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THE IMPACT OF GREEN SUPPLY CHAIN ON ORGANIZATION PERFORMANCES

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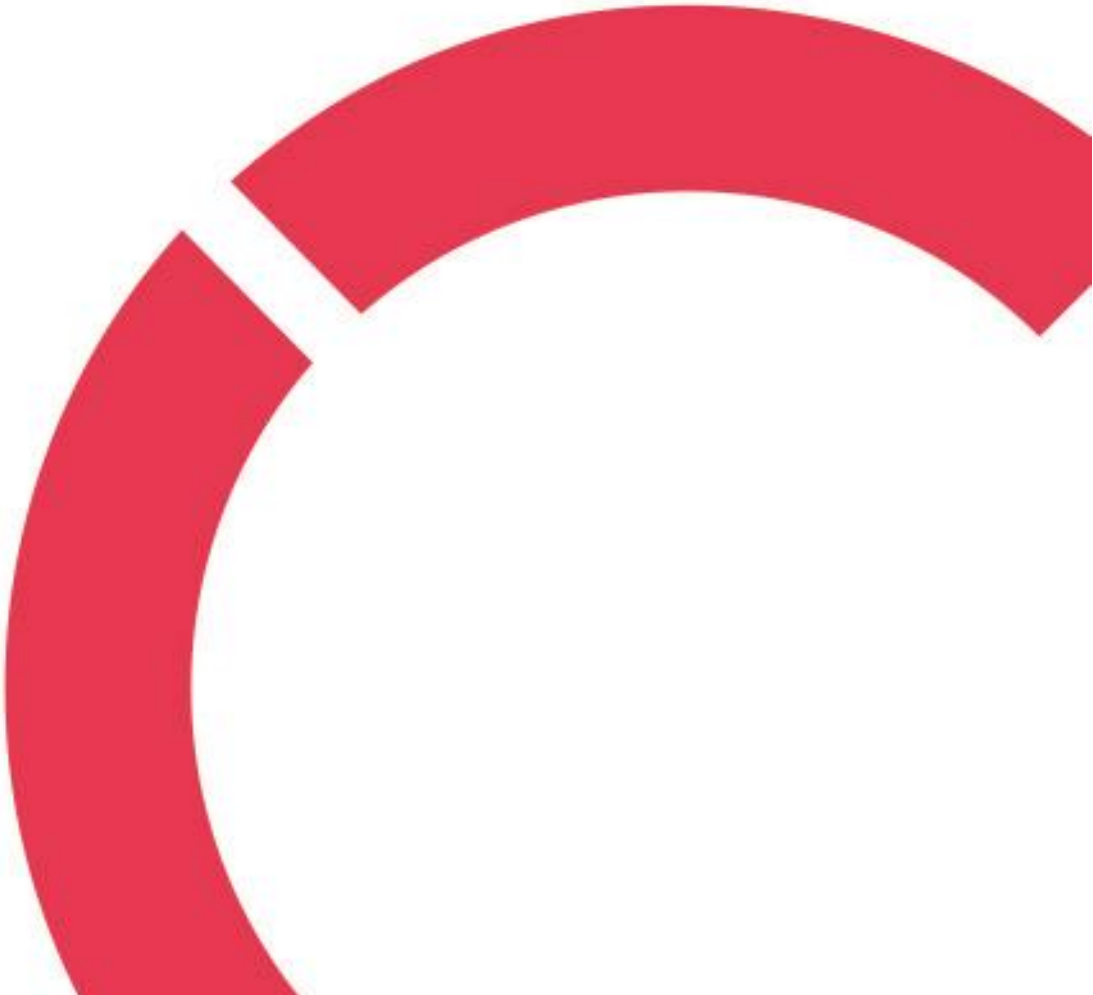

ABSTRACT

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The study of green supply chain practices and organizational performance is the focus of this thesis. It investigates how environmentally responsible supply chain management affects key performance indicators through a thorough study of the literature, the creation of a theoretical framework, and empirical research. According to the survey, firms who adopt green supply chain strategies have higher operational efficiency, lower costs, greater environmental sustainability, and increased competitiveness. The study's findings underscore the need of integrating sustainability practices into supply chain strategy, as well as the possibility for a win-win situation that helps both the environment and corporate performance. The findings underscore the importance of organizations embracing and integrating green supply chain practices. This study's recommendations give practical assistance for firms aiming to utilize sustainability for enhanced performance and competitiveness in today's business world.

Key words
Business Performance, Green Innovation, Green Information Technology Orientation, Green Procurement, Green Supply Chain Management Practices, Jordan, Organizational Performance Environmental, Orientation

ABSTRACT

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1 INTRODUCTION

Organizational performance can be substantially enhanced through the adoption of green supply chain practices, resulting in reduced costs, increased productivity, and heightened customer satisfaction. Environmental concerns, encompassing global climate change, ozone depletion, solid waste management, and air pollution, have garnered significant attention from governments, societies, and businesses. Despite their crucial role in emerging economies, businesses are frequently held accountable for environmental pollution and damage. Industries, driven by the need to meet customer demands and preferences, often contribute more emissions than other economic activities. The extractive sector, comprising resource exploration, extraction, and processing, is pivotal within economies like Jordan, encompassing mining, quarrying, and oil and gas extraction. This study delves into evaluating the outcomes of implementing Green Supply Chain Management (GSCM) standards within Jordan's extractive sector. Key stakeholders, including management, consumers, competitors, NGOs, and employees, all share invested interests in driving businesses towards prioritizing environmental and social concerns, leading to the implementation of eco-friendly business procedure. As companies aim to minimize their environmental footprint, mastering intricate supplier relationships becomes paramount. The assertion holds that Environmental Management (EM) has increasingly shifted its focus to the supply chain level. The amalgamation of Environmental Management and Green Supply Chain Management in practice renders them more appealing to enterprises. Enterprises are more inclined to implement GSCM policies due to multiple stakeholder pressures, both internal and external. Embracing GSCM practices not only benefits companies but also spurs enhanced productivity, innovation leadership, and positive public perception.

2 BACKGROUND

A Green supply chain management (GSCM) is a systematic approach aimed at minimizing the negative environmental impact of an organization's supply chains (Chin, 2020). This comprehensive strategy encompasses various stages, ranging from the sourcing of raw materials to the production and transportation of finished goods. Within the context of global supply chain management (GSCM), businesses strive to optimize their resource utilization to mitigate their ecological footprint. The outcomes of this research hold implications for both future GSCM studies and policy formulation. To gain a holistic understanding of how environmental sustainability affects diverse businesses across the entire supply chain (SC) spectrum, a discerning environmental analyst must just a pose the findings of this investigation with those of other similar research endeavours. This approach reveals that the assessment of GSCM practices can be multifaceted. This study contributes valuable insights for supply chain managers, particularly within the automotive sector.

Abdallah et al. propose that for sustainable expansion, enterprises need to enhance their responsible utilization of natural resources (abdallah, 2020). Environmental protection measures are imperative for businesses of all magnitudes. The domain of Supply Chain operations is no exception to this requirement. Since the early 1990s, organizations have been under considerable pressure to incorporate environmental considerations into their supplier relationships.

Jordan, being resource-deficient, heavily relies on imports to meet its energy and raw material demands. The vibrancy of Jordan's economy hinges on the prosperity of its mining and quarrying sectors (Foote, et al. 2004). According to statistics from the Department of Statistics, the mining and quarrying industry contributed approximately 3.8% to Jordan's GDP in 2019. This sector not only fuels economic growth and employment but also attracts external revenue. However, the extractive industries also give rise to substantial adverse environmental consequences, notably encompassing air, and water pollution, as well as land degradation.

2.1 Green Supply Chain

GSCM is a cutting-edge idea that evolved from conventional management of the supply chain. In the late 1980s, after the supply network business assurance breakthroughs of the early 1900s, corporations began to recognize the benefits of environmental protection. (Chin, 2020) described GSCM as the scientific coordination of critical cross-functional and cross-business procedures to improvises an organization and its collaborators organization chain through the purposeful, transparent integration of cultural, ecological, and economic goals.

Khan et al. described GSCM as a systematic, integrated method that starts with procuring raw materials and concludes with the waste management process to minimize environmental harm and maximize financial returns. It combines economic development, social progress, and ecological equilibrium to create a more sustainable product with fewer resources. According to Chin (2020), it generates economics by controlling the flow of resources like labour, capital, and labour through the lifecycle. Throughout a product's life cycle, GSCM necessitates close collaboration with customers and suppliers, scrutiny of internal processes, and awareness of environmental factors. Abdallah (2020) highlighted four essential GSCM practices. Green supply chain management entails a variety of practices, including green extraction and materials administration, green purchasing, and green distribution and marketing.

2.2 Organizational Performance

The Financial performance, market performance, and shareholder´s return are the components of an organization´s overall Success (Chin, 2020). According to Chin, a corporation can gain a competitive advantage by maximizing efficiency, offering exceptional customer service, and quickly adapting to changing market conditions. the performance of society, the marketplace, and the environment, on the other hand. The relationship between GSCM and organizational performance has been investigated across various operational, economic, environmental, and social dimensions. An in-depth understanding of a company's performance indicators is essential for gauging its overall performance and efficiency. The primary focus of this analysis was operational, environmental, and social performance.

2.3 Problem Statement

The style Despite increasing awareness of the topic's significance, the effect of GSCM on corporate objectives must be clarified. This investigation into the relationship between GSCM and operational commitment tries to close this information gap.

2.4 Object of the Study

This study's overarching goal was to investigate how GSCM affected the organizational performance of companies in Jordan's extractive industries. The study´s particular goals were, to research how green buying impacts company results in Jordan's extractive industries. Determine how Green Extractive impacts Organizational Effectiveness in Jordan's extractive industries. Ascertain how the extractive industries in Jordan are affected by Green Dispersion upon Organizational Effectiveness. Investigate how green marketing affects business performance in Jordan's extractive industries. Determine the influence of Reverse logistics on Organizational Performance in Jordan's extractive sectors.

2.5 Expected Outcomes

To understand the position of GSCM in modern enterprises and how it affects productivity. Second is main GSCM factors and how they affect business success have been identified and lastly GSCM best practices recommendations for companies.

2.6 Researching Hypotheses

First was throughout this investigation, the, especially in the current, was investigated, first Green Purchasing hurts Organizational Performance in Jordan's extractive sectors. Second was green extractive hurts Organizational Performance in Jordan's extractive sectors. Third is Green Distribution negatively

affects Organizational Performance in Jordan’s extractive sectors. Forth was Reverse Logistics hurt Organizational Performance in Jordan’s extractive sectors.

2.7 Significance of the study

The research on "The Impact of Green Supply Chain on Organizational Performances" holds paramount significance in the realm of sustainable business practices. This study delves into the intricate interplay between Green Supply Chain Management (GSCM) strategies and organizational performance outcomes, offering a comprehensive understanding of their relationship. By scrutinizing how GSCM practices influence various facets of organizational performance, this research contributes to the growing body of knowledge in the field.

In a world increasingly focused on environmental concerns, the study's findings have the potential to reshape business paradigms. As businesses across industries recognize the urgency of ecological responsibility, the insights derived from this study can guide their strategic decisions. Moreover, policy makers can leverage these findings to formulate regulations that foster environmentally conscious practices within supply chains.

The study's unique contribution lies in its examination of the four components of GSCM practices and their collective impact on diverse organizations. By comparing these results with existing research, a comprehensive view of GSCM's effectiveness emerges. This study's insights hold relevance for supply chain managers, enabling them to adopt tailored GSCM strategies that align with their specific organizational contexts.

2.8 Limitation of the study

The bulk of the information for this research came from sources within the companies that work in Jordan's extractive sectors. Some respondents may be hesitant to submit honest answers because they worry the information they are about to supply might be considered private or secret, despite the priority put on environmental preservation. It was also important to remember that GSCM remained a nebulous concept for some businesses and that some of those businesses may need to employ the practice with

the required paperwork. The integrity of the data acquired might be jeopardized this way. Financial constraints may also limit the scope of the investigation, as the enterprises of interest are spread out across the country.

3 LITERATURE REVIEW

The author reviews and summarizes the body of knowledge on green supply chains and how they affect organizational performance in this chapter. This section provides readers with a thorough overview of the state of the art in this topic by delving into the fundamental ideas, theories, and empirical investigations that serve as the thesis's bedrock. This chapter offers a theoretical framework and identifies gaps in the current literature through a survey of academic articles, reports from the industry, and pertinent publications, laying the groundwork for the unique research carried out in later chapters.

3.1 Green Supply Chain Management

Due to green practices and environmental consciousness, there has been a noticeable shift in the economy and the level of competitiveness between businesses. The environment needs a comprehensive strategy. This can only be accomplished via the coordinated efforts of all organizational departments and functions (Badi, 2019). One way to achieve this integration is through applying GSCM and its constituent practices.

GSCM was linked to extractive reuse and recycling (Badi, 2019). Two GSCM experts identified four essential practices that companies should adopt in 2019. These consist of recycling, reusing, composting, and buying products made from recycled materials. While Sathish (2017) looked at green procurement, green extractive, green redistribution, and reverse supply, both studies addressed internal environmental administration, green information security, resource efficiency, consumer participation, eco-design, and green procurement. So according to Candrasa (2020) and many others, these four primary GSCM elements are supply chain management, green activities, green extracts, and waste disposal.

According to Abdallah (2020), other approaches to GSCM development are also possible. With a risk-based approach with minimal inter-organizational participation, closed-loop techniques capture and recover materials for reuse or recycling. In contrast, efficiency-based strategies link supply chain operations to environmental performance, and innovation-based strategies use supply chain activities that are more environmentally focused, regardless of how researchers label these events as showed below in the table.

TABLE 1: GREEN SUPPLY CHAIN MANAGEMENT

Green Supply Chain Management			
Green Procurement	Green Extractive	Green Distribution	Green Logistics
• Supplier Selection • 3 Rs 3	• Hazardous Substance Control Energy • Efficient Technology • 3 Rs & Waste Minimization	• Green Logistics • Green Packaging	• Final Treatment • Disassembly /Recycle Plants • Waste Collectors

The literature reveals that many academics hold differing views on GSCM methods. Critical GSCM tasks include green transmission, green procurement, green purchasing and order fulfilment, and freight forwarding.

3.2 Green Purchasing and Inbound Logistic

Purchasing encompasses a wide range of tasks, including sourcing, supplier selection, offshoring, negotiation, decision to buy, delivery, work schedules, and so on (Abdallah, 2020). The term "green purchasing" refers to environmentally responsible spending that considers activities like the management of a green supply chain, green transport, green warehousing, and Green making purchases (Sathish, 2017). According to their study of GSCM (Mardani, 2020), various steps may be incorporated into the buying process to promote environmental Sustainability. Before deciding on a provider, businesses can learn more about their potential partner's views on Climate Change and other environmental concerns using a Supplier Environment Questionnaire.

In addition to these measures, companies may take an active role in green purchasing by collaborating with suppliers to create more environmentally friendly products and methods. One

way to achieve this goal is to push manufacturers toward greener product designs emphasizing material reuse and recycling (Sathish, 2017).

Inbound logistics refers to the aspects of a materials management system that manage and purchase from suppliers. Every manufacturing firm aims to minimize the time, energy, and money spent on inventory management (Chin, 2020). The approach has been to keep stock at a bare minimum, which cuts down on or eliminates costs like waste and storage space. Some producers go with input delivery, while others make fewer, larger batches at a time. Production systems that use the Just in Time (JIT) methodology to avoid stockpiling goods until they are needed can help reduce costs without sacrificing customer service.

3.3 Green Extractive

According to Chin, (2020) fast, dependable, and energy-efficient production equipment is used in green extractives to reduce waste and increase output. Industrial operations that are efficient, waste-free, and gentle on the planet's ecosystem employ eco-friendly inputs. Clean production techniques, efficient technology, decreased resource consumption, and biodegradable energy and materials are all related to "green extractives" (Sathish, 2017) to increase efficiency while reducing waste and pollution.

Rather,Organization backed an extraction method that relied on sustainable energy sources including solar power, recycled raw materials, and compostable substances and energy. Less harm to the environment, cheaper extraction costs, superior quality for consumers both within and outside the business, and a healthier environment for the community are just some of the benefits of green extraction.

Lean manufacturing, closed-loop extraction, energy-efficient production technology, environmentally friendly design, and stringent quality-control measures all play a role in green extraction. As defined by Badi (2019), green design considers the environment's health and safety at every stage of the product's development. According to Badi (2019), green design is making goods and services to minimalities impact on the natural world. According to Badi (2019), product designers should consider. Maximum missing efficiency using available resources. To maximize the product's useful life and facilitate its disassembly and recycling at the end of its helpful cycle, it is crucial to consider how it will be disposed of in the long run. With advanced technology,

businesses may produce items using fewer resources, more recyclable materials, or bio-based polymers.

The term "Total Quality Environmental Management" (TQEM) refers to an approach that combines total quality management strategies with corporate environmental programs (Badi, 2019). It is a way of managing a business that stresses having a dedicated and enthusiastic staff, providing them with opportunities for growth and advancement, working together across departments, and fostering strong leaders from within.

A company's production process needs to incorporate efficiency. Sustainable and efficient internal supply chain management is possible with a closed-loop extractive system. Products may be manufactured in a closed-loop extraction system without negatively impacting the natural environment (Chin, 2020).

According to Chin (2020), a "reuse market" is linked to a "disposer market," which is a market for outdated things that can be repaired, extractives or recycled. The goal of zero emissions in the production system inspires this movement, which works to lessen the production processes by products. Substituting less harmful materials for those harmful to the environment is an option. Supply chains now use returned or recycled items to save waste.

3.4 Green Distribution

Goods that have been created must quickly enter the market, with the public made aware of their availability and the product's features and capabilities. To do this, one must employ effective channels of Distribution and promotion. Solving environmental issues requires businesses to distribute and advertise eco-friendly products responsibly. A distribution that is also environmentally friendly requires eco-friendly packaging, transport, and supply chain management. It is essential that the products' packaging lessens their adverse effects on the natural world. As defined by Chin (2020), green packaging involves employing environmentally friendly packaging materials and reducing overall container size.

Nevertheless, Chin (2020) noted that biologically gradable polymers and more plain packaging could help achieve green packaging by significantly reducing negative environmental impacts and packaging waste. Lessening the environmental impact of packaging using recyclable or generable materials also encourages using recycled resources and reduces the expense of waste management.

According to Chin, transportation is one of the business activities most detrimental to the environment due to pollution, noise, and traffic congestion caused by automobiles (2020). Joint distribution and constant delivery of supplies may help with resource allocation, material flow, efficiency, and traffic congestion, especially on highways. Using a third-party logistics provider allows businesses to use their resources better and avoid issues like loss-making transportation operations, over-reliance on inefficient internal transportation networks, and pollution (Chin, 2020). Businesses may also provide direct services to the user site. Products can be transported using alternative fuel vehicles in bulk rather than in small batches to reduce the number of trips required and the resulting emissions. While constructing ecologically friendly movement, several elements must be considered, including fuel, transportation modes, infrastructures, and operating procedures (Chin, 2020).

3.5 Green Marketing

Customer data has become more widely available in recent years. As a result, businesses are under more pressure than ever to prioritize consumer protection, green their operations and make their products as environmentally friendly as possible. Jemai (2020) argue that sustainable marketing requires a focus on biological balance and increased environmental protection. Green marketing is an approach that seeks to address these issues. Organizational dedication is essential for achieving environmentally friendly processes and outputs.

Sathish (2017) define "green marketing" as any marketing that intends to reduce or eliminate a product's negative environmental impact. These benefits include longer life of the business, happier owners, and broader public approval. It also helps businesses connect with customers, especially those who care deeply about consumer rights and the planet's protection. Chin (2020) claimed that green marketing has the above benefits and enhances relationships with customers, vendors, and other essential parties.

3.6 Reverse Logistics

Apparently Sathish, (2017) optimization of the supply chain in relation to logistical operations. In the Published Journal of Mechanical and Manufacturing Engineering Studies and Developments (2017), the

term "reverse logistics" is used to describe the role that logistics plays in areas like returned goods, waste reduction, recycling, resource replacement, based on outdated, sewage treatment, repair, and reactive maintenance. It is an effort to recycle and reuse previously used materials. Corporations may carry out reverse logistics with the help of waste and recycling logistics, which can be tailored to meet the specific needs of their operations regarding trash collection, processing, packing, handling, storage, and transportation to specialist treatment facilities (Sathish, 2017). According to Olaf Schatzman, "reverse logistics" entails reducing the resources used in the forward system to increase the reuse and recycling rate.

Better returns inventory management may lead to more excellent turnover rates, higher secondary sales revenues, enhanced shareholder and public perception, fewer operational costs from reusing recovered items and components, and higher turnover rates overall (Chin, 2020). The term "reverse logistics" refers to the redistribution process from the beginning of a supply chain to the finish to maximize a product's value.

These are some characteristics that can ensure a smooth reverse logistics process: Accepting any recovered goods is contingent on establishing a suitable location for doing so. Appropriate packing and storing methods must be in place to preserve the value of the recovered product. Lastly, a transportation network that works with the existing forward logistic network must be established to improve accessibility.

4 THEORETICAL FRAMEWORK AND HYPOTHESES DEVELOPMENT

Employing GSCM strategies helps organizations conform to environmental rules, decrease the negative consequences of their activities, and enhance both internal and external performance. Effective supply chain management comprises coercive and vulnerable operations and intra- and inter-organizational procedures. The central organization needs excellent coordination with its supply chain and consumers for these operations to be effective (maker).

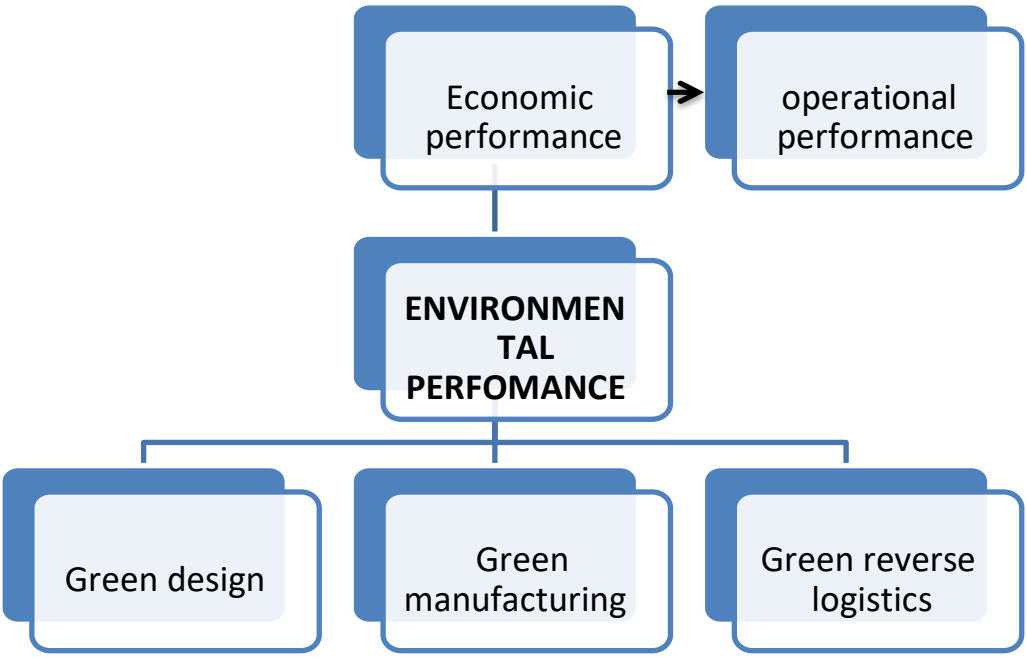

FIGURE 1: SUPPLY CHAIN IN GSCM (KHAN,2017)

It is important to note that several locations explore the relationship between GSCM and athletic achievement from different theoretical stances. This shows that GSCM practices are not uniform (Khan, 2017). In this study, we transform the GSCM approaches into four production constructs using the results of Golic and Smith. This green movement encompasses sustainable manufacturing, design, connections with suppliers and customers, of supply chain. Moderators, business size, location, and industry influence a corporation's environmental, social, operational, and economic performance.

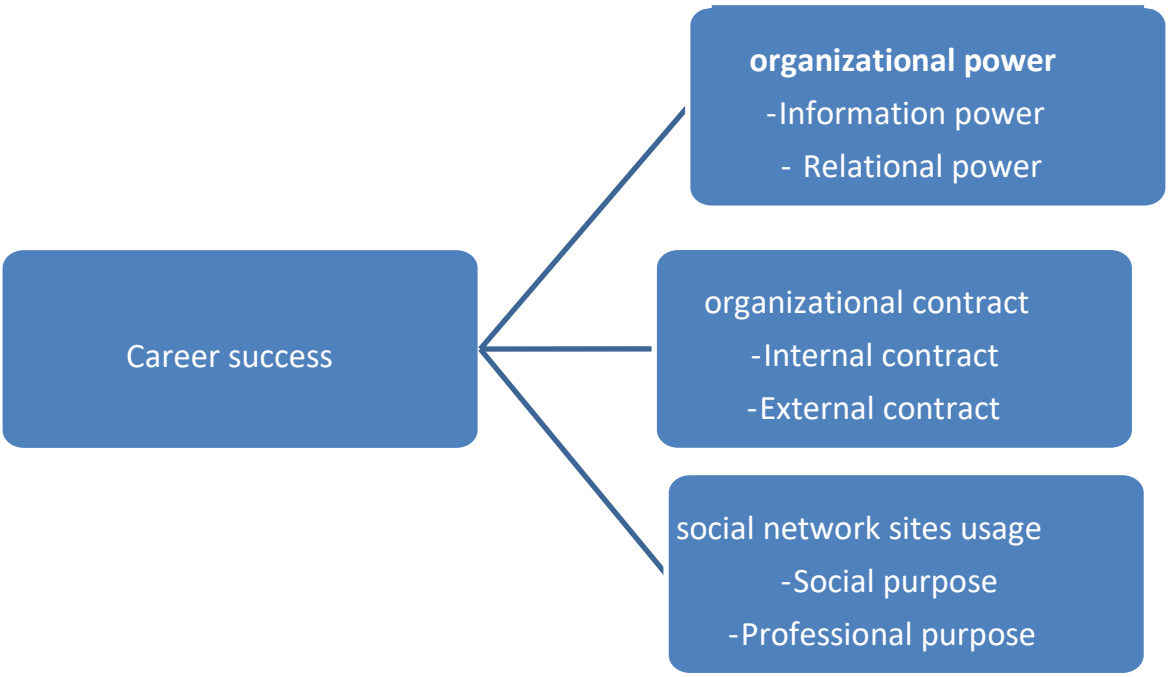

FIGURE 2: METHODS FOR UNDERSTANDING HOW COMMUNICATION EFFECT INSTITUTIONAL CONTACT DETAILS AND EXCEPTIONALITIES WORK TOGETHER (KHAN, 2017)

A company's Success may be measured by how well it operates regarding society, the environment, and the bottom line. Upstream supplier interactions, green extraction, eco-friendly product design, and customer engagement are all discussed (Cankaya, 2018). The unrelated are tools of GSCM methodology. Whereas firm performance serves as the dependent variable. Anchoring variables in the primary research are often considered moderating variables in the meta-analysis.

Upstream providers are the focus of many inspections and analyses, such as those of recycling and reuse rates and potentially dangerous compounds. Eco-design is developing goods or services with an eye on the environment. Green extractive is a way of doing business that minimizes the industry's harmful environmental impacts by using sustainable practices and constant innovation. Downstream consumer-facing actions—process output function input—improve the readiness of wholesalers, retailers, and end users regarding the environment.

Improving environmental performance means decreasing waste production, emissions, and pollutants. GSCM procedures and organizational performance were positively correlated in most studies examined

across all performance standards. The first hypothesis is proposed (financial, environmental, social, and operational). The first hypothesis is using GSCM strategies improves company results.

According to the research (Semen, 2019), GSCM can benefit the economy and the environment. In a similar vein, studies have found that there is a positive and substantial relationship between GSCM practices and successful financial and operational outcomes. Multiple studies found that working closely with customers and vendors led to greater financial Success. As a concluding hypothesis, it is argued that: Given the preceding discussion and the results of previous studies. H2 is use of GSCM techniques improves environmental performance. H3 is it recommends applying GSCM techniques to enhance social results. H4 is when GSCM procedures are used, operational performance increases. Lastly H5 is the employment of GSCM techniques leads to improved economic performance.

4.1 The Five Steps Green Supply Chain Management Model

According to this strategy, an executive sponsor must first be assigned to a company's green supply chain management activities. This illustrates how important it is for senior leadership to promote and push green projects across the company (Egels-Zandén, 2015).

The extraction process must then be combined in order to assess the supply chain and find any potential hazards. In this stage, the whole supply chain is thoroughly analyzed to find places where environmental effect may be reduced and sustainability measures can be included. A detailed analysis of the procedures for handling materials is done in the third phase (Colicchia, 2012). To find chances for greener options and more sustainable methods, this entails closely examining the source, manufacture, transportation, and disposal of materials.

The fourth phase underlines the significance of being ready for supply chain initiatives that are beneficial to the environment. Organizations set their requirements for green supply chain management practices during this phase. Additionally, they constantly look for possibilities in the market for green technologies that fit their sustainability objectives.

As the processes are put into place, a reliable monitoring system must be set up. This action emphasizes the importance of real-time monitoring and reporting systems to guarantee adherence to green supply chain principles. It helps businesses to identify outliers and environmental standards that are not being followed, enabling quick remedial action. A systematic method for incorporating environmentally friendly practices into supply chain operations is offered by the Five Steps Green Supply Chain Management Model. According to Mapar, et al. 2020, Organizations may successfully improve their environmental performance and contribute to a more sustainable future through executive sponsorship, thorough appraisal, material process inspection, planning for green initiatives, and stringent monitoring.

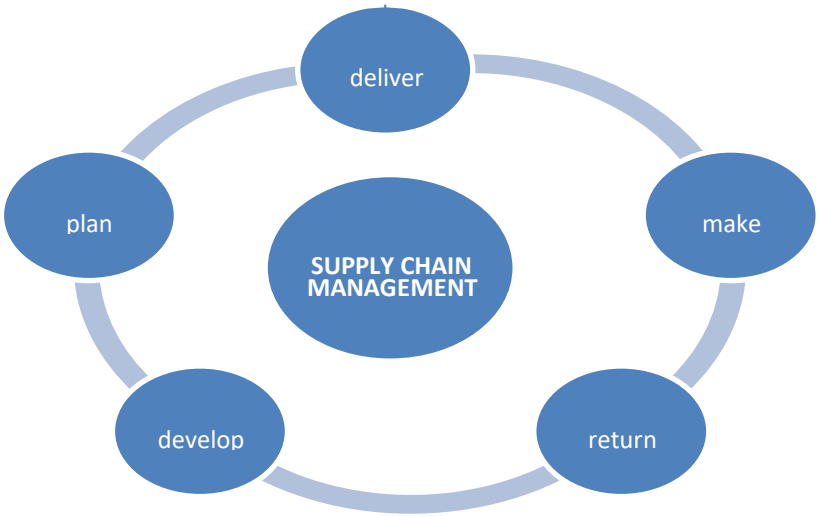

FIGURE 3: GREEN SUPPLY CHAIN MANAGEMENT MODEL STEPS

4.2 Organization Performance

Organizational effectiveness is affected by the company's overall health. A successful company has high levels of efficiency, provides outstanding service to its customers, and can adapt to new circumstances. The three metrics are societal, economic, and ecological Success—the operational effectiveness of the organization manufacturing facility, including its capacity to manufacture and ship items to consumers. Nevertheless, Seman (2019) focuses solely on economic and ecological factors when evaluating business success Seman (2019) found a significant correlation between environmental and economic performance, favourably linked with operational Success.

4.3 Environmental Performance

ISO 14001 defines environmental performance as the observable results of an organization's efforts to manage environmental concerns in a way that is consistent with its stated environmental policies and goals (Micheli, et al. 2020). Reduced pollutant levels in the environment are the main emphasis. A company may enhance its environmental performance in several ways (Micheli, et al. 2020). It is possible to increase environmental performance by, among other things, giving general managers environmental duties and having them train both non-environmental workers and environmental professionals (Isnaini, 2020)

4.3.1 Economic Performance

Economic Performance's major goals are to reduce expenses while generating earnings (Chin, 2020). The primary focus is on environmental costs, such as those connected with purchasing materials and generating energy. A prosperous corporation, according to Micheli et al. (2020), may decrease expenses connected to procuring resources, using energy, waste management treatment, and environmental mistakes environmental). There is a link between improved operational performance and increased economic production. Better operations result in on-time delivery, less stock on hand, fewer defects, fewer scraps, more options, and higher capacity utilization.

4.3.2 Social Performance

Every business is responsible for acting ethically and responsibly in all operations. The perception of a company and its products among its stakeholders and consumers is of interest to (Micheli, et al. 2020), who investigated this intangible performance. Incorporating a solid sense of social responsibility into business practices is suitable for public perception and relationship building (Chin, 2020). The three facets of an organization's success may be evaluated via the prism of

sustainable growth. The benefits of green supply chain management could only be realized by first evaluating their impact on the economy, the environment, and society (Bag, 2021).

TABLE 2: PERFORMANCE MEASURES FOR GREEN SUPPLY CHAIN MANAGEMENT

SD Perspective	Measure	Metric
Economic perspective	Environmental cost	Expenses associated with environmental regulations, resources, waste management, and more
	Supply chain cost	Expenses related to transport, stock keeping, and communication
	Quality	The frequency of Eco - friendly product warranty claims, customer complaints, scrap, labor, etc.
	Flexible	Adaptability to fluctuating demand, supply, and manufacturing
	Responsiveness	The length of time required for extraction, acquisition, timely delivery, and product recall
Environmental perspective	Service Management Capability Degree	Progress in performance improvement, pollution prevention, energy use, etc.
	Product Features	Use of recyclables, accessibility of environmental labels, modularity of construction, etc.

	Recycling efficiency	Elimination of waste, recycling efficiency, and recycling duration
	Environmental technology	The extent of environmentally friendly technology and the volume of recent innovations
Social perspective	Management commitment	Initiatives are taken by management, efforts to improve the work atmosphere and employee satisfaction.
	Customer satisfaction	Green's popularity and Success with its customer products
	Employee development	Green business training for staff

4.4 Green Supply Chain Management and Organizational Performance

According to Bag (2021), there is a direct relationship between environmentally friendly business practices and GSCM/sustainable practices. Similarly, Candrasa (2020) found that "green operations" were more cost-effective and cost-efficient. Candrasa (2020) stated that efficient and cost-effective supply chain systems are inextricably linked. Green supply practices are associated with intangible benefits, such as enhanced brand recognition, and suppliers, clients, and environmentally friendly technologies are all examples of competitors.

Bag (2021) pointed out that ethical supply chain management practices not only enhance both economic and environmental outcomes but also improve both organizational and operational performance, echoing claims made by Bag (2021) that GSCM can improve organizational environmental Sustainability and Micheli, et al. (2020) that GSCM practices improve the organization’s capabilities. It is worth emphasizing that improving a company's image and marketability are two primary drivers toward green supply chain management. The public now has a more favourable impression of these groups.

4.5 Conceptual Framework

GSCM is the independent variable, while organizational achievement is the dependent variable in this investigation. Moderating factors include organizational concerns. The variables and their interrelationships are shown in table 3.

TABLE 3 BUSINESS SUCCESS AND ENVIRONMENTALLY RESPONSIBLE SUPPLY CHAIN PROCEDURES.

Moderating variables

Organizational factors Organizational strategy Management goodwill	
Independent Variables	**Dependent Variables**
Green Supply Chain Management Green purchasing Green extractive Green Distribution Green marketing Reverse logistics	**Organizational Performance** Environmental Performance Economic Performance Social Performance

5 RESEARCH METHODOLOGIES

Since the hope is to generalize and summarize the influence of GSCM methods on firm performance, a metanalysis of empirical research is the best method for verifying our hypothesis (Green, 2012). A metanalysis of the effect sizes of the central link is conducted based on the recommendations of several studies that can be used to generalize quantitative findings from prior research. In this investigation, the amount of an effect was quantified using the Pearson product-moment correlation coefficient (r), typically utilized in operations management studies. Quantitative and qualitative methods of inquiry will be employed in this study. We will collect information by surveying companies that have implemented GSCM practices and by studying case studies of companies that have achieved GSCM success. The survey will ask questions on organizational performance, GSCM practices, and GSCM drivers. The case study analysis would involve in-depth interviews with key stakeholders from the selected firms.

5.1 Research Design

The method of investigation in this study was a correlational one. Correlational research aims to determine the degree of inter-group variation in one or more characteristics (Chin, 2020). The purpose of this study was to investigate how GSCM affects performance results. Data from Jordan's extractive industries were collected simultaneously using a cross-sectional census survey.

5.2 Data Collection

Based on the suggestions of much research that may be used to generalize quantifiable information from past investigations, a concept of something like the treatment effects of the fundamental connections is carried out. The strength of the association was measured using a technique used in operations management research: the Pearson product-moment correlation coefficient (r). Both quantitative and qualitative approaches to research will be employed in this investigation (Seman, 2019). We will gather information by surveying businesses that have adopted GSCM techniques and by examining the experiences of the organizations that have used the approach most

successfully. The survey will include topics such as organizational performance, GSCM practices, and GSCM drivers. Influence people within the selected companies will be interviewed extensively for the case study analysis.

5.3 Target Population

The population of this research consisted of all managers working in the extractive industry. The extractive industries represent a crucial pillar of the Jordanian economy, directly contributing to the GDP of 25% (or 10 billion dinars). In Jordan's mining sector, 619 companies are officially based in the capital city of Amman (51). The survey included 250 upper-level executives. There was a 55% response rate from the 250 surveys sent to managers through email and hard copies. Participants should have positions of authority within the organization, such as marketing manager, buying manager, supply chain manager, vice president, or CEO/President, as they are expected to thoroughly understand the company's green activities.

5.4 Validity and Reliability

The variables in this study were generated using measurement scales validated in other studies. The adjustments were made to be appropriate for the study's subjects. The three elements of GSCM techniques that were embraced are environmental management, eco-design, and customer cooperation. The characteristics of environmental orientation were utilized to choose five products. Five indicators of green IT dimensions were culled. To narrow the range of possible answers and remove ambiguity, the questionnaire for this study used a Likert scale with five points. This construct's Likert - type scale, which ranges from 1 (agree wholeheartedly) to 5 (disagree), determines all measurement points.

5.5 Data Analysis and Presentation

Following data collection, SPSS (statistical program for the social sciences), version 21, was employed to code and evaluate the information. The group's performance and the environmentally friendly supply chain management techniques were described and explained using descriptive statistics. The overall achievement of a company was examined using multiple regression analyses; results indicating a significance level greater than 0.05 showed a substantial association, while those indicating a statistical significance less than 0.05 suggested a negative relation. Established the significance of the relationship between Green Supply Chain Leadership and Company Productivity using a variance analysis test. P-values under 0.05 indicated statistically significant, whereas p-values greater than 0.05 suggested no effect.

6 DATA ANALYSIS AND PRESENTATION

Data analysis and presentation is a crucial aspect of research and decision-making processes. It involves examining and interpreting data to uncover meaning insights and trends, and effectively communicating these findings through visualizations and reports. By employing appropriate analytical techniques and clear presentation methods, data analysis and presentation facilitate informed decision-making and enhance understanding of complex information.

6.1 Profile of Participants

Table 4 shows most participants, (89) are male, and 11% are female. Experience groups in years (5-10) and (0 <5) illustrates a cause for more than two-thirds of the sample (74%). The table below breaks down the respondents into those with a bachelor's degree (75) and those with a master's degree (30/42). The results show that 43% of jobs frequently had a GM/CEO, and 18% frequently had a GM/Senior Management. See the table below for further information on the Distribution of percentages across different types of industries.

TABLE 4: PROFILE OF THE SAMPLE

Type	N	%
Gender		
Male	124	89
Female	15	11
	139	100
Education		
	9	6
Bachelor	75	55
Master	42	30

Doctorate	13	9
	139	100
Work position		
Production	57	42
Supply chain	38	25
Purchasing	24	13
GM/Senior manager	26	15
Director, CEO	14	5
	159	100

6.2 Descriptive Analysis

Table 5 shows that most organizations place a value between 3.8 and 4.4 on the GSCM, Green IT, and Environmental IT scales. This demonstrates that respondents rated the level of GSCM provided as high and believed their factories were environmentally conscious and heavily focused on green information technology.

TABLE 5: DESCRIPTIVE STATISTICS FOR DIMENSIONS OF VARIABLES

Variables	M	SD
Green supply chain Management	4.4	.89
Green information technology orientation	4.1	.67
Environmental orientation	3.8	5.9

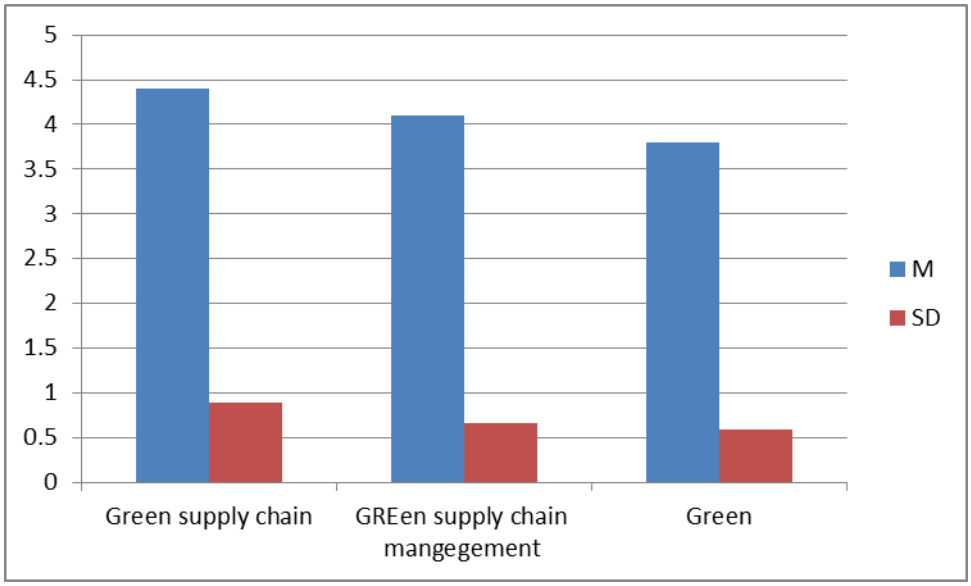

FIGURE 4: DESCRIPTIVE STATISTICS FOR DIMENSIONS OF VARIABLES

6.3 Factor Analysis Result

To do factor analysis, the questionnaire's components have been broken down. This survey section measured environmental concerns, interest in green IT, and interest in green supply chain management. The study results were analysed using SPSS for Windows, version 24.0 (the Statistical Program for the Social Sciences). Principal component analysis, and extraction rotation were employed in FA to locate the buildings.

6.4 Factor and Reliability Analysis on GSCM Dimensions

The GSCM factor analysis yielded a KMO value of 0.82, which exceeds the recommended threshold of 0.60. This indicates that the components of the correlation matrix are valuable. Bartlett´s test for phaticity also produced a highly significant result (p=0.00), further supporting the validity of the correlation matrix. Additionally, a detailed examination of each MSA (Measure of

Sampling Adequacy) value revealed that all good fell within the acceptable range of 0.89 to 0.73. The reliability of the factor was assessed using Cronbach´s alpha, which indicated high consistency. Table 6 presents the result of the Exploratory Factor Analysis for the dimension of Strategic Orientation, including Environmental Orientation (EO1-EO5) and Green Information Technology Orientation (MO1-MO5)

TABLE 6: RESULT OF EXPLORATORY FACTOR OF STRATEGIC ORIENTATION DIMENSIONS

Items	**Components**
Environmental orientation	
EO1	**.88**
EO2	**.85**
EO3	**.78**
EO4	**.71**
EO5	**.70**
Green information technology orientation	
M01	**.90**
M02	**.88**
M03	**.80**
M04	**.75**
M05	**.72**

6.5 Regressions

The expected environmental orientations, green IT orientation, and green supply chain management characteristics were all subjected to regression analysis to solve the study's central topic. An f-value of 31.78 indicates a very significant relationship between the Global Strategic Perspective

Dimensions and the Global Supply Chain Management for the Environment Attributes (p). Nevertheless, Green supply chain management Characteristics explain only 14.2% of the total variance in the model (R =.18). This lends credence to the hypothesis.

TABLE 7: RELATIONSHIP BETWEEN OVERALL SO AND GSCM DIMENSIONS

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson	F	Sig
1	.389(a)	.189	.142	.74699	1.391	31.78	.000(a)

The global SO dimensions (on average) remain unaltered. Regression Model Using Mean GSCM Measurements.

7 SUMMARY, CONCLUSION AND RECOMMENDATIONS

The author synthesizes the important findings and insights from the study in this chapter, revealing how the impact of green supply chains on organizational performance has been investigated and understood throughout the study.

The chapter summarizes the most important findings, stressing their significance in relation to the research issue. It also considers if the basic research objectives were attained and offers a final evaluation of the thesis's key hypothesis. Based on the study's findings, the chapter makes useful recommendations. Organizations aiming to improve their supply chain procedures in an ecologically friendly manner might use these tips. The conclusions in this chapter highlight the research's larger implications, contributions to the field, and possible influence on organizational decision-making and supply chain management.

7.1 Discussion

In this research, a tool was created for evaluating how strategic approach and RVB-based GSCM adaptability interact. To rephrase, this study delves into how green IT and environmental considerations influence the management of supply chains (GSCM) in Jordan's industrial sector. The findings demonstrated a statistically significant and favourable connection between tactical orientation and GSCM adaption. The findings corroborated the position taken by Khan et al. (2017) demonstrating the importance of green skills in GSCM certification agreements.

This research found that environmental focus and GSCM adaptation are strongly linked in Jordan's manufacturing sector. This study's findings highlighted the significance of environmental orientation on GSCM efficiency. Consistent with the results of multiple other research in various contexts, this one found that environmental changes positively affect GSCM performance. Green information technology was shown to have a significant relationship with GSCM adoption in the present study. A leaning toward environmentally friendly IT may indicate that Jordan's industrial industry will soon begin using GSCM and committing to continuous improvement. This result is consistent with the outcomes of earlier research, like those of Khan et al., who examined the connection between sustainable IT and GSCM in Malaysian.

7.2 Theoretical Implication

By offering fresh and crucial implications for the business managers and the academic researchers on environmental issues in the consumer loans, this study enhances the body of knowledge on GSCM and strategic orientation. This study can be utilized by academics and researchers to gain a comprehensive understanding of the theoretical and operational implications of GSCM approaches in a broader context.

More information has been added to the body of literature about the degree of GSCM adaptability in the Jordanian manufacturing sector and how these systems have developed environmental attitudes and green IT-orientated skills to support GSCM adaptability. In this experiment, both the level of GSCM adaption and the existence of green abilities were above the median. To the researcher's knowledge, prior research has yet to be conducted on the drivers of GSCM adoption in Jordan or the Middle East.

7.3 Managerial Implication

Companies will be able to improve their environmental and social impact and financial success thanks to the information provided by this study, which sheds light on the connection between GSCM and organizational performance (Sahoo, 2020). Policymakers and researchers alike may use the findings of this study as a template for how GSCM studies should be conducted in the future. Managers at Jordanian firms are anticipated to take advantage of the results of this study to decide whether to use GSCM strategies and how to modify their current approaches. To improve the efficiency and effectiveness of green supply chain management, factory management in Jordan should work to fulfil environmental criteria (such as ISO 14001). This research is the first to directly associate green IT orientation with factors influencing the GSCM's diffusion. The findings of our study will be helpful in this respect because they demonstrate that the impact of IT on the adoption and implementation of GSCM in Jordanian manufacturing organizations is related to the use of an IT plan and the support of IT managers.

8 CONCLUSIONS AND FUTURE RESEARCH RECOMMENDATIONS

The extractive industry in Jordan has benefited from the country's adoption of GSCM principles. Companies that have used GSCM practices have witnessed increased profitability, productivity, and ecological responsibility. There are, however, several obstacles that must be conquered to realize the potential of GSCM ideas fully. Industry players, government, and civil society should collaborate to make the current climate more hospitable to adopting GSCM and eliminate the above-mentioned barriers. The results show that GSCM implementation is crucial to the long-term success of Jordan's mining sector. Moreover, the study's conclusions may not be transferable to other industries or countries because the data was collected only from Jordan's manufacturing sector. Thus, we recommend further research to see if the strategic perspective facilitates GSCM adoption in a different sector or country.

This analysis compiles the empirical studies on the connection between GSCM practices and corporate Success. Four frameworks are utilized to put GSCM procedures and business results into action. The results will show whether GSCM techniques have a positive, substantial, or unfavourable impact on productivity. Research results reveal that it is necessary to cooperate with suppliers and customers to achieve the required environmental, societal, economic, and company - operated. Learning why GSCM techniques work better in particular sectors and locales than others is also helpful. Almost half of the papers will examine the evidence that GSCM practices improve bottom-line performance. As a result, it is necessary to establish the theoretical foundation and framework for the theory. Lastly, future research should expand GSCM techniques to incorporate social SC activities and investigate their influence on other dimensions of corporate productivity.

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