Chapter 10
Transforming Fashion: Creating Value and Sustainability through Circular Models

Sushila Sahani
https://orcid.org/0000-0002-5739-144X
Lovely Professional University, Rudrapur, India

ABSTRACT

As environmental challenges and resource scarcity grow, the fashion industry needs to move away from its traditional "take, make, dispose" approach. This linear model has caused major environmental harm, waste, and overuse of resources. The solution lies in circular fashion, a concept that focuses on sustainability by rethinking the entire lifecycle of products from design to disposal. This chapter will explore real-world examples of brands successfully adopting circular models, highlight emerging trends like digital fashion and blockchain for transparency, and discuss how consumer behavior is driving demand for sustainable products. It will also look at the economic benefits, including cost savings and new market opportunities. Despite the benefits, the shift to circular fashion faces challenges such as logistical issues, consumer awareness, and scalability. The chapter will offer insights on overcoming these obstacles. In the final analysis, it will provide a roadmap for fashion brands to embrace circularity, reduce their environmental footprint, and build a sustainable future.

1. INTRODUCTION

The fashion industry stands at a critical crossroads, with two fundamentally different approaches to production and consumption: the traditional linear fashion model and the emerging circular fashion economy. In a linear economy, the focus

DOI: 10.4018/979-8-3373-1117-3.ch010

is on a "take, make, dispose" model with limited recycling or reuse. The relentless overproduction of plastic is fueled by aggressive marketing and the powerful influence of social media, encouraging a culture of impulsive buying. Most of these plastic products are used briefly and quickly discarded, with minimal efforts toward recycling or resource recovery. Alarmingly, only 14% of plastic is recycled each year, while the rest ends up in landfills or is burned. If this trend continues, plastics could outweigh fish in the oceans by 2050. This pollution already causes an estimated $13 billion in annual losses to tourism, shipping, and fishing industries (Kaplan, 2016). Currently, the world produces 430 million metric tons of plastic annually, with over two-thirds becoming waste after short-term use, 139 million tons discarded after just one use (OECD 2022). If current patterns continue, plastic production is expected to triple by 2060. By 2040, plastics could account for 19% of global greenhouse gas emissions permitted under the 1.5°C climate target, making the goal nearly unattainable (The Pew Charitable Trusts and Systemiq 2020). The consequences are global, but they fall disproportionately on poorer nations. The estimated annual social and environmental costs of plastic pollution range from USD 300–600 billion and could exceed USD 1.5 trillion (Landrigan et al. 2023). Plastic is just the tip of the iceberg when it comes to the environmental havoc caused by our linear system. Materials like aluminum, steel, paper, cans, leather, oil, and fossil fuels are all part of the problem. The fierce competition between companies has shortened product lifespan, making them outdated faster and turning them into waste. This constant cycle is throwing off the balance of our ecosystems. In a circular economy, the focus is on keeping products, materials, and resources in use for as long as possible, minimizing waste and ensuring that products are either reused, repaired, or recycled. The circular model inspires businesses and individuals to take greater responsibility for environmental challenges. Despite the growing interest in making the fashion industry circular, there is still limited understanding of how circular economy concepts can be applied within this sector. The fashion industry consumes vast amounts of resources, causes significant environmental damage, and generates large volumes of waste. Factors like rapid industry growth, constantly changing fashion trends, mass global manufacturing, production shifts to developing countries, and the increasing landfill waste all contribute to the worsening environmental impact.

Global material consumption was 79 Gt in 2011 and is expected to rise to 167 Gt by 2060 (OECD, 2019). In the EU, textiles are the fourth largest category for material consumption, after food, housing, and transport (EEA, 2019). Textiles also rank second in land use, fourth in water use, and fifth in greenhouse gas emissions (EEA, 2019). In 2015, the textile industry emitted 1.2 billion tons of CO2 equivalent (McKinsey & Company, 2016). Additionally, it consumes 98 million tons of non-renewable resources annually, and by 2050, fossil fuel feedstock usage could