DIGITAL TRANSFORMATION AND ADMINISTRATION INNOVATION

Citation: Amani, E., Khamaki, A., & Ayazi, S. (2024). Explaining the Impact of Green Supply Chain Management on Sales Force Agility Considering the Mediating Role of Employees' Environmental Stimuli in Manufacturing Companies in Ardabil Province. *Digital Transformation and Administration Innovation*, 2(3), 77-89.

Received: 2024-07-18 Revised: 2024-08-28 Accepted: 2024-09-27 Published: 2024-09-30

Explaining the Impact of Green Supply Chain Management on Sales Force Agility Considering the Mediating Role of Employees' Environmental Stimuli in Manufacturing Companies in Ardabil Province

Elnaz Amani[1], Ali Khamaki[2]*, Samad Ayazi[2]

1. PhD Student, Department of Management, Aliabad Branch, Islamic Azad University, Aliabad, Iran
2. Assistant Professor, Department of Management, Aliabad Branch, Islamic Azad University, Aliabad, Iran

***Correspondence: Alikhamaki@gmail.com**

Abstract

The objective of this study was to explain the impact of green supply chain management on sales force agility considering the mediating role of employees' environmental stimuli in manufacturing companies in Ardabil Province. The present research employed a descriptive-correlational design with a path analysis approach. The study population consisted of managers and employees of manufacturing companies in Ardabil Province, where initial estimates indicated the presence of 53 managers and 1,500 employees working in the sector. Based on Morgan's table, 306 employees from industrial companies in Ardabil Province were selected as the sample. The research adopted a purposive sampling method. Data collection was conducted using the Green Supply Chain Management Questionnaire by Saman (2019), the Sales Force Agility Questionnaire by Breu et al. (2006), and the Environmental Stimuli Questionnaire by Zhao (2014) and Kotter (2010). Path analysis was used to test the research hypotheses, and LISREL statistical software was employed for data analysis. The research findings indicated that the relationship between green supply chain management and sales force agility is intensified by the environmental stimuli variable. Specifically, as the environmental stimuli of the company increase, this effect becomes stronger, whereas if environmental stimuli and company performance weaken, the relationship naturally diminishes. This conclusion is derived from the significance and positive direction of the effect of environmental stimuli.

Keywords: Green supply chain management, sales force agility, environmental stimuli, employees.

1. Introduction

The rapid transformation of the business environment in today's world compels organizations to implement strategies and structures that enable them to respond effectively to customer demands and adapt to changes, thereby enhancing organizational agility. One of the most critical resources within organizations is the sales force, whose competencies significantly contribute to achieving organizational objectives. Consequently, sales force agility is a major concern for organizations, necessitating the identification of factors influencing workforce agility (Yu et al., 2024; Zhang, 2024).

At the beginning of the 21st century, the world has undergone substantial changes in various aspects, particularly in communication channels, the dismantling of geographical and organizational boundaries, industrial innovations, increasing

demand, rising customer expectations, and the fragmentation of large markets into smaller, more specialized ones. These changes have made organizational survival contingent upon a fundamental reassessment of strategic priorities and visions. One of the paradigms introduced to enhance flexibility, speed, and quality is organizational agility (Vandrembus, 2016). Organizational agility refers to a high level of adaptability without requiring significant changes. The sales force serves as a powerful revenue driver and is regarded as the most valuable asset of a company, exerting a substantial and definitive impact on organizational success. Sales personnel who continuously seek to identify opportunities and threats correctly hold a competitive advantage over their rivals. Many companies aim to maximize the effectiveness of their sales force by launching initiatives to enhance sales competency and productivity; however, determining the best approach to improving sales performance remains a challenge. The sales force acts as key executors of a company's sales strategy. The most effective salespeople excel in tailoring sales strategies to individual customers, demonstrating flexibility, and creating value in customer interactions. Creativity, ingenuity, and cognitive flexibility are crucial for success in sales. In today's competitive landscape, time is a critical factor for buyers (Agarwal et al., 2017). Employees must undertake specific actions to maintain organizational sustainability. Therefore, striving for agility in human capital is essential, and examining personal agility within the sales force represents a crucial aspect of workforce agility.

This study posits that green supply chain management is one of the key variables that can influence sales agility. In the contemporary business environment, achieving competitive advantage is a significant objective for companies, and environmental concerns have become a focal point in advanced economies. As a result, organizations increasingly seek competitive advantages through improved environmental performance (Haghighat Monfared & Karimi, 2024; Radfar, 2023).

The modern world has led to rising pollution levels, environmental challenges, and growing global concerns regarding ecological sustainability. Heightened environmental awareness among consumers, governments, and societies worldwide, coupled with the proactive engagement of manufacturing companies, has driven organizations to enhance their environmental performance by complying with environmental regulations and standards, increasing customer awareness, and minimizing negative environmental impacts in their products and services. This approach provides companies with a competitive advantage (Khan et al., 2023; Lutfi et al., 2023; Mohsin et al., 2023). Consequently, the necessity for green supply chain management has emerged from two primary forces: government regulations aimed at enforcing environmental standards and consumer demand for eco-friendly products (Babaei Meybodi & Delshad, 2019). Today, the acceleration of governmental regulations for obtaining environmental standards, alongside increasing consumer demand for green products, has led to the development of green supply chain management. This concept encompasses all activities related to the flow of goods from raw material acquisition to final consumer delivery, including the flow of information across the supply chain. In recent years, green supply chain management has evolved as a critical approach encompassing the entire product lifecycle, from design to recycling (Norouzzadeh et al., 2016).

Green supply chain management has emerged as a significant strategic approach for companies to achieve profitability and market share by mitigating environmental risks and enhancing ecological efficiency. Over the past decade, growing environmental concerns have led companies to recognize that industrial development must be aligned with sustainable supply chain management, ultimately facilitating the adoption of green supply chain practices (Chaudhuri et al., 2024; Haghighat Monfared & Karimi, 2024; Hu & Tresirichod, 2024; Yu et al., 2024; Zhang, 2024). Green supply chain management has become a well-established practice among companies seeking to enhance environmental performance. The primary challenge for manufacturing firms is determining how to implement green supply chain practices effectively to yield tangible improvements in organizational performance (Abbas & Tong, 2023; Akhbari Azad & Bahrami, 2023; Chakraborty et al., 2023). Key objectives of supply chain management include enhancing service levels, increasing profitability, reducing inventory and order cycle times, and ultimately improving competitiveness. With rapid advancements in information technology, organizations are striving to manage product and information flows efficiently. Effective information sharing and coordination within the supply chain can enhance overall supply chain performance and enable stakeholders to achieve strategic objectives while maximizing supply chain profitability. In essence, supply chain coordination fosters a win-win relationship that leads to commercial success for all involved parties (Ahmed et al., 2022; Çeke, 2022; Kara & Edinsel, 2022; Zhang et

al., 2021). This approach may even serve as a prerequisite for future competitive performance, as success in the modern business landscape is increasingly dependent on supply chain networks rather than individual firms (Huang & Liu, 2021; Li et al., 2021).

Another variable that may play a significant role in the relationship between green supply chain management and sales force agility is environmental stimuli. Internal and external pressures serve as prerequisites for green supply chain motivators, including incentives and regulations. Key environmental stimuli for green supply chain management include senior management support and commitment, environmental policies, effective communication with organizations and suppliers, customer demand, governmental regulations, and established standards. These pressures and stimuli ultimately impact green supply chain performance in terms of environmental, economic, operational, and organizational outcomes (Rajabzadeh Ghatari et al., 2012; Rostamian, 2016; Sadeghian Esfahani & Shirviyehzad, 2012; Safdari & Rostamzadeh, 2018).

Regulations and legal requirements constitute the primary drivers for adopting green supply chain management, compelling organizations to integrate environmental considerations into their operations. Governments play a crucial role by enacting special regulations, directing market demand toward sustainable production, encouraging manufacturers to produce green products, and promoting responsible consumption patterns. Governmental pressure—whether regulatory, mandatory, or imitative—remains the most significant external driver of green supply chain management. Competitive and commercial pressures also push organizations to implement eco-friendly design practices internally. Among the various factors influencing the adoption of green supply chain management, external pressures exert a greater impact than internal organizational benefits. Improving product and service quality, reducing costs, and enhancing efficiency in manufacturing industries serve as powerful motivators. Key drivers of green supply chain adoption include increasing transportation efficiency, promoting recycling and reusable packaging, reducing resource consumption (e.g., water and energy), and complying with ISO environmental standards. Both tangible and intangible pressures from internal and external sources influence organizational decision-making, and failing to meet these expectations makes business continuity increasingly difficult. Some of these pressures include consumer demand, resource scarcity, competitors' green strategies, organizational environmental missions, environmental regulations, legal consequences, non-governmental organizations (NGOs), local, national, and international advocacy groups, diverse customer expectations, investors, partners, and board members (Norouzzadeh et al., 2016; Sharma et al., 2016).

Previous studies have extensively examined the relationship between green supply chain management and agility, as well as its impact on competitive advantage. Safdari and Rostamzadeh (2018) demonstrated that all dimensions of green supply chain management positively and significantly affect organizational agility in Iran Khodro Tabriz (Safdari & Rostamzadeh, 2018). Mirghafouri and Andalib Ardakani (2019) identified key factors influencing green supply chain agility, including human resources, customer satisfaction, organizational strategy, financial performance, information technology, and innovation (Mirghafouri et al., 2019). Azad (2020) found that different aspects of green supply chain agility—such as green design, green warehousing, green transportation, and green recycling—significantly contribute to competitive advantage in industrial units in Ardabil (Azad, 2020). Zhu et al. (2020) examined variations in green supply chain drivers across three industries—automobile manufacturing, thermal power plants, and electronics—in China, concluding that different industries are influenced by distinct drivers (Zhu et al., 2020). Lee et al. (2018) identified customers, government regulations, and organizational readiness as key enablers of green supply chain management, emphasizing that governmental intervention plays a pivotal role in raising environmental awareness among organizations (Lee et al., 2018).

Ardabil Province, despite its rich natural resources, dense forests, and favorable ecological conditions, faces environmental degradation due to various industrial activities. Industrial parks, which play a crucial role in job creation and economic development, significantly contribute to pollution through improper disposal of industrial waste, lack of proper waste treatment facilities, and the absence of sewage treatment systems. Implementing green supply chain management in organizations fosters environmental awareness, facilitating the adoption of eco-friendly practices in product design and organizational development. This study seeks to elucidate the impact of green supply chain management on sales force agility, considering the mediating role of environmental stimuli. Specifically, the research aims to address the question: How does green supply chain management influence sales force agility through the mediating role of environmental stimuli?

2. Methods and Materials

The present study employs a descriptive-correlational research design using path analysis. The study population comprises managers and employees of manufacturing companies in Ardabil Province. According to initial estimates, 53 managers and 1,500 employees are actively working in manufacturing companies across the province. The sample size for employees was determined using Morgan's table, a standard reference for sample size determination, resulting in a sample of 306 employees from industrial companies in Ardabil Province. Additionally, all 54 managers of industrial companies in Ardabil were selected as part of the sample. The study adopted a purposive sampling method. Data collection was conducted through both library-based and field methods.

To gather information on the fundamental concepts related to the dependent and independent variables, various sources, including academic websites, books, articles, journals, periodicals, and theses from both domestic and international sources, were consulted. To analyze the impact of green supply chain management on sales force agility, considering the mediating role of environmental stimuli, a questionnaire—one of the field research methods—was employed.

The Green Supply Chain Management Questionnaire developed by Saman (2019) was used to assess green supply chain management. This questionnaire consists of 33 questions and three dimensions: structural aspects, behavioral aspects, and contextual aspects. The questions are designed based on a Likert scale, including items such as "To what extent does the recycling of waste and residues within companies contribute to green supply chain management?" The content, face, and criterion validity of this questionnaire were evaluated as appropriate in the study conducted by Moghimi and Ramazan (2011), with a Cronbach's alpha coefficient exceeding 0.70.

The Sales Force Agility Questionnaire was designed based on the study by Breu et al. (2006). This standardized questionnaire comprises seven questions to assess various dimensions of workforce agility. In Amiri Mouloud's (2021) study, its validity was confirmed using content validity and convergent validity, while its reliability was measured using Cronbach's alpha, yielding a coefficient of 0.714. In another study by Modouli (2016), the reliability of this questionnaire was reported with a Cronbach's alpha of 0.751.

For the variable environmental stimuli, a researcher-developed Environmental Stimuli for Green Supply Chain Management Implementation Questionnaire was employed. This questionnaire consists of 13 questions, derived from the theoretical literature, and assesses four dimensions: supply chain drivers, cost drivers, green marketing drivers, and regulatory and legal drivers. Responses are recorded on a five-point Likert scale: 1 (very low), 2 (low), 3 (moderate), 4 (high), and 5 (very high). A Cronbach's alpha coefficient above 0.70 was used as the threshold for acceptable scale reliability.

The data analysis was conducted in two stages. First, descriptive statistics, including mean, standard deviation, frequency tables, and percentage distributions, were utilized to summarize the data. To test the research hypotheses, path analysis was performed using LISREL statistical software.

3. Findings and Results

To assess the normality of data distribution, the Shapiro-Wilk test or the Kolmogorov-Smirnov test was used to ensure that the data follow a normal distribution. In testing for normality, the null hypothesis assumes that the data distribution is normal and is tested at a 5% significance level. If the test statistic is greater than or equal to 0.05, there is no reason to reject the null hypothesis, meaning that the data can be assumed to be normally distributed. If the significance level of the Shapiro-Wilk test or Kolmogorov-Smirnov test, displayed as sig. in the table, is greater than 0.05, the data can be considered normal with high confidence. Otherwise, the data distribution cannot be assumed to be normal.

Table 1. Results of the Kolmogorov-Smirnov Test for Normality of Research Variables

Statistic	Green Supply Chain Management	Sales Force Agility	Environmental Stimuli	Company Performance
Kolmogorov-Smirnov Z	0.156	0.137	0.131	0.235

Significance Level	0.099	0.111	0.112	0.081

According to the results in Table 1, since the significance level for the test error at a 95% confidence level is greater than 0.05, it can be concluded that the distribution of variables (green supply chain management, sales force agility, environmental stimuli, and company performance) is normal. Therefore, parametric tests, specifically structural equation modeling, can be used to analyze the hypotheses.

Green supply chain management impacts sales force agility, considering the mediating roles of environmental stimuli and company performance.

As shown in Figures (1) and (2), the path coefficient for the effect of green supply chain management on sales force agility was calculated as 49%. Additionally, the t-value for this parameter was estimated at 6.85. The path coefficient for the mediating effect of environmental stimuli on sales force agility was 55%, with a t-value of 7.48. Similarly, the path coefficient for the mediating effect of company performance on sales force agility was 56%, with a t-value of 7.66.

Based on the path analysis, it can be stated that the variables of green supply chain management, environmental stimuli, and company performance explained 20% of the variance in sales force agility, with standardized beta coefficients of 0.49, 0.55, and 0.56, respectively. Consequently, the null hypothesis is rejected with 99% confidence, and given the significance and positive direction of the coefficients, it can be concluded that green supply chain management influences sales force agility, considering the mediating roles of environmental stimuli and company performance.

This finding indicates that the relationship between green supply chain management and sales force agility is strengthened by environmental stimuli and company performance. As environmental stimuli and company performance improve, the effect becomes stronger; conversely, if environmental stimuli and company performance weaken, the relationship naturally diminishes. This conclusion is supported by the significance and positive alignment of the effects of environmental stimuli and company performance. Therefore, the main research hypothesis is accepted.

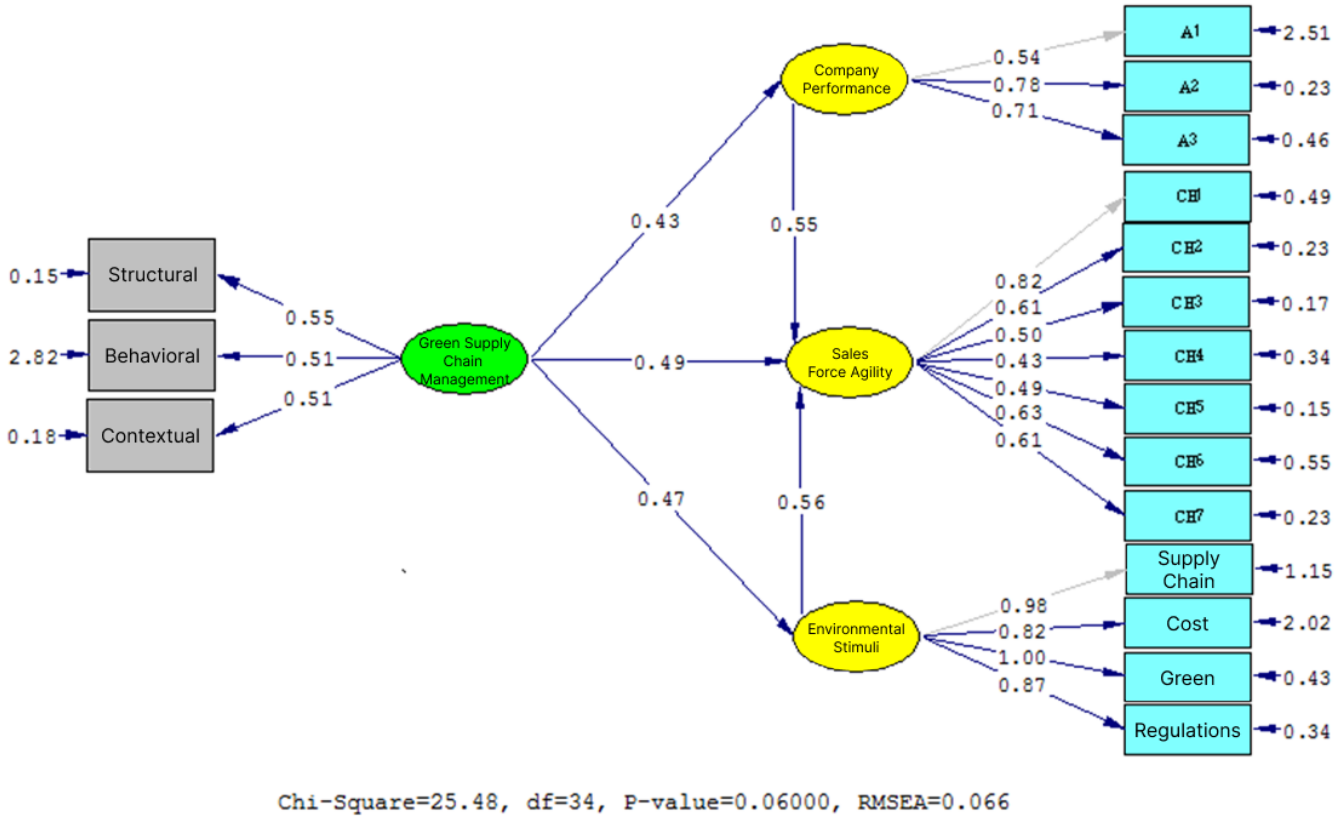

Figure 1. Model with Beta Values

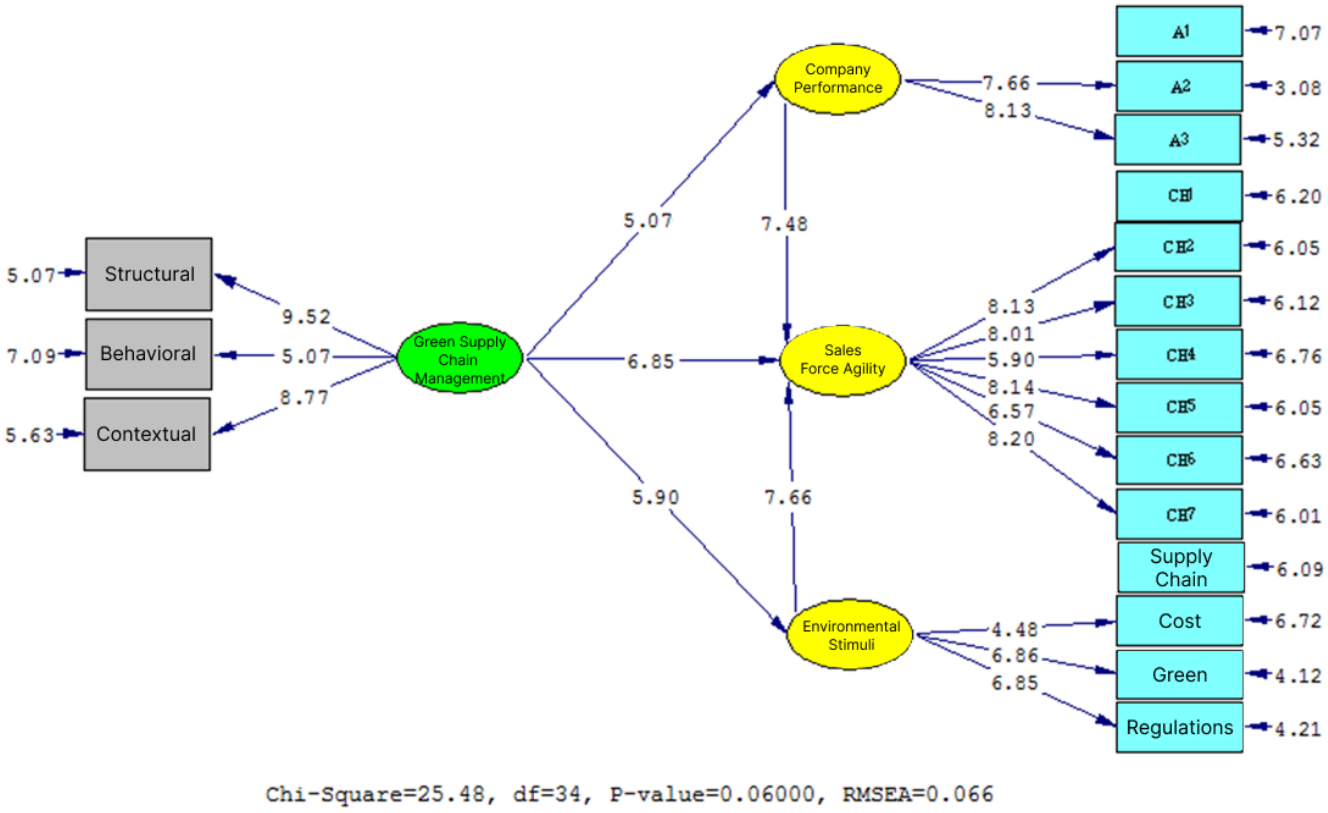

Figure 2. Model with T-Values

As illustrated in Figure (1), the research results confirm that all relationships between the study constructs are established. Additionally, Table 2 presents the fit indices, demonstrating that the model exhibits an appropriate fit.

Table 2. Fit Indices for the Main Research Hypothesis

Model Fit Criteria	Index	Obtained Value	Acceptable Threshold	Result
Chi-square to degrees of freedom ratio	X^2/df	0.74	Less than 3	Good fit
Root Mean Square Error of Approximation	RMSEA	0.06	Less than 1	Good fit
Root Mean Square Residual	RMR	0.005	Close to zero	Good fit
Normed Fit Index	NFI	0.90	Greater than 0.90	Good fit
Non-Normed Fit Index	NNFI	0.94	Greater than 0.90	Good fit
Comparative Fit Index	CFI	0.93	Greater than 0.90	Good fit
Incremental Fit Index	IFI	0.93	Greater than 0.90	Good fit
Relative Fit Index	RFI	0.91	Greater than 0.90	Good fit
Goodness of Fit Index	GFI	0.92	Greater than 0.90	Good fit
Adjusted Goodness of Fit Index	AGFI	0.91	Greater than 0.90	Good fit

According to the results, the fit indices of the confirmatory factor analysis models used for the research instruments indicate that the chi-square value in all measurement models is significant at the 5% error level. Furthermore, the chi-square to degrees of freedom ratio in all measurement models meets the established threshold, confirming the appropriateness of the conceptual models. The RMSEA index falls within the acceptable range for all measurement models, signifying an acceptable error level in the measurement models. Additionally, the values of CFI, GFI, AGFI, NFI, and NNFI in all measurement models align with the recommended criteria, confirming that the measurement models exhibit a good fit. Therefore, based on these results, all research instruments demonstrate an appropriate and acceptable fit.

Table 3. Path Analysis Results for the Structural Model

Path	Standardized Beta (β)	t-value	p-value
Green Supply Chain Management → Sales Force Agility	0.49	6.85	0.000
Green Supply Chain Management → Environmental Stimuli	0.47	5.90	0.000
Green Supply Chain Management → Company Performance	0.43	5.07	0.000

Environmental Stimuli → Sales Force Agility	0.56	7.66	0.000
Company Performance → Sales Force Agility	0.55	7.48	0.000

The results of the path analysis indicate that Green Supply Chain Management has a positive and significant effect on Sales Force Agility ($\beta = 0.49$, $t = 6.85$, $p < 0.001$), confirming the hypothesis that adopting sustainable supply chain practices improves the responsiveness and adaptability of the sales force.

Additionally, Green Supply Chain Management positively affects Environmental Stimuli ($\beta = 0.47$, $t = 5.90$, $p < 0.001$) and Company Performance ($\beta = 0.43$, $t = 5.07$, $p < 0.001$), suggesting that firms integrating environmental strategies into their supply chain management benefit from enhanced operational and marketing conditions.

Moreover, Environmental Stimuli significantly impact Sales Force Agility ($\beta = 0.56$, $t = 7.66$, $p < 0.001$), reinforcing the notion that external and internal environmental drivers facilitate agility in sales teams. Similarly, Company Performance has a strong effect on Sales Force Agility ($\beta = 0.55$, $t = 7.48$, $p < 0.001$), confirming that a well-performing organization provides the necessary infrastructure and resources for a more agile sales force.

All relationships in the model are statistically significant at $p < 0.001$, validating the overall theoretical framework and confirming the mediating roles of Environmental Stimuli and Company Performance in the relationship between Green Supply Chain Management and Sales Force Agility.

4. Discussion and Conclusion

This study aims to explain the impact of green supply chain management on sales force agility, considering the mediating role of environmental stimuli and company performance. The results of the hypothesis testing are extensively discussed below:

Main Hypothesis: Green supply chain management affects sales force agility, considering the mediating role of environmental stimuli.

This finding indicates that the relationship between green supply chain management and sales force agility is mediated by environmental stimuli. When environmental stimuli increase, this effect becomes stronger; conversely, when environmental stimuli weaken, the relationship naturally diminishes. This conclusion is derived from the significance and positive alignment of the effect of environmental stimuli. Therefore, the main research hypothesis is accepted. The results of this hypothesis align with the prior findings (Abbas & Tong, 2023; Ahmed et al., 2022; Akhbari Azad & Bahrami, 2023; Azad, 2020; Babaei Meybodi & Delshad, 2019; Çeke, 2022; Chakraborty et al., 2023; Huang & Liu, 2021; Kara & Edinsel, 2022; Khan et al., 2023; Lee et al., 2018; Li et al., 2021; Lutfi et al., 2023; Mirghafouri et al., 2019; Safdari & Rostamzadeh, 2018; Sharma et al., 2016; Zhang et al., 2021; Zhu et al., 2020).

In explaining this hypothesis, it can be stated that in today's business environment, all agile organizations and companies must implement green supply chain management to achieve success and undergo fundamental and extensive changes. To achieve this, it is essential to move away from labor-intensive planning processes and rigid operational frameworks. One effective approach in this direction is the adoption of agile marketing strategies. Agile marketing methods assume responsibilities traditionally associated with conventional business models, enhancing their efficiency. Today, customers can quickly identify product options and purchase them with a single click. Traditional sales approaches are incompatible with this rapid decision-making process. Customers primarily demand fast and suitable products (Babaei Meybodi & Delshad, 2019; Hu & Tresirichod, 2024; Khan et al., 2023). Necessary actions must be taken by the marketing team before customers look elsewhere, ensuring that the sales department can generate revenue. Many strategic paths lead to agile marketing. If a company adopts green supply chain management, it not only addresses environmental concerns but also gains a relative competitive advantage. Additionally, implementing green supply chain management can help businesses avoid environmental trade barriers in international commerce. Therefore, organizations must swiftly adopt green supply chain management to seize opportunities, tackle challenges, and achieve success. Many large multinational corporations, such as General Motors, Hewlett-Packard, Procter & Gamble, and Nike, have enhanced their brand reputation and corporate image through research and implementation of green supply chain management.

First Sub-Hypothesis: Green supply chain management affects sales agility.

This finding indicates a positive and direct relationship between green supply chain management and sales agility. As green supply chain management improves, this effect strengthens; conversely, if it weakens, the relationship diminishes. This conclusion is supported by the significance and positive alignment of the effect of green supply chain management. Therefore, the first sub-hypothesis is accepted. The results align with the prior findings (Ahmed et al., 2022; Azad, 2020; Çeke, 2022; Huang & Liu, 2021; Li et al., 2021; Mirghafouri et al., 2019; Radfar, 2023; Sadeghian Esfahani & Shirviyehzad, 2012; Zhang et al., 2021; Zhu et al., 2020).

In explaining this hypothesis, it can be stated that green and traditional supply chains differ in several aspects. Traditional supply chains primarily focus on economic objectives and values, whereas green supply chains emphasize environmental considerations. Furthermore, an integrated and ecologically optimized green supply chain not only mitigates the effects of human-made toxins but also minimizes negative environmental impacts on nature. Ecological criteria are key factors in the production and selection of goods and services (Rajabzadeh Ghatari et al., 2012; Rostamian, 2016; Sadeghian Esfahani & Shirviyehzad, 2012). Buyer-seller selection criteria also differ significantly between green and traditional supply chains. In traditional supply chains, pricing is the dominant standard, whereas in green supply chains, environmental goals are a fundamental part of supplier selection criteria. Incorporating environmental criteria in supplier evaluations significantly reduces the pool of qualified suppliers, making changes in supplier selection less frequent than in traditional supply chains.

Business agility refers to the rapid, continuous, and systematic adaptation and entrepreneurial innovation of businesses to gain competitive advantages. The three main pillars of an agile business include: offering products and services that align with customer needs, adapting to market changes, and maximizing the use of available human resources. Business agility is characterized by the ability to quickly adjust to market shifts in both product offerings and cost-effective solutions. When applied to companies, the term "agile enterprise" refers to organizations that leverage key principles of adaptive systems and complexity theory to achieve success. Essentially, business agility is an outcome of organizational intelligence.

Second Sub-Hypothesis: Green supply chain management affects environmental stimuli.

This finding indicates a positive and direct relationship between green supply chain management and environmental stimuli. As green supply chain management improves, this effect strengthens; conversely, if it weakens, the relationship diminishes. This conclusion is supported by the significance and positive alignment of the effect of green supply chain management. Therefore, the second sub-hypothesis is accepted. The results align with the prior findings (Chakraborty et al., 2023; Chaudhuri et al., 2024; Khan et al., 2023; Norouzzadeh et al., 2016).

In explaining this hypothesis, it can be stated that green supply chain management involves integrating environmentally friendly practices into traditional supply chain processes to achieve sustainable development (Chakraborty et al., 2023). Given the growing emphasis on corporate social responsibility, transforming traditional supply chain management into a more sustainable model has become essential. The shift toward sustainability and the pursuit of green supply chain objectives represent the most effective strategies in this regard. This approach entails incorporating environmental considerations into traditional supply chain activities, including product design, sourcing raw materials, production processes, final product delivery, and post-consumption management.

Today, global challenges such as climate change, pollution, and increasing greenhouse gas emissions pose existential threats to humanity. These concerns have propelled environmental preservation and sustainability strategies to the forefront of organizational innovation. Given the significance of this issue, this study conceptualizes and defines green supply chain management. Based on the results of this hypothesis, it can be concluded that green supply chain management enhances environmental stimuli.

Third Sub-Hypothesis: Environmental stimuli affect sales force agility.

This finding indicates a positive and direct relationship between environmental stimuli and sales force agility. As environmental stimuli improve, this effect strengthens; conversely, if they weaken, the relationship diminishes. This conclusion is supported by the significance and positive alignment of the effect of environmental stimuli. Therefore, the third sub-hypothesis is accepted. The results align with the prior findings (Azad, 2020; Çeke, 2022; Mirghafouri et al., 2019; Rajabzadeh Ghatari et al., 2012; Rostamian, 2016; Sadeghian Esfahani & Shirviyehzad, 2012; Safdari & Rostamzadeh, 2018).

In explaining this hypothesis, it can be stated that one of the fundamental advantages of business agility is increased operational speed. Given the rapid changes in market conditions and technological advancements, the ability to quickly respond to new demands, product modifications, and internal organizational processes is crucial. Another key benefit of business agility is enhanced organizational flexibility. Agile organizations can swiftly adapt, optimize resource utilization, and respond effectively to business environments. This flexibility enables organizations to excel in addressing market fluctuations, emerging competitors, and new opportunities (Çeke, 2022; Sadeghian Esfahani & Shirviyehzad, 2012).

Business agility also fosters improved collaboration and internal organizational interactions. By adopting flatter organizational structures and utilizing cross-functional teams, communication among employees is enhanced, creating greater opportunities for knowledge exchange and experiential learning. Moreover, business agility directly contributes to reducing organizational waste and costs. By refining processes, eliminating inefficiencies, enhancing productivity, and optimizing resource utilization, costs are minimized, leading to increased profitability.

Ethical Considerations

All procedures performed in this study were under the ethical standards.

Acknowledgments

Authors thank all participants who participate in this study.

Conflict of Interest

The authors report no conflict of interest.

Funding/Financial Support

According to the authors, this article has no financial support.

References

Abbas, H., & Tong, S. (2023). Green Supply Chain Management Practices of Firms with Competitive Strategic Alliances-A Study of the Automobile Industry. *Sustainability*, *15*(3), 2156. https://doi.org/10.3390/su15032156

Ahmed, M. D., Abd Alwahab, M. A. A., Ali, M. H., Zainalabideen, A. H., Abd Alhasan, S. A., Alasadi, S. R., & Hamdy, A. M. (2022). The Relationship among Digital Innovation, Digital Marketing, Digital Technology, and Corporate Performance: Mediating Role of Green Supply Chain Management of Iraq Textile Industry. *International Journal of Operations and Quantitative Management*, *28*(2), 486-505. https://submissions.ijoqm.org/index.php/ijoqm/article/view/94

Akhbari Azad, M., & Bahrami, Z. (2023). The Role of Green Supply Chain Management on Innovative Performance and Competitiveness of Companies. *Development and Transformation Management*, 395-408. https://journals.iau.ir/article_691284.html

Azad, B. (2020). *Investigating the impact of green supply chain agility on gaining competitive advantage and organizational agility in the industry (Case study: Active industrial units in Ardabil)* https://elmnet.ir/article/10923776-15113/

Babaei Meybodi, H., & Delshad, Z. (2019). Presenting a system dynamics model for evaluating factors affecting the green level of supply chain management. *Value Chain Management Journal*, *2*(6). https://www.magiran.com/paper/2363064/

Çeke, H. (2022). *Lean, Agile, Resilient and Green Supply Chain Management (LARG SCM)* Marmara Universitesi (Turkey)]. https://www.proquest.com/openview/faf807502821275396f0e4e37807c2f2/1.pdf?pq-origsite=gscholar&cbl=2026366&diss=y

Chakraborty, A., Al Amin, M., & Baldacci, R. (2023). Analysis of internal factors of green supply chain management: An interpretive structural modeling approach. *Cleaner Logistics and Supply Chain*, *7*, 100099. https://doi.org/10.1016/j.clscn.2023.100099

Chaudhuri, R., Singh, B., Agrawal, A. K., Chatterjee, S., Gupta, S., & Mangla, S. K. (2024). A TOE-DCV approach to green supply chain adoption for sustainable oper ations in the semiconductor industry. *International Journal of Production Economics*, *275*, 109327. https://doi.org/10.1016/j.ijpe.2024.109327

Haghighat Monfared, J., & Karimi, F. (2024). Identifying and prioritizing factors affecting green supply chain management in the offshore industry with the analytical network process (ANP) approach. *Business Management*, *6*(24), 21-48.

Hu, W., & Tresirichod, T. (2024). Impact of Green Entrepreneurial Orientation on Sustainable Performance: The Mediating Role of Green Intellectual Capital and Green Supply Chain Management. *Asian Administration & Management Review*, *7*(1). https://so01.tci-thaijo.org/index.php/AAMR/article/view/272653

Huang, Y. y., & Liu, J.-M. (2021). Antecedents and Consequences of Green Supply Chain Management in Taiwan's Electric and Electronic Industry. *Journal of Manufacturing Technology Management*. https://doi.org/10.1108/jmtm-05-2020-0201

Kara, K., & Edinsel, S. (2022). The mediating role of green product innovation (GPI) between green human resources management (GHRM) and green supply chain management (GSCM): evidence from automotive industry companies in Turkey. Supply Chain Forum: An International Journal, https://doi.org/10.1080/16258312.2022.2045873

Khan, M., Ajmal, M. M., Jabeen, F., Talwar, S., & Dhir, A. (2023). Green supply chain management in manufacturing firms: A resource-based viewpoint. *Business Strategy and the EnvironmentVL - 32*(4), 1603-1618. https://doi.org/https://doi.org/10.1002/bse.3207

Lee, S. M., Rha, J. S., Choi, D., & Noh, Y. (2018). Pressures affecting green supply chain performance. *Management Decision*, *51*(8), 1753-1768. https://doi.org/10.1108/MD-12-2012-0841

Li, B., Wang, H., & Zheng, W. (2021). Who will take on green product development in supply chains? Manufacturer or retailer. *Journal of Cleaner Production*, *314*, 128000. https://doi.org/10.1016/j.jclepro.2021.128000

Lutfi, K., Alnabulsi, Z., Salameh, R., Hyasat, E., & Alrawashdeh, S. (2023). The role of intellectual capital on green supply chain management: Evidence from the Jordanian renewal energy companies. *Uncertain Supply Chain Management*, *11*(1), 351-360. https://doi.org/https://doi.org/10.5267/j.uscm.2022.9.007

Mirghafouri, S. H., Andalib Ardakani, D., Keshavarz, P., Mohammadi, S. M., & Emami, N. (2019). Designing a model and examining factors affecting green supply chain agility with an interpretive structural modeling approach Investigating the effect of driving factors for implementing green supply chain management on the performance of small and medium manufacturing companies. Fourth International Conference on Industrial Management, https://civilica.com/doc/938033/

Mohsin, A., Awain, S., Al-Ansi, A., & Jaboob, M. (2023). Green Supply Chain Management: A Comprehensive Review of Research, Applications and Future Directions. *Management and Production Engineering Review*, *14*, 118-133. https://doi.org/10.24425/mper.2023.147194

Norouzzadeh, G., Motamedi, M., & Norouzzadeh, M. (2016). Green supply chain management: The competitive challenge of the present century. Second Conference on Environmental Planning and Management, https://civilica.com/doc/147640/

Radfar, M. (2023). The Impact of Green Supply Chain Management on Competitiveness Index in Organizations with Emphasis on Green Procurement, Production, and Distribution Management. First International Conference on Industrial Engineering, Management, Economics, and Accounting, https://civilica.com/doc/1220628/

Rajabzadeh Ghatari, A., Alborzi, M., Razavi, S. M., & Ramezani, A. (2012). Identifying and ranking factors affecting the formation of organizational agility capabilities (Case study of commercial automotive companies). *Industrial Management*, *4*(1). https://imj.ut.ac.ir/article_72257.html

Rostamian, Z. (2016). *Strategic agility and its impact on the performance of Shahroud Cement Company* https://elmnet.ir/article/10939882-

Sadeghian Esfahani, S., & Shirviyehzad, H. (2012). Prioritizing agility drivers using multi-criteria decision-making techniques in Ghaem Reza Industrial Complex. First National Conference on Industrial Engineering and Systems, https://civilica.com/doc/211152/

Safdari, M., & Rostamzadeh, R. (2018). Investigating the impact of green supply chain management on organizational agility (Case study: Iran Khodro Tabriz). *Value Chain Management Bi-quarterly*, *1*(4). https://journals.iau.ir/article_652343.html

Sharma, S. K., Al-badi, A. H., Govindaluri, S. M., & Al-kharusi, M. H. (2016). Predicting motivators of cloud computing adoption: A developing country perspective. *Computer humans behavior*, *62*, 61-69. https://doi.org/10.1016/j.chb.2016.03.073

Yu, W., Chavez, R., Feng, M., & Wiengarten, F. (2024). Integrated green supply chain management and operational performance. *Supply Chain Management: An International Journal*, *19*(5/6), 683-696.

Zhang, R. (2024). Methods for Carbon Reduction Through Green Supply Chain Management in the Automotive Industry. *Frontiers in Business Economics and Management*, *17*(3), 301-303. https://doi.org/10.54097/s5vaf884

Zhang, W., Zhang, X., & Zhou, Q. (2021). How does knowledge seeking and knowledge generation promote green supply chain management? An empirical study from China. *Int. J. Logist. Res. Appl*, 1-21. https://doi.org/https://doi.org/10.1080/13675567.2021.1929882

Zhu, Q., Sarkis, J., & Lai, K. (2020). Examining the effects of green supply chain management practices and theit mediations on performance improvements. *logistics and maritime studies*, *1*, 1-37. https://www.researchgate.net/publication/235965577