

**DESIGN OF MODERN CLOTHING USING SUSTAINABLE FASHION****Sun Jie**

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The traditional clothing development and production model has long been the dominant industry. With the improvement of people's awareness of environmental protection and the enhancement of social responsibility, the drawbacks of this model are gradually exposed. It not only has a serious impact on the ecological environment, but also has a negative effect on the society to a certain extent. Therefore, sustainable clothing design has gradually become an important social issue. As an innovative solution, sustainable clothing design is gradually becoming a new trend in the industry. By studying the application and development of sustainable clothing design, this paper discusses the effective ways to achieve environmental protection and economic development.

Sustainable fashion is a multi-dimensional, complex, and important concept. It not only focuses on the environmental aspects of the fashion industry but also covers social and economic sustainability and aims to ensure that all aspects operate more comprehensively and balanced.

First, sustainable fashion consumption advocates that consumers consider their environmental and social impact when purchasing clothing and choose products made of environmentally friendly materials, less pollution in the production process, and good social responsibility [1]. This shift in consumption patterns is helping to drive the fashion industry towards a more environmentally friendly and sustainable direction. Secondly, sustainable clothing design emphasizes environmental protection and social responsibility at the design stage [2]. Designers must choose renewable, recyclable, or biodegradable materials while reducing unnecessary decoration and waste to ensure the utility and durability of the garment. In addition, designers can also convey the concept of environmental protection through design and guide consumers to form a more sustainable fashion concept. In processing sustainable clothing materials, adopting environmentally friendly production processes and technologies is necessary to reduce the emission of harmful substances and energy consumption. Using low-energy, low-emission dyeing and printing technologies and developing more environmentally friendly fibers and fabrics help reduce clothing production's environmental impact.

Sustainable management of the clothing supply chain is a vital part of the modern fashion industry, which involves ensuring that environmental and social responsibility standards are met at every stage of the supply chain [3]. By sharing sustainability goals with your suppliers, you can work together to drive environmental and socially responsible practices throughout your supply chain. Ensuring the legitimacy and sustainability of raw material sources is also key to supply chain management. This involves tracing raw materials to ensure they come from legal and responsible sources, such as those employing sustainable practices. At the same time, actively seeking and using renewable, low environmental impact raw materials, such as organic cotton, recycled fibers, etc., is also an important step in achieving supply chain sustainability. Optimizing logistics and transportation is crucial to reducing carbon emissions. By adopting more environmentally friendly modes of transport, such as rail or sea transport, and improving logistics efficiencies, such as reducing the distance and number of trips, carbon emissions across the supply chain can be significantly reduced. In addition, using clean energy and energy-saving equipment is also an

effective means to reduce carbon emissions in the logistics process. In addition, raising employees' awareness and awareness of sustainability can also help drive them to come up with innovative sustainable solutions at work.

Textile and clothing recycling is undoubtedly a vital link in the sustainable fashion industry chain. This link not only helps reduce waste accumulation and environmental pollution, but also realizes the recycling of resources and promotes the green transformation of the fashion industry. First, textile and clothing recycling has a significant effect on reducing environmental pollution. With the fast development of the fashion industry, many waste textiles and clothing are discarded, which, if not properly treated, will cause serious pollution to soil, water and air. By recycling these used textiles and clothing, we can effectively reduce the generation of waste and reduce the damage to the environment. Secondly, recycled textiles and clothing can be reprocessed and turned into new fiber raw materials, thus realizing the recycling of resources [4]. This saves the consumption of natural resources and reduces production costs. At the same time, recycled textiles and clothing are in the process of reprocessing through innovative design and technical means, giving them new value and function and providing consumers with more diversified and personalized choices. In addition, textile and clothing recycling can also contribute to the green transformation of the fashion industry. As consumer concerns about environmental protection and sustainability continue to increase, more and more brands and companies are beginning to pay attention to the importance of textile and clothing recycling. This helps enhance the brand image and competitiveness and sets a model of green development for the entire fashion industry.

Sustainable brand marketing is a key means to promote the concept of sustainable fashion. Brands need to promote their environmental and social responsibility practices through various channels to guide consumers to form the right concept of consumption [5]. Conscious fashion trends are actively implemented in Ukrainian and foreign clothing brands that support and implement sustainable fashion [6].

Product life cycle analysis is an important tool for evaluating clothing products' environmental and social impact throughout their life cycle. Analyzing products' environmental and social impacts from design, production, and use to recycling can help companies identify potential problems and develop improvement measures. As a new era marker for the fashion industry, sustainable fashion is sweeping the globe with unprecedented momentum; its importance is increasingly evident, becoming an industry consensus and widely implemented in practice. From advocating green choices at the consumption end to creative environmental protection in the design stage to comprehensive innovation in material processing, supply chain management, and even efficient recycling mechanisms for textiles and clothing, every step has a profound impact on the sustainable development trajectory of the fashion industry. Brands actively embrace sustainable marketing, strengthen their social responsibility awareness, and optimize the entire process from cradle to grave through product life cycle analysis. This indicates that sustainable fashion has become the core driving force for industry transformation and upgrading, leading the fashion industry towards a greener, circular, and low-carbon future.

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