

Sustainable Supply Chain Management and Optimization

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Due to the complex and changing global trade environment and the intensification of economic and trade conflicts, enterprises have become more cautious about economic development. Therefore, an increasing number of enterprises are paying increasing attention to the construction of and investment in the supply chains for sustainable development. For example, in 1996, The Manufacturing Research Council (MRC) at Michigan State University, with a grant of USD 400,000 from the National Science Foundation (NSF), conducted a study on “Environmentally Responsible Manufacturing (ERM)”, which introduced the concept of green supply chains and emphasized their importance. Green supply chain integrates the environment into the whole supply chain, from the raw materials provided by suppliers to the disposal of goods after consumption by customers, the whole process should consider the comprehensive use of resources and environmental protection, reduce production activities that cause harm to human beings and the environment, and ultimately optimize economic and environmental benefits.

In 1987, as the awareness of environmental protection gradually became more prevalent, the WCED introduced the concept of sustainable development, for which the fundamental ideas were to protect the environment, ensure the sustainability of resources, and then encourage economic and social developments [1]. Since this concept was introduced, sustainable development has spread to many industries. In the 1990s, scholars began to study sustainable supply chain management for environmental protection, as well as contributing to social development in the process of supply chain management. Sustainable supply chain development is already reflected in all aspects of supply chain management: development and design [2], production and packaging, marketing and distribution, consumption and recycling, etc. Currently, a safe, stable, and sustainable supply chain is not only positioned as the core aspect of enterprise development but is also gradually becoming integral to the sustainable development of the industrial chain. Modern society is facing very serious environmental and resource problems. In this context, sustainable supply chain management is a sustainable development model used in modern enterprises that takes these two issues into account, in order to achieve good economic and social benefits. In the process of implementing sustainable supply chain management, there are still many problems faced by enterprises, which need to be studied and continuously improved.

Studies that address all the challenges and possible influences of sustainable supply chain management are welcomed for this Special Issue, entitled “Sustainable Supply Chain Management and Optimization”. Such studies will help to analyze and develop solutions in the field of sustainable supply chain management and develop effective methods for future research. The main focus of this Special Issue is to identify management factors for sustainable supply chain development—such as carbon footprint and emissions, waste, air pollution, big data, cost management, agricultural supply chain, and supply chain finance—to promote the innovative development of sustainable supply chain systems [3,4].

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