

Industry 5.0 and Environmental, Social, and Governance Initiatives in Supply Chain Sustainability: A Study of the European Fast Fashion Industry

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Abstract

Industry 5.0 requires an organisation to maintain supply chain sustainability by using environmental, social, and governance (ESG) initiatives, thus avoiding social, environmental, ethical, or other risks. This chapter explores the factors, processes, and impacts of the use of ESG framework in sustainability throughout supply chain management. The development of this research shows the European fast fashion industry, which had invested in ESG initiatives to maintain sustainability standards across their whole supply chain operations of the European fast fashion market.

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Introduction

There have been a lot of discussions on industry 5, people are wondering what is next. whereas industry 4.0, had focused on the use of technology such as AI, blockchain, Internet of Things etc in the industries; on the other hand industry 5 gives a humanistic twist to machine dependant industry 4.0. Industry 5 involves our leap into merging the themes of technology, human, Society, environment, sustainability etc. in any industrial revolution, the role of the supply chain is very significant. and in industry 5.0, it will be all about embedding environmental social and governance initiatives in technologically innovative supply chain management.

An organisation focusing on developing the Environmental, Social and Governance (ESG) initiative offers to represent the behaviour of following a set of standards by which they can maintain their socially conscious image in front of the investors and the customers. Kotsantonis and Serafeim (2019) stated that ESG initiative factors maintain some environmental criteria by which the organisation can safeguard the environment while operating in the international and regional market, which also include some corporate policies that indicate the steps toward climate change. Li, et al. (2021) have stated that waste management is also considered another influential factor in ESG initiatives due to increasing pollution in the world that creates an impact on human lifestyle in different countries. The European fast fashion industry has been creating a significant impact on the overall business industry in terms of revenue.

In Europe, companies like Zara, H&M, and many others significantly adopted the trend of fast fashion, not only increasing sales but also increasing the volume of solid waste generated from textile manufacturing. This factor influences the requirement of

implementing environmental measures in the overall supply chain of the fast fashion industry in Europe, which will eventually lead to environmental well-being and satisfy governmental legislations for the environment. Pedersen, et al. (2021) connotes that waste management refers to the utilisation of waste materials generated in an industry, or a company based on recycling or reusing for similar or different purposes, which helps to reduce the volume of landfills and wastes. In this context, the ESG initiative includes an investment in waste management that not only helps to reduce environmental impact but also reduce the costs of raw materials through recycling. Moreover, managing the overall supply chain, including manufacturing, packaging, and delivering the products, is considered essential as it helps to reduce carbon footprint and waste generation. In this regard, ESG investment helps to measure and enhance supply chain activities based on the requirements, which eventually increases the sustainability of the overall supply chain.

This chapter investigates the current strategies and methods used by the fast fashion sector to function according to the EU rules and regulations of climate change and sustainability in line with the ESG framework. It explores the factors, challenges, good practices and key stakeholders that influence ESG initiatives and; consequently the impact of ESG initiatives on supply chain sustainability in the European fast fashion industry.

The utilisation of ESG proposition helps to reduce energy consumption and water intake, which offers companies in the fast fashion industry to decrease the overall operational cost. Phillips, Thai and Halim (2019), argued that an organisation maintaining sustainability in its supply chain focuses on developing greater freedom in the static degradation by using deregulation, by which they can earn government support and subsidies. By using ESG initiatives any organisation can easily enhance the motivation level of the employees (Sachin and Rajesh 2022). The companies are focusing on using advantages from the supplier, compliance, and increased visibility by which the companies can easily promote their organisational operation in an eco-friendly manner Stranieri *et al.* (2019), Therefore, it not only showcases the overall progress in environmental gratification but also creates a better image that can attract customers and investors to a greater extent by prioritising ESG initiatives in the supply chain.

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