

**IMPLEMENTATION OF GREEN SUPPLY CHAIN
MANAGEMENT PRACTICES**

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Motivation

The motivation behind the research is widespread awareness of green sustainability with green practices of supply chain management worldwide. The objective of researching this subject is for organisations worldwide to concentrate more on supply chain management practices. Their supply chain sustainability planning aim has been achieved, but adoption is still quite constrained. Evidence states that 49%, approximately half of the companies have deployed the GSCM to initiate one step forward in environmental sustainability. The firms have realised that integrating sustainable practices into the supply chain management will lead to a clean environment away from ecological disruption and hence become successful in the business (Saeed and Kersten, 2019). Management of GCS can reduce environmental impacts such as pollution and production costs spurring economic growth and creating a competitive edge in customers' eyes.

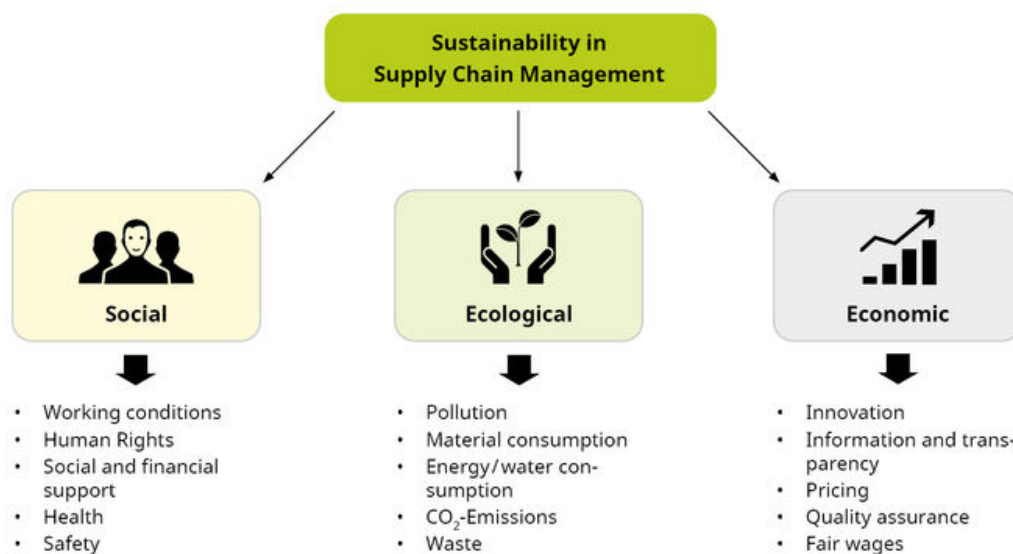


Figure 1: Motivation behind GSCM

(Source: Saeed and Kersten, 2019)

The world is striving to save the environment from industrial pollution, and environmentalists have compelled organisations to eliminate hazardous elements such as emissions, chemicals or solid wastes. The path toward a green world is the responsibility of both sellers and buyers, and thus they have joined hands together towards green practice in business (Esmaeilian *et al.* 2020). Global firms are now responsible for integrating sustainable and green practices in their traditional supply chains, such as product designs, sourcing, manufacturing, production and waste discretion.

Problem statement

The objective of GSCM is to eradicate the minimisation of waste by reducing greenhouse, chemical gas emissions, solid waste, and non-renewable sources of energy. Green operations mentioned above enhance organisational performance in recycling, reusing and reducing manufacturing costs, improved efficiency of assets, positive reputation building and green sustainability for a long term period of growth (Mani *et al.* 2018). However, challenges come across industries in implementing GSCM in their business operation, such as lack of resources, knowledge, experience and management of standard environment control policies. Sometimes business profit does not go hand in hand with sustainability as the business responsibilities cannot always monitor complex supply chains due to a lack of knowledge and concerns. The supply chain is complex, and the firms need to find effective ways to address green sustainability issues across the business level down and upstream channels (Vidal and Croom, 2018).

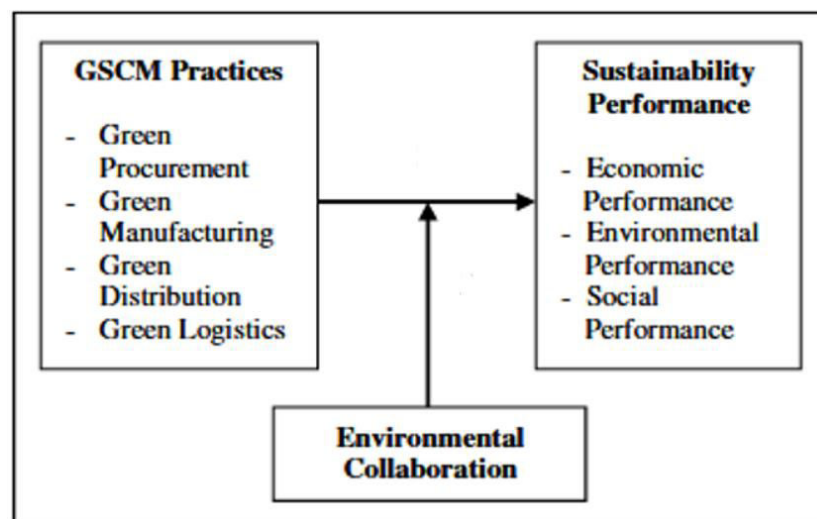


Figure 2: Solutions provided by GSCM

(Source: Vidal and Croom, 2018)

GSC operation reduces environmental impacts free of cost. It leads to savings by reducing waste emissions and enhancing the building efficiency of machinery and vehicles. Supporting GSC brings a reputation of environmental concerns and an attractive prospect for other environmentally concerned partners to create a green venture opening up a potential opportunity or partnerships. A sustainable supply chain might help companies land more business by demonstrating green credentials. Universally recognised standards, such as **“ISO 14001”**, can help businesses out as it is an efficient GSCM tool that helps companies uncover loopholes in their business to generate

ecological efficiency savings (cips.org, 2019). With the accreditation of supporting environmental efforts, there is a chance to show clients the essential strides to reduce environmental impacts worldwide. Moreover, the green supply chain changes can be rewarding in better saving margins and reducing damage to the planet.

Literature Review

Importance of Green Supply Chain Management

Environmental problems such as sudden climate change, global warming, and pollution are the greatest awareness in the present state motivated by green practices. GSCM works on recycling principles to increase asset utilisation. GSCM enhances customer services during international business by creating changes in sales and profit by environmentally aware customers (Tarigan *et al.* 2021). Another social importance of Green SCM is important because it reduces community impact, reduces environmental impact, accelerates competitive edge, minimises noise pollution, avoids traffic congestion, and ultimately measures health, security, and well-being. Besides, the green supply chain mitigates environmental and climate risks, reducing the manufacturing of wastes. Cultivating sustainable green practices in procurement helps organisations become more profitable and environmentally responsible (Laari *et al.* 2018). GSCM is the next good thing realised by manufacturers as there are many short and long-term financial benefits from implementing environmentally conscious improvement practices.

Elements driving the implementation of GSCM in different sectors

The problem of disruptive climate change is real and accepted as the most vital challenge in international countries today.

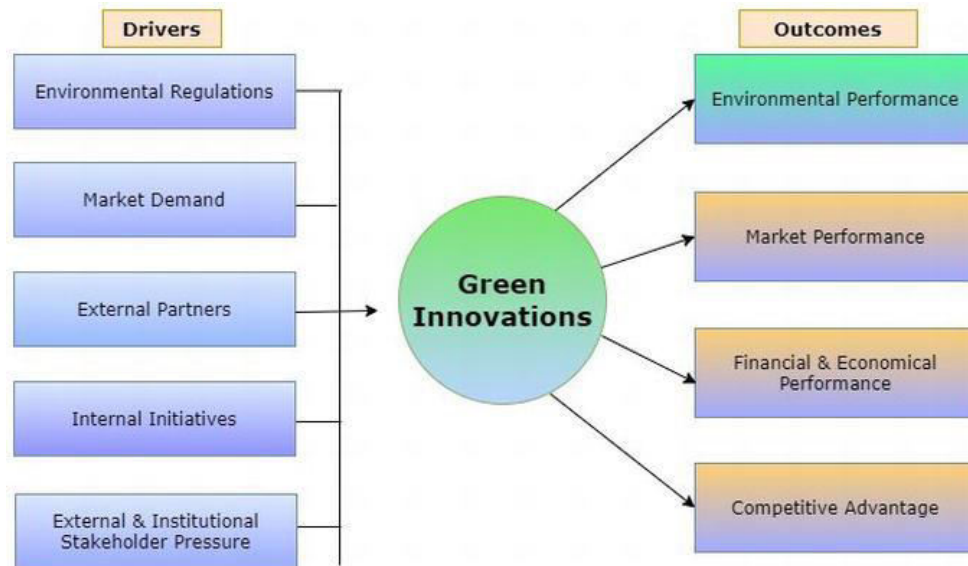


Figure 3: Drivers of green SCM

(Source: Self-created)

The government and non-governmental organisations have put mounting pressure on nations to comply with environmental protection guidelines established by international countries UN and ***“Intergovernmental Panel on Climate Change” IPCC*** which compels countries individually. ***“Extended Producer Responsibility”*** or ***EPR*** is the next driving factor that charges plastic tax from companies compelling them to reduce the production of non-biodegradable products and wastes (forbes.com, 2021). The government drafted new legislation and tweaked existing laws by introducing administrative changes. The ***“Kyoto Protocol”*** agreement adopted in 1997 went through a complex modification in 2011 as the ***“Doha Amendment”*** and the ***“Paris Climate Agreement”*** aimed at reduction of carbon dioxide and greenhouse emissions (linkedin.com, 2020). The protocol linked with the ***“United Nations Framework Convention on Climate Change” UNFCCC*** put a heavy burden on developing countries to cut off their GHG emission. Latest consumer product firms have agreements with ***“Non-Governmental Organizations”*** or ***NGOs*** to enhance recyclable goods, reuse material, minimise packaging, and shift to sustainable products and practices. In addition, ***eco-conscious customers*** continue to push companies for green business. As a result, an emerging number of ***concerned employees, customers, stakeholders and even founders*** are switching towards GSC and sustainability.

GSCM efficiency towards creating green sustainable practices

Companies improved their productivity and environmental growth performance with numerous adopted green supply chain practices.

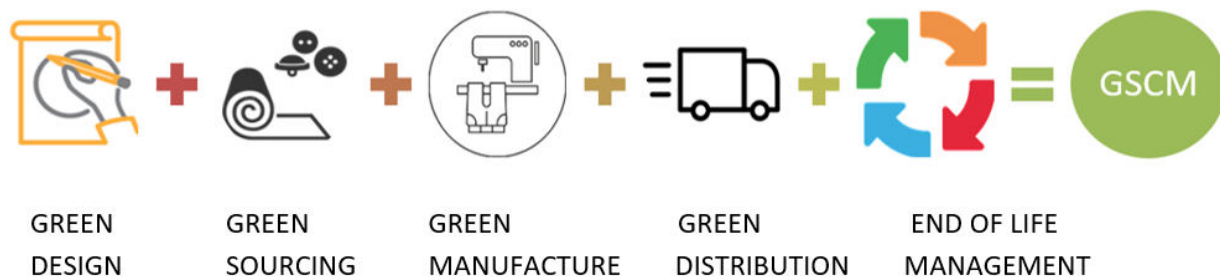


Figure 4: Green Practices of SCM

(Source: Trivedi *et al.* 2018)

Green purchasing and **sourcing practices** involving or selling eco-friendly green packaged materials impact the reduction of product cost and overall financial cost of manufacturing by recycling the same materials (Trivedi *et al.* 2018). **Green marketing** is an organisational initiative to promote products with eco-friendly properties that will satisfy human needs and contribute to a clean environment. Adoption of **green management practices** helps firms build their image, improve environmental compliance, and societal commitment to reducing waste and carbon footprints. **Lean manufacturing** aims at producing biodegradable products to reduce the cost and quality of environment and supply chain life (Cherrafi *et al.* 2018). 80% of climate damage can be stopped with the adoption of **ecological design** of SCM such as clean technical process, green components and raw materials, and design for reusing and recycling products. **Reverse logistics** and **green transportation practices** allow organisations to improve their image as environmental icons and rescue costs-savings of logistics overhead through efficient transportation and customer association (Baah *et al.* 2021). Logistic activities combined with rehabilitation lead to reverse logistics which is beneficial for environmental sustainability. Global logistics and supply chain activities depend on fossil fuels and other nonrenewable resources, which are the main issues of climate change, pollution, global warming and greenhouse pollution. However, replacing **non-renewable energy** with **renewable energy** and biofuel can reduce carbon emissions and costs as fossil fuels cost more.

Key terms and definitions

Eco-friendly environment

An eco-Friendly environment means a surrounding or situation where human actions do not harm components of the earth, including air, water and land (Jermsittiparsert *et al.* 2019).

Green sustainability

Green sustainability means what is done today will not deplete resources in future. Therefore, GS is thoughtful and long-term planning for future generations by implementing maximum environmentally friendly goods from all industrial movements that will not harm the environment (Cankaya and Sezen, 2018).

Green supply chain management

GSCM is the pathway of incorporating eco-friendly concerns into supply chain operations such as material sourcing, product selection and design, manufacturing, final product distribution, and product end-of-life administration (Yang *et al.* 2020).

Green practices

Green practices are the initiative taken by concerned individuals and organisations to be environmentally responsible. From an industrial view, the practices include efficient usage of resources through the product life cycle of development, green operation, maintenance finance, deconstruction and renovation (Agyabeng-Mensah *et al.* 2020).

Research Aims, Objectives and Questions

Aim

This research aims to assess the critical significance of green supply chain management practices and strategies all around the globe.

Objectives

- To comprehend the idea and importance of Green Supply Chain Management
- To assess the elements driving the implementation of GSCM by numerous sectors
- To measure the efficiency of GSCM towards creating green sustainable practices

Questions

Why is Green Supply Chain Management becoming more popular in recent years?

Research Methodology

Research Approach

The expedition of this research will be done with a *qualitative research approach*. Qualitative research will allow researchers to understand the vitality of the research topic from the root and create a deep understanding and analysis of the subject matter. Research obtained through a qualitative approach allows researchers to ask how and why rather than what (Ahmed and Asraf 2018). The qualitative research approach is suited for assessing GSCM practices. It is important as it will create deep involvement and reasoning of researchers with logic and justification to analyse in-depth data.

Data Collection Method

The researchers will follow the secondary data collection method to explore the topic. The *secondary data collection model* is a detailed study of a subject based on online sources. A wide range of GSCM information is available in various internet sources, which the researchers will target. The most reliable data sources are government websites, journals, newspapers, articles, and statistical reports that deliver auxiliary information from recent years (Olabode *et al.* 2019). The researchers find secondary data collection methods more suitable amid the covid pandemic as they will gather extensive information within a short time interval without travelling from place to place.

Data Analysis

Researchers have chosen thematic analysis to analyse secondary quantitative data. The secondary *thematic analysis* is flexible and allows a wide range of perspectives on the subject matter. The themes will be used to analyse the objectives through qualitative data and identify different patterns in the secondary data. It is a flexible and simple method of analysing the gathered data and finding interpretations to justify the purpose of this research (Braun and Clarke, 2019). The themes will analyse and critically review the importance of green supply chain management practices used across the industries globally and the effectiveness of green sustainability.

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