

Driving Business Performance through Green Supply Chain Management: Opportunities and Future Challenges

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ABSTRACT: This paper examines how Green Supply Chain Management (GSCM) contributes to improving business performance and exploring the mediation mechanisms of Just-in-Time (JIT) operational practices and Green Reputation. The paper presents the argument that a company should incorporate environmental practices in its operation systems in order to attain sustainable competitive advantage. A sample of 385 respondents who worked in supply chain, logistics and operations departments of the organizations that apply green supply chain practices were used to gather the data. Partial Least Squares Structural Equation Modeling (PLS-SEM) with the assistance of SmartPLS and SPSS allowed testing the proposed conceptual framework to estimate both measurement and structural relations between the constructs. The outcomes indicate that the positive impact of Green Supply Chain Management on Business Performance is significant ($\beta=0.368$, $p = 0.001$). Just-in-Time practices ($p = 0.001$) and Green Reputation are also highly affected by GSCM (0.845 and 0.811, respectively). The mediating analysis has shown that Just-in-Time is a significant mediator between GSCM and Business Performance, but the mediation of Green Reputation is not supported. The business performance ($R^2 = 0.739$) is explained by the model (73.9) percentage.

KEYWORDS: Green Supply Chain Management, Just-in-Time, Green Reputation, Business Performance, Sustainability, PLS-SEM

Introduction

Organizational environmental sustainability has emerged as one of the leading issues of concern because of its role in ensuring that organizations are able to reconcile between economic success and environmental sustainability. The tendency of companies in recent years is to incorporate environmental concerns into the work of supply chains by implementing Green Supply Chain Management (GSCM). Javed et al. (2026) state that GSCM helps companies to minimize the environmental footprint and enhance efficiency and competitiveness. On the same note, according to Karakaş-Kelten et al. (2026) sustainability in the supply chain enables organizations to balance strategic business objectives with environmental goals.

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Problem Statement

Although the application of the Green Supply Chain Management (GSCM) practices is on the rise in most industries, it remains uncertain to many organizations how such practices can lead to tangible changes in the performance of their businesses. Although, most companies invest in green purchasing, eco-design and green logistics, the actual and indirect procedures by which the undertakings impact financial and market performance are inadequately comprehended. According to the recent research, despite the possible effectiveness of GSCM in terms of the operational efficiency and environmental sustainability, companies usually do not achieve the consistent improvements of the performance as noted by Javed et al. (2026) Karakaş-Kelten et al. (2026) and Ashraf (2026).

Objectives of the Study

- ▶ To investigate the impact of Green Supply Chain Management (GSCM) on Business Performance.
- ▶ To examine the correlation between Green Supply Chain Management and Just-in-Time (JIT) operation practice.
- ▶ To examine how Green Supply Chain Management affects Green Reputation in organizations.
- ▶ The mediating effects that Just-in-Time and Green Reputation occupy in green supply chain management and business performance relationship.

Research Questions

RQ 1: What is the effect of Green Supply Chain Management (GSCM) on Business Performance in organizations?

RQ 2: Is Just in Time (JIT) an intervening variable of Green Supply Chain Management and Business Performance?

RQ 3: Does the relationship between Green Supply Chain Management and Business Performance involve Green Reputation?

Gap Analysis

Despite the growing scholarly attention toward Green Supply Chain Management and its influence on organizational outcomes, significant gaps still exist in understanding the underlying mechanisms through which Green Supply Chain Management (GSCM) improves Business Performance. Most previous studies have primarily focused on the direct relationship between environmental supply chain practices and firm performance while giving limited attention to operational and reputational mediating mechanisms such as Just-in-Time (JIT) systems and Green Reputation. Recent studies have emphasized sustainability and competitive advantage separately but have not sufficiently integrated lean operational practices with reputational outcomes within a unified framework (Junejo et al., 2025; Gupta et al., 2025).

Literature Review

Green Supply Chain Management (GSCM) concept has been a subject of increasing concern both in academia and in industry given the growing interest to incorporate with environmental sustainability in both activities of organizations. GSCM can be explained as the integration of environmental values in the supply chain operations which involve, design of products, sourcing of materials, manufacture, logistics and end life management of products. Odamtten et al. (2025) consider that the practice of green supply chain adoption helps companies to mitigate the environmental effects and enhance their operational performance and competitiveness. Likewise, Li et al. (2025) maintain that sustainable supply chains are beneficial to the organization in terms of resilience and long-term sustainability. Sustainability transformation through green supply chain management practices and green

innovations in Pakistan’s manufacturing and service industries (2025) also indicate that a sustainable supply chain initiative enables companies to optimize the use of resources and minimize waste at supply chains.

Theoretical Foundation

Resource-Based View (RBV)

The theoretical framework of this research is based on the theories of sustainability, strategic management, and operational efficiency in which the environmental initiatives alter the organizational performance. The Resource-Based View (RBV) is one of the most popular theoretical perspectives in research on sustainability and supply chain research. RBV assumes that a firm can create competitive advantage in the long run due to capabilities and resources that are unique and have no value, which are rare and cannot be easily copied. Environmental capabilities can be discussed in terms of green supply chain management, eco-design, green procurement, and sustainable logistics are some of the environmental capabilities that can be taken as strategic resources to improve the performance of firms.

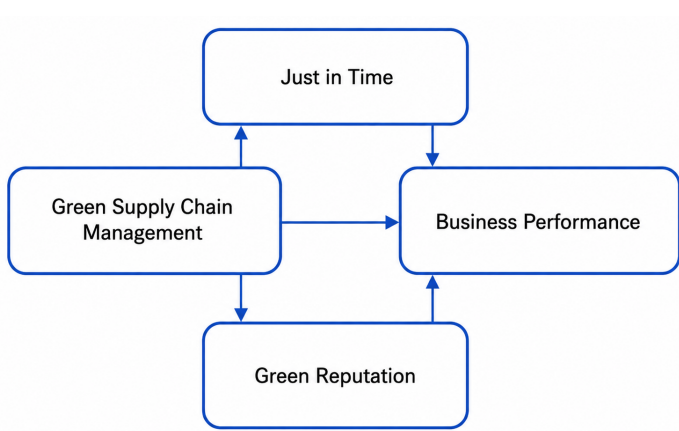
Stakeholder Theory

Stakeholder Theory is another theoretical perspective that is relevant to this study and elucidates why organizations will consider the environmentally responsible practices to fulfill the expectation of various stakeholders who are the customers, regulators, investors, and society. This theory indicates that the firms that respond to the expectations of the stakeholders well increase their legitimacy, reputation and their performance in the long-term. Recent studies indicate that companies that have implemented green supply chain programs in their operations tend to have a higher rate of stakeholder trust and corporate reputation (Ali & Hamid, 2024).

Just-in-Time (JIT) Production Model

Besides the strategic management theories, the Lean Management Theory, specifically the Just-in-Time (JIT) model of production are also used in backing up this study. The idea of lean management is based on the eradication of waste, enhancement of the efficiency of the processes, and optimization of the utilization of resources. The particular purposes of JIT systems include decrease of inventory cost, simplified production flows and operational efficiency. Recent research notes that the combination of lean operations and environmental strategies results in a better operational and environmental performance (Li & Zhang, 2024; Ali & Hamid, 2024; Green supply chain management practices and triple bottom line performance, 2024).

Figure 1
Conceptual Framework



Hypothesis Development

Green Supply Chain Management and Business Performance

Green Supply Chain management (GSCM) is the latest strategic option that organizations have adopted as a way of enhancing the environmental sustainability as well as the performance of the organization. GSCM is the process of implementing environmental concerns in the activities of the supply chain through green procurement process, eco-friendly production processes, sustainable logistics and reducing wastes. Scholars hold that companies that adopt green supply chain practices are able to realize operational efficiency and competitive advantages.

H1: There is a positive significant impact of Green Supply Chain Management on Business Performance.

Just-in-Time and Green Supply Chain Management

When green supply chain management practices are practiced, they tend to make organizations embrace effective operational strategies like Just-in-Time (JIT) systems. JIT is concerned with waste reduction, lowering the excess inventory and enhancing efficiency in production through delivery of materials and goods at the required time. The scholars state that environmental responsible supply chains focus on efficiency, decreasing wastage, and optimization of resources, which have strong mutual interactions with the lean operational principles. According to Li and Zhang (2024), green supply chain initiatives combined with the lean operational systems can improve the production efficiency and environmental performance.

H2: The effect of Green Supply Chain Management on Just-in-Time is significant and positive.

Just-in-Time and Business Performance

Just-in-Time (JIT) systems are also recognized as a successful operational strategy that boosts efficiency, wastes, and performance of the organization. JIT helps companies to enhance productivity and lower production expenses by reducing inventory that is not being used as well as reducing the number of operations. Researchers underline that lean operational systems enhance coordination in the supply chain and production efficiencies. As stated by Green supply chain management and sustainable performance (2024), businesses that employ JIT systems deliver high-quality operation and cost-effectiveness. On the same note, Holling and Backhaus (2023) posit that lean production practices enhance supply chain responsiveness, and enhance financial performance.

H3: JIT has a positive impact on Business Performance which is significant.

Green Supply Chain Management and Green Reputation

The green supply chain management is significant in defining the environmental image of the organizations. Companies that are proactive in their environmentally friendly supply chain practices are sending the message that the company is concerned with sustainability and corporate social responsibility. Such programs improve the image of the company and increase trust of stakeholders. According to Nureen et al. (2023) organizations that embrace green supply chain practices build robust environmental reputations to the customers and the stakeholders. On the same note, Nureen et al. (2023) provide that sustainable supply chain programs boost corporate legitimacy and brand credibility.

H4: GSCM contributes to Green Reputation significantly and positively.

Green Reputation and Business Performance

Corporate reputation especially the green reputation is very important in determining the performance and competitiveness in organizations. Companies that have good environmental images will find it easier to appeal to environmentally conscious customers, investors and business partners. Researchers underline that sustainability reputation increases brand value and improves the relationships with stakeholders. According to Dashnyam et al., when the environmental reputation of organizations is good, they tend to perform better in the market and have better customer loyalty.

H5: There is a strong positive influence of Green Reputation on Business Performance.

Green Supply Chain Management, Just-in-time and Business Performance

More recent work has even indicated that the connection between Green Supply Chain Management (GSCM) and performance of business can be more readily understood in terms of operational processes like Just-in-Time (JIT) systems. Green supply chain practices are focused on minimizing waste, effective use of resources and reduced manufacturing processes which are closely related to lean manufacturing and JIT systems. Through adopting a combination of sustainability in supply chain management and lean operations, organizations are able to increase their effectiveness in the environment as well as the operations.

H6: Green Supply Chain Management is related to Business Performance by Just-in-Time.

Green Supply chain management, Green Reputation and Business Performance

Green reputation is another significant process that explains the relation between green supply chain practices and business performance. Companies that proactively take up environmentally responsible supply chain efforts are likely to be rewarded by the stakeholders in terms of their environmental sustainability. Such programs convey a good message to customers, regulators, and investors on how the organization is responsible to the environment and how it is committed to ethical actions.

H7: Green Reputation interprets the connection among Green Supply Chain Management and Business Performance.

Methodology

Research Design

The current paper is quantitative research that will analyze the correlation between Green Supply Chain Management, Just-in-Time practices, Green Reputation, and Business Performance. The use of quantitative research is quite common when investigating the management and the supply chain studies since it enables the researcher to measure relationships between variables in a systematic way as well as testing theoretical hypotheses in a systematic way by use of statistical methods. Researchers underline that quantitative research is especially suitable when the aim is to research the causality between constructs in a conceptual model. As an example, Nureen et al. (2023) note that quantitative methods allow researchers to test complicated models with many constructs and mediating relationships. Likewise, Dashnyam et al. discuss the fact that the quantitative research design is useful in testing theoretical models with the help of organized data. Zaman et al. (2025) also indicate that quantitative study offers strong statistical methods of proving conceptual models of management research.

Sampling

The research data used in this research is gathered through a structured survey questionnaire, which is highly prevalent in management and supply chain research to get standard responses of the respondent. The survey technique helps to gather information about a great number of respondents in a very short time, and it is possible to conduct a statistical analysis of the correlation between variables. The survey is sent to the participants in supply chain activities, logistics management, and sustainability activity in the organization. According to recent methodology research, survey-based data collection is a good way to obtain empirical evidence to test the conceptual frameworks in organizational studies (Kock & Hadaya, 2018). The use of the survey methods enables the researcher to quantify latent variables like the business performance and sustainability practices through normalized scales.

Table 1

Instrument Adaptation

Variable	No. of Items	Source
Green Supply Chain Management (GSCM)	3	Javed et al. (2026) Karakaş-Kelten et al. (2026) Gupta et al. (2025)
Just-in-Time (JIT)	3	Li and Zhang (2024) Ali and Hamid (2024)
Green Reputation (GR)	3	Odamtten et al. (2025) Nureen et al. (2023)
Business Performance (BP)	3	Karakaş-Kelten et al. (2026) Junejo et al. (2025); Holling and Backhaus (2023)

Population

The study population appears to be the employees and managers of the respective organizations that implement the green supply chain practices in supply chain management, logistics, and operations department. These people are chosen due to the fact that they have first-hand experience about organizational sustainability efforts and procedures. The sampling method is applied to the target population in order to make sure that the data gathered reflect the research setting in a proper way. Researchers highlight that the generalizability and reliability of research results is maximized with the help of appropriate sampling strategies. Recent methodological studies indicate that the sampling processes are a very important factor in guaranteeing proper representation of organizational practices (Javed et al., 2026, Gupta et al., 2025).

Results and Discussion

The findings of the current research are empirical evidence on the impact of the green supply chain management (GSCM) on the business performance in the form of the operational practices based on the partial least squares structural equation modeling (PLS-SEM) method. The measurement model assessment showed the high levels of reliability and validity of the constructs because all the indicators' loadings are above the recommended 0.70 threshold. Karakaş-Kelten et al. (2026) claim that structural relationships in sustainability research are properly interpreted with high measurement validity. In the same vein, Gupta et al. (2025) emphasize the fact that the models of PLS-SEM where the reliability of indicators is high have more significant predictive functions regarding business performance outcomes.

Outer Loadings

Table 2

Outer Loadings

Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
BP1 <- BUSINESS _PERFORMANCE	0.908	0.908	0.012	76.532	0.000
BP2 <- BUSINESS _PERFORMANCE	0.891	0.891	0.015	57.730	0.000
BP3 <- BUSINESS _PERFORMANCE	0.856	0.856	0.026	32.635	0.000
GR1 <- GREEN_REPUTATION	0.911	0.910	0.017	54.397	0.000
GR2 <- GREEN_REPUTATION	0.935	0.934	0.009	100.117	0.000
GR3 <- GREEN_REPUTATION	0.910	0.910	0.013	70.830	0.000
GREEN SUPPLY _CHAIN MANAGEMENT x GREEN_REPUTATION -> GREEN SUPPLY _CHAIN MANAGEMENT x GREEN_REPUTATION	0.911	0.910	0.017	54.397	0.000
GREEN SUPPLY _CHAIN MANAGEMENT x JUST IN TIME -> GREEN SUPPLY _CHAIN MANAGEMENT x JUST IN TIME	0.881	0.881	0.019	47.394	0.000
GSCM1 <- GREEN SUPPLY _CHAIN MANAGEMENT	0.899	0.899	0.015	58.054	0.000
GSCM2 <- GREEN SUPPLY _CHAIN MANAGEMENT	0.909	0.909	0.014	64.730	0.000
GSCM3 <- GREEN SUPPLY _CHAIN MANAGEMENT	0.900	0.900	0.016	55.903	0.000
JIT1 <- JUST IN TIME	0.874	0.875	0.014	61.823	0.000
JIT2 <- JUST IN TIME	0.881	0.881	0.019	47.394	0.000
JIT3 <- JUST IN TIME	0.836	0.834	0.031	27.071	0.000

The results of the outer loading show that all the indicators of measurement reflect strongly their corresponding constructs, which proves the reliability and validity of the measurement model. All indicators have their outer loading values exceeding the recommended value of 0.70, which is an indicator of high reliability. In particular, the Business Performance (BP1 = 0.908, BP2 = 0.891, BP3 = 0.856) indicators have high loadings, which means that these indicators are strong measures of the business performance construct. On the same note, the indicators of Green Reputation (GR1 = 0.911, GR2 = 0.935, GR3 = 0.910) have very strong loading indicating that they effectively measure the concept of green reputation. The Green Supply Chain Management (GSCM1 = 0.899, GSCM2 = 0.909, GSCM3 = 0.900) and Just-in-Time (JIT1 = 0.874, JIT2 = 0.881, JIT3 = 0.836) also have high coefficients of correlation between the outcomes and constructs.

Reliability and Validity Analysis

Table 3

Reliability and Validity Analysis

Construct reliability and validity				
Overview				
	Cronbach's alpha	Composite reliability (rho_a)	Composite reliability (rho_c)	Average variance extracted (AVE)
Business _Performance	0.862	0.868	0.916	0.784
Green Supply _Chain Management	0.887	0.887	0.930	0.815
Green_Reputation	0.908	0.909	0.942	0.844
Just in Time	0.832	0.843	0.899	0.747

Construct reliability and validity findings suggest that the measurement constructs of the model have high levels of internal consistency and convergent validity. The values of Cronbach alpha of Business Performance (0.862), Green Supply Chain Management (0.887), Green Reputation (0.908), and Just-in-Time (0.832) are all above the recommended value of 0.70 and it indicates that internal reliability of measurement items is satisfactory. On the same note, all the constructs have composite reliability values (rho a and rho c) of over 0.80 with Business Performance (0.916 c), Green Supply Chain Management (0.930 c), Green Reputation (0.942 c), and Just-in-Time (0.899 c) showing high construct reliability and consistency among the indicators.

Discriminant Validity

Table 4

Discriminant Validity

Heterotrait-monotrait ratio (HTMT) - Matrix						
	BUSINESS _PERFOR MANCE	GREEN SUPPLY _CHAIN MANAG EMENT	GREE N_REP UTATI ON	JUST IN TIME	GREEN SUPPLY _CHAIN MANAGEM ENT x JUST IN TIME	GREEN SUPPLY _CHAIN MANAGE MENT x GREEN_R EPUTATIO N
BUSINESS _PERFORMANCE						
GREEN SUPPLY _CHAIN MANAGEMENT	0.936					
GREEN_REPUTATION	0.864	0.903				
JUST IN TIME	0.962	0.974	0.946			
GREEN SUPPLY _CHAIN MANAGEMENT x JUST IN TIME	0.498	0.527	0.477	0.570		
GREEN SUPPLY _CHAIN MANAGEMENT x GREEN_REPUTATION	0.514	0.552	0.537	0.544	0.931	

Heterotrait-Monotrait ratio (HTMT) criterion was used to evaluate the discriminant validity of the constructs. The HTMT results show that the majority of the construct correlations are within the acceptable range, implying that the constructs are empirically differentiated with each other.

Fornell-Larcker Criterion

Table 5

Fornell-Larcker Criterion

	BUSINESS _PERFORMANCE	GREEN SUPPLYCHAIN MANAGEMENT	GREEN REPUTATION	JUST IN TIME
BUSINESS _PERFORMANCE	0.885			
GREEN SUPPLY _CHAIN MANAGEMENT	0.820	0.903		
GREEN_REPUTATION	0.767	0.811	0.919	
JUST IN TIME	0.824	0.845	0.823	0.864

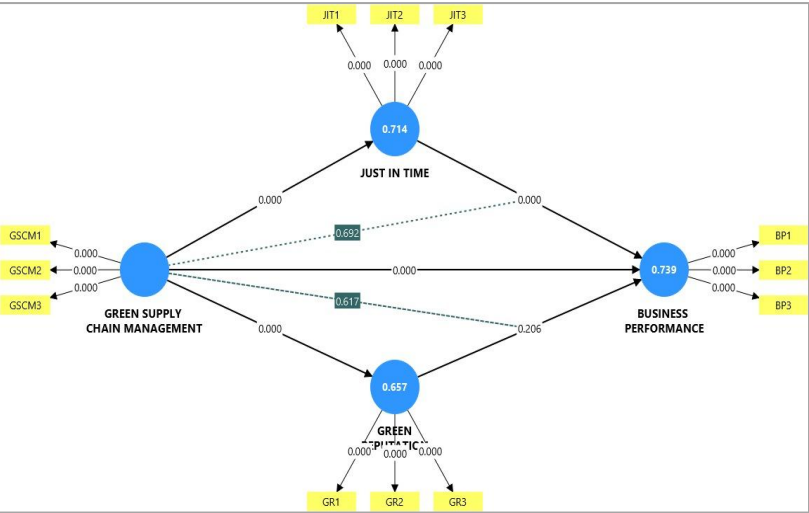
Further evaluation of the discriminant validity of the measurement model was done using the Fornell-Larcker criterion based on comparison between the square root of the Average Variance Extracted (AVE) of each construct and the construct-construct correlation.

Cross Loadings
Table 6
Cross Loadings

	BUSINESS _PERFORMANCE	GREEN SUPPLY _CHAIN _MANAGEMENT	GREEN_REPUTATION	JUST IN TIME	GREEN SUPPLY _CHAIN _MANAGEMENT x JUST IN TIME	GREEN SUPPLY _CHAIN _MANAGEMENT x GREEN_REPUTATION
BP1	0.908	0.769	0.738	0.796	-0.455	-0.467
BP2	0.891	0.718	0.682	0.717	-0.387	-0.397
BP3	0.856	0.688	0.611	0.668	-0.385	-0.403
GR1	0.666	0.738	0.911	0.770	-0.418	-0.475
GR2	0.739	0.779	0.935	0.787	-0.453	-0.499
GR3	0.707	0.716	0.910	0.710	-0.381	-0.438
GSCM1	0.713	0.899	0.709	0.752	-0.415	-0.448
GSCM2	0.741	0.909	0.722	0.767	-0.463	-0.476
GSCM3	0.766	0.900	0.763	0.769	-0.466	-0.484
JIT1	0.789	0.825	0.730	0.874	-0.472	-0.444
JIT2	0.699	0.711	0.699	0.881	-0.471	-0.466
JIT3	0.632	0.633	0.706	0.836	-0.407	-0.377
GREEN SUPPLY _CHAIN MANAGEMENT x GREEN_REPUTATION	-0.479	-0.520	-0.512	-0.498	0.931	1.000
GREEN SUPPLY _CHAIN MANAGEMENT x JUST IN TIME	-0.464	-0.497	-0.455	-0.523	1.000	0.931

The cross-loading analysis was done to further determine the discriminant validity of the measurement model in comparison of the loading of each indicator on its respective construct and its loading on other constructs. The findings show that the indicators load the highest on their constructs than the other constructs in the model. As an example, the Business Performance indicators (BP1 = 0.908, BP2 = 0.891, BP3 = 0.856) have a greater loading in the Business Performance construct compared to the Green Supply Chain Management or Green Reputation construct or the Just-in-Time construct. On the same note, the indicators of Green Reputation (GR1 = 0.911, GR2 = 0.935 and GR3 = 0.910) have higher loadings on the construct of Green Reputation than on other constructs.

PLS SEM Bootstrapping
 Figure 2
 PLS SEM Bootstrapping



The findings of structural model show the connection between Green Supply Chain Management (GSCM), Just-in-Time (JIT), Green Reputation (GR), and Business Performance (BP). The results show that Just-in-Time is affected positively by Green Supply Chain Management enormously with path coefficient of 0.845 (p = 0.000) indicating that companies engaging in practices of sustainable supply chain are more likely to use effective systems of operation like Just-in-Time.

Hypothesis Testing
 Table 7

Hypothesis Testing

Path coefficients					
Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
GREEN SUPPLY_CHAIN MANAGEMENT -> BUSINESS _PERFORMANCE	0.368	0.360	0.084	4.362	0.000
GREEN SUPPLY_CHAIN MANAGEMENT -> GREEN_REPUTATION	0.811	0.811	0.032	24.983	0.000
GREEN SUPPLY_CHAIN MANAGEMENT -> JUST IN TIME	0.845	0.845	0.022	38.346	0.000
GREEN SUPPLY_CHAIN MANAGEMENT x GREEN_REPUTATION -> BUSINESS _PERFORMANCE	-0.042	-0.030	0.084	0.500	0.617
GREEN SUPPLY_CHAIN MANAGEMENT x JUST IN TIME -> BUSINESS _PERFORMANCE	0.028	0.019	0.072	0.396	0.692
GREEN_REPUTATION -> BUSINESS _PERFORMANCE	0.125	0.145	0.099	1.266	0.206
JUST IN TIME -> BUSINESS _PERFORMANCE	0.402	0.393	0.085	4.708	0.000

The results of the path coefficient give information concerning the relationships between the constructs of the structural model. The results show that there is a high positive impact of Green Supply Chain Management (GSCM) on Business Performance (0.368, $p = 0.000$) and therefore, organizations that adopt environmentally sustainable supply chain practices are more likely to have better performance in organizations.

Mediation Analysis

Table 8

Mediation Analysis

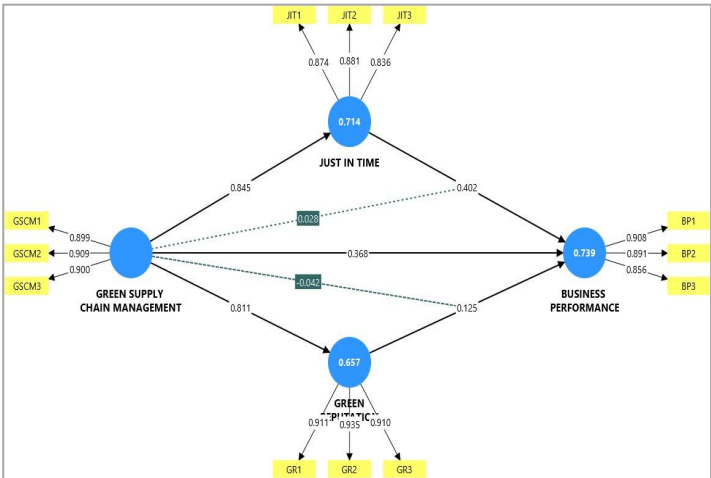
Specific indirect effects					
Mean, STDEV, T values, p values					
	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
GREEN SUPPLY_CHAIN MANAGEMENT -> JUST IN TIME -> BUSINESS_PERFORMANCE	0.339	0.332	0.072	4.724	0.000
GREEN SUPPLY_CHAIN MANAGEMENT -> GREEN_REPUTATION -> BUSINESS_PERFORMANCE	0.102	0.119	0.083	1.225	0.221

The specific indirect effects analysis was carried out to investigate the mediating effect of Just-in-Time (JIT) and Green Reputation (GR) between Green Supply Chain Management (GSCM) and Business Performance (BP). The findings show that GSCM -JIT -BP does exert a positive and significant relationship ($\beta = 0.339$, $t = 4.724$, $p = 0.000$), thus showing that Just-in-Time does mediate the relationship between the green supply chain management and the business performance. This implies that the use of green supply chain practices by organizations enhances their operational efficiency by applying the Just-in-Time systems that in turn boost business performance. Conversely, a positive but not statistically significant relationship exists between GSCM and the Green Reputation and BP, ($\beta=0.102$, $t = 1.225$, $p = 0.221$) that is, the mediation of the relationship between green supply chain management and business performance through Green Reputation is not found.

PLS SEM

Figure 3

PLS SEM



The findings of the structural model demonstrate the connections between the concept of Green Supply Chain Management (GSCM), the concept of Just-in-Time (JIT), the concept of Green Reputation (GR), and the concept of Business Performance (BP). The results reveal that the positive impact of Green Supply Chain Management on Just-in-Time is significant and strong ($\beta = 0.845$), which implies that the operational efficiency and inventory management systems of the organization that applies the environmentally sustainable supplies chain practices are improved. On the same note, GSCM is also significantly positively correlated with Green Reputation ($\beta = 0.811$) meaning that companies implementing green supply chain programs promote their image and corporate sustainability reputation. The model has a strong explanatory capacity as shown by its R^2 values, Just-in-Time ($R^2 = 0.714$) and Green Reputation ($R^2 = 0.657$) model is significant in explaining the variance, this is because green supply chain practices are significant in contributing to the improvement of both the operational system and the environmental reputation.

Model Fitness

Table 9

Model Fitness

Model fit		
Fit summary		
	Saturated model	Estimated model
SRMR	0.056	0.068
d_ULS	0.242	0.362
d_G	0.253	0.283
Chi-square	554.767	589.723
NFI	0.864	0.855

The results of model fit show that the proposed structural model has an acceptable overall fit. The Standardized Root Mean Square Residual (SRMR) values of the saturated (0.056) and the estimated model (0.068) are less than the recommended standard of 0.08 meaning that there is a good fit to the model and the difference between observed and the predicted correlation is therefore not that large. Likewise, the d_ULS (0.242) and d (0.362) of saturated and estimated models respectively are not high meaning that there is very little difference between the model implicated covariance matrix and empirical covariance matrix. The saturated and the estimated models giving Chi-square of 554.767 and 589.723 respectively are further an indication of the overall estimation of the model. Also, the Normed Fit Index (NFI) of 0.864 and 0.855 have values near the ideal value of 0.90 which indicates a fairly good fit of the model.

Discussion

The current research was to analyze the effects of the Green Supply Chain Management (GSCM) on Business Performance as well as exploring the mediating effects of Just-in-Time (JIT) and Green Reputation in the organizational environment. The results indicate that GSCM has a direct and indirect positive impact on business performance by means of its operations. In particular, the outcomes show that GSCM has a positive impact on JIT and Green Reputation, whereas JIT has a significant contribution to the business performance. The current model however does not demonstrate statistically significant effect of Green Reputation on business performance. Theoretically, such findings add to the sustainability and supply chain management theories by adding to the argument that the environmentally oriented supply chain practices are closely correlated with the operational

efficiency and organizational results. Javed et al. (2026) and Li and Zhang (2024) reached similar conclusions and recommended green supply chain initiatives to enhance the competitiveness of firms because they lead to better resource management and operational efficiency.

Conclusion

This paper explored the effects of the Green Supply Chain Management (GSCM) on Business Performance as it assessed the functions of Just-in- Time (JIT) and Green Reputation in the organizational structure. The findings show that GSCM is a considerable business performance boost and it has a powerful impact on both business practices and the environmental image. Particularly, the results indicate that the organizations that adopt green supply chain practices enhance operational efficiency with the aid of Just-in-Time systems that, in turn, result in the increased levels of organizational performance. These findings support the increasing literature on sustainability studies that environmentally friendly supply chain practices do not merely lead to environmental conservation but also create substantial operational and economic returns on organizations. Same conclusions have been made by Javed et al. (2026), Karakaş-Kelten et al. (2026) and Li and Zhang (2024), who highlighted that sustainable supply chain efforts enhance resource efficiency and competitive advantage.

Future Research Directions

Despite the fact that the current research offers some crucial information on the connection between Green Supply Chain Management (GSCM), Just-in-Time (JIT), Green Reputation, and Business Performance, there are some opportunities that can be exploited in future studies. First, the research model can be developed in the future through adding new theoretical lenses and variables that can elaborate more on sustainable organizational performance. As an illustration, scholars can combine the models like dynamic capabilities theory or resource-based view to enhance their comprehension of the way companies build competitive advantages based on the sustainability activities. The recent findings of Javed et al. (2026), Junejo et al. (2025), and Ali and Hamid (2024) indicate that sustainability practices tend to be connected with such organizational capabilities as innovation, digital transformation, and technological adoption. The need to integrate sustainability activities with strategic capabilities to promote firm performance is also highlighted in the previous literature, like Nureen et al. (2023) and Holling and Backhaus (2023).

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