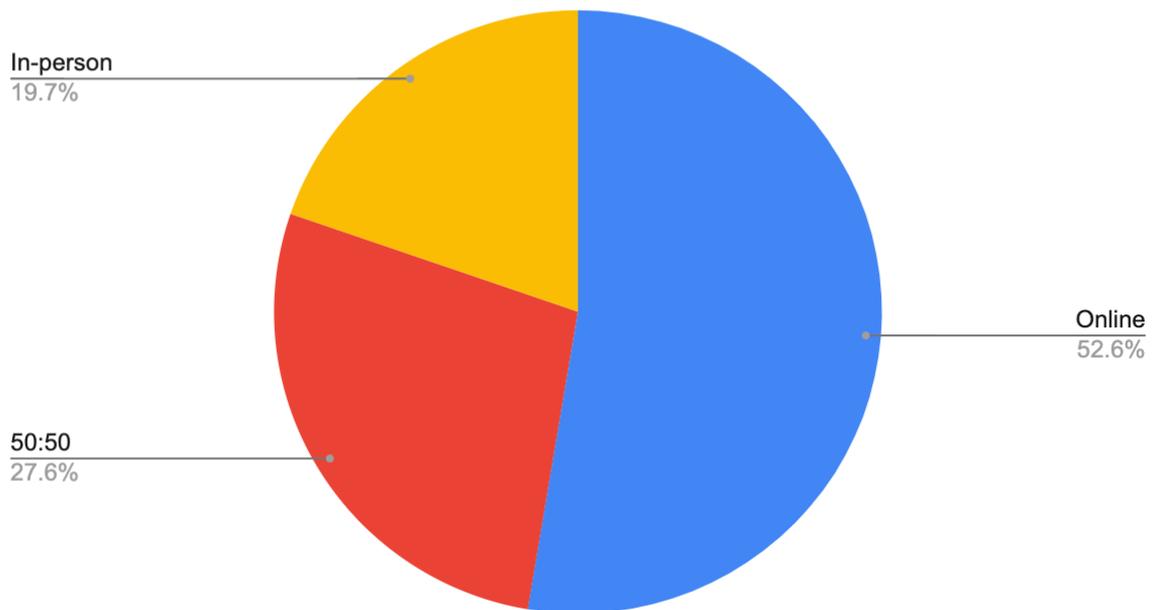


**Figure 30:** The shopping habits of Gen Z participants prior and post coronavirus pandemic. Top chart – prior to the pandemic in 2020. Bottom chart – post coronavirus pandemic, 2021 onwards.

### Shopping habits of Gen X prior to the coronavirus pandemic



### Shopping habits of Gen X post coronavirus pandemic



**Figure 31:** The shopping habits of Gen X participants prior and post coronavirus pandemic. Top chart – prior to the pandemic in 2020. Bottom chart – post coronavirus pandemic, 2021 onwards.

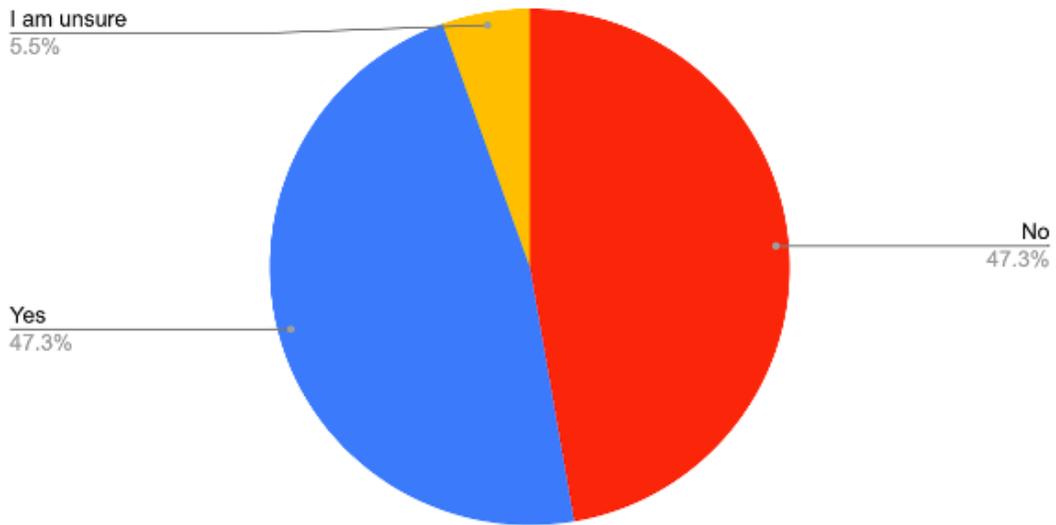
Analysis of interview transcripts explain the reasons behind this transition, Participant 2 *'I shop solely online...treating my bedroom as a changing room...as its easier and quicker'*. *'Since 2020 it's changed to £5.99 for annual next-day delivery'* Participant 1 further added. Participant 9 emphasises this transition *'Covid-19 prevented in-person shopping...online shopping more convenient as I have kids... continued primarily online'*.

Moreover, participant 7 highlighted how online shopping influences environmental concerns *'we live in a world where we want everything yesterday...online shopping increases airmiles, encouraging frequent returns.'*

### **3.8. Social Media**

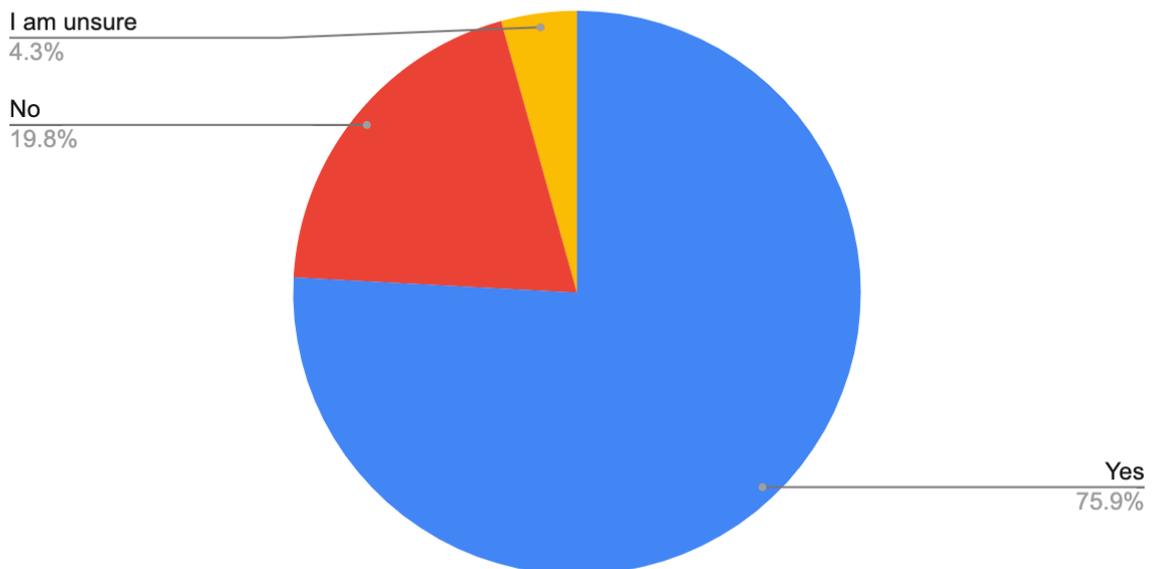
This section describes the data collected regarding the influence of social media on the purchasing of clothes. Gen Z (Fig.32) participants were greater influenced by social media platforms, 75.9%, than individuals from Gen X (Fig.33), 47.3%. Quotes obtained from the qualitative interviews further supported this; Participant 5 *'social media is the main driver'*. In contrast, Participant 10 referred to social media as having no influence on garment purchases.

### Percentage of Gen X that see Fast Fashion advertisements on social media and agree that it influences their purchases



**Figure 32:** A graph showing the percentage of Gen X individuals that see fast fashion on their social media platforms and are influenced to purchase a higher quantity of clothing garments.

### Percentage of Gen Z that see Fast Fashion advertisements on social media and agree that it influences their purchases



**Figure 33:** A graph showing the percentage of Gen Z individuals that see fast fashion on their social media platforms and are influenced to purchase a higher quantity of clothing garments.

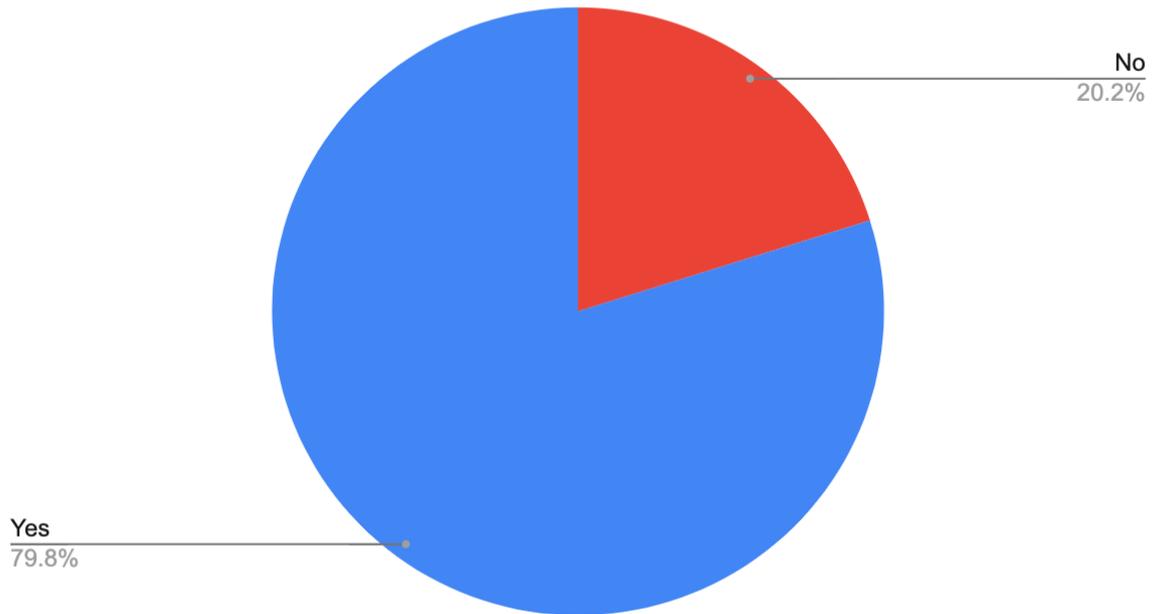
Also, it was suggested by Participant 3 *'social media is a blessing and a curse...raising awareness of sustainable brands, however, also the reason I want new outfits'*. Similarly, Participant 5 suggested *'redirection of promotion of fast fashion brands to sustainable ones...using social media positively'*.

### **3.9. Sustainable Alternatives**

Considering sustainable alternatives, results suggest that Gen Z individuals have shopped at second-hand stores and have used the app 'Vinted' more frequently than Gen X. The survey concluded that 79.8% of Gen Z population (Fig.34) had purchased an item from a second-hand store compared to 62.3% of Gen X population (Fig.35). In contrast Participant 4 suggests that Gen X individuals are more likely to buy second-hand than individuals from Gen Z, stating that *'if a new item is cheaper, then why would I go for second-hand...My mum is more likely to use charity shops than me'*.

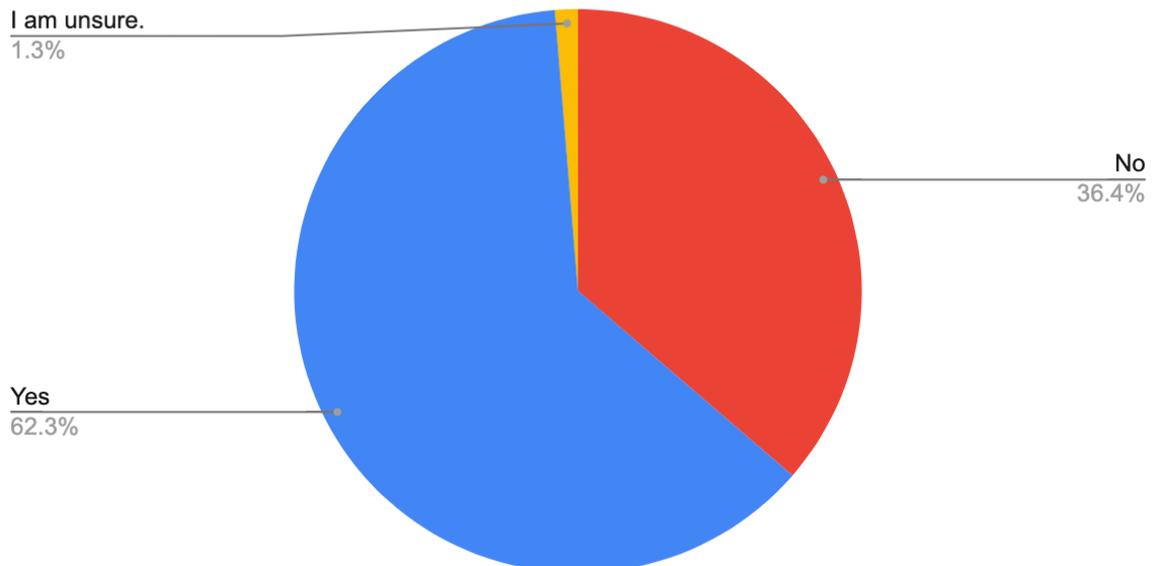
Results concluded that approximately 10% more of Gen Z individuals (Fig.36) have used the app vinted to purchase or sell clothing garments, when compared the Gen X population (Fig.37), a similar trend to second-hand stores. A quote from Participant 5 explains this observed difference *'technology accessibility limits Gen X's use of these apps'*.

Percentage of Gen Z that have shopped at a second-hand store



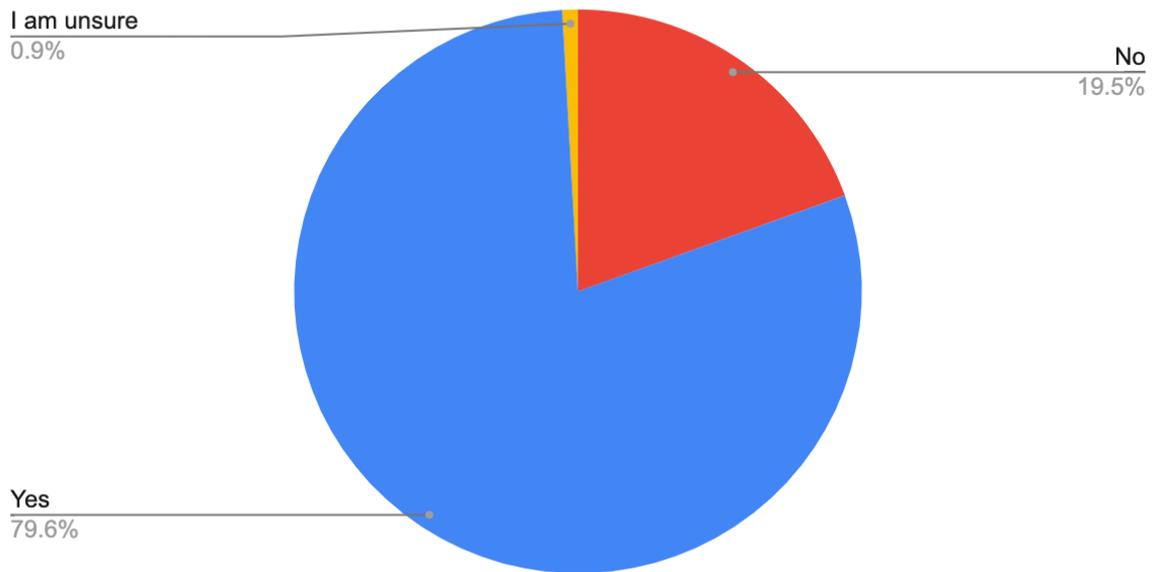
**Figure 34:** A chart showing the percentage of Gen Z participants who have shopped at a second-hand store.

Percentage of Gen X who have shopped at a second-hand store



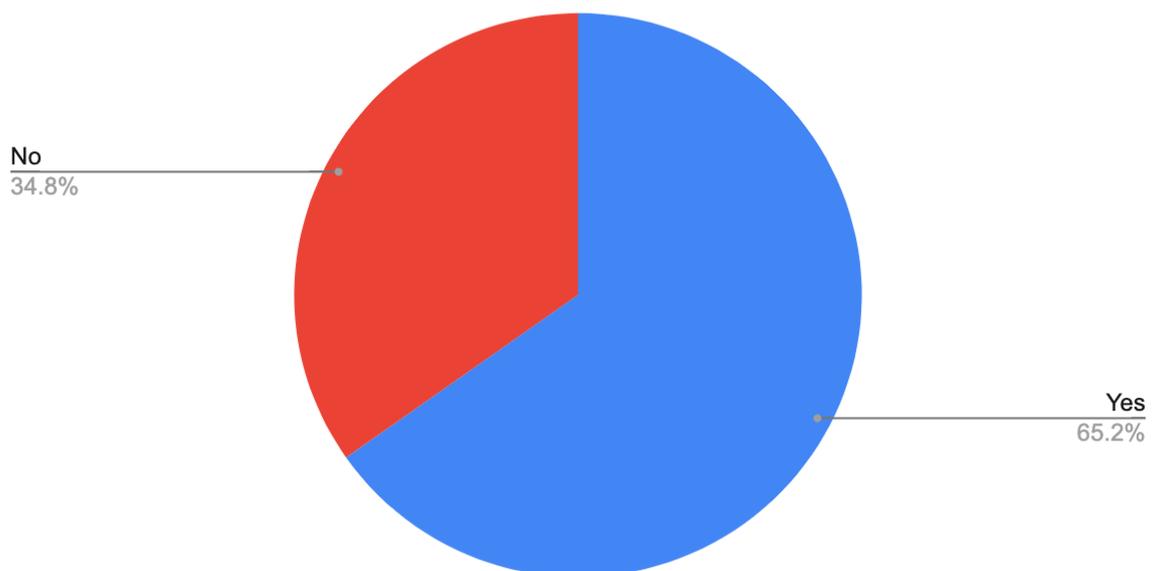
**Figure 35:** A chart showing the percentage of Gen X participants who have shopped at a second-hand store.

### Percentage of Gen Z that are aware of Vinted and have used app



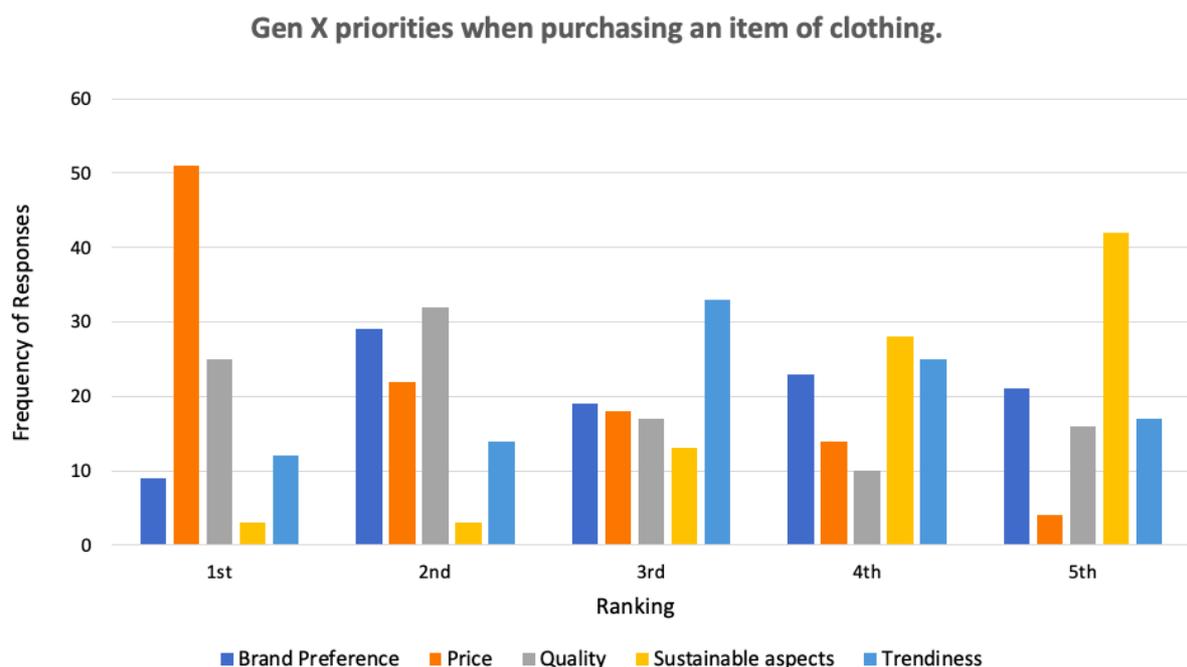
**Figure 36:** A chart showing the percentage of Gen Z participants who are aware of the app vinted and have either purchased or sold an item via this platform.

### Percentage of Gen X that are aware of Vinted and have used app

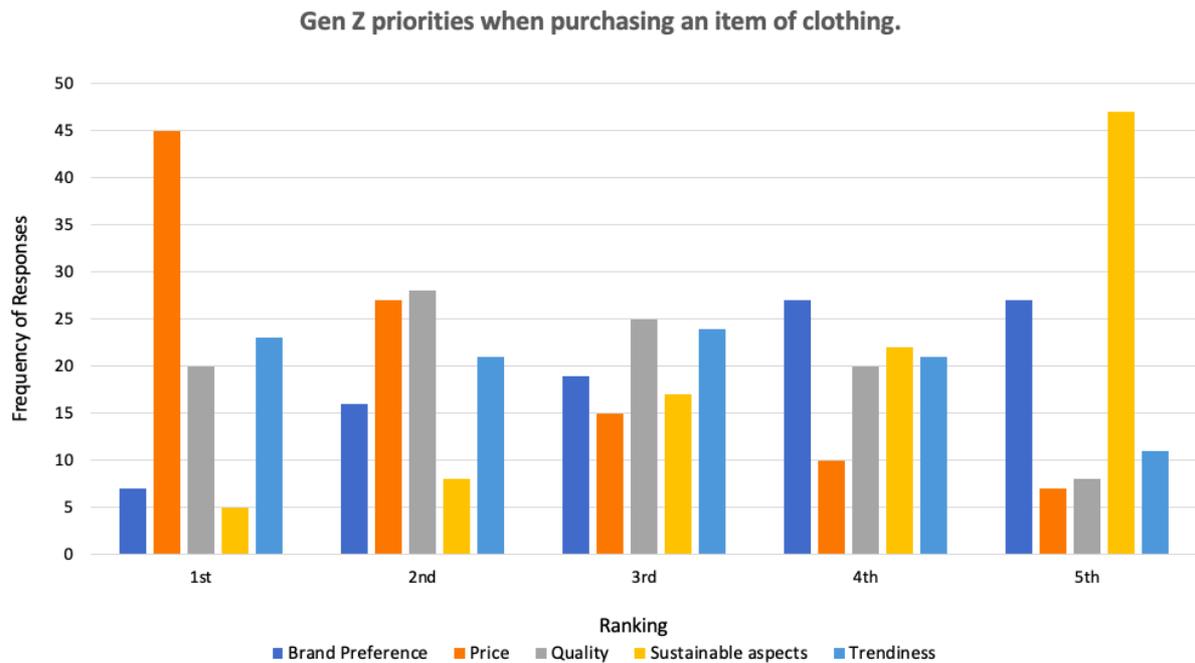


**Figure 37:** A chart showing the percentage of Gen X participants who are aware of the app vinted and have either purchased or sold an item via this platform.

The final aspect of the questionnaire was for respondents to rank their order of priority when purchasing clothing garments; price, quality, trendiness, brand preference and sustainable aspects. Results from both Gen X (Fig.38) and Gen Z (Fig.39) concluded that price was upmost priority and sustainable aspects was least. Overall Fig.38 and Fig.39 demonstrate no observed significant differences in profiles between the generations, with driving factors for decision making on clothes being price dominant for both. A greater proportion of Gen Z, 51 individuals, voted for price compared to the 45 individuals in Gen X. Brand preference was of higher dominance for Gen X (29) than to Gen Z (16). Participant 7 *'brand preference definitely, although I did think my most-used brands were not fast fashion'* further supports this conclusion. Whereas Participant 2 *'price is the deciding factor'*.



**Figure 38:** A graph showing the ranked priorities of the Gen X cohort when asked what aspect they prioritise when purchasing new clothing garments.



**Figure 39:** A graph showing the ranked priorities of the Gen Z cohort when asked what aspect they prioritise when purchasing new clothing garments.

### 3.10. Perception Change

An additional theme highlighted through the interview transcript analysis is the change in perception of fast fashion once educated. This was particularly evident after the video clip was displayed during the interviews, as there was a notifiable difference in responses prior and post the video clip for all ten participants. For example, Participant 2 quoted *‘as I’ve not personally seen the impacts, I will continue purchasing’* prior to the video clip, however stated *‘it’s heart-breaking, I will definitely reconsider’* post-clip.

Participant 1 stated *‘enlightening when you view footage...the realisation of human treatment. If clips were shown more frequently it would impact my habits’*. Likewise, Participant 7 quoted *‘it’s disturbing...all for a £3 t-shirt’*.

Participant 4 suggested *'repeated viewing of such images would alter habits... more integrated into mindset'*, however viewing once would be *'easily forgotten'*. The quote *'initial guilt factor would prevent purchase...although it would not change overnight'* from Gen X Participant 8 further supports this.

In theory, increased awareness of the consequences of fast fashion through education alters perception. Participants 3,4,5 had been educated through a-level geography, therefore had an alternate view on the industry compared to others in the equivalent generation.

### **3.11 Government Legislation**

Besides the aforementioned themes, government legislation was identified as a key avenue for future research, supporting the identified gap found in literature. Participant 3 stated that *'governments could create schemes to raise awareness for sustainable brands'*. Likewise, Participant 6 suggested the government could *'have set procedures in order for a brand to legally be approved as sustainable'*, similar to *'how farmers have to certify the free-range nature of eggs prior to the product getting its label'*.

## **Chapter 4: Discussion**

### **4.1. Overview**

This chapter categorises the findings according to the relevant research questions. Table 7 summarises the research questions which are addressed comprehensively within this discussion. Significant research findings are highlighted, with the supporting analysis of previous studies.

**Table 7:** Research Questions.

RQ1	What is the overall understanding and perception of fast fashion in Gen X and Gen Z?
RQ2	Is there a difference in understanding and perception of fast fashion between Gen X and Gen Z?
RQ3	What is the usage of fast fashion within Gen X and Gen Z?
RQ4	Is there a difference in the usage of fast fashion within the two focus groups?
RQ5	Is perception towards fast fashion altered due to increased education and knowledge?
RQ6	Did the Covid-19 pandemic change fast fashion habits to predominantly online? What impact has this had on the environment?
RQ7	Has the cost-of-living crisis impacted fast fashion habits and in turn the impact that fast fashion currently has on the environment?

### **4.2. RQ1**

Findings from the data collected suggest that the Gen X cohort have an overall awareness of the consequences of fast fashion, predominantly the human cost. Gen

X individuals expressed that they were aware of the global carbon footprint of the industry through qualitative discussion and correct percentage acknowledgement within the survey. This is consistent with previous studies, suggesting a rise in generation conscious, in which individuals are willing to support sustainable alternatives to mitigate environmental consequences (Prew, 2020; Rauturier, 2023). However, data collection reports that many Gen X individuals had no knowledge of Rana Plaza, therefore demonstrating an avenue for future research regarding the impact of media in dismissing the reality of fast fashion (True Cost, 2015).

Gen Z individuals were found to have a notable understanding of environmental and human consequences. Gen Z participants, when interviewed, expanded on the obtained survey results, specifically demonstrating awareness of water usage and landfill. This is similar to trends in the wider context as Gen Z are specified as environmentally conscious (Prew, 2020;Mazzu, 2022).

This research is significant in light of current events, as approximately 50 Gen Z individuals were involved in protests outside a Shein shop in Oxford on 15<sup>th</sup> September 2023 (Lumley, 2023;Peake, 2023). Protesters were educating customers on the impact of the industry, employing pictures, slogans, and videos, successfully decreasing the number of individuals entering the shop. This aligns with the findings as it further demonstrates the awareness of the Gen Z cohort.

### **4.3. RQ2**

Through the mixed method approach, findings suggest that Gen Z have increased awareness compared to Gen X. The qualitative aspect explained that Gen Z

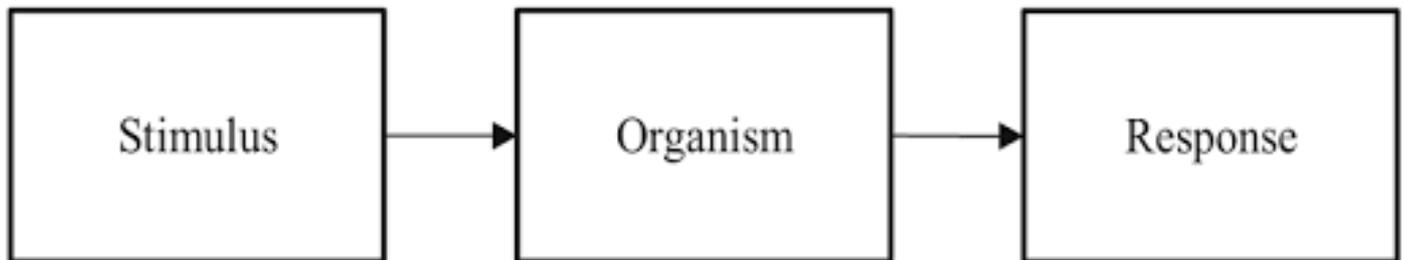
individuals are more environmentally conscious and mindful of consumption than previous generations. This is suggested to be a result of sustainability and non-renewable resources being heavily focused on within the education curriculum (Tilbury, 2011). Gen Z individuals are reliant on social media and platforms are used to discuss fast fashion consequences and promote sustainable alternatives, further supporting the finding (Dolot, 2018;Gee, 2023). As concerns regarding the industry are growing, literature suggests that Gen Z have increased knowledge compared to Gen X individuals as they experience this industry more frequently (Shein Machine, 2022). Brands are responding to their awareness by integrating environmental and social improvements into their products, however the extent of greenwashing is questioned (Amed, 2019).

However, through statistical analysis, observed differences between Gen X and Gen Z were concluded as not significant, for both the environmental and human cost. This suggests that the overall perception and understanding of fast fashion is equivalent for each generation. This result is similar to the reported findings of the Generational Sustainability Survey, surveying 1200 individuals, concluding 64% of Gen X were committed to reducing their carbon footprint, whilst only 44% of Gen Z were committed (Gee, 2023).

#### **4.4. RQ3**

Gen X individuals were found to use fast fashion, prioritising cost above other aspects when purchasing garments. This contrasts the results of Fan's (2018) study which used the Stimulus-Organism-Respond model to identify four stimuli: quality, price, social influence, and availability as the drivers of consumerism (Fig.40). Fan (2018)

concluded that price had no impact on consumers cognition towards fast fashion purchases, instead suggesting that quality and brand preference were of a higher priority for the Gen X cohort (Fan, 2018). The study concluded that fewer Gen X individuals reported purchasing from ultra-fast fashion bands.



**Figure 40:** The Stimuli-Organism-Respond model used in research (Busalim *et al.*, 2022).

The research project concluded that Gen Z used fast fashion brands excessively. Fast fashion brands predominantly target Gen Z individuals for consumerism, Shein in particular, through advertisements of cheap, mass-produced, enticing garments (Duff, 2023).

In support of this, Mazzu (2021) agrees that Gen Z is the ideal consumer of fast fashion influenced heavily by its promotion across social media platforms. This is similar to results produced from a study conducted at Sheffield University, reporting that 62% of Gen Z individuals purchase from fast fashion brands monthly (Barker, 2022). Even though the same sample concluded that 94% of participants were in favour of action for sustainability (Barker, 2022). This demonstrates a gap between ideals and practicality in the student demographic, and the findings within this research project

align. In addition, Barker (2022) study showed that nine in ten students had purchased from both fast and ultra-fast fashion brands.

#### **4.5. RQ4**

Results conclude a difference in the usage of fast fashion between Gen X and Gen Z. Gen Z have a higher usage of fast fashion, despite being more aware. The review of literature is consistent with this finding, highlighting that Gen Z are more succumbed to fast fashion retailers, formulating 40% of global fast fashion consumers (Desfiandi, 2020). The results are similar to trends in the wider context, aligning with previous studies (Fashion Revolution, 2021; Barker, 2022). The qualitative findings can be used as an explanation as to why Gen Z participants continue to consume fast fashion. Cost was voiced as the dominant factor, the student demographic inevitably has a reduced income, therefore less expense available for sustainable alternatives. This further supports that sustainable alternatives are limited by accessibility and affordability (Niinimaki, 2020). This is consistent with findings explored in the literature search, depicting that 53% of Gen Z individuals choose cheaper options compared to eco-conscious ones, primarily due to price (Guerisoli, 2023). In light of similar literature, social media also heavily encourages the consumption of fast fashion advertising garments (Suutari, 2023). However, many Gen X participants were unaware that the likes of Next and Burton considered fast fashion, therefore questioning reproducibility of the results.

A significant finding from the project is that sustainable aspects are not a priority when purchasing clothes. Gen X's motive may not be environmental protection, but none consciously doing so, as they choose durable, high-quality clothing garments more

frequently, therefore they are less likely to contribute to the throw-away culture (Bhardwaj and Fairhurst, 2010).

The results further highlight a difference in the usage of sustainable alternatives; Gen Z purchase second-hand clothes at a higher rate. Through the analysis of interview transcripts, technology was interpreted as a barrier to the use of second-hand apps for Gen X individuals, aligning with previous research (Oblinger, 2003).

#### **4.6. RQ5**

Through qualitative interviews, it was concluded that perception towards fast fashion for Gen X and Gen Z, is altered due to increased education and knowledge. Quotes obtained prior and post video clip were different for each participant, suggesting that viewing the impact of fast fashion visibly, encourages alternative thoughts and reflection. This is beneficial to future research, as in combination with other findings, can indicate what aspect is more important to focus education on (McClymont, 2019). Gen Z participants also expressed that learning the consequences through curriculum in schools, altered their opinions. Sustainability is a 21<sup>st</sup> century addition to curriculum (Warburton, 2003), therefore a potential explanation for the perceived lack of awareness for Gen X individuals.

Raturier (2023) expresses that due to controversy around the industry becoming more apparent, fast fashion is becoming more socially unacceptable. This indicates that surrounding literature is in support of this finding. Along with this, influencers are advocating frequently against the industry, therefore encouraging individuals to purchase ethically (McClymont, 2019).

#### **4.7. RQ6**

The research project concluded that the Covid-19 pandemic encouraged the transition from in-person shopping to online shopping for both focus groups. This alteration has remained for many of the participants, changing, predominantly, to online purchasing post-pandemic. Individuals confirmed purchasing additional garments from fast fashion brands since 2020. Statistics provided by Samantra (2023), support these results, illustrating that Shein's net worth has increased by £95 billion between 2020 and 2022.

Interview participants expressed their worries regarding the impact online shopping has on the environment: increased carbon emissions due to airmiles, deliveries and returns. As reflected in the literature review, online shopping increases the global carbon footprint of garments (Vatamanescu *et al.*, 2021). However, Prew (2020) suggested that consumers converted to an environmentally conscious mindset because of the pandemic and shopping limitations during lockdown.

#### **4.8. RQ7**

The research project assessed the impact of the cost-of-living crisis on the fast fashion industry for the two generations and to what extent this has positively impacted the environment (Gov, 2022). Research from the survey concluded that the cost-of-living crisis is reducing individuals' disposable income therefore less money to purchase fashion for Gen X and Gen Z. This in turn positively effects the environment, as less

consumerism results in less garments being produced therefore decreasing the consequences of the industry (Niinimäki *et al.*, 2020).

However, from the qualitative interviews, research concluded that the majority of participants had not experienced a change in shopping habits as a result of the crisis. Participants from Gen Z illustrated the reason being, the lack of owning property, although expressing their understanding of the influence it could have on others. The cost-of-living crisis and its impact on fast fashion was identified as a knowledge gap, these findings can be used in future research, specifically when addressing the impact on Gen X individuals.

A recent study, Guereisoli (2023), highlighted that the cost-of-living crisis is forcing individuals to turn to fast fashion, unable to afford sustainable choices and therefore unintentionally affecting the environment.

#### **4.9. Research Benefits**

A significant benefit of this research project is that the findings allow insight into the usage and awareness of the fast fashion industry for each generation. This can provide useful information towards a more targeted approach when considering fast fashion reduction.

A predominant benefit to the research is that the majority of data collected concludes that Gen X individuals are less educated on fast fashion consequences. The findings indicate that there is a slight difference in perception and therefore is useful for future planning regarding where to target fast fashion awareness. Data also highlights that

individuals of both generations require further knowledge on the environmental consequences.

The majority of results conclude that Gen Z cohorts use fast fashion more frequently than Gen X, predominantly due to cost. This is beneficial as it suggests that second-hand clothing and sustainable alternatives would have increased popularity if cost was not a limiting factor.

#### **4.10. Study Limitations**

As previously mentioned, a significant limitation is the convenience and size of the sample. The recommended sample size is considerably greater and random sampling would enhance the reproducibility and reliability of results. Due to the sampling method, the sampling group are likely to be of similar socioeconomic backgrounds and the majority of Gen Z participants were part of the student demographic. The bias may be more apparent in the qualitative method, as only five individuals were interviewed from each generation.

Upon feedback, Likert-scale questions were difficult for participants to respond to, as some struggled with identifying what the middle values signified. A further limitation is that the survey platform allowed answers to be selected multiple times in the ranked question, causing issues with data collection. Also, the question which prompted participants to name fast fashion brands was difficult to analyse, therefore could be improved by providing brands for them to select instead of name.

An improvement to this study would be including a question which identified the income bracket of participants. This could explain why only certain individuals experienced alteration in shopping habits as a consequence of the cost-of-living crisis. This could also improve the study, as it could ensure participants of different socio-economic backgrounds were interviewed. By acknowledging the limitations to the project, future research into the specific areas could benefit from addressing these limitations, for example, delving deeper into the effects of the cost-of-living in different income brackets.

## **Chapter 5: Conclusion**

### **5.1. Overview**

This chapter concludes the research project, summarising the predominant findings and providing suggestions for future avenues of research.

### **5.2. Conclusion**

In conclusion, fast fashion is notoriously a polluting and damaging industry. This research project has illuminated critical insights into the perception, understanding and usage of fast fashion within Gen X and Gen Z. Furthermore, the combination of a mixed method approach has indicated several differences between each generation. In summary, qualitative, and quantitative data collection concluded that Gen Z had increased awareness of the consequences of fast fashion in comparison to Gen X. However, Gen X also used fast fashion more frequently. Analysis of interview transcripts explained the predominant reason for these findings; cost is the limiting factor, preventing accessibility to sustainable alternatives.

Conversely, statistical analysis of survey results, concluded that the observed differences between Gen X and Gen Z, in terms of awareness of environmental and human cost, was not statistically significant.

The research was particularly significant for the novel aspects of the project, the perceived impact on shopping habits caused by Covid-19 and the cost-of-living crisis, fulfilling literature gaps. Results confirmed that Covid-19 accelerated online fashion, which in turn increases the global carbon footprint of the industry. The cost-of-living crisis had negligible effect on the majority of participants shopping habits, however a

few individuals were forced to shop at fast fashion brands due to the reduction in their disposable income.

To conclude, this research project contributes to the current literature, demonstrating the understanding of fast fashion and its environmental and human cost. The research project highlights the requirement of further research into this field. The recommendations acknowledged in the upcoming paragraph can be utilised to further examine the difference between Gen X and Gen Z fast fashion consumption.

### **5.3. Recommendations**

Furthermore, the implications of the research extend beyond the scope of the project, with various aspects providing avenues for future research. A recommendation to improve the research project would be to use focus groups in combination with interviews. A focus group would involve individuals from both generations, therefore making the differences in perceptions more apparent (Leung and Savithiti, 2009).

Moreover, the literature review reflected a gap in knowledge surrounding fast fashion legislation (Pastran *et al.*, 2021). A significant recommendation would be to introduce legislation to regulate fast fashion imports into the country, ensuring that garments produced in illegal working conditions are not available for purchase in the UK. The influence of an active government role in implementing policies, would raise awareness and education of the consequences of fast fashion.

Additionally, exploiting social media to promote sustainable alternatives, such as Vinted instead of fast fashion brands, would be beneficial to educate both Gen X and

Gen Z individuals. Findings suggest that increasing the media coverage on the consequences of fast fashion, via news articles and television reports, would assist with changing individuals' perception.

Literature suggests that sustainable approaches must be utilised to combat the fast fashion industry. Zero-waste pattern cutting involves designing garment pieces that fit together like a jigsaw, ensuring no fabric is wasted in the cutting stage (Yen, 2016). This advancement in technology, could potentially eliminate 15% of textile waste at the design stage (Yen, 2016).

In addition, producing clothing garments that are multifunctional, worn in numerous ways, would decrease the requirement for multiple different items (Cunha and Broega, 2009). This would increase the eco-friendly status of the fashion supply chain (Cunha and Broega, 2009).

Finally, organic cotton uses less than 1% of pesticides, compared to 16% of global pesticides that are required to produce conventional cotton crops (Glin *et al.*, 2012). Manufacturing clothes from organic cotton, would not only decrease greenhouse gas emissions, but also decrease the impact on farmers health.

Future avenues of research can be used in combination with findings from this research study to implement policies and practices to mitigate the consequences of the fast fashion industry.

## References

- Aakko, M. and Koskennurmi-Sivonen, R., 2013. Designing sustainable fashion: Possibilities and challenges. *Research Journal of Textile and Apparel*, **17**(1), pp.13-22.
- Alfieri, A., De Marco, A. and Pastore, E., 2019. Last mile logistics in Fast Fashion supply chains: A case study. *IFAC-PapersOnLine*, **52**(13), pp.1693-1698.
- Amed, I., 2019 *The influence of 'woke' consumers on fashion*. Available at: <https://www.mckinsey.com/industries/retail/our-insights/the-influence-of-woke-consumers-on-fashion> [Accessed: 9<sup>th</sup> September 2023]
- Anguelov, N., 2015. *The dirty side of the garment industry: Fast fashion and its negative impact on environment and society*. CRC Press.
- Ashwin, S., Kabeer, N., Alexander, R., 2016. *After Rana Plaza: the politics of sharing*. Available at: <https://blogs.lse.ac.uk/businessreview/2018/12/17/after-rana-plaza-the-politics-of-sharing/>. [Accessed 27<sup>th</sup> August 2023]
- Assoune, A. (2020). *How Does Fast Fashion Affect Animals*. Available at: <https://www.panaprium.com/blogs/i/fast-fashion-animals#:~:text=Endangered%20animals%20killed%20for%20fast%20fashion&text=The%20fur%20and%20leather%20trade>. [Accessed 26<sup>th</sup> August 2023]
- Bailey, K., Basu, A. and Sharma, S., 2022. The environmental impacts of fast fashion on water quality: a systematic review. *Water*, **14**(7), p.1073.
- Bain, M., 2022. *Bof*. At more retailers, algorithms are deciding what's for sale. Available at: <https://www.businessoffashion.com/articles/technology/at-more-retailers-algorithms-are-deciding-whats-for-sale/> [Accessed: 6<sup>th</sup> September 2023]
- Barker, J., 2022. *Generation Z members say they want sustainable clothes but buy fast fashion instead – new research | Sheffield Hallam University*. Available at: <https://www.shu.ac.uk/news/all-articles/latest-news/fast-fashion#:~:text=12%20September%202022->. [Accessed :12<sup>th</sup> September 2023]
- Bari, A., 2020. *Fashion Takes Action*. What is social media's impact on Fast Fashion? An investigation. Available at: <https://fashiontakesaction.com/articles/what-is-social-medias-impact-on-fast-fashion-an-investigation/#:~:text=Social%20media%20has%20contributed%20to,AKA%20ultra%2Dfast%20fashion>. [Accessed: 30<sup>th</sup> August 2023]
- Baziene, K., Tetsman, I. and Albrektiene, R., 2020. Level of pollution on surrounding environment from landfill aftercare. *International journal of environmental research and public health*, **17**(6), p.2007.
- BBC News (2017) *The Indian farmers falling prey to pesticide*. Available at: <https://www.bbc.co.uk/news/world-asia-india-41510730>. [Accessed 29<sup>th</sup> August 2023]
- Bennett, R.M., Ismael, Y., Morse, S. and Kambhampati, U.S., 2004. Economic impact of genetically modified cotton in India.
- Besma, A., 2020. *Curiously Conscious*. Available at: <https://www.curiouslyconscious.com/about/>. [Accessed 31<sup>st</sup> August]

Bhardwaj, V. and Fairhurst, A. (2010). Fast fashion: Response to Changes in the Fashion Industry. *The International Review of Retail, Distribution and Consumer Research*, **20**(1), pp.165–173. doi: <https://doi.org/10.1080/09593960903498300>. [Accessed 22<sup>nd</sup> August 2023]

Bharwana, S.A., Ali, S., Farooq, M.A., Iqbal, N., Abbas, F. and Ahmad, M.S.A., 2013. Alleviation of lead toxicity by silicon is related to elevated photosynthesis, antioxidant enzymes suppressed lead uptake and oxidative stress in cotton. *J. Bioremed. Biodeg*, **4**(4), pp.10-4172.

Bick, R., Halsey, E. and Ekenga, C.C. (2018). The Global Environmental Injustice of Fast Fashion. *Environmental Health*, **17**(1), pp.1–4. Doi: [HTTps: doi.org/10.1186/s12940-018-0433-7](https://doi.org/10.1186/s12940-018-0433-7) [Accessed 21<sup>st</sup> August 2023]

Blair, A., Ritz, B., Wesseling, C. and Freeman, L.B., 2015. Pesticides and human health. *Occupational and Environmental Medicine*, **72**(2), pp.81-82.

Brace, I. (2013), *How to plan, structure and write survey material for effective market research*, Kogan Press.

Braun, V. and Clarke, V., 2012. *Thematic analysis*. American Psychological Association.

Brewer, M.K., 2019. Slow fashion in a fast fashion world: Promoting sustainability and responsibility. *Laws*, **8**(4), p.24.

Brooks, A., 2019. *Clothing poverty: The hidden world of fast fashion and second-hand clothes*. Bloomsbury Publishing.

Brophy, K., (2020). *Fast fashion 1 - Why is the fashion industry an environmental problem?* Institute for Molecular Science and Engineering. Available at: <https://blogs.imperial.ac.uk/molecular-science-engineering/2020/09/18/fast-fashion-environmental-problem/>. [Accessed: 27<sup>th</sup> August 2023]

Brown, R., 2021. *The Environmental Crisis Caused by Textile Waste*. [www.roadrunnerwm.com](http://www.roadrunnerwm.com). Available at: <https://www.roadrunnerwm.com/blog/textile-waste-environmental-crisis#:~:text=And%20when%20consumers%20throw%20away>. [Accessed 21<sup>st</sup> August 2023]

Bynum, G. (2021). *The Impact of Fast Fashion in Bangladesh*. The Borgen Project. Available at: <https://borgenproject.org/fast-fashion-in-bangladesh/>. [Accessed: 5<sup>th</sup> September 2023]

Busalim, A., Fox, G. and Lynn, T., 2022. Consumer behavior in sustainable fashion: A systematic literature review and future research agenda. *International Journal of Consumer Studies*, **46**(5), pp.1804-1828.

Camargo, L.R., Pereira, S.C.F. and Scarpin, M.R.S., 2020. Fast and ultra-fast fashion supply chain management: an exploratory research. *International Journal of Retail & Distribution Management*, **48**(6), pp.537-553.

Cameron, C., 2022. *Slowing down fast fashion*. Planet Mark. Available at: <https://www.planetmark.com/slowng-down-fast-fashion/> [Accessed 30<sup>th</sup> August 2023]

Carb., 2023 *Lead & Health | California Air Resources Board*. Available at: <https://ww2.arb.ca.gov/resources/lead-and-health#:~:text=Ecosystems%20near%20point%20sources%20of>. [Accessed 20<sup>th</sup> August 2023]

Caro, F. and Martínez-de-Albéniz, V., 2015. Fast fashion: Business model overview and research opportunities. *Retail supply chain management: Quantitative models and empirical studies*, pp.237-264.

Carvalho, F.P., 2017. Pesticides, environment, and food safety. *Food and energy security*, **6**(2), pp.48-60.

Choi, T.M., 2013. Local sourcing and fashion quick response system: The impacts of carbon footprint tax. *Transportation Research Part E: Logistics and Transportation Review*, **55**, pp.43-54.

Chowdhury, R., 2017. The Rana Plaza disaster and the complicit behavior of elite NGOs. *Organization*, **24**(6), pp.938-949.

Cint., (2021). *Using Rating Questions vs. Ranking Questions in a Survey* Cint. Available at: <https://www.cint.com/blog/using-rating-questions-vs-ranking-questions-in-a-survey>. [Accessed: 29<sup>th</sup> August 2023]

Ciornea, R., 2020. Is the Transition to Bioeconomy a Sustainable Solution in Fast-fashion Industry, Considering the Overconsumption?-Premises for Future Research. *Mark. Inf. Decis. J.*, **3**, pp.27-44.

Clark, M., 2022. The Independent. *Shein responds to viral claim workers are hiding 'Help Me' messages in clothes*. The Independent. Available at: <https://www.independent.co.uk/life-style/fashion/shein-help-me-messages-tags-b2102095.html> [Accessed 20<sup>th</sup> August 2023]

Conca, J., 2015. Making climate change fashionable-the garment industry takes on global warming. *Forbes.com*, **12**.

Cooper, T., 2013. Sustainability, consumption and the throwaway culture. *The handbook of design for sustainability*, pp.137-155.

Creswell, J.W. and Poth, C.N., 2007. Qualitative inquiry and research method: Choosing among five approaches.

Cunha, J. and Broega, A.C., 2009. Designing multifunctional textile fashion products.

Donoghue, S., 2000. Projective techniques in consumer research. *Journal of Consumer Sciences*, **28**.

Durosko, E., 2023. Death by Fashion: Consumers Face Health Risks by Purchasing from Unregulated Fast Fashion Brands. *Loy. Consumer L. Rev.*, **35**, p.261.

Dzhengiz, T., Haukkala, T. and Sahimaa, O., 2023. (Un) Sustainable transitions towards fast and ultra-fast fashion. *Fashion and Textiles*, **10**(1), p.19.

Ecohz., (2021). *How clothes and shoes can be made with renewable electricity*. Available at: <https://www.ecohz.com/sustainability-solutions/clothes-and-shoes> [Accessed 23<sup>rd</sup> August 2023].

ECCHR., 2015. *European Center for Constitutional and Human Rights*. Available at: [https://www.ecchr.eu/fileadmin/Juristische\\_Dokumente/CaseReport\\_Pesticides\\_IndiaPunjab\\_FAO\\_20151009.pdf](https://www.ecchr.eu/fileadmin/Juristische_Dokumente/CaseReport_Pesticides_IndiaPunjab_FAO_20151009.pdf). [Accessed 21<sup>st</sup> August 2023]

Eisen, S., 2023. *Shein says it was profitable in the first half of the year as U.S. IPO rumors swirl*. Available at: <https://www.cnbc.com/2023/07/27/shein-says-it-was-profitable-in-first-half-of-2023.html>. [Accessed 31<sup>st</sup> August 2023]

EJF., (2020). *The casualties of cotton*. Available at: <https://ejfoundation.org/news-media/the-casualties-of-cotton>. [Accessed 28<sup>th</sup> August 2023]

Ekinsi, Y. (2015), *Designing Research Questionnaires for Business and Management students*, SAGE Publications

EPA (2018). *Textiles: Material-Specific Data*. Available at: <https://www.epa.gov/facts-and-figures-about-materials-waste-and-recycling/textiles-material-specific-data>. [Accessed 29<sup>th</sup> August 2023]

Faber, J. and Fonseca, L.M., 2014. How sample size influences research outcomes. *Dental press journal of orthodontics*, **19**, pp.27-29.

Farhoud, N., 2020. *Shoppers being sold 'fake fur' that is actually real in 'ongoing scandal'*. Available at: <https://www.mirror.co.uk/news/uk-news/shoppers-being-sold-fake-fur-23179090>. [Accessed 22<sup>nd</sup> August 2023]

Fan, Y., 2018. *Buying Behaviours of Generation X Women on Fast Fashion Products: A Mixed Method Study* Available at: [https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1012&context=textil\\_esdiss](https://digitalcommons.unl.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=1012&context=textil_esdiss) [Accessed: 31<sup>st</sup> August 2023]

Fetters, M.D. and Molina-Azorin, J.F., 2017. The journal of mixed methods research starts a new decade: The mixed methods research integration trilogy and its dimensions. *Journal of Mixed Methods Research*, **11**(3), pp.291-307.

Field, M., 2023. *Telegraph. Shein sues Chinese rival in high-court copycat row*. Available at: <https://www.telegraph.co.uk/business/2023/09/10/shein-sues-chinese-rival-temu-high-court-copycat-row/> [Accessed: 12<sup>th</sup> September 2023]

Francis, T. and Hoefel, F., 2018. True Gen': Generation Z and its implications for companies. *McKinsey & Company*, **12**, pp.1-10.

Frenchies., 2021. *40 Essential Fast Fashion Facts and Statistics in 2022*. Available at: <https://www.bigfrenchies.com/blogs/blog/fast-fashion-facts>. [Accessed 22<sup>nd</sup> August 2023]

Frost, J., 2022. *Cronbach's Alpha: Definition, Calculations & Example*. Statistics by Jim. Available at: <https://statisticsbyjim.com/basics/cronbachs-alpha/>. [Accessed: 10<sup>th</sup> September]

Fush., 2018. *Fast Fashion – The Ugly Truth | FUSH | European Clothing Maker*. Available at: <https://www.fush.rs/news/fast-fashion/#:~:text=Negative%20social%20impacts%20reflect%20in.> [Accessed 23<sup>rd</sup> August 2023]

Gausden, G. 2022. *Is renting clothes cheaper and better for the environment?* Available at: <https://inews.co.uk/inews-lifestyle/money/ethical-money/whether-cheaper-hire-new-wardrobe-than-buy-into-fast-fashion-renting-clothes-rises-1453316>. [Accessed 25<sup>th</sup> August 2023]

Gee, A., 2023. *EY. Building a better working world*. Social media most common, but least trusted, source for sustainability education. Available at: [https://www.ey.com/en\\_gl/news/2023/06/ey-report-](https://www.ey.com/en_gl/news/2023/06/ey-report-)

social-media-most-common-but-least-trusted-source-for-sustainability-education [Accessed: 5<sup>th</sup> September 2023]

George, T. 2022. *Semi-Structured Interview | Definition, Guide & Examples*. Scribbr. Available at: [https://www.scribbr.co.uk/research-methods/semi-structured-interviews/#:~:text=Semi%2Dstructured%20interviews%20are%20often%20open%2Dended%2C%20allowing%20for](https://www.scribbr.co.uk/research-methods/semi-structured-interviews/#:~:text=Semi%2Dstructured%20interviews%20are%20often%20open%2Dended%2C%20allowing%20for.). [Accessed: 2<sup>nd</sup> September 2023]

Geneva Environment Network., 2021. *Environmental Sustainability in the Fashion Industry*. [www.genevaenvironmentnetwork.org](http://www.genevaenvironmentnetwork.org). Available at: <https://www.genevaenvironmentnetwork.org/resources/updates/sustainable-fashion/>. [Accessed 31<sup>st</sup> August 2023]

Gillham, B., 2008, *Developing a questionnaire*, Bloomsbury Publishing

Global Labour Justice., 2020. *Gap: Gender Based Violence in Garment Supply Chains*. Available at: <https://globallaborjustice.org/gap/>. [Accessed 28<sup>th</sup> August 2023]

Global Slavery Index., 2023. *Walk Free*. Available at: <https://www.walkfree.org/global-slavery-index/>. [Accessed 20<sup>th</sup> August 2023]

Greenpeace International., 2022 *Taking the Shine off SHEIN: Hazardous chemicals in SHEIN products break EU regulations, new report finds*. Greenpeace International. Available at: <https://www.greenpeace.org/international/press-release/56979/taking-the-shine-off-shein-hazardous-chemicals-in-shein-products-break-eu-regulations-new-report-finds/>. [Accessed 31<sup>st</sup> August 2023]

Guereisoli, A., 2023. *Gen Z cannot afford original or sustainable products*. Available at: [https://www.nssmag.com/en/lifestyle/32927/gen-z-dupes-sustainable-cost-of-living-crisis#:~:text=The%20UK%20research%20company%20reported,options%20over%20eco%2Dconscious%20ones](https://www.nssmag.com/en/lifestyle/32927/gen-z-dupes-sustainable-cost-of-living-crisis#:~:text=The%20UK%20research%20company%20reported,options%20over%20eco%2Dconscious%20ones.). [Accessed: 10<sup>th</sup> September 2023]

Guney, M.S., 2016. Solar power and application methods. *Renewable and Sustainable Energy Reviews*, 57, pp.776-785.

Hamilton, A. 2023. *Shein Stealing Designs | 5 Times Shein Copied Indie Fashion Designers*. Available at: <https://ecoclubofficial.com/shein-stealing-designs-independent-fashion-brands/>. [Accessed 24<sup>th</sup> August 2023]

Harju., 2022 *Telaketju*. 2023. *This is what ultra fast fashion is made of*. Available at: <https://telaketju.turkuamk.fi/en/blogi/naista-aineksista-on-ultrapikamuoti-tehty/>. [Accessed 21<sup>st</sup> August 2023]

Hayes, A. 2022. *Fast Fashion*. Investopedia. Available at: <https://www.investopedia.com/terms/f/fast-fashion.asp>. [Accessed 23<sup>rd</sup> August 2023]

Henninger, C.E., Alevizou, P.J. and Oates, C.J., 2016. What is sustainable fashion?. *Journal of Fashion Marketing and Management: An International Journal*, 20(4), pp.400-416.

Hobson, J., 2013. To die for? The health and safety of fast fashion. *Occupational Medicine*, **63**(5), pp.317-319.

Holmes, J., 2022. SHEIN: The Perfectionists of Manipulation and Exploitation. *Critical Reflections: A Student Journal on Contemporary Sociological Issues*.

Hsu, H.Y. and Wang, S.K., 2017. Using Google Forms to collect and analyze data. *Science Scope*, **40**(8), p.64.

Igini, M., 2023. *10 Stunning Fast Fashion Waste Statistics*. Earth.org. Available at: <https://earth.org/statistics-about-fast-fashion-waste/#:~:text=1..> [Accessed: 20<sup>th</sup> August 2023]

Hudson, C., 2021. *5 Alternatives to Fast Fashion. The Borgen Project*. Available at: <https://borgenproject.org/alternatives-to-fast-fashion/>. [Accessed 30<sup>th</sup> August 2023]

Hugo, A., de Nadae, J. and da Silva Lima, R., 2021. Can fashion be circular? A literature review on circular economy barriers, drivers, and practices in the fashion industry's productive chain. *Sustainability*, **13**(21), p.12246.

HVE., 2019. *Haus Von Eden .Sustainable Lifestyle. Generation Z Contradictions: The Fast Fashion Paradox*. Available at: <https://www.hausvoneden.com/sustainability/contradictions-gen-z-almost-fashion-paradox/> [Accessed: 2<sup>nd</sup> September 2023]

Idacavage, S. 2016. *Fashion History Lesson: The Origins of Fast Fashion*. Fashionista. Available at: <https://fashionista.com/2016/06/what-is-fast-fashion>. [Accessed 24<sup>th</sup> August 2023]

IMP., 2022. *How Clothes Rationing Affected Fashion In The Second World War*. Available at: <https://www.iwm.org.uk/history/how-clothes-rationing-affected-fashion-in-the-second-world-war>. [Accessed 25<sup>th</sup> August 2023]

Imran, M., Crowley, D.E., Khalid, A., Hussain, S., Mumtaz, M.W. and Arshad, M., 2015. Microbial biotechnology for decolorization of textile wastewaters. *Reviews in Environmental Science and Bio/Technology*, **14**, pp.73-92.

Jang, J., Ko, E., Chun, E. and Lee, E., 2012. A study of a social content model for sustainable development in the fast fashion industry. *Journal of Global Fashion Marketing*, **3**(2), pp.61-70.

Jimenez, G., 2023. Fast Fashion.

Joung, H.M., 2014. Fast-fashion consumers' post-purchase behaviours. *International Journal of Retail & Distribution Management*, **42**(8), pp.688-697.

Johnson., 2019. *How Fast Fashion Hurts the Planet through Pollution and Waste*. Available at: <https://www.businessinsider.com/fast-fashion-environmental-impact-pollution-emissions-waste-water-2019-10?r=US&IR=T>. [ Accessed 21<sup>st</sup> August 2023]

Keen, S., Lomeli-Rodriguez, M. and Joffe, H., 2022. From challenge to opportunity: virtual qualitative research during COVID-19 and beyond. *International Journal of Qualitative Methods*, **21**, p.16094069221105075.

Kim, K.H., Kabir, E. and Jahan, S.A., 2017. Exposure to pesticides and the associated human health effects. *Science of the total environment*, **575**, pp.525-535.

Kirchherr, J. and Charles, K., 2018. Enhancing the sample diversity of snowball samples: Recommendations from a research project on anti-dam movements in Southeast Asia. *PloS one*, **13**(8), p.e0201710.

Kleiderly., 2019. How much water is needed to make a t-shirt? Available at: <https://www.kleiderly.com/our-blog/how-much-water-is-needed-to-make-a-t-shirt>. [Accessed 22<sup>nd</sup> August 2023]

Lawbite., 2022. *What laws has the UK Government made on fast fashion?* Available at: <https://www.lawbite.co.uk/resources/blog/what-laws-has-the-uk-government-made-on-fast-fashion>

Lee, Y., Cho, J., Sohn, J. and Kim, C., 2023. Health Effects of Microplastic Exposures: Current Issues and Perspectives in South Korea. *Yonsei Medical Journal*, **64**(5), p.301.

Leung, F.H. and Savithiri, R., 2009. Spotlight on focus groups. *Canadian Family Physician*, **55**(2), pp.218-219.

Lellis, B., Fávoro-Polonio, C.Z., Pamphile, J.A. and Polonio, J.C., 2019. Effects of textile dyes on health and the environment and bioremediation potential of living organisms. *Biotechnology Research and Innovation*, **3**(2), pp.275-290.

Linden, A.R., 2016. An analysis of the fast fashion industry.

Li, Y., Zhao, X., Shi, D. and Li, X., 2014. Governance of sustainable supply chains in the fast fashion industry. *European Management Journal*, **32**(5), pp.823-836.

Li, Y., Sun, Y., Li, J., Tang, R., Miu, Y. and Ma, X., 2021. Research on the influence of microplastics on marine life. In *IOP Conference Series: Earth and Environmental Science* (Vol. 631, No. 1, p. 012006). IOP Publishing.

Long, X. and Nasiry, J., 2022. Sustainability in the fast fashion industry. *Manufacturing & Service Operations Management*, **24**(3), pp.1276-1293.

Lu, A.S. (2014). *US Department of Labor: 28 countries were Found Using Child or Forced Labor in Making Textiles and Apparel*. FASH455 Global Apparel & Textile Trade and Sourcing. Available at: <https://shenglufashion.com/2014/12/04/us-department-of-labor-28-countries-were-found-using-child-or-forced-labor-in-making-textiles-and-apparel/>. [Accessed 30<sup>th</sup> August 2023]

Lumley, S., 2023. *Naked protest staged to highlight overconsumption and needless waste*. Available at: <https://www.mirror.co.uk/lifestyle/london-fashion-week-naked-protest-30928319> [Accessed: 11<sup>th</sup> September 2023]

Mahapatra, N.N., 2016. *Textile dyes*. CRC press.

Mazzu., R., 2021. *Gen Z loves Fast Fashion. So, how easily is that sustainable*. Available at: <https://www.myindy.com/blog/genz-sustainability#:~:text=Fast%20fashion%20found%20its%20ideal,and%2C%20they%20desire%20inex>

[pensive%20options.&text=Learn%20more%20about%20how%20fast,brands%20are%20the%20biggest%20offenders](#). [Accessed: 1<sup>st</sup> September 2023]

McCosker, J., 2023. *The Impact of Fast Fashion on Garment Workers*. Good On You. Available at: <https://goodonyou.eco/impact-fast-fashion-garment-workers/>. [Accessed 21<sup>st</sup> August 2023]

McClymont, M., 2019. *Introducing Our No.1 Supporter, Emma Watson*. Available at: <https://goodonyou.eco/emma-watson-good-on-you-supporter/> [Accessed: 30<sup>th</sup> August 2023]

McLeod, S. 2023. *Likert scale definition, examples and analysis*. Simply Psychology. Available at: <https://www.simplypsychology.org/likert-scale.html>. [Accessed 30<sup>th</sup> August 2023]

McNeill, L. and Moore, R., 2015. Sustainable fashion consumption and the fast fashion conundrum: fashionable consumers and attitudes to sustainability in clothing choice. *International journal of consumer studies*, **39**(3), pp.212-222.

Mihás, P., 2023. Qualitative, Multimethod, and Mixed method Research. *International Encyclopaedia of Education, 4th ed.*; Elsevier: Amsterdam, The Netherlands, pp.302-313.

Morgan, D.L. and Nica, A., 2020. Iterative Thematic Inquiry: A New Method for Analyzing Qualitative Data. *International Journal of Qualitative Methods*, **19**, pp.1–11.  
doi:<https://doi.org/10.1177/1609406920955118>.

M. Taplin, I., 2014. Who is to blame? A re-examination of fast fashion after the 2013 factory disaster in Bangladesh. *Critical perspectives on international business*, **10**(1/2), pp.72-83.

Mueller, A.E. and Segal, D.L., 2014. Structured versus semistructured versus unstructured interviews. *The encyclopedia of clinical psychology*, pp.1-7.

Mukhopadhyay, S. and Ramakrishnan, G., 2008. Microfibres. *Textile Progress*, **40**(1), pp.1-86.

Mukendi, A., Davies, I., Glozer, S. and McDonagh, P., 2020. Sustainable fashion: current and future research directions. *European Journal of Marketing*, **54**(11), pp.2873-2909.

Napier, E. and Sanguineti, F., 2018. Fashion Merchandisers' Slash and Burn dilemma: a consequence of over production and excessive waste?. *Rutgers Business Review*, **3**(2).

Naranjo, S.E., Ruberson, J.R., Sharma, H.C., Wilson, L. and Wu, K., 2008. The present and future role of insect-resistant genetically modified cotton in IPM. *Integration of insect-resistant genetically modified crops within IPM programs*, pp.159-194.

Niinimäki, K., Peters, G., Dahlbo, H., Perry, P., Rissanen, T. and Gwilt, A., 2020. The environmental price of fast fashion. *Nature Reviews Earth & Environment*, **1**(4), pp.189-200.

Niinimäki, K., 2015. Ethical foundations in sustainable fashion. *Textiles and Clothing Sustainability*, **1**, pp.1-11.

Nurnafia, A.N., 2021. Instagram marketing activities of a fast fashion brand in response to Covid-19 pandemic. *Turkish Journal of Computer and Mathematics Education (TURCOMAT)*, **12**(10), pp.4357-4375.

Oblinger, D., 2003. Boomers gen-xers millennials. *EDUCAUSE review*, **500**(4), pp.37-47.

Oh, J.Y., 2022. *The impact of social media marketing on consumer loyalty: a study on Gen X and Y* (Doctoral dissertation, UTAR).

Optoro., 2020. *Returns Report: Powering Resilient Retail in 2020*. Available at: <https://www.optoro.com/returns-blog/returns-report-powering-resilient-retail-in-2020/>. [Accessed 27<sup>th</sup> August 2023]

Östlund, U., Kidd, L., Wengström, Y. and Rowa-Dewar, N., 2011. Combining qualitative and quantitative research within mixed method research designs: a methodological review. *International journal of nursing studies*, **48**(3), pp.369-383.

Oxfam., 2019. *What She Makes | Oxfam Australia*. Available at: <https://www.oxfam.org.au/what-she-makes/>. [Accessed 29<sup>th</sup> August 2023]

Pastran, A., Colli, E. and M. Nor, H., 2021. Public Policy and Legislation in Sustainable Fashion. *Sustainable Fashion and Textiles in Latin America*, pp.171-189.

Pan., 2019 *Cotton - Pesticide Action Network UK*. Pesticide Action Network UK. Available at: <https://www.pan-uk.org/cotton/>. [Accessed 24<sup>th</sup> August 2023]

Peake, A., 2023. *LondonWorld*. Shein London pop-up store. Available at: <https://www.londonworld.com/whats-on/shein-london-pop-up-store-oxford-street-4337682> [Accessed: 11<sup>th</sup> September 2023]

Peters, G., Li, M. and Lenzen, M., 2021. The need to decelerate fast fashion in a hot climate-A global sustainability perspective on the garment industry. *Journal of cleaner production*, **295**, p.126390.

Pointing, C., 2023. *Toxic Chemicals in Fast Fashion Could Be Harming Your Health*. Available at: <https://goodonyou.eco/chemicals-in-fast-fashion/#:~:text=Finding%20chemicals%20in%20fast%20fashion.> [Accessed 28<sup>th</sup> August 2023]

Pool, R., Montgomery, C.M., Morar, N.S., Mweemba, O., Ssali, A., Gafos, M., Lees, S., Stadler, J., Crook, A., Nunn, A. and Hayes, R., 2010. A mixed methods and triangulation model for increasing the accuracy of adherence and sexual behaviour data: the Microbicides Development Programme. *PLoS one*, **5**(7), p.e11600.

Prew, V., 2020. *The Rise of Generation Conscious*. Fashion Revolution. Available at: <https://www.fashionrevolution.org/the-rise-of-generation-conscious/>. [Accessed: 15<sup>th</sup> September 2023]

Qualtrics., 2023. *Your quick guide to open-ended survey questions*. Available at: <https://www.qualtrics.com/experience-management/research/open-ended-questions/#:~:text=Open%2Dended%20questions%20help%20you.> [Accessed: 1<sup>st</sup> September 2023]

Rahman, S. and Rahman, K.M., 2020. Multi-actor initiatives after Rana Plaza: Factory managers' views. *Development and change*, **51**(5), pp.1331-1359.

Raj, M.M. and Bajpai, P., 2022. Mathematical Analysis of the Environmental Impact of Throwing Away Fashion. *European Journal of Sustainable Development*, **11**(4), pp.211-211.

Rauturier, S., 2023. *Good on you. What is Fast Fashion and Why is it so bad?* Available at: <https://goodonyou.eco/what-is-fast-fashion/> [Accessed: 10<sup>th</sup> September 2023]

Rawat, S. 2021. *What is the Carbon Footprint of your T Shirt? | One less.* Available at: <https://onelessofficial.com/en-gb/blogs/blog/carbon-footprint-of-a-t-shirt>. [Accessed 3 Jan. 2023].

Reichert, E. and Drew, D., 2019. By the numbers: The economic, social and environmental impacts of "fast fashion".

Roesler, P. 2018. *New Study Shows Deals and Promotions Affect Every Part of Shopping Experience.* Available at: <https://www.inc.com/peter-roesler/new-study-shows-deals-promotions-affect-every-part-of-shopping-experience.html>. [Accessed 31<sup>st</sup> August 2023]

Rabl, A., Spadaro, J.V. and McGavran, P.D., 1998. Health risks of air pollution from incinerators: a perspective. *Waste management & research*, **16**(4), pp.365-388.

Roosen, I. and Raedts, M., 2020. The power of negative publicity on the fast fashion industry. *Journal of Global Fashion Marketing*, **11**(4), pp.380-396.

SANVT. (2022). Fast fashion explained | meaning, history, issues & problems. Available at: <https://uk.sanvt.com/blogs/journal/fast-fashion-explained-meaning-and-history>. [Accessed 30<sup>th</sup> August 2023]

SANVT. (2022). *The environmental impact of the fast fashion industry | Infographic & Stats.* Available at: <https://uk.sanvt.com/blogs/journal/environmental-impact-of-fast-fashion-infographic?shpxid=e89d3ad8-113b-429a-a83d-9a1632788904>. [Accessed 19<sup>th</sup> August 2023].

Saris, W.E. and Gallhofer I.N. (2014), *Evaluation and analysis of questions for survey research*, John Wiley and Sons, 2nd Ed.

Samanta, O., 2023. *Shein Network Revenue & Usage Statistics 2023.* Available at: <https://prioridata.com/data/shein-revenue-statistics/#:~:text=After%20Shein%20entered%20the%20US>. [Accessed 18<sup>th</sup> August 2023].

Schuman, H. and Presser, S., 1996. *Questions and answers in attitude surveys: Experiments on question form, wording, and context.* Sage.

Schleiffer, M. and Speiser, B., 2022. Presence of pesticides in the environment, transition into organic food, and implications for quality assurance along the European organic food chain—A review. *Environmental Pollution*, p.120116.

Seemiller, C. and Grace, M. (2019). *Generation Z: A century in the making.* London: Routledge.

Sedgwick, P., 2013. Convenience sampling. *Bmj*, 347.

Sedgwick, P., 2014. Spearman's rank correlation coefficient. *Bmj*, 349.

Siddiqui, J. and Uddin, S., 2016. Human rights disasters, corporate accountability and the state: Lessons learned from Rana Plaza. *Accounting, Auditing & Accountability Journal*, **29**(4), pp.679-704.

Sierra, B., 2021. *Sustainable Fashion Forum*. Psychology of Fast Fashion. Available at: <https://www.thesustainablefashionforum.com/pages/the-psychology-of-fast-fashion-exploring-the-complex-emotions-fast-fashion-evokes-in-consumers> [Accessed: 4<sup>th</sup> September 2023]

Simpson, H. 2020. *Fast Fashion in China: A Humanitarian Issue*. BORGEM. Available at: <https://www.borgenmagazine.com/fast-fashion-in-china/>. [Accessed 27<sup>th</sup> August 2023]

Sharma, B., Dangji, A.K. and Shukla, P., 2018. Contemporary enzyme based technologies for bioremediation: a review. *Journal of environmental management*, 210, pp.10-22.

Shein Machine., 2022. *Channel 4. Watch inside the Shein Machine: UNTOLD* Available at: <https://www.channel4.com/programmes/inside-the-shein-machine-untold> [Accessed 31<sup>st</sup> March 2023]

Shorten, A. and Smith, J., 2017. Mixed methods research: expanding the evidence base. *Evidence-based nursing*, **20**(3), pp.74-75.

Simmons, E., 1999. Restoration of landfill sites for ecological diversity. *Waste management & research*, **17**(6), pp.511-519.

SurveyMonkey., 2023. *Sample Size Calculator: Understanding Sample Sizes*. Available at: <https://www.surveymonkey.co.uk/mp/sample-size-calculator/>. [Accessed: 10<sup>th</sup> August 2023]

Stevenson., (2017). *Reasons to position your demographic section at the end of a survey*. Available at: <https://ruthlessresearch.wordpress.com/2017/09/04/reasons-to-position-your-demographic-section-at-the-end-of-a-survey/>. [Accessed: 30<sup>th</sup> August 2023]

Sull, D. and Turconi, S., 2008. Fast fashion lessons. *Business Strategy Review*, **19**(2), pp.4-11.

Teens., 2022. *Fast Fashion: Its Environmental and Social Impacts*. Available at: <https://www.halifaxpubliclibraries.ca/blogs/post/fast-fashion-its-environmental-and-social-impacts/#:~:text=Major%20environmental%20and%20social%20impacts&text=Depletion%20of%20non%2Drenewable%20resources>

Temu., 2023. *Shop Like A Billionaire*. Available at: <https://www temu.com/shop-like-a-billionaire-s.html>. [Accessed 20<sup>th</sup> August 2023]

Tilbury, D., 2011. Higher education for sustainability: a global overview of commitment and progress. *Higher education in the world*, **4**(1), pp.18-28.

Ting, T.Z. and Stagner, J.A., 2023. Fast fashion-wearing out the planet. *International Journal of Environmental Studies*, **80**(4), pp.856-866.

True Cost., 2015. *The True Cost Documentary*. Available at: <https://truecostmovie.com> [Accessed: 20<sup>th</sup> March 2023]

Trusov, M., Ma, L. and Jamal, Z., 2016. Crumbs of the cookie: User profiling in customer-base analysis and behavioral targeting. *Marketing Science*, **35**(3), pp.405-426.

Turker, D. and Altuntas, C., 2014. Sustainable supply chain management in the fast fashion industry: An analysis of corporate reports. *European Management Journal*, **32**(5), pp.837-849

United Nations., (1987). *Sustainability United Nations*. Available at: <https://www.un.org/en/academic-impact/sustainability>. [Accessed 24th August 2023]

USDOL., 2018. U.S. Department of labour. International Child Labor & Forced Labor Reports. Available at: <https://www.dol.gov/agencies/ilab/resources/reports/child-labor>. [Accessed 30<sup>th</sup> August 2023]

Vasanth Raju, N. and Harinarayana, N.S., 2016, January. Online survey tools: A case study of Google Forms. In *National conference on scientific, computational & information research trends in engineering, GSSS-IETW, Mysore*.

Vătămănescu, E.M., Dabija, D.C., Gazzola, P., Cegarro-Navarro, J.G. and Buzzi, T., 2021. Before and after the outbreak of covid-19: Linking fashion companies' corporate social responsibility approach to consumers' demand for sustainable products. *Journal of Cleaner Production*, **321**, p.128945.

Vinted., 2023. *Shopping second-hand on Vinted is a better choice for the climate than buying new, according to a report by Vaayu*. [online] Available at: <https://company.vinted.com/newsroom/vinted-climate-impact-report-vaayu>. [Accessed 29<sup>th</sup> August 2023]

Walker, S., Giard, J. and Walker, H. 2017. *The Handbook of Design for Sustainability*. Google Books. Bloomsbury Academic. Available at: [https://books.google.co.uk/books?hl=en&lr=&id=vQpbEAAAQBAJ&oi=fnd&pg=PA137&dq=throw+away+culture&ots=GqVt0-dnGZ&sig=zIHmolwAo1FrWx-qE5KodKRB7jU&redir\\_esc=y#v=onepage&q=throw%20away%20culture&f=false](https://books.google.co.uk/books?hl=en&lr=&id=vQpbEAAAQBAJ&oi=fnd&pg=PA137&dq=throw+away+culture&ots=GqVt0-dnGZ&sig=zIHmolwAo1FrWx-qE5KodKRB7jU&redir_esc=y#v=onepage&q=throw%20away%20culture&f=false) [Accessed 21<sup>st</sup> August 2023]

Warburton, K., 2003. Deep learning and education for sustainability. *International Journal of Sustainability in Higher Education*, **4**(1), pp.44-56.

Wilson., 2022. *Toxic Textiles: The Chemicals in Our Clothing*. Earth Day. Available at: <https://www.earthday.org/toxic-textiles-the-chemicals-in-our-clothing/>. [Accessed 31<sup>st</sup> August 2023]

Wong, J.J. and Chen, H.H., 2017, July. Sewing for Life: The Development of Sewing Machine in the Tune of Women Life Experience in Taiwan. In *International Conference on Cross-Cultural Design* (pp. 469-481). Springer, Cham

Yen, J., 2016. *Seamwork. Zero-waste design*. Available at: <https://www.seamwork.com/articles/zero-waste-design> [Accessed: 20<sup>th</sup> August 2023]

YRE., (2021). *Unnoticed danger: the fashion industry (Portugal and Turkey) — Young Reporters for the Environment*. Available at: <https://www.yre.global/international-collaboration-articles/2021/9/8/uwfxh4byekf62q5aabkkytxabahjdf>. [Accessed 24<sup>th</sup> August 2023]

Yu, L., 2018. An overview on the fate of fast fashion and nanoparticle treated textiles. *Res. J. Nanosci. Eng*, **2**, pp.30-33.

Zamani, B., Sandin, G. and Peters, G.M., 2017. Life cycle assessment of clothing libraries: can collaborative consumption reduce the environmental impact of fast fashion?. *Journal of cleaner production*, **162**, pp.1368-1375.

Zhenxiang, W. and Lijie, Z., 2011. Case study of online retailing fast fashion industry. *International Journal of e-Education, e-Business, e-Management and e-Learning*, **1**(3), p.195.

## Appendices

### Appendix 1 – Sample Size Calculation

Sample size, margin of error is the amount you can tolerate, 5% margin of error.

Ideally would like a 2.5% margin of error but the lower the margin, it requires a larger sample size (1428).

Confidence level – 95% confidence level

Population size – 20000 (it doesn't change much for population larger than 20000)

50% response distribution.

Recommended sample size – 377 – minimum recommended size of sample.

200 sample size obtained – 6.89% margin error

$$x = Z_{(c/100)}^2 r(100-r)$$

$$n = \frac{N x}{((N-1)E^2 + x)}$$

$$E = \text{Sqrt}[\frac{(N-n)x}{n(N-1)}]$$

N – population size

R – fraction of responses interested in

Z(c/100) critical value for confidence level.

## **Appendix 2 - Blank copy of Survey Form**

Introduction:

### **Amy Burns - Post-Graduate Dissertation**

I am a postgraduate student, studying at the University of Birmingham.

The data collected in this survey will be used towards my Masters Research Project.

I am researching the difference in Fast Fashion usage between generations, in particular Gen Z (1997-2012) and Gen X (1965-1980), and assessing whether individuals are aware of both the environmental and human impacts of fast fashion.

Any questions, please feel free to email me at **a.burns.01@me.com**

Consent:

The information obtained within this survey will form part of my research project concerned with the awareness and usage of Fast Fashion.

The data collected will be anonymous and confidential. The responses will be stored on a secure database until this dissertation is completed. Upon completion, the data will be safely disposed, in accordance of the Data Protection Act 1998.

The participation is voluntary and you are free to withdraw from the survey at any time. The survey will take approximately 10 minutes to complete.

Do you confirm that you understand the above information and give consent for your responses to be anonymously used as data towards this dissertation research project?

Yes I understand the above information and I give my consent

No I do not give my consent

Survey Questions:

1. Fast fashion is a term used to describe the recent phenomenon of rapid, mass-produced clothing garments at a low cost. Are you **aware** of this term?
  - a. Yes
  - b. No
  - c. I am now
2. Please name **four** fast fashion brands.
3. Have you ever purchased an item from a **fast fashion** brand (e.g., h&m, asos)?
  - a. Yes
  - b. No
  - c. I am unsure
4. Have you ever purchased an item from an **ultra-fast fashion** brand (extreme fast fashion, specifically with a digital, online focus) (e.g., shein, pretty little thing)?
  - a. Yes
  - b. No
  - c. I am unsure
5. On a scale 1-5, how often would you say you **purchase** clothing garments?
  - a. 1 (Never)
  - b. 2
  - c. 3

- d. 4
  - e. 5 (All the time)
6. How often do you purchase garments from **fast fashion** brands?
- a. Daily
  - b. Once a week
  - c. Once a month
  - d. Multiple times a week
  - e. Multiple times a month
  - f. Every 3 months
  - g. Every 6 months
  - h. Annually
  - i. I am unsure.
7. On average, how much per **MONTH** do you spend on fast fashion brands?
- a. None
  - b. Less than £15
  - c. £15 - £40
  - d. £41 - £70
  - e. £71 - £100
  - f. £101 - £150
  - g. £150 +
  - h. I am unsure
8. On a scale of 1 - 5, how much do you think fast fashion impacts the **environment**?
- a. 1 (No impact)
  - b. 2

- c. 3
- d. 4
- e. 5 (Completely impacts)

9. What percentage of the **global carbon dioxide production**, do you think, is caused by fast fashion?

- a. 1%
- b. 4%
- c. 10%
- d. 12%

10. Have you heard of Rana Plaza?

- a. Yes
- b. No
- c. I recognise the term

11. How aware are you of the impact fast fashion has on **garment workers**?

- a. 1 (Not aware)
- b. 2
- c. 3
- d. 4
- e. 5 (Very aware)

12. Have you ever shopped at a second-hand, thrift or vintage clothing store?

- a. Yes
- b. No
- c. I am unsure

13. Are you aware of the app Vinted?

- a. Yes

b. No

14. Have you ever used vinted/depop/eBay or similar?

a. Yes

b. No

c. I am unsure

15. Prior to the covid-19 pandemic, did you shop more online or in-person?

a. Online

b. In person

c. 50:50

16. Since the covid- pandemic (post 2020), do you shop more online or in-person?

a. Online

b. In person

c. 50:50

17. Do you think your shopping habits have been altered by the **cost-of-living crisis**?

a. Yes 100%

b. Yes, a fair bit

c. Only a little

d. Not at all

18. How often do you wear an item of clothing **more than 3 times**?

a. 1 (Never)

b. 2

c. 3

d. 4

e. 5 (Always)

19. When you are no longer going to wear an item of clothing (e.g., bored/no longer fits) what do you do with the item?

20. Rank 1-5 - What is the **main** aspect you think about when buying an item of clothing?

	Price	Brand preference	Trendiness	Sustainable aspects	Quality
Rank 1	<input type="radio"/>				
Rank 2	<input type="radio"/>				
Rank 3	<input type="radio"/>				
Rank 4	<input type="radio"/>				
Rank 5	<input type="radio"/>				

21. Do you see fast fashion/ ultra-fast fashion advertisements on your social media?

- a. Yes
- b. No

22. Would you say that social media - Instagram, tik tok, facebook - influences your purchase of clothes?

- a. Yes
- b. No
- c. I am unsure

23. Do you have tik tok?

a. Yes

b. No

24. If you answered **NO** to the previous question, move to the next question. If you answered **YES**, then how often a day do you see shopping hauls on your tik-tok FYP (For You Page)?

a. 1 (Never)

b. 2

c. 3

d. 4

e. 5 (Always)

25. How old are you?

a. 18-21

b. 22-25

c. 26-30

d. 31-40

e. 41-50

f. 51-60

g. 60+

26. What gender do you identify with?

a. Female

b. Male

c. Non-binary

d. Prefer not to say

27. Are you a student?

a. Yes

- b. No
- c. Prefer not to say

28. If you are willing to participate in a short interview following on from this survey, please leave your email here and I will be in contact.

29. Thank you for completing the survey, if you have any extra comments to add regarding fast fashion, please do below.

### **Appendix 3 – Interview Structure**

#### Interview Questions:

Hello, I would first like to thank you for taking part in this interview and contributing towards the research for my postgraduate dissertation.

I am just going to start with asking a few yes or no questions just to confirm that you have read the participant information sheet and are aware of the conditions of this interview.

Firstly, can you state your full name please.

Could you tell me your year of birth please? This is to ensure your research is collected for the correct target audience.

Do you understand the participant information leaflet for this proposed study and have asked for clarity if you do not understand?

Are you aware that the interview is being recorded and your data will remain secure and disposed of once the research project is completed?

Do you agree to the use of your interview answers in my dissertation project? They will remain anonymous, and a pseudonym name will be used for confidentiality.

And finally are you aware that your contribution is voluntary and you are able to withdraw from the research up until 5th August 2023.

Okay thank you, we are ready to begin.

To start, I am going to ask you six questions. I would like you to say the first word or sentence that you think of when I ask these questions. This is a way for me as the researcher to gain an initial idea of both your awareness and usage of fast fashion.

1. Would you say you are aware of what fast fashion is?
2. Can you please name three fast fashion brands.
3. Would you say that you are aware of the impact that fast fashion has on the environment?
4. Would you say that you are aware of the impact that fast fashion has on the human livelihoods?
5. Do you purchase new clothing garments regularly?
6. What item of clothing, do you think you own most of?

Secondly, I am going to ask you to complete these four sentences. You can use a few words or a complete sentence, whatever first comes to mind.

Fast fashion is popular because ...

Fast fashion is bad for the environment because ...

I would describe my shopping habits as ....

Alternatives to fast fashion are ...

Thank you so we will begin the main body of the interview now.

- Fast fashion is a recent phenomenon which has exceeded in popularity since 2010. It has taken over the fashion industry significantly over the past three decades. In your own words can you please describe what you think fast fashion is.
- Fast fashion is defined most commonly as the rapid mass production of clothing garments at a low cost, whilst consumer demand remains at its

highest. To your knowledge, have you ever shopped at a fast fashion store, either online or in-person?

- How often would you say you purchase clothes per month?
- How about how many times per year?
- Is the majority of the clothing purchases you make annually from a fast fashion brand?
- As of December 2022, there are 103 Fast Fashion Brands in the UK. Is this alarming to you?
- Most commonly when asked the initial question regarding fast fashion brands, individuals state online fashion brands, such as shein. Does it surprise you that brands such as Next and Urban Outfitters are part of the fast fashion industry?
- (IF SAID SURPRISING) Could you expand on why you think this is surprising?
- Fast fashion is known to have a drastic impact on both the environment and human livelihoods. Starting with the environment, what do you think is the impact is of fast fashion on the planet?
- Could you suggest a few ways in which you think fast fashion contributes to environmental issues?
- Fast fashion produces significant amounts of carbon emissions, it is to blame for 10% of the global carbon footprint. Plastic microfibres pollute waterways, toxic dyes enter water streams and 85% of clothing garments end up in landfill annually. On a scale of 1-5, 1 being most aware and 5 being least aware. How aware would you say you are of the environmental issues caused by fast fashion?
- Could you please explain why you think this?

- If you were to be further educated on the environmental issues surrounding fast fashion, do you believe this would alter your shopping habits and purchases from fast fashion brands in the future?
- How do you think garment workers are generally treated in the fast fashion industry, with regards to working conditions and wages?
- The Rana Plaza tragedy occurred in 2013. The Rana Plaza Factory in Bangladesh collapsed in 2013, unfortunately killing 1134 people and injuring a further 2500. The building was home to several fast fashion brands including Primark. Were you previously aware of this event?
- Do you feel tragedies such as this, are well-known by individuals across the UK?
- Do you think increasing awareness surrounding the illegal conditions of garment factories, such as Rana Plaza, would alter individuals opinions regarding the usage of fast fashion?
- Using shein as a case study. Have you heard of the brand shein?
- Okay, (IF SO), have you personally ever brought an item from shein?
- Do you know the reputation that this fast fashion brand has? If so could you detail the basis of what you know.
- Did this or would this ever affect your future purchasing from this brand?
- Fast fashion encourages a 'throw-away' culture. In your own words what do you think this term refers to?
- A throw-away culture is the one-use or a few uses of a single clothing garment before disposal. It increases waste and landfill. Would you consider yourself as a contributor to the 'throw-away' culture?

- How many times on average would you wear a piece of clothing. For example a t-shirt.
- Now how about a dress (shirt) that you purchased for one event in particular.
- Out of these four options, price, brand preference, sustainable aspects or trendiness, which would you say is the most important aspect to you when purchasing clothing garments?
- Please can you explain a little why.
- Do you think your perceptions towards fast fashion have changed at any point?
- Could you please elaborate a little into this.

I am now going to show you a short clip showing the reality of fast fashion. It is taken from the documentary 'True Cost'.

- What are your thoughts on the clip you have just watched?
- How did the clip make you feel?
- Were you surprised about what you saw? What aspect did you find most surprising?
- Do you think clips such as this, could alter your opinion on purchasing from fast fashion brands in the future?
- Are you aware of any sustainable clothing alternatives? If so which ones and how did you hear of them?
- Do you think governments and international organisations should play a roles in promoting sustainable fashion?

- Have you ever brought second-hand clothing from a shop/store/online?
- Okay, do you think this would have any impact on your generations views towards fast fashion?
- Why do you think fast fashion is so popular compared to sustainable fashion brands?
- Have you heard of vinted? If so, have you either purchased or sold from this second-hand clothing app?
- Do you get fast fashion brand advertisements on your social media accounts?
- Once you have viewed a clothing garment on your device, do you find that you frequently see similar items on your social media feeds?
- Do you think that fast fashion advertisements on social media have an effect on the clothing garments you purchase?
- Fast fashion brands, especially online-dominant ones, are known to promote frequent discounts and multi-buy bundles. Would you say these encourage you to purchase garments more frequently and in larger quantities?
- Do you have a profile on tik tok?
- Have you seen hauls from fast fashion brands on your FYP? If so, which fast fashion brands in particular have you seen hauls from.
- The covid-19 pandemic in 2020 affected every aspect of our lives, including the fast fashion industry. Online shopping accelerated in particular during this time. Would you agree with this statement, and do you think this personally affected you?
- Do you think the covid-19 pandemic altered your shopping habits? If so, could you please detail in which way?

- Are you aware of the current cost-of-living crisis?
- It is thought that the current cost-of-living crisis, which is ongoing from 2021 has had an impact on individuals' disposable income. Do you agree with this statement?
- Do you think the cost-of-living crisis changed your personal shopping habits? Did it have any effect on the frequency of clothing purchase?
- Due to the crisis, do you think you are more likely to shop at fast fashion brands due to the cost compared to sustainable or designer alternatives?

Finally, there is no judgement here at all because I am in the same boat, do you think you will continue, for one reason or another, to shop at fast fashion brands in the future?

Thank you, that concludes our interview today. Is there any questions you have for me or anything you would like to add.

Thank you again for your time, I really appreciate it.

## **Appendix 4 – Gen X Transcript (Participant 7)**

Time: 29 minutes

Key words: fashion industry, online, next-day delivery, feel, aware, conditions, shein, throw-away culture.

### **Transcript:**

Hello, I would first like to thank you for taking part in this interview and contributing towards the research for my postgraduate dissertation. I'm just going to start with asking a few yes or no questions just to confirm that you've read the participant information sheet that I showed you prior to this and are aware of the conditions of this interview.

Firstly, can you state your full name please?

\*\*\*\*\*

Could you tell me your year of birth please? This is to ensure your research is collected for the correct target audience.

1972.

Do you understand the participant information leaflet that you were given and have had the chance to ask questions if you do not understand?

Yes.

Are you aware the interview is being recorded and your data will remain secure and disposed of when the research project is completed?

Yes.

Do you agree to the use of your interview answers in my dissertation project they will remain anonymous, and a pseudonym name will be used for confidentiality?

Yes.

And finally, are you aware that your contribution is voluntary and you're able to withdraw from the research up until the fifth of August?

Oh yes.

Okay, thank you. We are ready to begin.

Okay, good.

To start, I'm going to ask you six questions. I'd like you to say the first word or sentence that you think of when I ask these questions. This is a way for me as a researcher to get an initial idea of both your awareness and uses your first fashion. So firstly, would you say you're aware of what fast fashion is?

Yes.

Can you please name three fast fashion brands?

Shein, asos, h&m.

Would you say that you're aware of the impact that fast fashion has on the environment?

Yes.

Would you say that you're aware of the impact that fast fashion has on human livelihoods?

Yes, I am.

Do you purchase new clothing garments regularly?

No

What item of clothing do you think you own most of?

T shirts.

Okay, secondly, I'm going to ask you to complete these four sentences, please give a few words or a complete sentence whatever first comes to mind.

Fast fashion is popular because ...

it's cheap

Fast fashion is bad for the environment because ...

it's cheap.

I would describe my shopping habits as ...

Average

Alternatives to fast fashion are ...

Buying better quality clothing.

Thank you so we will begin the main body of the interview now. Fast fashion is a recent phenomenon which has exceeded in popularity since 2010. It's taken over the fashion industry significantly in the past three decades. In your own words, can you please describe what you think fast fashion is?

I think fast fashion is next day delivery, cheap clothing, and a lot of volume, one wash throwaway items.

Thank you and that's almost spot on there. So fast fashion is defined most commonly as the rapid mass production of clothing at a low cost while consumer demand remains at its highest. To your knowledge. Have you ever shopped at a fast fashion store? Either online or in person?

No

How often would you say you purchase clothes per month?

Once

How about how many times per year?

Well 12 times

Is the majority of the clothing purchase purchases you own made from a fast fashion brand?

I would hope not.

As of December 2022 There are 103 fast fashion brands in the UK. Is this alarming to you?

Very much so.

Most commonly when asked the initial question regarding fast fashion brands, individuals state online fast fashion brands such as shein, as you did yourself. Does it surprise you that brands such as next, Burton and Urban Outfitters are part of the fast fashion industry?

Yes, it does surprise me.

Could you please elaborate on why this is surprising?

I'm surprised that it covers more well-known established brands that have been around for a longer time than 2010.

Do you feel that like because next is higher price items than your typical shein? Do you feel like that's why you think that it is not fast fashion?

And they're not throwaway items from those places.

Do you mean that because they are of a better quality?

You would think and you would hope so.

Okay, thank you. So fast fashion is known to have a drastic impact on both the environment and human livelihoods. Starting with the environment, what do you think the impact of fast fashion is on the planet?

It has to contribute to global warming from raw materials to poor industrial processes, waste.

So fast fashion produces, you've already named quite a few impacts it has on the environment, but it produces 10% of the global carbon footprint which obviously aids global warming as you said. There's also plastic microfibers that pollute waterways, toxic dyes from the clothes and to water streams and 85% of all clothing made per year does end up in landfill. So, on a scale of one to five one being most aware and five being least aware how aware would you say you are of the environmental issues caused by fast fashion?

Well, very well. So 1.

Could you please explain why you think this is?

Because I know for a fact that fast fashion contributes to climate issues, to poor wealth of the people who are employed by the companies that use fast fashion and of course fast fashion definitely produces a lot of waste.

Okay, do you feel that if people of your generation were educated more about the environmental issues as you feel like you are, would alter their own shopping habits and purchase from fast fashion brands in the future?

I think people of my generation would not on purpose purchase something from a fast fashion brand. People such as yourself, who were highlighting to us it doesn't have to be the cheap online brands for it to be fast fashion. Really, it's more to do with making us aware that this Next and Zara, whoever may be are also part of the fast fashion.

How do you think garment workers are generally treated in the fast fashion industry with regards to working conditions and wages?

Extremely poor. It is well known that they are employed in very poor conditions for extremely long working hours, it is just a well-known fact. It has always been a problem for people who work in that industry.

The Rana Plaza tragedy occurred in 2013. Have you heard of the Rana Plaza?

I know the tragedy that you are talking about. I didn't know that was the name.

Yes it is the factory in Bangladesh. The factory unfortunately collapsed and it was home to the fast fashion brand Primark.

Yes.

Do you feel tragedies such as this are well known by individuals across the UK or do you feel like it's more hidden by the media?

I think it is not publicised enough. It is on the news when it happens. But unfortunately like a lot of these things, it's a three day news cycle. And unfortunately soon forgotten.

Okay, so do you feel like increasing awareness around the illegal conditions of garment factories, such as Rana Plaza, would alter individuals opinions regarding the use of your fast fashion?

I would hope that it would, but I'm very pessimistic in the fact that it would make little difference to the industry.

My dissertation is about comparing people from your generation with people from my generation, and whether there is different awareness and usage of fast fashion. Do you feel like your generation, or my generation is more aware of fast fashion and the impact it has on the environment?

Your generation has to be more aware of fast fashion simply because your generation is the generation that have promoted it and purchase more items. I know certain people in my generation that are aware of fast fashion. For as I said, earlier, highlighting those brands that you were not aware that were fast fashion, and I think if you could educate people of my generation, as to those brands, I think that would be a good thing.

Using Shein as a case study. Have you heard of the Shein?

Yes

Okay, so have you personally ever brought an item from shein?

Not for myself

So can have you brought an item of shein for somebody else.

Yes

Okay. So you know how the website works. And you've seen the discounts popping up, etc?

Unfortunately, yes.

Do you feel like this is a useful way of that brand to make people buy more things that they obviously didn't go on the website for?

I think it's a terrible way and it is their marketing method. And that's, that's what works for them. And it's like, buy one get one free in the supermarket.

Do you know the reputation that this fast fashion brand has?

Yes.

Could you detail what you know please?

Yes. Shein is one of the fast fashion brands and I would imagine that like any other fashion, fashion brands, it has a manufacturing process, you know, a third world country staffed practically 24 hours a day by a poor workforce, using old industrial processes, and producing a lot of waste.

Okay, thank you. Fast fashion encourages a throwaway culture which you've already commented on. Do you feel you yourself is a contributor to the throwaway culture?

No not at all.

So how many times an average would you wear a piece of clothing?

Literally, as long as it still fits, and it's still in one piece.

If you're going for an event, do you ever want a new outfit?

The difference between the generations if I go to an event. Yes, I'll buy a shirt. And I may not wear that shirt again until the next event of that type and that event may not be for two years. By that time I might throw it away. So yes. But not every item I buy. I perceive this to be different to your generation. I feel Gen Z is more like, I'll buy this item for this Friday. And I might not wear it again.

Out of these four options, price brand for brand preference sustainable aspects or trendiness. Which would you say is the most important to you on purchasing clothing garments?

Brand

Can you expand a little why?

Well, up until this interview, I would have chosen brands based on what I thought were good ethical brands. I'm surprised to hear some of the brands that I use are classed by this British term. This is something that your interview has highlighted to me.

Thank you very much for your input so far. Now I'm going to show you a short clip showing the reality of fast fashion. It was taken from the documentary true cost which is actually about the retailer shein.

FILM

What are your thoughts on the clip that you've just watched?

It's quite disturbing to see the conditions and the accidents that have happened purely for the sake of manufacturing a £3.99 T shirt.

How did the clip actually make you feel?

Sad

Okay, I know you said you're aware of many of the environmental, and human life impacts that fast fashion has. But do you feel that you were surprised about what you saw?

I think I'm surprised by the occurrence of incidents that happen on the see on the TV, the big ones collapse 1000 people dying you don't see the day-to-day stuff. It's just not reported.

Okay can you lead on from this a little, Why do you feel this isn't reported?

I think that it's a bit like tobacco in the 70s and the fact that there's a moral issue where everyone knows you shouldn't smoke. Everyone knows you really shouldn't purchase fast fashion but due to globalisation, and economies, you know, you can't just switch these things off. And that's unfortunate.

Do you feel clips such as the one that you've just seen could alter your opinion on purchasing fast fashion brands in the future?

As I said, I am aware of fast fashion and I would not on purpose purchase anything from a fashion brand. This interview process has made me aware that the brands that I do wear and purchase from are classed as fast fashion.

We're going to go into sustainable clothing now. Are you aware of any sustainable clothing alternatives?

I'm aware of them. I couldn't tell you what the brands are, but I know that they are out there. But I do know one thing about them. They're so price sensitive that you and I can't really shop there.

So it's a question of accessibility?

I think it is a question of accessibility to the sustainable brands. I think it's a question of again, educating. Take me as an example. I thought my brand was not fast fashion. So give me an alternative. Although I buy from a fast fashion brand, I don't treat that item of clothing as fast fashion that you wouldn't wear it just one.

I believe even if you bought the most expensive pair of jeans, or trainers or top they are still going to be processed and manufactured in a third world country.

Do you feel that governments and national, international organisations should play a role in promoting sustainable fashion?

I think they should, but I don't think they will. Because although Bangladesh have had an accident there. They have a population with few jobs. So, where are all those people are going to work. What should happen is instead of paying £5.99 for a pair of jeans, you should pay £9.99 for a pair of jeans, and that extra £4 for that item is funnelled back down the supply chain. To improve conditions.

Perfect, thank you. That's a very good suggestion.

Have you ever brought second-hand clothing from a shop store or online?

No.

Do you feel like this is a generational preference?

I find it odd that people of your generation are now buying clothes of my generation from years ago.

Do you mean the idea of vintage clothes?

Yes

Have you heard of the app vinted or similar?

Yes.

Have you either purchased or sold from vinted?

No, no, I haven't because it is not for me, but I think it's a fantastic idea. Because similar to my previous answer about how do you fix the fast fashion issue. We can play a role in is not moving away from the throwaway culture. So if we can recycle i.e. resell through these apps, then I think it's great.

Why do you actually think that fast fashion is so popular compared to the sustainable fashion brands? Is it purely the costs that you've previously mentioned?

I think it's cost and I think it's availability. I think it's delivery. I think the next day, we live in a world where we want everything yesterday. And fast fashion isn't the only industry that contributes to all the climate issues that we have in the world purely because of the amount of deliveries and carbon production from these and things like that. I think it is a massive contributor.

Do you have social media?

A Little bit.

Do you ever get fast fashion brand advertisements on your social media?

No, actually I do but I definitely don't get the obvious ones.

Do you find, because this happened to me, when you view an item of clothing or anything that you viewed on Amazon, do you find that you see this frequently or similar items in your feed?

Yeah. It's all to do with the algorithms that the internet uses.

Do you feel like this is a way of encouraging you to purchase more?

I think it's just the way the world is and I think that's, that's the way businesses promote that type of product. That generation you know, you're using your phone your computer all day, every day. It's a massive advertising platform with the cookies.

And fast fashion brands, especially the online dominant ones, are known to promote the frequent discounts and multibuy bundles. Would you say these encourage you to purchase garments more frequently?

Yes

Do you have a profile on tiktok?

No.

Okay, so moving on from social media. There are two novel aspects to my research. Seeing the effect that COVID-19 and the cost of living crisis has had on the fast fashion industry. So starting with the COVID-19 pandemic, obviously it happened in 2020 affected every aspect of our lives, including the fashion industry. How would you say that it affected the fashion industry?

Yeah, obviously the online platform to purchase things was there before the pandemic. But I think the pandemic fuelled the usage of that platform and I think it's just carried on after the pandemic.

Yes, there's been a return to shops but, you know, purchasing online next day delivery, free returns. It's just boomed hasn't it?

Definitely. Would you feel like it's affected you as well? Do you think your shopping habits personally have changed?

It has a little bit I suppose to a degree because you were forced for several months to buy clothes online, which I never really did. And now you feel comfortable with it. You carry on doing it.

Do you know ways in which online shopping is going to have more of an effect on the environment?

That's the thing yes, I'm aware of that, you know, the delivery and the carbon footprint. You know, Amazon's six or seven Amazon trucks going on the road every day.

But it's just you create you create something that solves one problem and that comes with several other problems. But although several other problems worse than the problem that you had before. You know, is online shopping worse than everybody driving into town in one car.

It's above my paygrade.

The last part of my interview today is going to be about the current cost of living crisis. So are you aware of the current crisis looming crisis?

Yes

It is thought that the current cost of living crisis which has been ongoing since 2021, has an impact on individual disposable income. Do you agree with this?

Yes

Do you think the cost of living crisis changed your personal shopping habits?

Yes

Do you feel like it has the effect on the frequency of clothing purchases or the brands that you are purchasing from?

I think I question whether you need it me more. I question whether I want that item before I purchase it, more likely because of the crisis.

Thank you. And the final question today is, do you think you will continue for one reason or another to shop or fast fashion brands in future? As you mentioned, you don't shop on the online predominant ones like shein and asos. But will you continue to shop at the likes of next.

Unfortunately, I don't think there's an alternative to the brands that I use. I can't think of an alternative where the manufacturing process and the supply chain and everything to get that garment to my door is any different to those you've pointed out, which is quite educational for me. I tried to offset the impact by not having the garments as a throwaway culture and thinking twice before I purchase it.

Okay, thank you so much for your input today. That concludes that interview. Are there any questions you have for me or anything you'd like to add?

You're welcome. I enjoyed that. And it was very educational, particularly to the brands that I was not aware of being in the fast fashion industry.

Thank you again for your time. I really appreciate it.

## **Appendix 5 – Gen Z Transcript (Participant 5)**

31 minutes

Key words: sustainable, addictive, low wage, brand preference, trend

### **Transcript:**

Hello.

Hello

I'd first like to thank you for taking part in this interview and contributing towards the research my postgraduate dissertation. I'm going to start with asking a few yes or no questions just to confirm that you have read the participant information sheet and are aware of the condition of the interview.

Firstly, can you state your full name please?

\*\*\*\*\*

Could you tell me the year of your birth please This is to ensure your research is collected for the correct target audience.

21st of December 2000

Thank you. Do you understand the participant information leaflet for this study and have had clarity to ask questions if you do not understand?

Yes.

Are you aware this interview is being recorded?

Yes.

Do you agree to the use of your interview answers in my dissertation project? They will remain anonymous, and the pseudonym name will be given for confidentiality.

Yes.

Okay. Thank you, we are ready to begin. So, to start, I'm going to ask you six questions. If you would like you to say the first word or sentence that you think of when I ask these questions. This is for me as the researcher to get an initial idea of your awareness and usage of fast fashion. So number one, would you say that you're aware of what fast fashion is?

Yes.

Can you please name three fast fashion brands?

Shein, h&m, Zara.

Would you say that you're aware of the impact that fast fashion has on the environment?

Am I only allowed to say one word?

No, you can say is a phrase as well.

I'm somewhat aware but there's probably things a lot of things that I don't know. I think that there is a lot more the extent is a lot more severe than I probably am aware of myself.

Okay. Would you say that you're aware of the impact that fast fashion has on human livelihoods?

Again, not completely aware. I'm sure there's things I don't know but off the top of my head yeah, just probably poor standards of living for like workers who run these factories etc.

Okay, thank you. And do you purchase new clothing garments regularly?

Yes

Secondly, I'm going to ask you to complete these four sentences you can use a few words or a complete sentence just whatever first comes to mind. So the first one fast fashion is popular because

it's cheap.

Fast fashion is bad for the environment because

It probably uses a lot of cheaper materials, cheaper work force. Also bad for like carbon footprint if there's a lot of like deliveries to and from all the time, okay.

I would describe my shopping habits as

Addictive

Alternatives to fast fashion are

vintage shops, thrifting, vinted, Depop and eBay, things like that.

Okay, thank you. So, we will begin the main body of the interview now. So fast fashion is a recent phenomenon, which has exceeded in popularity since 2010. In your own words, can you please describe what you actually think fast fashion is?

I think it is basically clothes which companies basically have a short window of like trends to stick to. And then once that trend is out it might stay on the shelves or whatever, for maybe six weeks, four to six weeks. And then to me, I think, is a new wave of clothes. So, it's just that idea of constant new clothes being pumped out and like being made like new clothes being made not using, like thrifted ones not using, like, used clothes, just a constant stream of new clothes. In shops. There's not just seasons anymore. It's more of like an ongoing new clothes.

Okay, yeah so more of ongoing changes to the clothes rather than seasonal trends occurring.

Yes, I agree with that.

So that fast fashion has got lots of definitions. That is one of them. To your knowledge, have you ever shopped at a fast fashion store? Either online or in person?

Yeah.

How often would you say you purchase clothes per month?

I think I am addicted aha.

As you said, your shopping habits were addictive. How often would you say you buy clothes per month?

I'd say I buy probably five to seven items per month.

Okay, are the majority of the clothing purchases that you have made recently from a fast fashion brand?

Yeah, all fast fashion.

Okay, as of December 2022, there are 103 fast fashion brands in the UK. Is this alarming to you?

I'm not surprised. But I can understand the growth in the demand for it.

Most commonly when asked the initial question regarding naming three fast fashion brands, individuals normally stay in fast fashion brands like shein, pretty little things like that. Does it surprise you that brands such as like, next, Topshop, Urban Outfitters are also part of the fast fashion industry?

It doesn't surprise me no, because it's the same with them that there's constant new clothes all the time, like every two weeks, there seems to be new clothes just appearing on their website. So no, it doesn't shock me.

Okay, thank you. Could you name me some ways that you think that fast fashion impacts the environment? Like what you are actually aware of?

I would presume that the process of getting the clothes from the factories to the delivery companies in that process, there's a big sort of like carbon emission, or like, basically, greenhouse gas emission, which is bad for the environment. That's all I can think of.

Okay, do you feel like if you were further educated on the environmental issue, that this would actually change your shopping habits and your purchases from fast fashion brands in the future?

If I'm being completely honest, no, I really, I really don't think so. Just because it's a wishful thinking to think that people when you can't see the problem, unfortunately, I don't think that means people will interact with it. If you can't see it, it's like ignorance is

bliss, you don't think you're going to change the habit. I just think like when the prices are that low and the clothes are good, because the quality has gotten better as years have gone on. Once upon a time, the shein quality was the worst quality in the world, whereas now, it's actually good. So when you've got better quality and better prices, I don't think any education would prevent people from just buying it. I think there should be more education on it, though, because I don't know the serious impacts of it. But will it actually change my movements? Probably not.

Okay, thank you for being honest there. How do you think the garment workers are treated in the fast fashion industry? With regards to the working conditions and wages?

Unfortunately, from the huge sort of documentaries I have seen, it doesn't seem like they're treated well. And they are working for very little wages in poor conditions. That's pretty much all I know, I couldn't say I know much more just generally the sort of conversation is such that they work in poor conditions on a little wage. And so, if it is very cheap clothing, they are obviously, that's why they're getting paid so little. But then if Urban Outfitters, for example, are using the same factories, then how come that their prices are like 40 pounds for a top rather than four pounds.

Do you think this question why urban outfitters have prices so high?

I think the whole thing with Urban Outfitters is that the trends just see the poses seem a bit more trendy. Like I don't know if it's the people. There's some people along the route down the line of the manufacturing process are keeping more on trend. So even if the clothes are made in the same place there are firstly better quality and in my opinion as people think because it's Urban Outfitters, it's the brand. The brand is the name, brand preference type of thing.

Have you heard of Rana Plaza?

I have

Do you feel tragedies such as this are well known by individuals of our generation?

Personally, I personally heard about it during a geography GCSE lesson, which was on sustainable environments. And I don't think many people would know about that for sure. If I asked my parents, they wouldn't know about that. But in terms of our age, maybe like 20% - 30%. And you feel like that's because of the education like through school you've heard about not like, it's not a well talked about thing.

So, you feel the tragedy is only known by you because of educated not news and media?

No, it's definitely through education and school, I wouldn't have heard of it otherwise.

Okay, thank you and keeping on the Generation theme. Do you feel like our generation compared to our parents' generation are more aware of the impacts of fast fashion?

Definitely ours. I think our generation is more aware. And definitely higher percentage act accordingly. Unlike myself, a lot of people around me will shop on vinted or on eBay for these exact reasons for ethical reasons. If anything, my parents' generation, my parents, when I'm buying these clothes, just think everything's just so expensive. And they don't really understand why because they're not luxury designer items, there are fast fashion items that are now down as designer prices in some respects. Yes, some things are cheap, but they're also so confused why things can be so expensive. So I do think we're more in the know.

Okay, thank you. I'm using shein as a case study because part of my dissertation is on shein. You've heard of shein.

Yeah. Correct.

Have you personally ever brought items from shein?

Yeah.

Okay, so you know that websites on shein are known for the frequent discounts popping up and it's multi buy bundles, do you feel like that encourages you to buy more things once you're on the website?

Yes, most definitely, because the offers are there and everything seems so cheap. I'd say in terms of the process of actually purchasing it starts with social media, like a TikTok. Hauls, what I bought on shein hauls, which triggers something in my mind, say oh, I'll have a look on shein. And then at the end of this not very long story. I've bought many things which I didn't need in the first place, but I'd actually argue that the trigger point is social media. It's like tik tok.

Would you say that tik tok is one of the origins that influences the way we purchase clothes?

Yeah, exactly. It's like they grab you sort of as you're just resting and then they're like put the idea in your head to go and buy.

Do you also feel like with social media at once you have actually been on shein or pretty little thing and looked at an item that you find that item all over all social media?

Yeah, definitely. I'd say if one thing becomes trendy, like the same item across Uniqlo, Topshop, shein. All of the same items will appear across all of my social media.

Okay, thank you. Fast fashion also encourages a throwaway culture. Do you understand what this throwaway culture is?

Is it when you wear something once or twice and then get bored of it and never wear again.

Yeah, exactly. Would you consider yourself as a contributor to the throwaway culture?

Personally, no, I actually do always repeat what I wear, like repeating the clothes I wear. I rarely throw my clothes away. I'm actually a hoarder. I'm fearing to throw things away. In case I want it in a few weeks time, so no, I don't personally think that I contribute to that part of it, I keep a hold of my clothes for a long time.

If you personally have got an event coming up, would you wear a dress that you've brought for that again? Or are we purchasing a new one for different events? Because I personally purchase a new one for most of my events that's like yes, indeed.

I know you doahaha. I am good at not purchasing new things for new events. However, as I said, if it just so happens that as I'm in the lead up to an event, I see Tiktok about a certain dress or a YouTube video about a certain outfit that will trigger me too then purchase it for that event, however, left my own devices I would happily rewear everything.

Did you think social media has a big influence on what you're buying and the trends at the time?

I think it's personally the main driver for me. If I didn't have Tik Tok, none of this, I wouldn't, I would not be as addicted as I am. Because the idea wouldn't get into your head about all these new trends. It would just be when you went out or went onto the websites in your own time. Like when you are looking for it.

Okay, thank you. And out of these four options, this is kind of like what was on my survey price, brand preference sustainable aspects and trendiness. Which would you say the most important aspects you purchasing clothes?

Price. Yeah. I like something that I don't feel like I've broken the bank.

So can you rank them for me?

I would rank them. Price, trendiness, brand preference and then sustainable aspects.

Okay, that's fine. Do you think your perception on fast fashion could change?

I feel that in my current stage of life as a student without a job, there is not much other option than fast fashion at the moment. I agree that potentially as I grow up, and I've got more of a stable wage and I can afford to spend I will for example. There are brands now like Talia, which I'm really trying to like, now aiming to sort of move to that kind of brand which its biggest selling point is its sustainability. Again, I don't know in comparison to everything else out there how legit this sustainability statement is. It's a gym brand as well as a loungewear brand. I don't know how much sustainable difference there actually is. Like, speaking facts, I don't know. However, those kind of tops even their basics will be at least 30-35 pounds. So yes, when I do have more of a budget for it, I probably will shop at brands like this as opposed to the cheap ones. However, as I said, I don't know how much more sustainable they actually are despite their selling point being sustainability.

Have you seen that h&m for example have got like the tags that are sustainable?

There are obviously questions how sustainable and it can be like a form of greenwashing. So yeah, that's like the brand you don't actually know how much sustainability it is going to be. Yeah, well they could just be put it on the labels there and that's why if we were better educated on this it could become more of a selling point. I feel like your average person will just believe what's in front of them. They like the item they're going to buy it. And it they might make themselves feel a bit better about themselves. If there's a little tag that says says I'm sustainable item, more of a guilty conscience like a moral compass thing.

Okay, I'm going to show you a short clip now from the true cost documentary. Have you watched this show?

No I haven't watched this show, but I have watched similar documentaries.

Okay, I'm going to show you it and then I'm just going to ask you a few questions about it.

#### FILM

Okay, so just what are your thoughts on the clip as you were watching that?

I think it's really sad. And it's really unfortunate that these people are being treated so badly, like it does trigger words like modern day slavery. And, like, you do feel really sort of like I felt kind of ashamed up my personal actions and decision. However, the gentleman who said about making clothes is giving these kinds of people a wage that also made sense to me, and it also sort of makes me think that if these individuals who weren't in the factories weren't doing that, then there would be others willing to do so just to have a wage too. So it nearly feels like it's an ongoing cycle of they will put themselves through the this experience in the hopes of any wage at any expense.

Yeah. Because obviously, they're in a situation where they don't have that job. So, they don't see it. They know it's unfair working conditions, but if they haven't got a job, they'd rather put themselves through that to have money.

No, yeah. And I'm in agreement that it is completely disgusting that they should be paid more. Whoever is in charge they should give more to the source.

So sustainable clothing. Are you aware of any specific alternatives?

Sustainable clothing brands like I said taila, which is a new brand, which is staffed by someone of our age, Grace Beverly, who's like an influencer. And she's really sold it on her sustainability side. Sustainability with quality but coming out this sort of mid-range price of 30 to 40 pounds for basic white t shirts, for example. In terms of other sustainable brands, as you said, high street brands with now this logo on it saying that it is sustainable. I know Primark has had a whole sustainable section supposedly which I've seen when walking around the store. Which I do find very hard to believe.

Yes I agree with that.

Primark is clearly a kind of fast fashion. It came before shein, like it was. But yeah, I'd say I'd say that's all I'm currently aware of with regards to sustainable alternatives.

Do you feel like social media should be used in a more positive way to promote the sustainable clothing brands?

Yes, and probably do more in not promoting non sustainable brands, not allowing instead of coming up on Instagram feeds, and there should be some form of blockage to not even just accelerate the sustainable ones, but cut off the non-sustainable ones because then people like myself, who I'm not thinking too much about it. Unless I am clicking buy now add to cart, I'm not thinking about all this. But if they kind of eliminated that, I'm sure I'm more likely to buy less and buy sustainably. Because it's not in front of me if these ads are pushing a different perspective

Okay, thank you. Have you personally ever brought off vinted?

Yeah, yeah.

Have you sold on vinted?

No

Do you feel like our generation is more likely to buy off these second-hand clothing, websites and second clothing stores, then our parents' generation?

I'd say so and again, for the same reason social media, I'll be flicking through tik tok and obviously vinted hauls are the same. Vinted can also be promoted on social media. For example, my parents have never bought off of vinted, they did use of I think eBay used to be bigger than it is now. Like my parents used to sell on eBay. But yeah, I'd stay in terms of like Depop, as well was a big one that our generation really uses. So I'd say Depop and vinted are definitely more popular in our generation than our parents.

There's two final aspects of my master's dissertation, which are quite novel to my degree dissertation thing. And it's the COVID pandemic, and cost of living, and what effect that has had on shopping. The COVID pandemic, obviously, in 2020, affected almost every part of our lives, especially the fashion industry, a lot of things changed to being online, because obviously, you couldn't go to the shops. Do you feel like it has affected your shopping habits a lot? In what way?

100% increased them. In fact, I'd say that probably was where the whole addiction to like shopping started. Because of not really anything else going on in life except having a delivery on the way. Like it meant a day was somewhat exciting. Just to have something new and get ready for lockdown to be over and to wear all of your new clothes that you bought during the pandemic. I'd say COVID definitely, for me increased my online purchases. I never really bought too much online before then it was after then that I started realising actually,

buying online is really good. And really, also, like works for me, because it's so easy to send things back as well. Which obviously, when you said about the global carbon footprint, that's more because of the air miles and the delivery, and things like that.

Are you aware of the current cost of living crisis?

To an extent, Yes, I am.

So, it's thought that the cost of living crisis has impacted individuals disposable income. Do you think the cost-of-living crisis has changed your personal shopping habits or do you feel like the crisis hasn't really affected the way you buy things?

Yeah, probably quite shamefully. The latter, simply because I don't personally have much more expense other than that. You know, like the any, any sort of funds. I do have more income which does go to that kind of thing. I don't have to run a house. I don't have to pay bills. So I'd say yeah, I, I don't think that would have really changed personally, my shopping habits. No, I think that is kind of a generational thing because our parents will have been affected more by it because they pay more electricity, water, whereas that responsibility luckily doesn't fall on me.

Okay, thank you. And finally, just a final question, do you think you will continue for one reason or another to shop at fast fashion brands in the future?

Post this interview will try my best to not purchase from fast fashion. I will be more conscious but I cannot hand on heart say I will buy from there again.

Okay thank you. That concludes our interview today. Is there any questions or anything you would like to add.

No thank you

Thank you very much for your time. I really appreciate it.

## **Appendix 6 – Consent Questions**

Do you understand the participant information leaflet for this proposed study and have asked for clarity if you do not understand?

Are you aware that the interview is being recorded and your data will remain secure and disposed of once the research project is completed?

Do you agree to the use of your interview answers in my dissertation project? They will remain anonymous, and a pseudonym name will be used for confidentiality.

And finally are you aware that your contribution is voluntary and you are able to withdraw from the research up until 5th August 2023.

## **Appendix 7 – Video Clip Transcript**

We communicate who we are through clothing. It is fundamentally a part of what we wish to communicate about ourselves. We used to have a system, a fashion system that has absolutely nothing to do with the fashion industry today. It has been reinvented the space materialism. The problem is that comes at a really high price garment factory collapsed, killing more than 1000 people between, the leasing campaign in November, well, in another major factory fire 30,000 workers in Bangladesh. The promise of globalisation was that it was going to be a win that consumers in the rich world would get cheaper goods and people in the poorer parts of the world would get jobs and those jobs would give them an opportunity to work their way out of poverty. Fast fashion is an enormous, rapacious industry that is generating so much profit. Why is it that it is unable to support millions of its workers properly? The actual business model is completely unsustainable. Unless you change that model. You can't change anything. When everything is concentrated on making profits, what you see is that human rights environmental workers' rights getting displaced.

## **Appendix 8 - Participant Information Letter**

### **Participant Information Sheet**

Amy Burns

MSc Environmental Health

PGT dissertation

### **Title of Study**

Fast Fashion; the rapid mass production of clothing garments at a significantly low cost. Does the usage and awareness of Fast Fashion differ between Generation X & Generation Z?

### **Description of Study**

Fast fashion is the rapid mass production of recent catwalk trends and high-fashion design clothing garments at a low cost. This is completed while consumer demand is at its highest. Fast fashion is a growing phenomenon over recent years with the emergence of ultra-fast fashion exceeding its popularity. Fast fashion has a drastic impact on the environment and contributes to 10% of the global carbon dioxide emissions. Clothing production also impacts human livelihoods with the majority of garments produced in factories with illegal working conditions. The aim of this study is to assess whether the awareness and usage of fast fashion differs between generations. There are two target audiences for my research project; generation X, individuals born between 1965 and 1980, and generation Z, individuals born between 1997 and 2012. As a novel aspect of this research project, I will assess whether covid-19 and the current cost of living crisis has impacted shopping habits and whether there is a difference between the generations regarding this.

### **Invitation to participate**

I would like to invite you to participate in a voluntary interview to contribute towards my research project. Your participation is voluntary, and you are free to withdraw from this study up until 07/08/23. I have selected you as a participant as you are part of the target group for this research project. The interview will take approximately thirty minutes to complete, and you are not obliged to answer any question that you do not feel comfortable discussing. Please do seek further clarification if there is anything which you do not understand prior to participating.

The interviews will be recorded in order to produce a transcript which will be used towards my research project.

The data collected will be treated as anonymous and confidential. Direct quotes may be used within the research project but you will be provided with a pseudonym name to retain anonymity. The data will only be accessible by me, the researcher, and subsequent members of the University of Birmingham Environmental Sciences Department. Data will be kept secure and disposed of once the dissertation has been completed.

Results from the study will be communicated via my final dissertation. Please contact me if you would like to ask any further questions or information regarding the results of the study.

I sincerely appreciate your time and willingness to contribute to my postgraduate dissertation research.

Researcher: Amy Burns

Email: [a.burns01@me.com](mailto:a.burns01@me.com)

## **Appendix 9 - Participant Consent Form (Interviews)**

### **Participant Consent Form:**

**Fast Fashion; the rapid mass production of clothing garments at a significantly low cost. Does the usage and awareness of Fast Fashion differ between Generation X & Generation Z?**

- Consent Form for Interviewees -

### **Fair Processing Statement:**

This information is being collected as part of a research project concerned with the Environmental Impact of Fast Fashion by the Department of Geography, Earth and Environmental Sciences in the University of Birmingham. The information which you supply and that which may be collected as part of the research project will be entered into a filing system or database and will only be accessed by authorised personnel involved in the project. The information will be retained by the University of Birmingham and will only be used for the purpose of this research and statistical and audit purposes. By supplying this information, you are consenting to the University storing your information for the purposes stated above. The information will be processed by the University of Birmingham in accordance with the provisions of the Data Protection Act 1998. No identifiable personal data will be published.

Statement of Understanding/Consent:

1. I confirm that I have read and understood the participant information leaflet for this proposed study (as explained by the researcher and the written information provided) and have had the opportunity to ask questions if necessary and have had these questions answered satisfactorily. **YES/NO**
2. I understand that my participation is voluntary and that I am free to withdraw until the date provided without a given reason. If I withdraw from the study my data will be removed and destroyed. **YES/NO**
3. I understand that my personal data will be processed for the purposes detailed above, in accordance with the Data Protection Act 1998. **YES/NO**
4. I agree to the use of anonymised quotes that I have directly said for use in this academic piece. **YES/NO**
5. I agree to the interview discussion being audio-recorded. **YES/NO**
6. I understand that my name will be kept confidential, and a pseudonym will be used in replacement. **YES/NO**
7. Based upon the above, I agree to take part in this study. **YES/NO**

Name of Participant:

Date:

Signature:

Name of Researcher:

Date:

Signature:

## Appendix 10 - Cronbach's Alpha Test

ANOVA						
<i>Source of Variation</i>	<i>SS</i>	<i>df</i>	<i>MS</i>	<i>F</i>	<i>P-value</i>	<i>F crit</i>
	375.547738			3.11963	3.2581	1.26408
Rows	7	198	1.9	6	1E-15	895
	43.1180904			70.9191	7.4804	3.88885
Columns	5	1	43.1	434	1E-15	293
	120.381909					
Error	5	198	0.6			
	539.047738					
Total	7	397				
		Cronbach's Alpha Test coefficient		0.7		