



Green Logistics | *The path to eco-friendlier and more sustainable supply chains*



SMART IDEA &
PRACTICE



SMART PAPERS

INDEX

Introduction

Section 1

An overview of the Green Logistics landscape and five crucial technologies in networks design

Section 2

Five best implementation practices in green logistics

Section 3

SCSR and five top use cases in green logistics

Conclusion



WATCH DIGITAL FUTURES
VIDEO

DIGITAL FUTURES

DIGITAL FUTURES is an online content publication platform catering for technology business leaders, decision makers and users, by sourcing and sharing valuable information and best practices in connection to the latest emerging technologies trends and market developments that leverage capabilities and contribute towards enhanced enterprise-wide performance.



WATCH VIDEO

LEARN MORE 

Introduction



Green supply-chain management (GSCM) is attracting significant interest among operations alongside scholars and practitioners of the same field. Its growing importance is mostly due to the environment's deteriorating state, manifested through depleting raw material resources, overflowing waste sites, and rising pollution levels. With growing environmental concerns over the last few decades, GSCM has evolved to ensure compliance with environmental regulations.

Yet, being environmentally responsible is only one part of the equation. Good economic sense and increased earnings are equally important. The economy, society, and the environment are considered to be the key three pillars in sustainability. They cannot be strengthened without taking into account the other aspects due to their interconnectedness with one another, either directly or indirectly. Today, the success of supply chain management highly depends on environmentally sustainable processes. The term 'green logistics', as opposed to 'conventional logistics', refers to logistical activities that are intended to reduce pollution and exploit renewable energy. Corporations that are committed to sustainable goals and social concerns, apply consistently greener strategies, while customers and suppliers, or other members of their chains can also benefit from it. For instance, if a business wants to remain long-term, it must include sustainability into every aspect of its supply chain.

Building a logistics network by using digital technologies could provide a new level of resiliency and responsiveness, allowing companies to increase their competition in an effort to provide end users with the most efficient and transparent service delivery possible. For example, big data analytics, which obtains large-scale logistics information and applies complex algorithms to this data, can assist businesses in identifying areas where they can save money, increase margins, and operate more efficiently.

Introduction

Section 1

Section 2

Section 3

Conclusion





Transport and logistics management systems must interact and share information effectively to achieve this. Furthermore, it is critical to offer stakeholders flexibility in terms of communication across various functions. This means that it is now possible to handle opportunities and restrictions in every unit, from procurement to sales, by implementing end-to-end approaches.

Sustainable operations ought to be purposefully supportive of eco-friendly practices that meet an organization's objectives in terms of their social, economic, and environmental impact. This green trend has been amplified across diverse business functions, while in recent years, there has been a greater emphasis placed on the social environment, which is as a critical component in green logistics, and supply chain. As corporations and stakeholders increasingly acknowledge the climate change impact on businesses, corporate social responsibility (CSR) in supply chain management (SCM) has become a significant item on their agenda. This is mainly due to the fact that socio-political conditions have an enormous impact on financial decisions.

The global green logistics market is valued at approximately USD 993.3 billion in 2018, and it is expected to grow around 6.5 percent between the forecast period 2019-2027, hitting nearly USD 1.8 billion by 2027.¹ In line with this context, the purpose of this study is to provide an up-to-date framework for pursuing sustainability based on a company's competence and preparedness for digital transformation, green practices, alongside the factors that include collaboration across the supply chain, top management commitment, and the presence of environmentally-oriented policies.

1. Thomas, S. (2020, January). Global green logistics market will reach USD 1,743.38 billion by 2027: Facts & factors. IPD Group Inc.

SECTION 1



An overview of the Green Logistics Landscape & five crucial technologies in network design

Green Logistics landscape & digitalization



The importance of a sustainable green supply chain has been brought to the attention of the international community in the last few years. As defined by the United Nations, environmental, social, and economic impacts are managed throughout the life cycle of goods and services, and good governance practices are encouraged.²

Sustainable logistics aims to reduce the environmental impact of its operations, such as CO₂ emissions, noise pollution, and accidents. Logistics providers must achieve a balance between financial growth, environmental conservation, and societal well-being in this regard.³

Green Logistics concept is gaining popularity and can be defined as an integrated transformation of logistics strategies, structures, processes, and systems toward a more logical and effective use of resources. The three pillars of sustainability are the economy, society, and the environment. They are also colloquially known as *'the 3 Ps'*, which stand for profit, people, and planet. By achieving a balance between them, logistics can provide the best service while also enforcing and assuring more conscious resource utilization. Green logistics, as opposed to the usual one-dimensional, economic-only strategy, uses a three-dimensional life cycle perspective. Following this strategy does not indicate that the amount of work or time required will increase by a factor of three. However, if the organization reduces its environmental impact and promotes healthy social habits, there may be a return on total *'value for money'*.⁴

2. Grabler, T. (2020, March). Future of Supply Chain: Sustainable Green Supply Chain Management. Topo.

3. Solistica. (2019, March). Sustainable Logistics: A priority for supply chains.

4. Bradley, K. (2021, August). Green Logistics. Logistics operational guide (LOG).

Introduction

Section 1

Section 2

Section 3

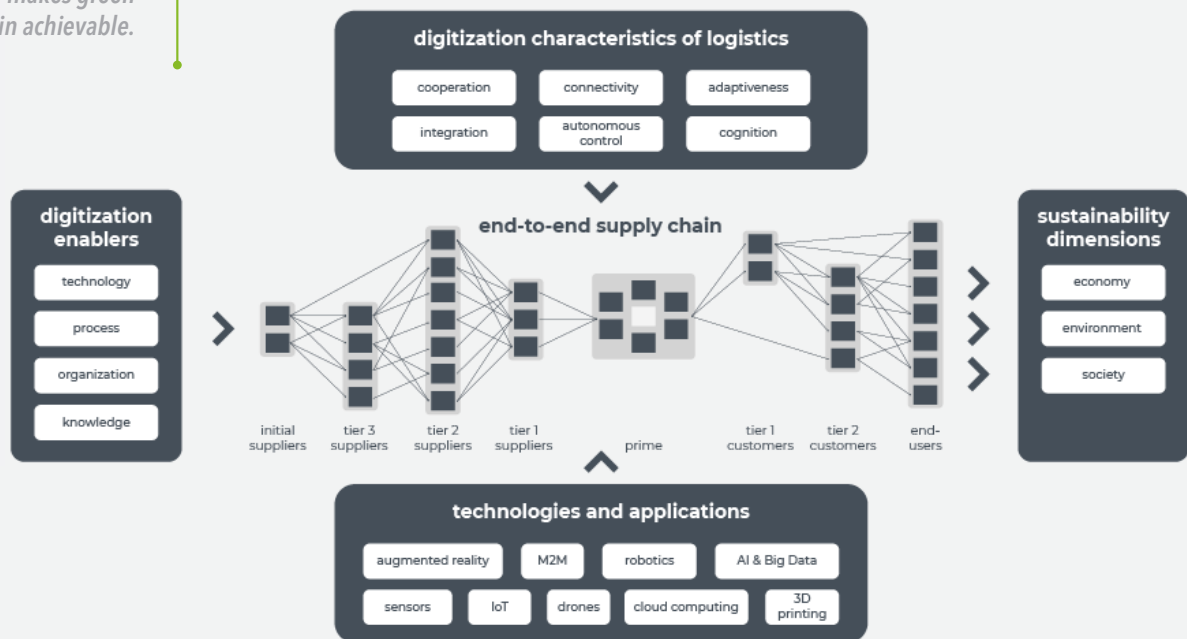
Conclusion



5. Innovecs. (2020, June). How digitalization makes green supply chain achievable.

Figure 1 | Sustainable digital logistics ecosystem, by Yasanur ur Kayikci. Innovecs. (2020, June). How digitalization makes green supply chain achievable.

Digitalization will have a major impact on the future of green supply chains since it makes it easier to create a reliable and environmentally friendly transportation and supply system. Logistics firms have begun to use smart and connected technologies including cloud, mobile, sensors, and big data analytics (BDA) and machine learning (ML) machine learning, and the Internet of Things. By 2025, cutting logistics-related emissions by 10-12 percent will decarbonize the global economy, thanks to the digital revolution's limitless potential for fostering the rise of green supply chain management field (GSCM).⁵



Social Responsibility initiatives, green marketing and other eco-led methods can be an excellent start to restore a company's reputation around carbon footprint, which appears to be a one-way road in the era of climate change. When it comes to green transformation, executive teams should set clear goals, while operators must always adhere to sustainable objectives. However, further research is required to address the success of green strategies, with the most outstanding gap being industrial challenges and stakeholder engagement. In any case, the reader of this paper should remember that green logistics go hand in hand with profitability, as it ensures maximum savings in terms of costs and energy consumption. The green philosophy is here to stay to improve companies' 'license to operate', penetrate new markets and make the leapfrog to business transformation.



Introduction

Section 1

Section 2

Section 3

Conclusion





SMART PAPERS



FOLLOW OUR THINKING :



Designed and produced by APU Insights Creative Studio
2021 © APU Commercial Information Services
All Rights Reserved