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Sustainable Supply Chain Management

The challenges in global trade triggered by COVID-19 have created an unusually rapid and complex risk and opportunity environment within supply chains. On the one hand, geopolitical power struggles, trade wars, supply shortages, inflation, and labour shortages, and on the other hand environmental and social risks such as natural losses, social unrest, and resource scarcity, have revealed that existing structures within businesses and economies are no longer sustainable. In this context, there is a growing recognition that supply chain management must be redesigned to encompass ecological and social dimensions. Sustainable supply chain management refers to the management of supply chain operations and the flows of resources, information, and capital in order to reduce environmental impacts while enhancing social welfare and supply chain profitability. When impacts across the supply chain are managed effectively, this approach brings not only challenges but also significant opportunities.



Due to rapid population growth, globalisation, increasing competition, and similar factors, strategic partnerships between manufacturers and suppliers have intensified over time in order to meet demand and reduce costs. Under current conditions, raw material and component costs account for approximately 70% of total production costs in many industrial sectors, highlighting the critical role of supply chain management for all stakeholders. Consequently, industries that are largely structured around this model are increasingly focusing on gaining a deeper understanding of disruptions in global supply chains—which have reached breaking points—and on designing sustainable and resilient business models to deliver structural solutions. Research shows that companies that collaborate regularly with their suppliers achieve lower operating costs, higher profitability, and stronger growth compared to their industry peers. Businesses are therefore willing to establish sustainable supply chain management models not only to prevent losses but also to strengthen long-term sustainability. Many companies have begun to integrate ecological and social perspectives into their visions in ways that also deliver competitive advantage and support sustainable growth objectives.

Supply chain management can be defined as a set of approaches aimed at integrating all suppliers within the chain in order to produce and deliver goods and services that meet customer requirements at the right time, in the right quantity, and at minimum cost. Strong collaboration within the supply chain has been shown to positively contribute to sustainable supply chain performance and, consequently, to overall business performance. Quality management systems also support environmental processes, supply chain integration, and sustainable supply chain management. However, financial and corporate governance challenges, regulatory gaps, and customer and supplier-related issues remain among the main obstacles. When companies improve their performance across the triple bottom line (ESG), they gain marketing advantages, increased revenues, higher market share, cost efficiencies, competitive advantage, and access to new market opportunities.

The benefits of sustainable supply chain management—resulting from collaboration designed around strong, flexible, innovative, and efficient business processes—include enhanced customer and stakeholder satisfaction, reduced environmental risks, eco-innovative products, recycling and reuse, reduced packaging costs, improved product quality, risk mitigation, and value creation. For example, a company that effectively manages both hazardous and non-hazardous waste can achieve cost advantages by minimising waste, using natural resources more efficiently, and enhancing its sustainability performance.

Guidelines prepared by the UN Global Compact Türkiye and TÜSİAD outline the key steps to be followed in practice to achieve sustainable supply chains. These include a commitment statement, policy development, process definition, supplier classification, monitoring, improvement, measurement, and information-sharing processes. A critical principle to be continuously considered is that products generate various economic and social impacts, as well as external effects on the environment and people, at every stage of their life cycle. Transparency and accountability across all stages of the supply chain are essential for building trust, as governance and institutional accountability to stakeholders play a vital role. In addition, companies are expected to declare their commitment to the ten principles of the United Nations Global Compact, which are grouped under human rights, labour, environment, and anti-corruption.

Sustainable supply chain management practices may be hindered or fail due to factors such as financing constraints, complex challenges, costs, difficulties in change culture and operations, and other uncertainties. Conversely, factors such as board-level support, government policies and incentives, technology and digitalisation, employee engagement, strong collaboration and transparency with suppliers, and increased customer awareness positively influence both the implementation and continuity of sustainable supply chain management.



Throughout the life cycle of products, there are various economic and social impacts as well as external effects on the environment and people at every stage. Transparency and accountability to stakeholders at each stage of the supply chain are essential for building trust.

As economic activities continue while disregarding their environmental and social impacts, critical threats such as the depletion of renewable and non-renewable resources, climate crises, and biodiversity loss have brought sustainability to the forefront of the business agenda. Growing environmental awareness among consumers, the increasing tendency of investors to prioritise environmental and social responsibilities, and actions taken in line with sustainable development goals are compelling companies to redesign their business models—particularly supply chains—by placing greater emphasis on ESG (environmental, social, and governance) criteria. Although challenges such as financial and governance constraints, limited resources and information, regulatory gaps, and supplier-related issues exist in building sustainable supply chain management, the model delivers significant

economic, environmental, and social benefits that support sustainable development.

These benefits include improved product quality, higher customer satisfaction, lower costs, increased flexibility, inventory optimisation, enhanced supply chain profitability, and the sustainable use of resources. In doing so, sustainable supply chain management ensures value creation for all stakeholders while fulfilling the responsibility of leaving a liveable world as a legacy for future generations.



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