SUSTAINABLE SUPPLY CHAIN MANAGEMENT AND ORGANIZATIONAL PERFORMANCE: THE MEDIATING EFFECTS OF COMPETITIVE ADVANTAGE

Lawal Hussaini BK
Department of Business Administration and Management,
Federal Polytechnic, Daura, Katsina State.
hussainibklawal@gmail.com

Yushau Kassim Shika, Ph.D
Department of Accountancy,
Federal Polytechnic, Daura, Katsina State.
kassimyushau@gmail.com; yushaukassimshika@fedpolydaura.edu.ng

Saifullahi Abdullahi Mazadu, Ph.D
Department of Procurement and Supply Chain Management,
Kaduna State University, Kaduna.
hanan4dad@gmail.com; saifullahiabdullahi@kasu.edu.ng

Corresponding Author: saifullahiabdullahi@kasu.edu.ng
DOI: https://doi.org/10.57233/ijamer.v2i1.07

Article Information: Received: 01/02/2026 Revised: 02/18/2026 Accepted: 04/24/2026

To Cite this Article: Lawal, H. B., Kassim, Y. S., & Mazadu, S. A. (2026). Sustainable supply chain management and organizational performance: The mediating effects of competitive advantage. *International Journal of Accounting, Management and Economic Review, 2(1)*. https://doi.org/10.57233/ijamer.v2i1.07

Abstract
This study investigates how sustainable supply chain management (SSCM) influences organizational performance and competitive advantage in Nigeria's manufacturing sector by collecting and examining data from Nigerian manufacturing industries. Descriptive and causal research approaches are used in this quantitative study. Sample size consist of 221 respondents (made up of managers and supervisors in the manufacturing sector), were given questionnaires directly in order to gather the data of the study. SPSS Software was used to analyze the data. Findings of the research show that, SSCM has a positive and significant impact on organizational performance and competitive advantage. Furthermore, statistical results demonstrate the link between organizational effectiveness and competitive advantage. Moreover, competitive advantage negatively influences the link between SSCM and Operational Performance (OP). The regression results imply that successfully deploying SSCM can boost competitive advantage and OP. The study contributes practically and theoretically by offering actual data on how organizational performance and competitive advantage are affected by sustainable supply chain management (SSCM) in emerging markets' manufacturing sectors. The research being cross-sectional in nature, the results obtained from this study may not be generalize to other economic sectors

Keywords: Operational performance, competitive advantage, mediation effect, manufacturing firms

1.0 Introduction

Recently, supply chain management has been significant improvements partially due to how crucial it has become in a number of domains. However, due to a huge amount of anxiety regarding waste and its disposal, increased emissions, and the depletion of natural resources which has been linked to SCM operations which has also been linked to the expansions seen in SCM (Brandenburg et al., 2019). SCM has been linked closely to environmental concerns due mainly to how involved it is in corporate operations and process which have a direct impact on the environment. These

include acquisition, manufacturing and distribution (Rajeev et al., 2017). Most companies at the moment are engaged in at least one aspect of supply chain, and how these companies handle supply networks can potentially reduce the adverse environmental impacts and advance environmental conservation (Ashby et al., 2012).

Thus, it can be seen that SCM is important factor in environmental protection (Amofa et al., 2023). There has been also a major increase in demand for environmentally justifiable products and serviced especially by stakeholders, customers and governmental agencies due to environmental challenges, resource shortages and degradation of living environment (Abbas et al, 2024). These increased demands have led companies to make certain changes to their otherwise conventional supply chains by incorporating sustainable inputs and moving towards sustainable supply chains (Lotfi et al., 2023). This has allowed for the design and implementation of services that are more environmentally friendly (Attia, 2023).

Lofti et al (2023) has shown that the continued push for environmentally sustainable agenda has encouraged industrial companies across the globe to consider environmental problems and recognize requirements for a safer environment, thus, showing a reasonable approach to sustainability. Chaurasiya and Singh (2024) on the other hand have found that there is an increase in the number of manufacturing companies that have applied one or more sustainable practices through their supply chains due to the increased awareness of environmental concerns. Thus, it can be seen that a lot of manufacturing firms have adopted or are in the process of adopting SSCM practices, with the aim of having minimal effect on society and the environment (Abbas et al., 2024). Some of the proactive and boundary-pushing practices include, sustainable procurement (Carter & Easton, 2011), sustainable production (Seuring & Gold, 2013), environmental conservation, supplier collaboration, green product design and warehousing, logistic optimization and reverse logistics (Mukhsin & Suryanto, 2022). To achieve the desired goal, all essential components of the supply chain i.e. manufacturers, suppliers and customers must work closely together (Ullah, 2023).

There has been a substantial interest in SSCM especially by researchers (Fu et al., 2022). Rajeev et al., (2017) carried out a literature review on sustainability chain sustainability. They found that a limited number of studies have actually studied all the three facets of sustainability. Also, the study found that advanced economies are primarily the focus of research on sustainable supply chain management. Pereira et al., (2023) explained that emerging economies present a unique avenue for similar researches. As such, developing countries drive towards sustainable development has generated academic curiosity regarding sustainable supply chain management. Govindan et al (2020) studied the relationship between supply chain sustainability and firm performance. Unlike the service industries, the study found a stronger correlation between sustainability and business performance in manufacturing sector. Islam et al (2018) looked ta how sustainable procurement (SP) influences performance of an organization. The study found a significant impact of integrated strategic planning process and financial prosperity of the entity. Baah & Jin (2019) looked at the impact of sustainable supply chain management on logistics organization. The study found that sustainable supply chain management improves organizational performance and competitive advantages.

There has however been a limited interest in researching perspectives of sustainable supply chain management in a dynamic corporate environment (Fu et al., 2022, & Shekarian et al., 2022). Most researches on sustainability supply chain management only focused on industrialized economies,

with limited attention on emerging economies. (Govindan et al., 2020; Jia et al., 2018; Kipo-Sunyehzi 2023). Each economy has a number of distinct attributes, especially when looking at it from either developed or less developed economies (Kipo-Sunyehzi, 2023 & Paprotny, 2021). Thus, it's uncanny to anticipate that the same strategies that were successful in developed countries would be effective in developing nations.

This study is unique in a number of ways. Firstly, it focuses on Nigeria which has the largest population in the continent and an emerging economy. Secondly, the authors weren't able to find any other study that looks at the impact of sustainable supply chain management on organizational performance in Nigerian Manufacturing Industry. The study makes use of quantitative methodologies, primarily focusing on causal and descriptive approaches in examining the impact of sustainable supply chain management on organizational performance and the mediating role of competitive advantages in Nigerian Manufacturing Firms. The main objective of the study is to examine the mediatingrole (if any) of competitiveadvantage on the impactof sustainablesupplychainmanagement andorganizational performance of Nigerian manufacturingfirms.

2.0 Literature Review

Sustainable Supply Chain Management (SSCM)

The role played by SCM globally is crucial thus necessitating a vivid examination which highlights its member's interdependencies (Reefke & Sundaram, 2017). Thus, business that have properly managed their supply chain have reached conclusions on how to effectively manage or recover from major international threats (Rajeev et al., 2017). As such, SCM has taken the next step by focusing on increasingly complicated situations, focusing on economic gains and sustainable development in operations (Liu et al., 2017).

Thus, researchers as well as managers have increased their interest in SSCM (Köksal et al., 2017). Furthermore, SSCM methods are taking center stage especially in manufacturing industry and their impact on long term development (Ahi & Searcy, 2013). As such, the need for enterprises to meet sustainability and advance supply chain performance has led to a three dimensional approach to operations i.e. economic, social and environmental.

Ahi and Searcy (2013) defined SSCM as "The creation of coordinated supply chainsthrough the voluntary integrationofeconomic,environmental, and social considerations with material, information,and capital flowsconnected with the acquisition, production, anddistribution of products or services are managed efficiently and effectively throughmajor inter-organizationalbusiness systems in order to meet stakeholderrequirementsandimprove theorganization's profitability, competitiveness,andresilience over the short and long term". Gold et al. (2013) on the other hand studied how the sustainable objectives of multinational corporations in developing nations are impacted by supply chain management. Jia et al (2018) attempted to address the deficiency in operations management research by looking at the practices of SSC in global supply chains supported by developing countries. Moktadir et al (2018) on the other hand found a number of obstacles or bottlenecks that impede the implementation of environmentally responsible procedures within the leather processing industry in Bangladesh. The study looked at how these obstacles associate to hinder sustainable chain development.

Competitive Advantage

Comparative advantage (CA) is a process of implementing a unique strategy that other organizations do not already utilize. These strategies lead to reduced costs, the taking advantage of business opportunities and reducing competitive problems (Abbas et al., 2024; Kuo 2017). Attracting new clients and maintaining existing clientele is nearly impossible without an organization having a distinctive competitive advantage. Also, without a consistent or returning customer base, a business cannot produce continuous revenue (Al-Sulaiti et al., 2023; Petera et al., 2021). Kenyon and Sen (2015) explain that any firm without a competitive advantage or two that sets it apart from its competitors would ultimately face failure. The quality of the product as well as the services rendered is important in securing competitive advantage. The principle of competitive advantage necessitates a company to produce superior products at competitive prices (Baah & Jin 2019). A lot of organizations have shown a significant correlation between firms competitive advantages and performance, which translates into firm success.

Organizational Performance

Organizational performance refers to measuring the company's achievements within a specific timeframe, which has led to advantageous outcomes (Attia, 2023). The main reason why the achievements of a firm are evaluated is to get some vital information about the usage of organizational resources (Abbas et al., 2023; Musau, 2020). Financial performance involves quantitatively assessing a company's strategy and activities especially regarding monetary outcomes (Abbas et al., 2024). Some of the most common metrics used to evaluate a company's financial performance are return on assets and return on investment. Mukhsin & Suryanto (2022) explained that organizational performance measured the extent an operation accomplished its objective and fulfills clients' requirements. Finally, Attia (2023) stated that organizational performance refers to the efficiency of an entity in achieving its financial and market-driven objectives.

Sustainable Supply Chain Management and Organizational Performance

The SSCM indicators play are crucial rolesand significantly influence the company'ssuccess (Hamdy et al., 2018; Zhu et al., 2012).Themethodsused tocreate products, manage supplier relationships,produceanddistribute, plan and control, buy,and ensure the quality ofinformationaresome of theelements thataffectefficientSSCM (Mukhsin & Suryanto, 2022).Kot (2018) is of the opinion that SSCM practices positivelyimpact anorganization's performanceissupportedbypreviousstudies. This deduced that companiesthat adopt SSCMaremore likelyto achievebetter market andfinancialresults. The improvement is attributed to their ability to may have cut costs and attractenvironmentallyconcernedcustomers (Sharma & Singla, 2021; Iorember et al., 2023).Numerousscholars claim that supply chain and organizationalperformance will beenhancedbyorganizationsthatapply and control the following concepts: ethical purchasing, sustainable supplier partnerships, environmentally friendly product design, resilient distribution, and logistics optimization, among others (Yang & Wang 2023, Das & Hassan, 2022). Thus, SSCM practices are proven to predict organizational performance.

H_{01}: SSCM practices positively and significantly affect organizational performance in the Nigerian manufacturing firms.

Sustainable Supply Chain and Competitive Advantage

Some experts such as Mugoni et al. (2024) found that sustainable supply chain results in more favorable long-term performance through improved environmental risk management. Abuzawida et al. (2023) and Hamdy et al. (2018) explained that the realization and expansion of competencies for relentless environmental enhancement result in improved business reputation. Also, companies can potentially improve their reputation by encouraging their supply chain partners to consider either sustainable logistics operations (Baah and Jin, 2019), green product design (Lokesh et al., 2017), reducing waste (Cahyono et al., 2023), and energy consumption in the supply chain (Shah et al., 2023).Other specific SSCM indicators, for instance supplier collaboration (Dai et al., 2021), good communication and customer connections (Attia, 2023), impact competitive advantage indicators like pricing, product innovation, quality, time to market, and delivery reliability (Mukhsin & Suryanto, 2022). This shows that using a good SSCM can boost a firm's competitive advantage (Khaddam et al., 2020). The subsequent hypothesis is formulated based on the summary mentioned above.

H_{02}: SSCM practices positively and significantly affectcompetitiveadvantage in the Nigerianmanufacturingfirms.

Competitive Advantage and Organizational Performance

Li et al. (2026) stated that havinga competitive advantage enhancesorganizational success. Findings by Das and Hassan (2022) support a direct impact of competitive advantage of organizational performance. CA is based on a firm's ability to attract customers and develop a positive image for itself and its products as well as improve the levels of fulfillment by customers and the perceived value they receive (Yang & Wang, 2023). Moshood et al (2019) explained that competitive advantage often means having reduced costs/price compared to your customers while Cahyono (2023) believes the advantage emanates from improved quality, increased dependability and expedited delivery time. Based on these factors, organizational overall performance is expected to increase (Kuo et al., 2017). Talib et al (2022) explained that firms should be able to leverage their advantages in other to ensure satisfactory performance. Panigrahi et al., (2019) explained that competitive advantages favorably influence organizational performance as such outperforms its competitors. Furthermore, competitiveadvantage mediates SSCM and Organizational Performance connections (Das & Hassan, 2022).From this standpoint,the followinghypotheses wereformulated:

H_{03}: Competitiveadvantage positive and significantlyaffects organizational performance intheNigerianmanufacturingfirms.

H_{04}: Competitive advantage significantlymediates between SSCMand organizationalperformancein theNigerianmanufacturingfirms.

The Resource-Based View (RBV) was originally propounded by Birger Wernerfelt in 1984 and was further developed by Jay Barney in 1991. The theory was introduced to explain how firms achieve sustained competitive advantage and superior organizational performance through the effective utilization of internal resources and capabilities. The central objective of the Resource-Based View is to emphasize that a firm's internal resources, when they are valuable, rare, inimitable, and non-substitutable, can serve as strategic assets that enable organizations to outperform competitors and achieve long-term sustainability. RBV therefore shifts attention from

external market positioning to the internal strengths and capabilities of firms as the key drivers of performance and competitiveness.

Within the context of sustainability and supply chain management, the Resource-Based View provides a theoretical explanation for how environmentally responsible practices can serve as strategic capabilities that enhance organizational performance. Sustainable procurement practices, including green purchasing, renewable energy utilization, and green logistics, represent internal organizational competencies that enable firms to manage resources more efficiently while minimizing environmental impact. By adopting environmentally responsible procurement policies, firms develop operational capabilities that reduce waste, improve energy efficiency, and enhance environmental stewardship within their production processes and supply chain activities.

In relation to the present study, the Resource-Based View explains how healthcare firms in Nigeria can leverage sustainable procurement practices as strategic resources to improve environmental performance. Healthcare organizations that invest in green purchasing systems, adopt renewable energy sources, and implement environmentally friendly logistics operations are able to optimize resource utilization and reduce environmental degradation associated with industrial activities. These practices not only enhance operational efficiency but also strengthen the firm's environmental responsibility and sustainability performance.

Therefore, the Resource-Based View provides a strong theoretical foundation for the present study because it explains how internal organizational capabilities in sustainable procurement can influence environmental performance outcomes. Specifically, green purchasing, renewable energy utilization, and green logistics can be viewed as valuable strategic resources that enable healthcare firms in Nigeria to achieve improved environmental performance through efficient resource management, reduced pollution, and sustainable supply chain operations.

3.0 Method and Data

This study adopts a quantitative research approach to examine the relationships among the key variables. Sustainable supply chain management serves as the independent variable, competitive advantage as the mediating variable, and organizational performance as the dependent variable. The study operationalizes its variables using measurable indicators derived from prior research. Data were collected using structured questionnaires. SSCM is measured using indicators such as environmental conservation, supplier collaboration, green product design, logistics optimization, and material reuse. Competitive advantage is assessed based on pricing, product quality, innovation, reliability, and time-to-market. Organizational performance is evaluated using indicators such as sales growth, market share, profitability, return on investment, and operational efficiency.

The questionnaire consisted of two sections: demographic information and variable measurement. The second section utilized a five-point Likert scale ranging from strongly disagree (1) to strongly agree (5). Measurement items were adapted from previous studies and modified to suit the research context.

Sample Design and Data Collection

A multistage sampling technique was employed. The study targeted manufacturing firms that have operated for at least five years. Questionnaires were distributed to managers and supervisors, resulting in 221 valid responses out of 300 distributed, representing a response rate of 73.7%. Data collection involved direct distribution and follow-up through calls and emails. SPSS was used for data analysis.

Data presentation

This chapter presents the analysis of data collected from respondents in the Nigerian manufacturing sector. The analysis was conducted using SPSS (Statistical Package for Social Sciences). Descriptive statistics, reliability analysis, correlation, and regression analysis were employed to test the hypotheses.

Response Rate

Out of 300 questionnaires distributed, 221 were returned and valid.

Table 1

Response Rate

Description	Frequency	Percentage (%)
Distributed Questionnaires	300	100
Returned Questionnaires	221	73.7
Not Returned	79	26.3

Source: Authors Compilation, 2026.

The response rate presented in Table above, indicates that out of 300 questionnaires distributed, 221 were successfully completed and returned, representing a response rate of 73.7%, while 26.3% were not returned. This high response rate is considered adequate for statistical analysis and enhances the credibility of the findings. According to Hair et al. (2019), a response rate above 60% is generally acceptable in social science research and ensures that the sample is representative of the population. The high participation level in this study suggests that respondents were sufficiently engaged and interested in the subject matter, thereby reducing the likelihood of non-response bias. Furthermore, the reliability of survey-based research largely depends on obtaining a sufficient number of valid responses, and the achieved response rate strengthens the generalizability of the findings within the Nigerian manufacturing sector.

Table 2

Gender Distribution

Gender	Frequency	Percentage (%)
Male	140	63.3
Female	81	36.7
Total	221	100

Source: Authors Compilation, 2026.

Table above reveals that 63.3% of the respondents were male, while 36.7% were female. This distribution indicates that male employees dominate the manufacturing sector, although female participation remains considerable. This finding aligns with previous studies that suggest that manufacturing industries, particularly in developing countries, tend to be male-dominated due to the technical and operational nature of the jobs (Mukhsin & Suryanto, 2022). However, the presence of a substantial proportion of female respondents enhances the inclusiveness of the data and ensures that diverse perspectives are captured. Gender diversity in organizational research is important because it influences decision-making processes and organizational outcomes (Abbas et al., 2024). Therefore, the distribution in this study provides a balanced view of respondents' opinions regarding sustainable supply chain practices and organizational performance.

Table 3
Descriptive Statistics of Variables

Variable	N	Mean	Std. Deviation
SSCM	221	3.87	0.64
Competitive Advantage	221	3.75	0.59
Organizational Performance	221	3.92	0.61

Source: SPSS Output 2026.

The descriptive statistics presented show that Sustainable Supply Chain Management (SSCM) has a mean score of 3.87, Competitive Advantage has a mean of 3.75, and Organizational Performance has a mean of 3.92. These mean values, which are above the midpoint of the Likert scale, indicate that respondents generally agree that their organizations implement SSCM practices and experience improved competitive advantage and performance. The relatively low standard deviation values (all below 1) suggest that there is a high level of consistency in the responses, meaning that most respondents share similar perceptions. This finding supports the argument by Attia (2023) that organizations increasingly adopt sustainable practices, which positively influence performance outcomes.

Table 4
Reliability Statistics (Cronbach's Alpha)

Variable	No. of Items	Cronbach's Alpha
SSCM	5	0.88
Competitive Advantage	5	0.86
Organizational Performance	5	0.89

Source: SPSS Output 2026.

The reliability analysis results, showing Cronbach's alpha values of 0.88 for SSCM, 0.86 for Competitive Advantage, and 0.89 for Organizational Performance. These values exceed the recommended threshold of 0.70, indicating strong internal consistency among the measurement items. According to Taber (2018), a Cronbach's alpha value above 0.70 signifies that the items used in a scale are reliable and measure the same underlying construct. The high reliability scores in this study imply that the questionnaire items were well-structured and capable of capturing the

intended variables accurately. This enhances the validity of the study findings and ensures that the conclusions drawn are based on dependable data. Furthermore, reliable measurement instruments are essential in quantitative research because they minimize measurement errors and improve the robustness of statistical analysis (Hair et al., 2021).

Table 5
Correlation Matrix

Variable	SSCM	CA	OP
SSCM	1		
CA	0.652**	1	
OP	0.701**	0.689**	1

Source: SPSS Output 2026.

The correlation matrix in shows strong and positive relationships among SSCM, Competitive Advantage, and Organizational Performance. Specifically, SSCM is positively correlated with Competitive Advantage (r = 0.652) and Organizational Performance (r = 0.701), while Competitive Advantage is also positively correlated with Organizational Performance (r = 0.689). All correlations are statistically significant at the 0.01 level, indicating that the relationships are not due to chance. These findings are consistent with prior research, which suggests that sustainable supply chain practices enhance both competitive advantage and organizational performance (Baah & Jin, 2019). The strong correlation between SSCM and performance implies that firms that adopt sustainable practices tend to achieve better outcomes in terms of efficiency, profitability, and market share. Additionally, the positive relationship between competitive advantage and performance supports the view that firms with superior capabilities are better positioned to succeed in competitive markets (Kuo et al., 2017). Overall, the correlation results provide initial support for the study hypotheses.

Table 6
Model Summary

R	R^2	Adjusted R^2	Std. Error
0.701	0.491	0.488	0.42

Source: SPSS Output 2026.

The model summary indicates an R value of 0.701, which reflects a strong relationship between SSCM and organizational performance. The R^2 value of 0.491 suggests that approximately 49.1% of the variation in organizational performance is explained by SSCM. This implies that SSCM is a significant predictor of performance, although other factors also contribute to performance outcomes. According to Hair et al. (2019), an R^2 value close to 0.50 is considered moderate to strong in social science research. This finding supports the argument that sustainable supply chain practices play a crucial role in enhancing organizational performance by improving efficiency and reducing costs (Sharma & Singla, 2021). Therefore, the model demonstrates that SSCM is an important determinant of firm success in the manufacturing sector.

Table 7
ANOVA

Source	SS	df	MS	F	Sig.
Regression	85.34	1	85.34	121.56	.000
Residual	88.76	219	0.41		
Total	174.10	220			

Source: SPSS Output 2026.

The ANOVA results show that the regression model is statistically significant, with an F-value of 121.56 and a p-value less than 0.001. This indicates that the model provides a good fit for the data and that SSCM significantly predicts organizational performance. According to Field (2018), a significant ANOVA result implies that the independent variable has a meaningful impact on the dependent variable. The high F-value further confirms the strength of the relationship between SSCM and performance. This finding is consistent with previous studies that highlight the importance of sustainable supply chain practices in improving organizational outcomes (Das & Hassan, 2022). Therefore, the ANOVA results validate the regression model used in this study.

Table 8
Effect of SSCM on Competitive Advantage
Coefficients

Variable	B	Std. Error	Beta	t	Sig.
SSCM	0.652	0.058	0.652	10.45	.000

Source: SPSS Output 2026.

The results in Table 4.9 indicate that SSCM has a significant positive effect on competitive advantage ($\beta = 0.652$, $p < 0.001$). This suggests that firms that implement sustainable supply chain practices are more likely to gain a competitive edge in terms of cost efficiency, product quality, and innovation. This finding aligns with the argument by Khaddam et al. (2020) that effective supply chain management enhances a firm's ability to compete in the market. By adopting sustainable practices, organizations can differentiate themselves from competitors and improve their market position.

Effect of Competitive Advantage on Organizational Performance
Table 9
Coefficients

Variable	B	Std. Error	Beta	t	Sig.
CA	0.689	0.061	0.689	11.30	.000

Source: SPSS Output 2026.

Table above shows that competitive advantage significantly influences organizational performance ($\beta = 0.689$, $p < 0.001$). This implies that firms with higher competitive advantage tend to achieve better performance outcomes. This finding supports the theory that competitive advantage is a key determinant of organizational success (Kuo et al., 2017). Firms that offer superior products, lower costs, and faster delivery are more likely to outperform their competitors. Therefore, competitive advantage serves as a critical factor in enhancing organizational performance.

Mediation Analysis (Hierarchical Regression)

Table 10
Mediation Result

Model	Predictor	Beta	Sig.
Model 1	SSCM → OP	0.701	.000
Model 2	SSCM → OP (with CA)	0.412	.000
	CA → OP	0.445	.000

Source: SPSS Output 2026.

The mediation analysis shows that the effect of SSCM on organizational performance decreases from 0.701 to 0.412 when competitive advantage is introduced into the model, while competitive advantage remains significant ($\beta = 0.445$, $p < 0.001$). This indicates partial mediation, meaning that SSCM affects performance both directly and indirectly through competitive advantage. According to Baron and Kenny (1986), partial mediation occurs when the independent variable still has a significant effect on the dependent variable after including the mediator. This finding suggests that while SSCM directly improves performance, part of its effect is transmitted through competitive advantage. This result is consistent with Baah and Jin (2019), who

5.0 Conclusion and Recommendations

This study examined the relationship between sustainable supply chain management and organizational performance, with competitive advantage as a mediating variable. The findings confirm that SSCM significantly improves both performance and competitive positioning. Additionally, competitive advantage plays a crucial role in enhancing firm outcomes and partially mediates the relationship between SSCM and performance. Overall, the results highlight the importance of adopting sustainable supply chain practices as a strategy for achieving long-term organizational success.

Recommendations

Manufacturing firms should prioritize the adoption of sustainable supply chain practices to enhance performance outcomes. Investment in innovation and technology is essential for strengthening competitive advantage. Management should also provide adequate support for sustainability initiatives and ensure that employees are properly trained. Furthermore, government policies and incentives can encourage firms to adopt sustainable practices. Organizations should also implement monitoring systems to continuously evaluate and improve their sustainability efforts.

Reference

Abbas, J., Balsalobre-Lorente, D., Amjid, M. A., Al-Sulaiti, K., Al-Sulaiti, I., & Aldereai, O. (2024). Financial innovation and digitalization promote business growth: The interplay of green technology innovation, product market competition, and firm performance. *Innovation and Green Development, 3*(1), 100111. https://doi.org/10.1016/j.igd.2023.100111

Abuzawida, S. S., Alzubi, A. B., & Iyiola, K. (2023). Sustainable supply chain practices: An empirical investigation from the manufacturing industry. *Sustainability, 15*(19), Article 14395. https://doi.org/10.3390/su151914395

Ahi, P., & Searcy, C. (2013). A comparative literature analysis of definitions for green and sustainable supply chain management. *Journal of Cleaner Production, 52*, 329-341. https://doi.org/10.1016/j.jclepro.2013.02.018

Al-Sulaiti, K., Abbas, J., & Al-Sulaiti, I. (2023). Resetting the hospitality redux through country-of-origin effects: Role of tourism, culture, transportation, and restaurant selection in Arab countries. In *Country of origin effects* (pp. 193-218). Qatar University Press.

Amofa, B., Oke, A., & Morrison, Z. (2023). Mapping the trends of sustainable supply chain management research: A bibliometric analysis of peer-reviewed articles. *Frontiers in Sustainability, 4*, Article 1129046. https://doi.org/10.3389/frsus.2023.1129046

Ashby, A., Leat, M., & Hudson-Smith, M. (2012). Making connections: A review of supply chain management and sustainability literature. *Supply Chain Management: An International Journal, 17*(5), 497–516. https://doi.org/10.1108/13598541211258573

Attia, A. (2023). Effect of sustainable supply chain management and customer relationship management on organizational performance in the Egyptian textile industry. *Sustainability, 15*(5), Article 4072. https://doi.org/10.3390/su15054072

Baah, C., & Jin, Z. (2019). Sustainable supply chain management and organizational performance: The mediating role of competitive advantage. *Journal of Management and Sustainability, 9*(1), 119-131. https://doi.org/10.5539/jms.v9n1p119

Brandenburg, M., Gruchmann, T., & Oelze, N. (2019). Sustainable supply chain management: A conceptual framework and future research perspectives. *Sustainability, 11*(24), Article 7239. https://doi.org/10.3390/su11247239

Cahyono, Y., Purwoko, D., Koho, I. R., Setiani, A., Supendi, S., Setyoko, P. I., Sosiady, M., & Wijoyo, H. (2023). The role of supply chain management practices on competitive advantage and performance of halal agroindustry SMEs. *Uncertain Supply Chain Management, 11*(1), 153-160. https://doi.org/10.5267/j.uscm.2022.10.012

Carter, C. R., & Easton, P. L. (2011). Sustainable supply chain management: Evolution and future directions. *International Journal of Physical Distribution & Logistics Management, 41*(1), 46-62. https://doi.org/10.1108/09600031111101420

Chaurasiya, S., & Singh, G. (2024). Exploring sustainable manufacturing: A comprehensive review of literature and practices.

Dai, J., Xie, L., & Chu, Z. (2021). Developing sustainable supply chain management: The interplay of institutional pressures and sustainability capabilities. *Sustainable Production and Consumption, 28*, 254-268. https://doi.org/10.1016/j.spc.2021.04.017

Das, D. (2018). The impact of sustainable supply chain management practices on firm performance: Lessons from Indian organizations. *Journal of Cleaner Production, 203*, 179-196. https://doi.org/10.1016/j.jclepro.2018.08.250

Das, S., & Hassan, H. M. K. (2022). Impact of sustainable supply chain management and customer relationship management on organizational performance. *International Journal of Productivity and Performance Management, 71*(6), 2140-2160. https://doi.org/10.1108/IJPPM-08-2020-0441

Fu, Q., Rahman, A. A. A., Jiang, H., Abbas, J., & Comite, U. (2022). Sustainable supply chain and business performance: The impact of strategy, network design, information systems, and organizational structure. *Sustainability, 14*(3), Article 1080. https://doi.org/10.3390/su14031080

Govindan, K., Rajeev, A., Padhi, S. S., & Pati, R. K. (2020). Supply chain sustainability and firm performance: A meta-analysis. *Transportation Research Part E: Logistics and Transportation Review, 137*, 101923. https://doi.org/10.1016/j.tre.2020.101923

Hair, J. F., Risher, J. J., Sarstedt, M., & Ringle, C. M. (2019). When to use and how to report PLS-SEM results. *European Business Review, 31*(1), 2-24. https://doi.org/10.1108/EBR-11-2018-0203

Hair, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R*. Springer.

Hamdy, O. M. M., Elsayed, K. K., & Elahmady, B. (2018). Impact of sustainable supply chain management practices on Egyptian companies' performance. *European Journal of Sustainable Development, 7*(4), 119-130.

Islam, M. M., Turki, A., Murad, M. W., & Karim, A. (2017). Do sustainable procurement practices improve organizational performance? *Sustainability, 9*(12), 2281. https://doi.org/10.3390/su9122281

Jia, F., Zuluaga-Cardona, L., Bailey, A., & Rueda, X. (2018). Sustainable supply chain management in developing countries. *Journal of Cleaner Production, 189*, 263-278. https://doi.org/10.1016/j.jclepro.2018.03.248

Khaddam, A. A., Irtaimeh, H. J., & Bader, B. S. (2020). The effect of supply chain management on competitive advantage. *Uncertain Supply Chain Management, 8*(3), 547-562.

Kipo-Sunyehzi, D. D. (2023). Implementation research in developed and developing countries. *Public Organization Review, 23*(3), 1259-1273.

Köksal, D., Strähle, J., Müller, M., & Freise, M. (2017). Social sustainable supply chain management. *Sustainability, 9*(1), 100.

Kot, S. (2018). Sustainable supply chain management in SMEs. *Sustainability, 10*(4), 1143.

Kuo, S. Y., Lin, P. C., & Lu, C. S. (2017). Dynamic capabilities, service capabilities, and firm performance. *Transportation Research Part A, 95*, 356-371.

Liu, W., Bai, E., Liu, L., & Wei, W. (2017). A framework of sustainable service supply chain management. *Sustainability, 9*(3), 421.

Lotfi, R., Weber, G. W., & Tirkolaee, E. B. (2023). Recent advances in sustainable supply chain management. *Environmental Science and Pollution Research, 30*(39), 89943-89944.

Moktadir, M. A., Ali, S. M., Rajesh, R., & Paul, S. K. (2018). Modeling barriers to sustainable supply chain management. *Journal of Cleaner Production, 181*, 631-651.

Mukhsin, M., & Suryanto, T. (2022). The effect of supply chain management on company performance through competitive advantage. *Sustainability, 14*(3), 462.

Musau, E. G. (2020). Supply chain management and organizational performance among Kenyan textile firms. *International Journal of Management Value and Supply Chains, 11*(3), 17–28.

Panigrahi, S. S., Bahinipati, B., & Jain, V. (2019). Sustainable supply chain management: A literature review. *Management of Environmental Quality, 30*(5), 1001-1049.

Paprotny, D. (2021). Convergence between developed and developing countries. *Social Indicators Research, 153*(1), 1-20.

Pereira, M. M. O., Hendry, L. C., Silva, M. E., Bossle, M. B., & Antonialli, L. M. (2023). Sustainable supply chain management in emerging economies. *RAUSP Management Journal, 58*(3), 197-218.

Rajeev, A., Pati, R. K., Padhi, S. S., & Govindan, K. (2017). Evolution of sustainability in supply chain management. *Journal of Cleaner Production, 162*, 299–314.

Seuring, S., & Gold, S. (2013). Sustainability management beyond corporate boundaries. *Journal of Cleaner Production, 56*, 1-6.

Shah, S. A. R., Zhang, Q., Abbas, J., Tang, H., & Al-Sulaiti, K. I. (2023). Waste management and renewable energy. *Utilities Policy, 82*, 101584.

Sharma, E., & Singla, J. (2021). Sustainable supply chain practices and performance. *Operations and Supply Chain Management, 14*(4), 456-466.

Shekarian, E., Ijadi, B., Zare, A., & Majava, J. (2022). Sustainable supply chain management: A systematic review. *Sustainability, 14*(13), 7892.

Taber, K. S. (2018). The use of Cronbach's alpha in research. *Research in Science Education, 48*(6), 1273-1296.

Ullah, H. (2023). Green supply chain management and environmental performance. *International Journal of Economics and Commerce, 11*(1), 208-220.

Yang, X., & Wang, J. (2023). Sustainable supply chain management and firm performance. *Journal of Business & Industrial Marketing, 38*(3), 553-567.

Zhu, Q., Sarkis, J., & Lai, K. H. (2012). Green supply chain management and performance improvements. *International Journal of Production Research, 50*(5), 1377-1394.