ARTIFICIAL INTELLIGENCE IN LOGISTICS AND SUPPLY CHAIN MANAGEMENT ETHICAL IMPLICATIONS IN AUTOMATION, TRANSPARENCY & SUSTAINABILITY

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IMPACT OF GREEN SUPPLY CHAIN MANAGEMENT INITIATIVES

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Abstract

Green Supply Chain Management (GSCM) initiatives have gained prominence as businesses strive for sustainability and environmental responsibility. This paper explores the impact of GSCM on organizational performance, environmental sustainability, and economic benefits. Through theoretical perspectives and a review of relevant literature, the study aims to identify key drivers, challenges, and benefits associated with implementing GSCM initiatives. The findings highlight the significance of green practices in supply chain operations, their effect on business competitiveness, and recommendations for improved sustainability performance. The study further discusses how organizations can integrate GSCM into their operations to achieve long-term sustainability goals.

Keywords: *Green Supply Chain Management, Sustainability, Environmental Impact, Organizational Performance, Competitive Advantage*

Introduction

In recent years, businesses have recognized the importance of sustainable practices in their supply chain operations. Green Supply Chain Management (GSCM) integrates environmental considerations into supply chain processes, including procurement, manufacturing, distribution, and waste management. The increasing awareness of climate change, regulatory pressures, and consumer preferences for environmentally friendly products have driven organizations to adopt GSCM initiatives. Companies that implement GSCM can reduce their environmental footprint, enhance efficiency, and build strong stakeholder relationships. This study examines how GSCM impacts businesses in terms of operational efficiency, cost reduction, and environmental performance. Additionally, it explores how different industries adopt and adapt GSCM strategies to ensure long-term success.

Statement of the Problem

Despite the growing emphasis on sustainability, many organizations face challenges in implementing GSCM initiatives effectively. Issues such as high initial costs, lack of awareness, inadequate technological advancements, and resistance to change hinder the successful adoption of green practices. There is also a lack of standardized guidelines for companies to follow, making it difficult to measure sustainability performance. Furthermore, supply chain complexities, particularly in global networks, pose significant challenges in ensuring end-to-end green practices. This study seeks to investigate the extent to which GSCM initiatives impact business performance and sustainability while identifying barriers to their implementation.

Objectives of the Study

1. To analyze the impact of GSCM initiatives on organizational and environmental sustainability.
2. To identify the challenges and benefits associated with the implementation of GSCM practices.