The Implementation and Performance of Nike's Sustainable Supply Chain Strategy

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Abstract. Driven by the global carbon neutrality goal and the growing popularity of the ESG concept, corporate sustainable development has become a key concern for academia and practitioners. This paper takes Nike Company as the research object to analyze the implementation motivation, implementation path, and performance of its sustainable supply chain strategy. The results show that Nike has established a relatively comprehensive sustainable supply chain system covering green raw material procurement, production emission reduction upgrading, full-lifecycle supplier management and circular economy development under its Move to Zero strategy. During the strategy implementation process, the company advances green transformation via supply chain collaboration, technological innovation and multi-stakeholder cooperation. From the perspective of performance, sustainable supply chain strategy not only promotes the growth of business income and operational efficiency but also enhances brand value, market competitiveness, and supply chain resilience. This study enriches relevant research on the sportswear industry and provides references for multinational enterprises to comply with international ESG rules and achieve long-term sustainable development.

Keywords: sustainable development, supply chain strategic, financial performance.

1. Introduction

Against the global carbon neutrality trend, sustainable development has become a core strategic goal for multinational corporations. The sportswear industry relies heavily on raw materials and complex global manufacturing outsourcing, leading to high pollution, energy consumption and carbon emissions. At the same time, international organizations continue to strengthen supervision, The European Union mandates enterprises to disclose sustainable development information related to supply chains and raises supply chain compliance standards for multinational corporations [1]. In addition, the U.S. Securities and Exchange Commission (SEC) has gradually rolled out climate-related disclosure rules, requiring listed firms to enhance the management and disclosure of supply chain environmental risks [2]. With the increasing awareness of green environmental protection among consumers, more consumers favor environmentally friendly, low-carbon and socially responsible brands [3]. As a globally influential sportswear brand with a complex global supply chain, Nike serves as a typical case. This paper analyzes the implementation path and performance of its sustainable supply chain strategy, so as to provide references for the green transformation of the sportswear industry.

This paper reviews studies on corporate sustainable supply chain management from theoretical foundations, implementation modes and performance impacts. According to the triple bottom line theory, enterprises should not only pursue economic profits but also pay attention to environmental protection and social responsibility to achieve the unity of economic, social, and environmental benefits [4]. Based on this theory, corporate sustainable performance consists of economic, environmental and social dimensions. Stakeholder theory points out that enterprise business activities not only serve the interests of shareholders but also need to respond to the demands of consumers, governments, suppliers, and the public [5]. Supply chain synergy theory holds that all supply chain members can elevate overall operational efficiency via information sharing and resource integration [6]. On this basis, sustainable supply chain management has gradually become a research focus, and relevant studies believe that enterprises can promote the green transformation of the supply chain

through green procurement, supplier environmental audit, and circular economy model [7]. Research on multinational enterprises shows that Environmental, Social and Governance (ESG) performance evaluation and digital supply chain management have become an important implementation mode of sustainable supply chain [8]. In addition, due to the strong environmental awareness of consumers in the sportswear industry, there is a significant correlation between its sustainable development strategy and enterprise performance. A green supply chain can not only polish brand image but also boost enterprises' long-term competitiveness [9].

Current research mainly focuses on corporate ESG governance, green supply chain and social responsibility, while few studies explore the linkage between sustainable supply chain strategy implementation and corporate performance in the sportswear industry. Taking Nike Company as an example, this paper uses case analysis and literature research methods to study the implementation characteristics and performance of its sustainable supply chain strategy by analyzing its green raw material application, supplier management, production emission reduction and circular economy model, and concludes that sustainable supply chain strategy can enhance enterprise brand image, enhance market competitiveness and improve supply chain resilience, which has theoretical and practical significance. This paper enriches the research content of the sustainable supply chain in the sportswear industry in theory and provides a reference for the transformation of the green supply chain in manufacturing enterprises in practice.

2. Case study

2.1. Company overview

Founded in 1971 and headquartered in Oregon, Nike is a world-leading provider of sportswear, sports equipment and digital sports services. It owns brands including Nike, Jordan and Converse, with products sold across North America, China, Europe and many other global regions. In recent years, Nike has advanced digital transformation and boosted market competitiveness via online sales platforms and membership systems. The brand has long competed with international rivals such as Adidas, Puma and Under Armour. As consumers attach greater importance to environmental protection and corporate social responsibility, competition among sports brands has extended from product rivalry to contests over ESG governance and sustainable development capabilities.

Nike adopts an asset-light model and realizes global supply chain management mainly through outsourced production. Its supply chain covers numerous raw material suppliers, manufacturers and logistics partners, with production bases concentrated in Vietnam, China, Indonesia and other countries. The extensive and complex supply chain brings challenges in labor management, environmental protection and carbon emission control. Meanwhile, the sportswear industry features volatile orders, rapid product iteration and heavy reliance on global logistics, which further complicate supply chain operations. To improve operational efficiency, Nike has built a digital supply chain, enhanced supply chain transparency via data management systems, and enforced unified environmental and social responsibility standards for all suppliers.

2.2. Motivation analysis of implementing a sustainable supply chain strategy

In recent years, global ESG supervision has become stricter [10]. The EU sustainable development reporting directive and U.S. SEC climate disclosure rules raise higher requirements for the environmental and social performance of multinational enterprises' supply chains. As a global sports brand, Nike is required to disclose information on carbon emissions, labor rights and supply chain environmental governance. Non-compliance with international ESG regulations may result in restricted market access, damaged brand reputation and reduced investor confidence. Meanwhile, the rising popularity of green consumption makes consumers favor eco-friendly and socially responsible products, driving growing market demand for green goods and low-carbon supply chains. To cope with international regulation and market competition, Nike chooses to implement a sustainable supply chain strategy.

From the perspective of internal development, this strategy helps reduce long-term operational risks and improve operational efficiency. By advancing energy conservation, emission reduction, green production and the use of eco-friendly materials, Nike cuts energy consumption, resource waste and production costs. Green innovation also promotes product upgrading, brand premium and consumer acceptance. Currently, ESG performance has become a key evaluation criterion in the capital market. Sound sustainable performance strengthens corporate financing capacity and attracts long-term investors. Nike aims to boost consumer loyalty and consolidate its global leading position via green brand building, which creates strong internal motivation for the green transformation of its supply chain.

Nike's sustainable supply chain strategy is also driven by multiple stakeholders. Consumers demand eco-friendly, low-carbon and socially responsible products. Governments require emission reduction and labor rights protection, while investors focus on long-term ESG risks and sustainable profitability. As important stakeholders, suppliers and employees also influence corporate sustainable development. Nike improves the overall environmental and social performance of its supply chain through supplier audits, technical training and collaborative management, and optimizes employees' working conditions to strengthen internal cohesion and external brand reputation. The combined demands of all stakeholders push Nike to continuously optimize its sustainable supply chain system.

3. Implementation of Nike's sustainable supply chain strategy

3.1. Strategic objectives and implementation

Nike launches its Move to Zero sustainable development strategy, which aims to realize zero carbon emissions and zero waste so as to protect the ecological environment for future sports activities. Nike states in its ESG report that it will raise the proportion of eco-friendly raw materials to 50% by 2025 and cut greenhouse gas emissions by 500,000 tons. The company strives to divert 100% of supply chain waste from landfills and raise waste recycling rates. The company plans to significantly reduce carbon emissions from global supply chains and increase renewable energy use by 2030. In terms of social responsibility, Nike continues to strengthen labor rights protection and supplier management and promote global supply chains to meet environmental and social responsibility standards. At the economic level, the company aims to elevate brand value and long-term profitability via green innovation and achieve the integration of environmental, social and economic benefits.

In the process of implementing the strategy, Nike focuses on promoting the greening of raw materials, the transformation of production and emission reduction, and the construction of a circular economy. First, in raw material management, the company increases the application of recycled polyester, eco-friendly cotton and other recyclable materials, and cuts carbon emissions by lowering reliance on traditional chemical fibers. In the production link, Nike promotes the transformation of energy conservation and emission reduction in factories, reduces water and energy consumption in the process of textile dyeing and finishing, and gradually uses renewable energy. The company also strengthens the whole life cycle management of suppliers and carries out unified audit and supervision of suppliers in environmental protection, labor rights and interests, waste disposal, and other aspects. In addition, Nike promotes the construction of a circular economy model through Reuse-A-Shoe, Nike Grind, and product renovation projects to realize the recycling of old shoes, material recycling, and product remanufacturing, thus reducing resource waste and environmental pollution. Table 1 summarizes the main contents of Nike's sustainable supply chain strategy, and it can be seen that a green management system covering the whole life cycle of the supply chain has been formed.

Table 1. Main contents of sustainable supply chain strategy

Dimension	Main practices
Raw materials	Recycled polyester, sustainable cotton
Manufacturing	Energy saving and renewable energy
Supplier management	ESG audits and labor supervision
Circular economy	Nike Grind and shoe recycling

3.2. Characteristics of strategic implementation

A core feature of Nike's sustainable supply chain strategy is collaborative supply chain management. Given its global supply chain layout, the company advances internal emission reduction and drives suppliers to pursue green transformation. Nike enhances supply chain transparency by rolling out unified supplier codes of conduct, setting standards for environmental protection, labor rights and product quality, and adopting digital systems for real-time monitoring. It boosts overall operational efficiency through data and resource sharing with raw material suppliers, manufacturers and logistics partners. The company participates in global climate initiatives and industrial sustainable development projects, and contributes to the formulation of green supply chain standards and environmental goals. It also cooperates with recycling institutions and communities on shoe recycling programs to elevate resource utilization efficiency. By disclosing ESG reports and environmental data to communicate with investors and consumers, Nike improves corporate transparency and brand social image. This multi-stakeholder cooperation model helps build a mature sustainable supply chain ecosystem.

Nike increases investment in green technology and digital solutions to advance sustainable supply chain development. For instance, the self-developed Flyknit technology cuts material waste and lifts raw material utilization via precision weaving. The company also keeps developing low-carbon and eco-friendly materials made from recycled plastics and fibers to reduce production carbon emissions. Digital tools are applied to optimize inventory and logistics, accelerating supply chain response and curbing resource waste. On the production side, Nike deploys factory automation and energy-saving equipment to improve energy efficiency. Technological innovation lowers operating costs and raises the added value of green products, supporting the company to build sustainable competitive advantages.

4. Performance analysis of Nike's sustainable supply chain strategy

4.1. Financial performance

Nike's revenue grew from $39.1 billion in 2019 to $51.4 billion in 2024, an increase of about 31.5% over five years. Green product innovation and a sustainable brand image enhance consumer acceptance and drive steady growth in market demand. Digital supply chain management improves the efficiency of inventory turnover and market response speed, and further enhances the business ability of enterprises. As shown in Figure 1, Nike's operating income has maintained an overall growth trend, indicating a positive correlation between sustainable supply chain strategy and business performance. Nike has reduced resource consumption by increasing the use of recycled materials, optimizing energy management, and reducing production waste. Green production processes such as flyknit technology reduce raw material waste, improve production efficiency, and thus reduce the production cost per unit product. By strengthening supplier management and digital operations, enterprises reduce inventory backlog and logistics costs and improve the efficiency of supply chain operations. While green transformation requires large upfront investment, it can lower long-term environmental governance costs and mitigate potential compliance risks.

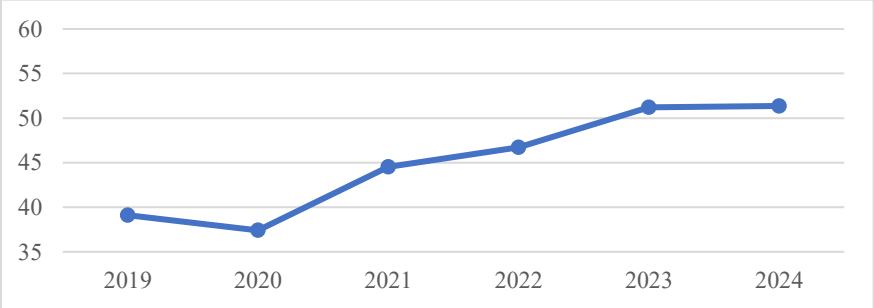


Figure 1. Nike revenue growth

In terms of R&D investment and achievement transformation, Nike continues to increase investment in green innovation and integrate environmental protection concepts into product design and production processes. For example, the company has developed recycled polyester materials, Nike grinds recycled materials, and low-carbon manufacturing technologies, which have been successfully applied to several core products. Relevant innovative achievements not only improve the added value of products but also enhance consumers' recognition of the brand's sustainable development. R&D investment has promoted the growth of green product sales, realized the coordinated improvement of environmental and economic benefits, and reflected a strong ability to transform achievements

4.2. Nonfinancial performance

From the perspective of market reaction, the capital market generally holds a positive attitude towards Nike's sustainable supply chain strategy. After Nike rolled out the Move to Zero strategy and published its annual ESG report, its stock price outperformed the S&P 500 over the same period, and the market gave positive feedback, indicating that investors regard the green transformation of enterprises as a positive signal. Between 2019 and 2021, the company's market value nearly doubled from about $139 billion to $273 billion. Although market value fluctuated between 2022 and 2024 amid post-pandemic shifts in consumer demand and the macro environment, the company retained its leading position in the global sportswear sector.

In terms of environmental and social performance, Nike has significantly improved its environmental management level by implementing a sustainable supply chain strategy. On the one hand, the company continues to increase the proportion of recycled materials and promote the transformation of energy conservation and emission reduction in factories. According to the Nike ESG report, recycled polyester fiber has been widely used in the product production process, reducing the dependence on traditional petrochemical raw materials. The above measures effectively reduce the environmental footprint of enterprises and enhance the green competitive advantage of enterprises. On the other hand, the company establishes a code of conduct for suppliers to continuously supervise and evaluate labor conditions, occupational safety, and employee rights and interests. Nike actively participates in community welfare projects and physical education projects to enhance its corporate social responsibility image. Good social responsibility performance helps to enhance employee identity and consumer trust, and create long-term brand value for enterprises.

In terms of supply chain resilience, the sustainable supply chain strategy enhances Nike's ability to cope with external risks. Through the digital supply chain management platform and supplier collaboration mechanism, the company can respond more quickly to market demand changes and supply chain disruption risks. Diversified supplier layout reduces the dependence on a single region and a single supplier and improves the stability of the supply chain. Table 2 summarizes Nike's main results in environmental performance, social performance, and supply chain resilience. Overall, a sustainable supply chain strategy not only improves the environmental and social performance of enterprises but also enhances the long-term sustainable development ability of enterprises.

Table 2. Non-financial performance of Nike's implemented strategies

Performance dimension	Major outcomes
Environmental	Higher recycled-material usage
Social	Improved labor-rights management
Supply chain resilience	Enhanced digital management
Brand value	Stronger consumer recognition

5. Conclusion

Taking Nike as the research object, this paper systematically analyzes the implementation path and performance of its sustainable supply chain strategy. The results reveal that Nike has built a comprehensive sustainable supply system covering raw material procurement, production, supplier

management and circular economy under the Move to Zero strategy. The adoption of recycled materials, production emission reduction, full-lifecycle supplier management and product recycling modes jointly deliver improved environmental, social and economic benefits. The strategy drives revenue growth and operational efficiency, while lifting brand value and market competitiveness, with notable progress in environmental protection, labor rights protection and supply chain resilience. Targeting existing issues including uneven supplier development, high circular economy costs and challenges in green product marketing, enterprises shall strengthen supplier support, advance technological innovation and optimize market strategies to balance sustainable development and commercial value.

The main contribution of this paper is to analyze the implementation path, implementation characteristics, and performance impact of Nike's sustainable supply chain strategy from the perspective of sustainable supply chain, which enriches the research content of sustainable supply chain management in the sportswear industry. At the same time, this paper provides a case reference for follow-up researchers to carry out enterprise ESG governance, green supply chain management, and sustainable business model research. This research mainly relies on corporate public disclosures and financial data, so the research scope is limited and empirical data from suppliers and consumers are insufficient. Future studies may adopt questionnaires, interviews and cross-firm comparative analysis to further explore the implementation effects and influencing mechanisms among different enterprises, so as to enhance the scientificity and generalizability of relevant research.

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