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HANGING UP SINGLE-USE PLASTICS IN FASHION RETAIL: POST-PANDEMIC SUSTAINABLE DISTRIBUTION CHAINS

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Introduction

The global retail sector, with yearly sales of approximately $24 trillion has a greenhouse gas footprint of 33 GtCO2e annually (World Retail Congress, 2021). Retail sales within the UK in 2019 were worth £439 billion, with £0.12p of every pound spent being in clothing shops, meaning the purchase of fashion was the 2nd largest consumer commodity (BRC, 2020). Fashion and fashion retail are often perceived as negative contributors to global sustainability, with factors such as the use of natural, finite resources and carbon emission contributions being amongst some of the primary concerns. The industry's traditional linear "take, make, dispose" model of production and consumption combined with decreasing product life cycles has resulted in significant environmental impact globally (Niinimäki et al., 2020, Brydges, 2021). The recent global pandemic has acted as a catalyst for change within retail and has profoundly altered how, where and what fashion consumers shop for. There is impetus for fashion brands to similarly transform their operations to align business purpose to the values of a post pandemic conscientious consumer. Trend Forecaster Li Edelkoort described this time as *a chance to rewrite the fashion system*, emphasising the need but also the opportunity for responsible change going forward (Business of Fashion and McKinsey & Company, 2020). Many fashion brands have embraced this challenge, with their post-Covid recovery strategy clearly emphasising their intention to become agents of positive environmental and social change.

The Climate Action Roadmap, launched by the British Retail Consortium in November 2020 was responsible for over 60 retailers in the UK committing to a vision of full net zero emissions by 2040, scope 1 net zero by 2035 and scope 2 by 2030 (British Retail Consortium, 2020). This indicates a significant shift in business thinking and consequently operations during a crucial period of reflection. It is believed that the retail sector alongside millions of employees and customers can play a leading role in transitioning the global economy towards net-zero status.

An environmental challenge which has received particular interest from legislators and consumers is the detrimental impact of single-use plastics (SUPs) on ecosystems. SUPs are emblematic of a modern *throwaway* society where goods are overproduced and underused.

Legislative and customer led initiatives to remove SUPs items such as drinking straws has successfully resulted in innovative replacement product design solutions and rapid consumer acceptance. The UK has set a target to eliminate avoidable plastic waste by 2042 and the European Union has tabled directives to ban single-use plastic cutlery, cotton buds, straws, and stirrers (European Commission, 2018).

Fashion has an increasing reliance on plastics over the last century. Historically this relationship was facilitated by the growth of the oil industry in the early 1900's meaning that fibres such as acrylic, polyester and nylon were being widely produced for fashion purposes. Textile and fashion retail utilises large amounts of plastic in numerous ways. Today, 65% of all garments produced are made from synthetic fibres (Textile Exchange, 2017), meaning that they not only rely on oil as a finite resource for their production, but that disposal at the product's end-of-life, becomes a much bigger challenge. Although the fashion industry is often perceived negatively in terms of environmental impact one of the sectors greatest strengths is its ability to redesign creatively and implement quick-response, agile production solutions to meet customer requirements. Stella McCartney, Patagonia, and Adidas were among the first to incorporate recycling and circularity of materials as significant components of product development and branding strategy. This paper begins to highlight and address these opportunities for positive change within the industry, acknowledging gaps in practical implementation of sustainable strategies in the eradication of SUPs.

Purpose

Beyond the production of synthetic fibres employed in garment manufacture, the fashion industry also uses large quantities of plastics in product branding, in-store visual merchandising and within distribution systems. Fashion must be careful not to undermine advances achieved in garment life-cycle circularity by not concurrently reassessing and reforming the use of *hidden* plastics in distribution components and practices. Green distribution within fashion retail requires the industry to consider the ecological footprint of plastics used in areas such as product processing in distribution centres, transportation to retail or directly to end consumer, in elements such as storage, labelling, packaging protection and security requirements (Khurana and Ricchetti, 2016). A growing base of conscientious fashion consumers are demanding that industry revisit product development and supply chain components to challenge and eliminate environmentally harmful SUPs at source. Luxury conglomerates such as Kering and PVH are among early adopters of green distribution reassessment related to packaging and are among the first to view their supply chain's environmental credentials as part of a brands visual presence in the marketplace (De Angelis et al., 2017).

This paper explores the overlooked and often forgotten negative impact of plastics within the global fashion supply, focusing particularly on the use of plastic garment hangers. Acknowledging this item as both a practical visual merchandising tool but also as a key component for transportation purposes, the scale of industry use of plastic garment hangers will be established. Furthermore, though an increased insight into the type of use, methods of distribution and end-of-life options, the paper will propose valuable strategies for retailers willing to reduce the impact of plastics within their business model.

Conceptual framework

Garment hangers in both retail and domestic settings are commonplace products used by industry and consumers alike, but in the shadow of fashion garments their impact on the planet is rarely considered. As a by-product of fashion manufacturing, it is the volume of garments being produced and purchased in the UK market which is increasing the number of

hangers utilised annually. In an industry, where 130.6 billion items of clothing were produced in 2019 (Arch & Hook, 2020), the scale of this issue starts to become a priority challenge going forward. To look closer at the quantity of hangers utilised by the UK fashion industry every year, and to understand how these items are being used, a research project in collaboration with sustainable hanger brand Arch & Hook was conducted. The research looked to understand how UK fashion brands typically used hangers in the transportation and retail of their goods, including a focus on the differences between physical and online purchasing.

Methodology

In order to establish the fashion industry's use of plastic garment hangers, this study utilised purposive sampling techniques to collect primary data form 20 UK-based fashion retailers. Quantitative survey methods were utilised to gain a broad foundation of data, additional supported by a series of qualitative, semi-structured, informal interviews engaging willing parties. Survey participants were identified as individuals in senior positions working within fashion companies in functions such as buying and merchandising, product development, supply chain and corporate responsibility. Access to information surrounding individual company's hanger purchasing decisions was a key criterion in identifying participants and thereby excluded retail store personnel and packaging manufacturers. Research participants consented to their involvement in the study and agreed to the terms of the data usage. Survey responses were fully anonymised, with no questions being posed that would reveal personal identity or company affiliation.

Findings

The study found that over 954 million plastic hangers are used by the UK fashion industry every year, with 60% of all garments purchased in 2019 being sold to the customer with an associated hanger. This data included traditional garment hangers but also additional plastic hanging loops for smaller items such as socks for retail display purposes. The study also discovered that the growth of online retail was having a positive effect on reducing the overall number of plastic hangers being utilised, however many retail orders being made online are still sent out with plastic hangers, despite their primary function being to display the products in a bricks-and-mortar store. From the data collected, the study determined that over 82 million hangers were included with online purchases in 2019 alone.

Hidden Sources of Plastic

One of the largest sources of SUPs in fashion distribution was uncovered within execution. 148.2 million hangers are used each year to solely transport clothing from factory to shop floor, 16% of which are discarded when reaching their destination and replaced by a higher quality often branded alternative when the products reach the point of retail. These single-use plastic products are generally made of lightweight plastic and are so cheap to produce that it is more cost effective to discard to landfill and produce new rather than recycle. The luxury market sector was found to be the guiltiest of utilising different hangers for transportation and retail, with 31% of the overall total of plastic hangers used being solely for transit purposes. Additionally only 50% of hanging stock retails in store on the hanger on which it was transported.

Contributions

The data collated during this paper provides up-to-date figures on the use of plastic garment hangers in the fashion industry in light of changing parameters around sustainable business strategies. Figures pertaining to this level of information have been previously unavailable and have been largely based on estimates alone. This data will act as a catalyst for change and

will act as a rationale for business to rethink their use of plastic packaging within distributive retail supply chains. Furthermore, the identification of waste streams (i.e. plastic hangers being sent out with online orders) would provide retailers with not only environmental rationale but also financial rationale to create meaningful change within their value chain.

This paper makes a series of industry recommendations:

- *Increased Choice of Alternatives to Plastic Hangers*
  Functionality is the main factor affecting hanger selection. Recyclable hangers should be made available in a full range of hanger types, shapes and sizes to ensure that they adequately meet demand.
- *Lower Cost Sustainable Alternatives*
  Cost is an important factor affecting hanger selection. An increased interest in sustainable hanger alternatives would drive volumes up and prices down.
- *Industry Awareness*
  A campaign is required to inform the fashion industry about plastic hanger usage and the sustainable alternatives.
- *Consumer Pressure*
  Change in the fashion industry is frequently consumer led. A PR campaign raising the awareness of the damage plastic hangers are inflicting on the environment will help to drive a change in industry attitudes.

Practical implications

In contrast to thinking what can be done with the quantity of plastic garment hangers in retail distribution systems, the fashion industry needs to start considering how, when and why they are using hangers. As outlined by D'Adamo (2021) the post-pandemic period is an opportunity for the fashion industry to become inventive as a consequence of the global crisis it has encountered and to reassess established norms in order to redesign with sustainable practices as a competitive business advantage. By implementing even a number of small changes the sector could dramatically begin to reduce the quantity of SUPs hangers needed within distribution channels altogether. There are many inventive suppliers responding to fashions need to eliminate plastic hangers, including exciting developments in the use of paper, natural materials as well as novel managed recycle and regenerate services. However, it must be recognised that no material is without associated environmental impact and that ultimately there will be a greater environmental price if a finished garment becomes unsellable due to a lack of protection currently provide by a SUPs within the distribution chain.

Research limitations and outlook

While this study offered a comprehensive overview of the use of plastic garment hangers in the fashion industry, the data collected worked only with UK fashion retailers meaning a more global perspective is necessary going forward. Furthermore, despite every effort being made to work collaborative with a good representation of the UK fashion market, increasing the size of scope of the study would be of benefit.

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