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Professional Research Thesis

Titled

*The role of supply chain management in achieving
environmental sustainability for business management
organizations.*

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SUMMARY

Supply chain management is considered one of the vital pillars of modern management thought, as it no longer confines itself to its traditional role of coordinating the flow of materials, information, and financial resources among various parties of the production process. Rather, it has transcended this to become a strategic tool for achieving sustainable competitive advantage, contributing to building more flexible organizations capable of adapting to accelerating environmental, economic, and social changes. In light of increasing global transformations toward adopting sustainable development principles, the concept of environmental sustainability has emerged as one of the most important requirements that contemporary organizations seek to integrate into their operational and managerial strategies, to ensure their continuity and enhance their institutional reputation in the long term.

Environmental issues and climate challenges have imposed increasing pressures on governments and organizations alike, where business organizations can no longer ignore their environmental impacts, especially given the rising societal awareness and social responsibility, and the tightening of international legislation related to carbon emissions, waste management, and resource consumption rationalization. Hence,

Sustainable Supply Chain Management has emerged as a modern managerial trend that combines economic efficiency with environmental and social responsibility, through redesigning and developing logistical, production, and distribution activities to achieve a balance between profitability objectives and environmental protection.

The importance of this research lies in the fact that supply chains constitute one of the most influential components of an organization's environmental footprint, encompassing multiple stages starting from raw material extraction, through production, transportation, storage, and distribution processes, to post-consumption management and recycling. Recent studies demonstrate that a significant proportion of organizations' environmental impact stems not only from their internal operations but from their network of suppliers and distributors, which necessitates adopting a comprehensive perspective for managing the value chain that integrates environmental sustainability criteria into each of its links.

Moreover, the trend toward "Green Supply Chain" has become a strategic requirement for achieving alignment with global objectives such as the Paris Climate Agreement and the United Nations Sustainable Development Goals (SDGs), particularly Goal 13 (Climate Action) and Goal 12 (Responsible Consumption and Production). From this perspective,

business organizations seeking to enhance their competitiveness in international markets can no longer merely improve their product quality or reduce costs; they are now required to demonstrate their commitment to global environmental standards through responsible and sustainable operational and supply practices.

Despite increasing academic and practical interest in the concept of environmental sustainability, a knowledge gap still exists in understanding the actual role that supply chain management can play in achieving this type of sustainability, especially in Arab business environments that are still transitioning from traditional operational models to sustainable ones. There is also a need for in-depth studies exploring how supply chain elements—from supplier selection, product design, transportation and storage systems—can contribute to reducing environmental impact while simultaneously achieving operational efficiency.

From this standpoint, this thesis seeks to analyze and interpret the strategic role of supply chain management in supporting environmental sustainability within business management organizations, by studying the interactive relationships between supply management practices, environmental responsibility, and sustainable institutional performance. The thesis also aims to highlight organizational, technical, and cultural

factors that promote or hinder the integration of sustainability principles within the supply chain system, focusing on regional experiences in the Arab world and comparing them with leading international practices.

Achieving balance between economic growth and environmental preservation is no longer an optional luxury but has become a strategic necessity to ensure organizations' sustainability in the future. Consequently, this research proceeds from a fundamental hypothesis that adopting sustainable supply chain management practices is a pivotal factor in enhancing the organization's environmental performance and achieving alignment with global trends toward green economy and sustainable development. Through this framework, the study seeks to present an integrated model linking supply chain management variables with environmental sustainability factors, enabling decision-makers and managers to develop more balanced and responsible strategies toward the environment and society.

In conclusion, this thesis represents a scientific attempt to expand theoretical and practical understanding of the relationship between supply chain management and environmental sustainability, through employing modern scientific methodologies in analysis and evaluation, contributing to enriching managerial and economic literature and supporting

sustainable development orientations in Arab and global business organizations alike.

The study Problem.

Despite the remarkable progress witnessed by business organizations in developing their managerial and production practices, contemporary reality reveals the persistence of challenges related to achieving balance between economic growth and environmental preservation. With the escalating severity of environmental problems such as climate change, natural resource depletion, and increasing carbon emissions, organizations are required to reconsider their operational and supply activities, not only from the perspective of efficiency and cost, but also from the perspective of environmental impact and societal responsibility. In this context, supply chain management has emerged as one of the fundamental axes through which environmental performance of organizations can be enhanced, given that it represents a connecting link between suppliers, manufacturers, distributors, and consumers within an integrated framework that directly affects the organization's environmental footprint.

Nevertheless, environmental practices within supply chains in many business organizations—especially in Arab environments—still face a number of fundamental problems. Many of these organizations rely on traditional methods in managing their supply chains that focus on operational efficiency and cost reduction without giving adequate

attention to environmental aspects. Furthermore, institutional awareness of the importance of integrating environmental sustainability principles into purchasing, production, transportation, storage, and waste management activities remains relatively limited, leading to weakness in applying practices such as recycling, selecting suppliers with good environmental performance, and using clean technologies or renewable energy sources.

The problem is also exacerbated by the absence of organizational frameworks and internal policies that encourage the adoption of sustainability practices in supply chains, in addition to limited technical and human capabilities that enable organizations to measure and analyze the impact of their activities on the environment accurately. Some managerial leaderships still view environmental sustainability practices as an additional financial burden or promotional requirement, rather than a strategic choice that contributes to enhancing institutional performance and long-term competitive capability.

On the other hand, academic studies that have addressed the relationship between supply chain management and environmental sustainability in the Arab environment remain limited and scattered, often focusing on partial aspects without building an integrated model that clarifies the

nature of this role and its managerial, economic, and environmental extensions. This creates a clear knowledge gap that requires more research and analysis to understand how sustainable supply chain management practices can contribute to improving the environmental performance of business organizations, taking into account the organizational, cultural, and economic specificity of these organizations.

Based on the above, the research problem is represented in the inadequate understanding and application of environmental sustainability principles within supply chain management practices in business management organizations, and the resulting weakness in environmental performance and decline in these organizations' contribution to achieving sustainable development goals. Hence, the study seeks to answer the main question related to the extent of supply chain management's ability to effectively contribute to achieving environmental sustainability, and to identify organizational, managerial, and technical factors that hinder or support this role in the context of the contemporary business environment.

The importance of studying:

The significance of this study stems from the radical transformations witnessed by the contemporary business world, where institutional success is no longer measured only by profitability rates or operational efficiency, but has become closely linked to the extent of the organization's commitment to its responsibilities toward the environment and society. In light of escalating global environmental challenges, such as climate change, scarcity of natural resources, and increasing pollution rates, environmental sustainability has become an indispensable strategic necessity that organizations seek to adopt to maintain their competitiveness and continuity in local and global markets. From this perspective, the significance of this study comes in addressing one of the modern axes in managerial thought, represented in the role that supply chain management can play in promoting environmental sustainability for business management organizations.

Supply chains represent a complex network of relationships and activities that extend across multiple stages of producing goods or services, from suppliers to the end consumer. Therefore, any effort aimed at reducing the environmental impact of organizations cannot be limited to their internal operational boundaries but must extend to include all parties involved in the value chain. The scientific significance of the study lies in

its attempt to clarify the integrated relationship between supply chain management practices and environmental sustainability, and to provide an analytical framework through which mechanisms for integrating environmental dimensions within the organization's supply and logistical activities can be understood.

The significance of the study also stems from the scarcity of research that has addressed this topic in depth in the Arab environment, as many local business organizations lack scientific models that help them adopt green supply chain practices consistent with international trends toward sustainable development. Hence, this study seeks to fill an important knowledge gap by analyzing organizational, cultural, and technical factors that affect the ability of Arab organizations to apply environmental sustainability principles within their supply chains. The study's results are expected to contribute to enriching Arab scientific literature in the field of sustainable supply chain management and providing a knowledge base from which researchers can proceed to conduct further future studies.

From a practical perspective, the study's significance lies in providing a practical vision for decision-makers and managers in business management organizations on how to integrate environmental

sustainability into supply chain management strategies, achieving balance between economic and environmental objectives. Its results can also help in formulating policies and operational procedures that contribute to improving resource use efficiency, reducing waste and emissions, and enhancing the organization's reputation among consumers, partners, and investors as an environmentally responsible institution. Additionally, the study gains special significance in light of governmental orientations toward encouraging green economy and integrating environmental standards into sustainable development plans, making its results valuable for both public and private sectors in designing their future strategies.

Based on the above, it can be said that the significance of this study is manifested in its dual dimension: on one hand, it contributes to enriching theoretical knowledge about the relationship between supply chain management and environmental sustainability, and on the other hand, it provides a practical framework that organizations can benefit from in improving their supply practices in a way that achieves excellence and sustainability simultaneously. Through this integration between the scientific and practical dimensions, the study represents a qualitative addition to contemporary managerial research that seeks to link

operational efficiency with environmental responsibility in managing modern business organizations.

Objectives of the study:

- ✓ *Identify the role that supply chain management plays in promoting environmental sustainability within business management organizations.*
- ✓ *Analyze the extent to which business management organizations adopt sustainable (green) supply chain practices.*
- ✓ *Measure the impact of supply chain management practices on organizations' environmental performance.*
- ✓ *Identify organizational, technical, and cultural factors that affect the application of environmental sustainability principles within supply chains.*
- ✓ *Study the relationship between supply chain efficiency and achieving sustainable development goals in organizations.*

Study hypotheses and questions.

Research Hypotheses

- 1. There is a positive relationship between supply chain management practices and environmental sustainability in business management organizations.*
- 2. Organizations' adoption of sustainable supply chain practices leads to improved environmental performance.*
- 3. Organizational, cultural, and technical factors directly affect organizations' ability to integrate environmental sustainability within supply chains.*
- 4. Integrating environmental sustainability into the supply chain contributes to enhancing operational efficiency and reducing waste and negative environmental impacts.*
- 5. Implementing sustainable supply chain management practices can support achieving sustainable development goals in organizations.*

Research Questions

- 1. What is the role that supply chain management plays in promoting environmental sustainability within business management organizations?*

2. *To what extent do business management organizations adopt sustainable supply chain practices?*
3. *What is the impact of supply chain management practices on organizations' environmental performance?*
4. *What are the organizational, cultural, and technical factors that hinder or support integrating environmental sustainability within the supply chain?*
5. *How can an effective model be designed that integrates environmental sustainability into supply chain management activities?*

Study Approach.

The descriptive analytical method was used to understand "the role of supply chain management in achieving environmental sustainability for business management organizations."

The limits of the study:

Spatial Limitations: The Arab World

Temporal Limitations: 2008–2025

Study plan.

The study plan will be organized as follows into several chapters, sections, requirements, and a conclusion:

Chapter One: Theoretical Framework for Supply Chain Management and Environmental Sustainability

Section One: Concept of Supply Chain Management and Its Importance

First: Definition of supply chain management and its components

Second: Objectives of supply chain management and its impact on organizational performance

Third: Types of supply chains and their characteristics according to the nature of economic activity

Section Two: Environmental Sustainability and Its Dimensions in Business Organizations

First: Concept of environmental sustainability and its relationship to sustainable development

Second: Dimensions of sustainability in organizations

Third: Importance of environmental sustainability in improving institutional performance

Chapter Two: Green Supply Chain Management and Its Impact on Environmental Sustainability

Section One: Green Supply Chain Management (GSCM)

First: Definition of GSCM and its basic principles

Second: GSCM practices (green design, green purchasing, reverse logistics, sustainable production)

Third: Factors affecting GSCM adoption in organizations

Section Two: Role of GSCM in Achieving Environmental Sustainability

First: Impact of GSCM practices on organizations' environmental performance

Second: Relationship between GSCM, green innovation, and organizational culture

Third: Challenges of implementing GSCM and their impact on achieving sustainability goals

Conclusion.

In light of what this study has addressed through comprehensive analysis of supply chain management and environmental sustainability concepts, and review of previous literature whether Arabic or foreign, it has become clear that Green Supply Chain Management (GSCM) represents a pivotal strategic tool for achieving environmental sustainability in business management organizations. Results of previous studies and theoretical relationships reviewed in this thesis have confirmed that adopting green supply chain practices, such as green purchasing, environmentally friendly production and design, reverse logistics, and waste management, directly contributes to improving organizations' environmental performance and simultaneously enhances their competitive capability and responsiveness to institutional and societal pressures.

The study also highlighted the important role of green innovation and adaptive organizational culture in enhancing the effectiveness of GSCM practices, where it became evident that organizations possessing an institutional culture supportive of sustainability and adopting green innovation achieve better environmental results and can face challenges related to implementing sustainability practices at the supply chain level. Additionally, the study showed that institutional and competitive factors

affect organizations' ability to adopt GSCM and achieve environmental goals, indicating the importance of having supportive policies and an organizational framework that encourages green practices.

Through what has been concluded, it can be said that supply chain management is not merely an operational or logistical tool but has become a strategic element that contributes to achieving sustainable development at both environmental and economic levels for organizations. Hence, the study recommends the importance of enhancing awareness among decision-makers in institutions about the benefits of GSCM, and the necessity of establishing clear and integrated strategies for implementing green supply chain practices, in addition to providing training and institutional support that enables companies to face environmental challenges and transform them into opportunities for excellence and innovation.

In conclusion, this study represents a scientific addition to research literature in the field of business management and environmental sustainability, by focusing on the relationship between green supply chain management and achieving sustainability, and opening new horizons for future studies that can target different sectors or expand research scope to include broader economic and social dimensions,

thereby enhancing organizations' ability to achieve comprehensive sustainability.

Results.

✓ Adopting Green Supply Chain Management (GSCM) practices contributes to improving organizations' environmental performance.

✓ Green purchasing, sustainable production, and reverse logistics are among the most important practices affecting environmental sustainability.

✓ Green innovation enhances the effectiveness of implementing GSCM practices and increases their impact on environmental performance.

✓ Adaptive organizational culture supports successful implementation of green supply chain and achievement of sustainability goals.

✓ Institutional and competitive pressures affect organizations' ability to adopt GSCM practices and achieve desired environmental results.

✓ Organizations that adopt clear policies and strategies for green supply chain management achieve long-term competitive advantages.

✓ There are practical challenges related to resources and organizational awareness that can be overcome through training and institutional support.

Recommendations:

- ✓ *Enhance adoption of Green Supply Chain Management (GSCM) practices in all stages of organizations' operational processes.*
- ✓ *Develop training programs for managerial and technical staff to enhance awareness of the importance of environmental sustainability and GSCM practices.*
- ✓ *Adopt clear institutional policies and strategies to support green innovation and encourage implementation of sustainability practices.*
- ✓ *Encourage establishment of organizational culture supportive of environmental sustainability within organizations to enhance GSCM effectiveness.*
- ✓ *Monitor and analyze institutional and competitive pressures to ensure alignment of GSCM practices with surrounding environment requirements.*
- ✓ *Support research and development in sustainable production technologies and reverse logistics to enhance environmental performance.*
- ✓ *Encourage cooperation among organizations, suppliers, and customers to expand the scope of implementing green supply chain practices.*

The reviewer:

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