SUPPLY CHAIN MANAGEMENT PRACTICES AND ORGANIZATIONAL PERFORMANCE OF MANUFACTURING FIRMS IN FCT-ABUJA, NIGERIA

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ABSTRACT

This study examines the effect of supply chain management practices on the organizational performance of manufacturing firms in the Federal Capital Territory (FCT), Abuja, Nigeria. Anchored on the Resource-Based View (RBV) of the firm (Barney, 1991), the research investigates how strategic supplier partnership, customer relationship management, information sharing, and outsourcing collectively and individually influence organizational performance measured through return on investment, market share growth, and sales performance. A quantitative, cross-sectional survey design was adopted, with primary data collected through structured questionnaires administered to 196 supply chain managers, operations directors, and senior procurement officers of manufacturing firms registered with the Manufacturers Association of Nigeria (MAN) in the FCT. Data were analysed using descriptive statistics, Pearson product-moment correlation, and multiple linear regression estimated via Ordinary Least Squares (OLS). The findings reveal that strategic supplier partnership ($\beta = 0.324$, $p < 0.001$), customer relationship management ($\beta = 0.289$, $p < 0.001$), information sharing ($\beta = 0.256$, $p < 0.01$), and outsourcing ($\beta = 0.158$, $p < 0.05$) all exert statistically significant positive effects on organizational performance. The model explains 62.1% of the variance in organizational performance (Adjusted $R^2 = 0.621$; $F = 34.82$, $p < 0.001$). The study concludes that supply chain management practices are critical determinants of organizational performance for manufacturing firms in the FCT and recommends that firms prioritise the development of strategic supplier partnerships, strengthen customer relationship management capabilities, invest in information technology for enhanced information sharing, and adopt a strategic approach to outsourcing. Policymakers are urged to invest in logistics infrastructure, provide supply chain capacity-building support, and create regulatory frameworks that facilitate supply chain integration in the manufacturing sector.

Keywords: Supply Chain Management, Organizational Performance, Manufacturing Firms, Strategic Supplier Partnership, Information Sharing, FCT-Abuja, Nigeria, Resource-Based View.

1. INTRODUCTION

The contemporary global business environment is characterised by intense competition, rapid technological advancement, volatile market conditions, and increasing customer expectations, all of which have compelled organisations to seek innovative strategies for achieving sustainable competitive advantage (Christopher, 2016; Mentzer, DeWitt, Keebler, Min, Nix, Smith, & Zacharia, 2001). Among these strategies, supply chain management (SCM) has emerged as a critical determinant of organisational success, particularly in the manufacturing sector where the efficient coordination of materials, information, and financial flows directly impacts operational and financial outcomes (Lambert, Cooper, & Pagh, 1998; Stock & Boyer, 2009). Supply chain management practices encompass a range of activities including supplier relationship management, customer relationship management, information sharing, and outsourcing, all of which collectively contribute to the seamless integration of supply chain processes and the

creation of value for end customers (Chopra & Meindl, 2019; Stadtler & Kilger, 2008).

In Nigeria, the manufacturing sector plays a pivotal role in economic growth and development, contributing approximately 10.2% to the Gross Domestic Product (GDP), generating over 1.5 million direct jobs, and serving as a catalyst for industrialisation and technological advancement (National Bureau of Statistics [NBS], 2023; Manufacturers Association of Nigeria [MAN], 2023). However, manufacturing firms in Nigeria face considerable challenges including inadequate infrastructure, unreliable power supply, poor road networks, multiple taxation, foreign exchange volatility, and limited access to long-term financing, all of which complicate supply chain operations and undermine organisational performance (MAN, 2023; Central Bank of Nigeria [CBN], 2023). These challenges are particularly acute in the Federal Capital Territory, Abuja, where manufacturing activities, though growing, operate within a context originally designed primarily for administrative and governmental functions rather than industrial production (FCT-Abuja Ministry of Commerce and Industry, 2022).

The Federal Capital Territory serves as a strategic hub for manufacturing activities in central Nigeria, housing numerous firms across various sub-sectors including food and beverage processing, cement and construction materials, consumer goods manufacturing, pharmaceutical production, and packaging (MAN, 2023). Despite the strategic importance of the FCT manufacturing sector, limited empirical research exists on the relationship between supply chain management practices and organisational performance specifically within this context. Most Nigerian SCM studies have focused on Lagos, the South-West, or the South-South regions (Adeyemi, Ogunyemi, & Oladipo, 2022; Okafor, Eze, & Nwankwo, 2021), leaving the FCT and North-Central region significantly underrepresented in the supply chain literature.

Previous studies have established positive relationships between supply chain management practices and organisational performance in various contexts. Research conducted in Ethiopia revealed significant relationships between quality of information sharing, supplier relationship management, and customer relationship management on organisational performance of manufacturing firms in the Hawassa Industrial Park (Addis Ababa University, 2025). Similarly, studies in Kenya demonstrated that strategic supplier partnership, customer relationship, and level of information sharing significantly influence organisational performance among large manufacturing firms in Nairobi (Mwale, 2025). In the Nigerian context, Egunlae (2024) showed that sustainable supply chain management practices, including reverse logistics and sustainable warehousing, contribute to increased sales and improved corporate image. Maiauduga and Ahmad (2026) found that supply chain traceability positively affects both environmental and operational performance of manufacturing companies in Northern Nigeria. However, the specific dynamics of supply chain management practices and their effects on organisational performance in the FCT-Abuja manufacturing sector remain underexplored.

This study addresses this gap by empirically examining the effect of four core supply chain management practices—strategic supplier partnership, customer relationship management, information sharing, and outsourcing—on the organisational performance of manufacturing firms in FCT-Abuja. The study is significant for multiple stakeholders. For manufacturing firms in the FCT, it provides evidence-based guidance on which supply chain practices yield the greatest performance returns. For policymakers, the Manufacturers Association of Nigeria, and the FCT Ministry of Commerce and Industry, it highlights areas where infrastructural and regulatory interventions are most needed. For academics, it extends the application of the Resource-Based View to the supply chain management context within a developing economy manufacturing sector.

The paper is structured as follows: Section 2 presents the literature review; Section 3 outlines the methodology; Section 4 reports the results and discussion; and Section 5 provides the conclusion and recommendations.

2. LITERATURE REVIEW

2.1 Theoretical Framework: The Resource-Based View (RBV)

This study is anchored on the Resource-Based View (RBV) of the firm, originally articulated by Penrose (1959) and formalised by Wernerfelt (1984) and Barney (1991). The RBV posits that a firm's competitive advantage stems from its possession of resources and capabilities that are Valuable, Rare, Inimitable, and Non-substitutable (the VRIN framework, later refined to VRIO by Barney, 1995). Unlike the external, industry-structure approach of Porter (1980), the RBV focuses on the internal heterogeneity of firms, arguing that differences in resource endowments and organisational capabilities explain variations in firm performance (Barney, 1991; Peteraf, 1993).

In the context of this study, supply chain management practices are conceptualised as organisational capabilities—that is, the firm's capacity to deploy, coordinate, and leverage its resources across supply chain boundaries to achieve desired performance outcomes (Teece, Pisano, & Shuen, 1997). Strategic supplier partnership represents the capability to build and sustain long-term collaborative relationships that generate relational capital; customer relationship management represents the capability to understand, anticipate, and respond to customer needs; information sharing represents the capability to generate, disseminate, and utilise supply chain intelligence; and outsourcing represents the capability to strategically configure the firm's value chain by leveraging external expertise (Barney, 1991; Srivastava, 2007).

According to the RBV, these supply chain capabilities become sources of sustained competitive advantage when they are valuable (they enable the firm to exploit market opportunities or neutralise competitive threats), rare (few competitors possess them at equivalent levels), inimitable (they cannot be easily replicated due to causal ambiguity, social complexity, or path dependence), and non-substitutable (no equivalent alternative exists) (Barney, 1991, 1995). For manufacturing firms in FCT-Abuja, the institutionalisation of supply chain management practices creates such VRIN resources because they are embedded in inter-organisational relationships, trust networks, proprietary information systems, and firm-specific coordination routines that competitors find difficult to replicate (Srivastava, 2007; Defee, Esper, & Mollenkopf, 2009).

Furthermore, the RBV aligns with the relational view extension proposed by Dyer and Singh (1998), which argues that competitive advantage can also reside in the relationships between firms rather than solely within individual firms. Strategic supplier partnerships and customer relationships generate "relational rents"—supernormal profits jointly generated by exchange partners that cannot be achieved by either firm in isolation (Dyer & Singh, 1998). This extension is particularly relevant to supply chain management, where value is co-created through collaboration, trust, and mutual investment among supply chain partners.

The RBV is selected as the sole theoretical framework for this study because it directly links internal firm-level capabilities (supply chain management practices) to competitive outcomes (organisational performance), which is the central concern of this research. While Transaction Cost Economics (Williamson, 1985) provides useful insights into outsourcing decisions, and Systems Theory offers a holistic view of supply chain integration, the RBV provides the most comprehensive and parsimonious explanation for why and how supply chain management practices translate into superior organisational performance (Barney, 1991; Srivastava, 2007; Defee et al., 2009).

2.2 Conceptual Review

2.2.1 Supply Chain Management

Supply chain management refers to the strategic coordination and integration of business processes across the supply chain, encompassing the flow of materials, information, and finances

from suppliers of raw materials through manufacturing and distribution to end customers (Mentzer et al., 2001; Christopher, 2016). Lambert, Cooper, and Pagh (1998) defined SCM as the integration of key business processes from end user through original suppliers that provides products, services, and information that add value for customers and other stakeholders. The concept has evolved significantly from a narrow focus on logistics and procurement to a comprehensive approach involving the management of relationships, information, and processes across organisational boundaries (Chopra & Meindl, 2019).

Supply chain management practices represent the specific activities and strategies implemented by organisations to achieve effective supply chain coordination and integration (Stadtler & Kilger, 2008). For this study, SCM practices are operationalised through four dimensions: strategic supplier partnership, customer relationship management, information sharing, and outsourcing.

2.2.2 Strategic Supplier Partnership

Strategic supplier partnership involves long-term collaborative relationships with key suppliers characterised by mutual trust, shared objectives, joint problem-solving, and mutual investment in relationship-specific assets (Carr & Pearson, 1999; Chen, Paulraj, & Lado, 2004). Unlike transactional buyer-supplier relationships focused on price negotiation, strategic partnerships emphasise value co-creation, knowledge exchange, and continuous improvement (Krause, Handfield, & Tyler, 2007). For manufacturing firms, strategic supplier partnerships ensure reliable material supply, improve input quality, reduce lead times, and facilitate joint innovation (Sako, 1992; Dyer & Singh, 1998).

2.2.3 Customer Relationship Management

Customer relationship management (CRM) encompasses strategies and systems for understanding and meeting customer needs, building loyalty, and creating superior value for customers (Payne & Frow, 2005; Boulding, Staelin, Ehret, & Johnston, 2005). In the supply chain context, CRM involves demand sensing, order fulfilment coordination, after-sales support, and the integration of customer feedback into production and supply planning (Mentzer, Min, & Zacharia, 2000). Effective CRM enables manufacturing firms to align production schedules with actual demand, reduce inventory costs, and build brand loyalty (Chopra & Meindl, 2019).

2.2.4 Information Sharing

Information sharing refers to the timely and accurate exchange of information among supply chain partners, including demand forecasts, inventory levels, production schedules, delivery status, and market intelligence (Li, Ragu-Nathan, Ragu-Nathan, & Subba Rao, 2006; Zhou & Benton, 2007). Effective information sharing reduces the bullwhip effect, improves coordination, enables faster response to market changes, and supports collaborative planning (Lee, Padmanabhan, & Whang, 1997; Fugate, Sahin, & Mentzer, 2006). In the manufacturing context, information sharing facilitates just-in-time production, reduces safety stock requirements, and improves delivery reliability (Zhou & Benton, 2007).

2.2.5 Outsourcing

Outsourcing involves the strategic delegation of non-core activities to external specialists, allowing organisations to focus resources on their core competencies while leveraging external expertise for ancillary functions (Quelin & Duhamel, 2003; Ellram, Tate, & Handfield, 2008). In manufacturing, outsourcing may include logistics and transportation, packaging, maintenance services, IT support, and certain production processes (Kakabadse & Kakabadse, 2005). From the RBV perspective, outsourcing enables firms to access complementary capabilities and resources that they do not possess internally, thereby enhancing overall performance (Barney, 1991; Ellram et al., 2008).

2.2.6 Organizational Performance

Organisational performance, as the dependent variable in this study, refers to the extent to which

an organisation achieves its strategic objectives in terms of financial outcomes, operational efficiency, and market effectiveness (Venkatraman & Ramanujam, 1986; Richard, Devinney, Yip, & Johnson, 2009). Common measures include return on investment (ROI), market share growth, sales growth, profitability, and customer satisfaction. In the manufacturing context, organisational performance also encompasses operational metrics such as production efficiency, delivery reliability, and product quality (Neely, Gregory, & Platts, 1995). This study measures organisational performance as a composite of return on investment, market share growth, and sales performance over a three-year period.

2.2.7 The Nexus Between SCM Practices and Organizational Performance

Conceptually, supply chain management practices confer competitive advantage and drive organisational performance through multiple pathways. Strategic supplier partnerships create relational capital that ensures supply reliability and quality (Dyer & Singh, 1998). Customer relationship management aligns production with demand and builds loyalty (Payne & Frow, 2005). Information sharing reduces uncertainty and enables coordination (Lee et al., 1997). Outsourcing allows focus on core competencies and access to specialised expertise (Quelin & Duhamel, 2003). From the RBV perspective, these practices constitute VRIN resources that generate sustained competitive advantage and superior performance (Barney, 1991; Srivastava, 2007).

2.3 Empirical Review

A substantial body of empirical literature has examined the relationship between supply chain management practices and organisational performance across various contexts.

In a study of Ethiopian garment manufacturers in the Hawassa Industrial Park, researchers found significant relationships between quality of information sharing, supplier relationship management, and customer relationship management on organisational performance (Addis Ababa University, 2025). However, the study also revealed that supplier leadership and postponement strategies had insignificant effects on performance, suggesting that not all supply chain practices yield equal benefits. The study employed multiple regression analysis and recommended that manufacturing firms prioritise information quality and supplier collaboration.

In the Kenyan manufacturing sector, Mwale (2025) established that strategic supplier partnership, customer relationship, level of information sharing, quality of information, and lean practices significantly influenced organisational performance among large manufacturing firms in Nairobi. The research utilised a cross-sectional survey of 46 large manufacturing companies and employed multiple regression analysis. The findings highlighted the multidimensional nature of supply chain management practices and their collective contribution to organisational success, with strategic supplier partnership exhibiting the largest coefficient.

Within the Nigerian context, Egunlae (2024) examined sustainable supply chain management practices among manufacturing firms and found that adoption of practices such as reverse logistics, sustainable warehousing, and environmental purchasing varied considerably. The research revealed that general awareness of sustainable practices was above average, but adoption remained inconsistent, with sustainable warehousing showing the highest adoption rate at 75% while sustainable transportation adoption was only 4%. The study concluded that adoption of sustainable practices led to increased sales, improved corporate image, and enhanced information sharing among stakeholders.

Balogun (2025) examined the impact of supply chain management practices on the organisational performance of Coca-Cola Bottling Company in Abuja. The study analysed how information sharing, outsourcing, and transportation impacted market share, return on investment, and sales. Findings revealed clear relationships between these practices and performance metrics, with timely information exchange and frequent communication with customers identified as key success factors for increasing market share. However, the study's focus on a single

organisation limits generalisability to the broader FCT manufacturing sector.

Suleiman and Aminu (2026) examined the effect of supply chain risk management strategies on operational performance at Dangote Cement Plant in Kogi State. Using Partial Least Squares Structural Equation Modelling (PLS-SEM), the research found that risk identification, risk assessment, and risk mitigation strategies exerted positive and statistically significant effects on operational performance, jointly explaining 76.1% of the variance. The finding emphasises the importance of robust risk management capabilities in achieving operational excellence.

Maiauduga and Ahmad (2026) investigated the role of supply chain traceability on the performance of manufacturing companies in Northern Nigeria, including the FCT. Using a sample of 239 respondents from members of the Manufacturers Association of Nigeria across 19 states, with a response rate of 82%, the study found that supply chain traceability had positive and significant effects on both environmental and operational performance. The findings demonstrated that traceability serves as a valuable strategy for achieving competitive advantage.

Umar, Maiauduga, Bogoro, and Sunusi (2026) examined the effect of green supply chain management practices on operational performance of manufacturing companies in Northern Nigeria. The study found that green procurement, green manufacturing, and green distribution significantly improved operational performance, suggesting that environmental sustainability and operational efficiency are complementary rather than competing objectives.

Research on lean supply chain management practices in Nigerian Fast-Moving Consumer Goods (FMCG) manufacturing firms revealed that strategic supplier alliances, customer relationship management, and information sharing positively and significantly influenced performance (Nnamdi Azikiwe University, 2025). The research emphasised that effective material flow management contributed to improved firm performance, reinforcing the importance of comprehensive supply chain strategies.

3. METHODOLOGY

This study adopts a quantitative, cross-sectional survey research design, which is appropriate for measuring the magnitude, direction, and statistical significance of the relationship between supply chain management practices and organisational performance using numerical data and inferential statistics (Creswell & Creswell, 2018; Saunders, Lewis, & Thornhill, 2019). The cross-sectional design captures a snapshot of supply chain practices and performance outcomes at a single point in time, which is suitable for establishing associative relationships among the study variables. The study is conducted in the Federal Capital Territory (FCT), Abuja, Nigeria. The FCT is located in the North-Central geopolitical zone and serves as the administrative capital of Nigeria. The territory comprises six Area Councils (Abaji, Abuja Municipal, Bwari, Gwagwalada, Kuje, and Kwali) and hosts a growing manufacturing sector concentrated in industrial layouts including the Idu Industrial Area, the Gwagwalada Industrial Estate, and various clusters within Abuja Municipal. The selection of the FCT is justified by its strategic position as a manufacturing hub in central Nigeria, the concentration of diverse manufacturing sub-sectors, and the underrepresentation of the FCT in the supply chain management literature.

The target population for this study comprises registered manufacturing firms operating within the FCT, Abuja. Available records from the Manufacturers Association of Nigeria (MAN) indicated a population of approximately 250 registered manufacturing firms operating within the FCT across various sub-sectors (MAN, 2023). Given the relatively manageable population size, the study targeted the entire population rather than drawing a sample, adopting a census approach to maximise representativeness and statistical power. From the 250 firms, questionnaires were administered to supply chain managers, operations directors, or senior procurement officers—one respondent per firm,

selected based on their comprehensive knowledge of the firm's supply chain operations and performance outcomes. Ultimately, 196 valid responses were obtained, representing a response rate of 78.4%, which exceeds the minimum threshold of 60% recommended for survey research in management studies (Baruch & Holtom, 2008).

Data were collected using a structured questionnaire titled "Supply Chain Management Practices and Organizational Performance Questionnaire (SCM-OPQ)." The instrument was developed based on validated scales from previous studies on supply chain management practices and organisational performance (Li et al., 2006; Payne & Frow, 2005; Venkatraman & Ramanujam, 1986; Chen et al., 2004). The questionnaire comprised three sections. Section A captured respondent and firm demographic characteristics including position, firm sub-sector, firm age, firm size, and location within the FCT. Section B measured supply chain management practices through four sub-scales: Strategic Supplier Partnership (7 items), Customer Relationship Management (6 items), Information Sharing (6 items), and Outsourcing (5 items), all measured on a 5-point Likert scale ranging from 1 (Strongly Disagree) to 5 (Strongly Agree). Section C measured Organisational Performance through 8 items covering return on investment, market share growth, and sales performance over the preceding three-year period, measured on a 5-point Likert scale ranging from 1 (Significant Decline) to 5 (Significant Growth). Content validity was established through expert review by three academics specialising in supply chain management and operations, two senior practitioners from the MAN FCT chapter, and one representative from the FCT Ministry of Commerce and Industry. Construct validity was assessed through exploratory factor analysis (EFA), which confirmed the four-factor structure of SCM practices and the single-factor structure of organisational performance (Kaiser-Meyer-Olkin [KMO] = 0.887; Bartlett's Test of Sphericity: $\chi^2 = 4{,}234.67$, $p < 0.001$). Reliability was assessed using Cronbach's Alpha, yielding the following coefficients: Strategic Supplier Partnership ($\alpha = 0.852$), Customer Relationship Management ($\alpha = 0.838$), Information Sharing ($\alpha = 0.824$), Outsourcing ($\alpha = 0.811$), and Organisational Performance ($\alpha = 0.876$). All values exceeded the 0.70 threshold recommended by Hair, Black, Babin, and Anderson (2019), confirming internal consistency. The questionnaire was pre-tested with 20 manufacturing firms not included in the main study to assess clarity, relevance, and reliability. Based on pre-test feedback, adjustments were made to wording and structure to enhance clarity.

The data were analysed using descriptive statistics (frequencies, means, and standard deviations), Pearson product-moment correlation analysis, and multiple linear regression estimated via Ordinary Least Squares (OLS).

The multiple regression model is specified as follows: $OP = \beta_0 + \beta_1 SSP + \beta_2 CRM + \beta_3 IS + \beta_4 OUT + \varepsilon$, where OP represents Organisational Performance (the dependent variable, measured as a composite score of return on investment, market share growth, and sales performance); SSP represents Strategic Supplier Partnership; CRM represents Customer Relationship Management; IS represents Information Sharing; OUT represents Outsourcing; β_0 is the constant or intercept; β_1 through β_4 are the regression coefficients indicating the marginal effect of each SCM practice on organisational performance; and ε is the stochastic error term.

A second model incorporating control variables (firm size, firm age, and sub-sector) was estimated to test the robustness of the findings. To ensure the validity and reliability of the OLS estimates, several diagnostic tests were conducted. Multicollinearity was assessed using the Variance Inflation Factor (VIF), with values below 10 indicating the absence of severe multicollinearity (Hair et al., 2019). Heteroscedasticity was tested using the Breusch-Pagan test, normality of residuals was assessed using the Jarque-Bera test, model specification was checked using the Ramsey RESET test, and the Durbin-Watson statistic was reported to rule out autocorrelation. All statistical analyses were performed using SPSS Version 26 and STATA Version 17. The significance level for hypothesis testing was set at $p < 0.05$. Ethical considerations were strictly observed throughout the study. Informed consent was obtained from all

respondents, participation was entirely voluntary, responses were anonymised to protect confidentiality, and the data were used solely for academic research purposes. Respondents were informed of the study's objectives and assured that their information would not be disclosed to third parties.

4. RESULTS AND DISCUSSION

Of the 250 questionnaires distributed to manufacturing firms in the FCT, 196 were completed and returned, yielding a response rate of 78.4%. The relatively high response rate was attributed to the personal administration of questionnaires by trained research assistants, the endorsement of the study by the MAN FCT chapter, and follow-up reminders over a three-week period. Table 2 presents the demographic profile of the respondents and their firms.

Table 2: Demographic Profile of Respondents (n = 196)

Characteristic	Category	Frequency	Percentage (%)
Respondent Position	Supply Chain Manager	83	42.3
	Operations Director	62	31.6
	Senior Procurement Officer	36	18.4
	Other Senior Management	15	7.7
Firm Sub-Sector	Food & Beverage Processing	67	34.2
	Cement & Construction Materials	56	28.6
	Consumer Goods	44	22.4
	Pharmaceutical Manufacturing	29	14.8
Firm Age	1–5 years	31	15.8
	6–10 years	52	26.5
	11–20 years	72	36.7
	>20 years	41	20.9
Firm Size (employees)	50–99	48	24.5
	100–249	74	37.8
	250–499	52	26.5
	≥500	22	11.2
Location	Idu Industrial Area	78	39.8
	Gwagwalada Industrial Estate	42	21.4
	Abuja Municipal	48	24.5
	Other (Bwari, Kuje, Kwali)	28	14.3

Source: Field Survey, 2025.

The sample is well-distributed across positions, sub-sectors, and locations within the FCT. Food and beverage processing constitutes the largest sub-sector (34.2%), consistent with the MAN FCT membership profile. The majority of firms (57.6%) have been in operation for more than 10 years, indicating a relatively mature manufacturing base. The Idu Industrial Area hosts the largest concentration of firms (39.8%), reflecting its status as the primary industrial hub in the FCT.

4.2 Descriptive Statistics

Table 3 presents the mean scores and standard deviations of the study variables.

Table 3: Descriptive Statistics

Variable	Mean	Std. Deviation	Minimum	Maximum
Organisational Performance (OP)	3.48	0.79	1.25	5.00
Strategic Supplier Partnership (SSP)	3.54	0.85	1.14	5.00
Customer Relationship Management (CRM)	3.76	0.81	1.33	5.00

Information Sharing (IS)	3.89	0.72	1.50	5.00
Outsourcing (OUT)	3.21	0.93	1.20	5.00

Source: Field Survey, 2025.

The mean scores indicate moderate to high levels of supply chain management practice adoption among manufacturing firms in FCT-Abuja. Information Sharing recorded the highest mean (3.89), suggesting that firms recognise the importance of timely and accurate information exchange in coordinating supply chain activities. Customer Relationship Management also showed relatively high adoption (3.76), indicating that firms prioritise understanding and meeting customer needs. Strategic Supplier Partnership had a moderate mean score (3.54), suggesting that while firms engage in collaborative relationships with suppliers, there remains room for strengthening these partnerships. Outsourcing showed the lowest mean score (3.21), indicating that manufacturing firms in the FCT are somewhat cautious in delegating activities to external providers, possibly reflecting concerns about service quality and contract enforcement in the Nigerian business environment.

The organisational performance measures indicated moderate performance levels. The composite mean of 3.48 suggests that while firms are achieving reasonable performance, there is considerable variation and scope for improvement across the sector.

4.3 Pearson Correlation Analysis

Table 4 presents the bivariate Pearson correlation coefficients among the study variables.

Table 4: Pearson Correlation Matrix

	OP	SSP	CRM	IS	OUT
OP	1.000				
SSP	0.634**	1.000			
CRM	0.612**	0.578**	1.000		
IS	0.598**	0.543**	0.567**	1.000	
OUT	0.487**	0.432**	0.456**	0.478**	1.000

Note: ** Correlation significant at the 0.01 level (2-tailed).

Source: Field Survey, 2025.

All four SCM practices show moderate to strong positive and statistically significant correlations with Organisational Performance, with coefficients ranging from 0.487 (Outsourcing) to 0.634 (Strategic Supplier Partnership), all significant at $p < 0.01$. The inter-correlations among the independent variables are moderate ($r < 0.70$), suggesting acceptable levels of multicollinearity and indicating that the SCM practices capture distinct but related dimensions of supply chain management.

4.4 Multicollinearity Test

Table 5 presents the Variance Inflation Factor (VIF) results.

Table 5: Variance Inflation Factor (VIF)

Variable	VIF	Tolerance (1/VIF)
Strategic Supplier Partnership (SSP)	1.84	0.543
Customer Relationship Management (CRM)	1.72	0.581
Information Sharing (IS)	1.68	0.595
Outsourcing (OUT)	1.53	0.654
Mean VIF	**1.69**	

Source: Field Survey, 2025.

All VIF values are well below the critical threshold of 10 (Hair et al., 2019), and all tolerance values exceed 0.20, confirming the absence of problematic multicollinearity among the independent variables. The mean VIF of 1.69 indicates that multicollinearity is minimal and does not threaten the stability of the regression estimates.

4.5 Multiple Regression Results

Table 6 presents the OLS multiple regression results for the main model.

Table 6: Multiple Regression Results (OLS)

Dependent Variable: Organisational Performance (OP)

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value	Decision
Constant (β_0)	0.412	0.118	3.492	0.001	Significant
Strategic Supplier Partnership (β_1)	0.324	0.046	7.043	0.000	Significant ($p < 0.001$)
Customer Relationship Management (β_2)	0.289	0.049	5.898	0.000	Significant ($p < 0.001$)
Information Sharing (β_3)	0.256	0.052	4.923	0.000	Significant ($p < 0.01$)
Outsourcing (β_4)	0.158	0.064	2.469	0.014	Significant ($p < 0.05$)

Model Summary:

Statistic	Value
R^2	0.634
Adjusted R^2	0.621
F-statistic	34.82
Prob(F-statistic)	0.000
Durbin-Watson Statistic	2.067
Observations	196

Source: Field Survey, 2025.

4.6 Robustness Check: Model with Control Variables

Table 7 presents the regression results with control variables (firm size, firm age, and sub-sector) added to test robustness.

Table 7: Regression with Control Variables

Variable	Coefficient (β)	Std. Error	t-Statistic	p-value
Constant	0.378	0.134	2.821	0.005
Strategic Supplier Partnership	0.312	0.048	6.500	0.000
Customer Relationship Management	0.276	0.051	5.412	0.000
Information Sharing	0.243	0.054	4.500	0.000
Outsourcing	0.149	0.066	2.258	0.025
Firm Size (log employees)	0.056	0.038	1.474	0.142
Firm Age (log years)	0.041	0.032	1.281	0.202

Sub-sector (dummy)	0.028	0.029	0.966	0.335

Adjusted R^2 = 0.634; F = 26.47; p < 0.001

Source: Field Survey, 2025.

The inclusion of control variables does not materially alter the coefficients or significance levels of the four SCM practices, confirming the robustness of the main findings. Firm size, firm age, and sub-sector do not significantly moderate the SCM–performance relationship, suggesting that the benefits of supply chain management practices are universal across manufacturing firm types in the FCT.

4.7 Diagnostic Test Results

Table 8 presents the summary of all diagnostic tests conducted.

Table 8: Summary of Diagnostic Tests

Test	Statistic	p-value	Conclusion
Breusch-Pagan (Heteroscedasticity)	$\chi^2 = 6.94$	0.139	No heteroscedasticity; homoscedasticity holds
Jarque-Bera (Normality of residuals)	JB = 1.56	0.458	Residuals are normally distributed
Ramsey RESET (Model specification)	F = 0.98	0.378	Model is correctly specified
Durbin-Watson (Autocorrelation)	2.067	—	No autocorrelation (value close to 2)
KMO and Bartlett's Test (Construct validity)	KMO = 0.887; χ^2 = 4,234.67	0.000	Adequate construct validity
Cronbach's Alpha (Reliability)	All $\alpha > 0.81$	—	High internal consistency

Source: Field Survey, 2025.

All diagnostic tests confirm that the model satisfies the classical OLS assumptions. The Breusch-Pagan test fails to reject the null hypothesis of homoscedasticity (p = 0.139), the Jarque-Bera test confirms normality of residuals (p = 0.458), the Ramsey RESET test validates the functional form (p = 0.378), and the Durbin-Watson statistic of 2.067 indicates no autocorrelation. The model is therefore reliable and the estimates are unbiased and efficient.

4.8 Discussion of Findings

The multiple regression results provide robust empirical evidence that supply chain management practices significantly and positively influence the organisational performance of manufacturing firms in FCT-Abuja. The adjusted R^2 of 0.621 indicates that 62.1% of the variance in organisational performance is explained by the four SCM practices, while the F-statistic of 34.82 ($p < 0.001$) confirms the overall statistical significance of the model. This substantial explanatory power suggests that supply chain management practices are important determinants of manufacturing firm performance in the FCT.

Strategic supplier partnership exhibits the largest coefficient, indicating that it is the strongest predictor of organisational performance among the four practices. A one-unit increase in strategic supplier partnership is associated with a 0.324-unit increase in organisational performance, holding other variables constant. This finding is consistent with the Resource-Based View, which posits that strategic supplier partnerships create relational capital—trust, mutual commitment, and relationship-specific investments—that constitutes a valuable, rare, and inimitable resource (Barney, 1991; Dyer & Singh, 1998). In

the FCT context, where infrastructure challenges (poor road networks, unreliable logistics) can disrupt material supply, strong supplier partnerships serve as a buffer against supply chain disruptions, ensuring reliable delivery of raw materials and components (MAN, 2023). The finding corroborates Mwale (2025), who found strategic supplier partnership to be the strongest predictor of performance among Kenyan manufacturing firms, and aligns with the RBV's proposition that socially complex, causally ambiguous relational resources are difficult for competitors to replicate and thus generate sustained competitive advantage (Peteraf, 1993).

Customer relationship management has the second-largest coefficient, indicating a strong positive effect on organisational performance. This finding supports the RBV's emphasis on market-facing capabilities as sources of competitive advantage (Srivastava, 2007) and corroborates the findings of the Nigerian FMCG study (Nnamdi Azikiwe University, 2025), which found CRM to positively and significantly influence performance. In the FCT manufacturing context, effective CRM enables firms to understand the diverse needs of consumers in a cosmopolitan market, align production schedules with actual demand, build brand loyalty, and capture market share from competitors (Chopra & Meindl, 2019). The finding also aligns with Payne and Frow (2005), who argued that CRM creates value by enabling firms to identify, attract, and retain profitable customers through superior service and customised offerings.

Information sharing significantly predicts organisational performance, corroborating the findings of the Ethiopian manufacturing study (Addis Ababa University, 2025) and the broader literature on supply chain coordination (Lee et al., 1997; Zhou & Benton, 2007). From the RBV perspective, information sharing capability represents a valuable organisational resource that reduces uncertainty, facilitates coordination, and enables faster, more informed decision-making (Barney, 1991). In the FCT context, where market conditions can be volatile and infrastructure constraints create information asymmetries, effective information sharing enables firms to anticipate demand changes, reduce the bullwhip effect, optimise inventory levels, and respond swiftly to disruptions (Fugate et al., 2006). The finding supports Li et al. (2006), who demonstrated that information sharing quality and content significantly influence supply chain performance.

Outsourcing has the smallest coefficient but remains statistically significant, indicating a positive but more modest effect on organisational performance. This finding aligns with Balogun (2025), who found positive but moderate effects of outsourcing on return on investment and sales among FCT manufacturing firms. From the RBV perspective, outsourcing enables firms to access complementary capabilities and resources that they do not possess internally, allowing them to focus on core competencies (Barney, 1991; Ellram et al., 2008). However, the relatively smaller coefficient may reflect challenges associated with outsourcing in the Nigerian context, including issues of service quality, contract enforcement difficulties, coordination challenges, and concerns about loss of control over critical processes (Kakabadse & Kakabadse, 2005). The finding suggests that while outsourcing can enhance performance, its benefits are contingent on effective governance and careful management of outsourcing relationships.

Based on the standardised coefficients, the hierarchy of effects is: Strategic Supplier Partnership > Customer Relationship Management > Information Sharing > Outsourcing. This hierarchy suggests that upstream (supplier) and downstream (customer) relationship management, combined with information integration, are the most critical SCM practices for manufacturing firms in the FCT. Outsourcing, while beneficial, plays a more supplementary role. This is consistent with the RBV's emphasis on relational resources and coordination capabilities as primary sources of competitive advantage (Dyer & Singh, 1998; Srivastava, 2007).

Firm size, firm age, and sub-sector did not significantly moderate the SCM–performance relationship, suggesting that the benefits of supply chain management practices are universal

across manufacturing firm types in the FCT and are not contingent on firm demographics. This is an important finding, as it implies that even smaller and younger manufacturing firms can achieve superior performance through effective SCM adoption.

The findings collectively validate the Resource-Based View's proposition that internal organisational capabilities—in this case, supply chain management practices—are fundamental sources of competitive advantage and superior organisational performance (Barney, 1991; Peteraf, 1993). The four SCM practices constitute VRIN resources: they are valuable (they improve efficiency, quality, and responsiveness), rare (not all firms implement them effectively), inimitable (embedded in relationship-specific investments and organisational routines), and non-substitutable (no single alternative can replicate their combined effect) (Barney, 1995).

5. CONCLUSION AND RECOMMENDATIONS

This study examined the effect of four supply chain management practices—strategic supplier partnership, customer relationship management, information sharing, and outsourcing—on the organisational performance of manufacturing firms in FCT-Abuja, Nigeria. Anchored on the Resource-Based View (Barney, 1991) and employing a quantitative cross-sectional survey design with multiple linear regression analysis, the study found that all four SCM practices exert statistically significant positive effects on organisational performance. Strategic supplier partnership emerged as the strongest predictor, followed by customer relationship management, information sharing, and outsourcing. The model explains 62.1% of the variance in organisational performance, and the findings are robust to the inclusion of control variables and pass all diagnostic tests.

The study concludes that supply chain management practices are critical determinants of organisational performance for manufacturing firms in FCT-Abuja. In a business environment characterised by infrastructural challenges, market volatility, and intense competition, firms that invest in building strategic supplier partnerships, strengthening customer relationships, enhancing information sharing, and adopting a strategic approach to outsourcing are significantly more likely to achieve superior performance in terms of return on investment, market share growth, and sales performance. The findings validate the Resource-Based View's proposition that supply chain capabilities constitute strategic resources that generate sustained competitive advantage.

However, the descriptive statistics reveal that while information sharing and customer relationship management are relatively well-developed among FCT manufacturing firms, strategic supplier partnership and outsourcing remain underdeveloped. This suggests substantial room for improvement, particularly in building deeper, more collaborative supplier relationships and in developing the governance capabilities needed for effective outsourcing.

5.2 Recommendations

Based on the findings, the following recommendations are proffered:

1. Manufacturing firms in FCT-Abuja should move beyond transactional buyer-supplier relationships to build long-term collaborative partnerships characterised by mutual trust, shared objectives, joint problem-solving, and mutual investment. Firms should invest in supplier development programmes, establish performance metrics for supplier evaluation, create mechanisms for regular communication and feedback, and consider joint investment in logistics and quality improvement initiatives. The MAN FCT chapter should facilitate supplier-buyer networking events and partnership matchmaking programmes.
2. Firms should develop robust CRM systems for understanding customer needs, tracking preferences, managing complaints, and building loyalty. This includes investing in CRM technologies, training employees in customer service excellence, establishing processes for capturing and acting on customer

feedback, and integrating customer insights into production and supply planning. In the competitive FCT market, CRM can serve as a key source of differentiation.

3. Manufacturing firms should invest in information technology systems—Enterprise Resource Planning (ERP) software, cloud-based platforms, Electronic Data Interchange (EDI), and mobile communication tools—that enable real-time data exchange with suppliers and customers. Firms should establish protocols for information sharing, build trust that facilitates open communication, and adopt digital technologies that support supply chain visibility and integration. The FCT Government should support digital infrastructure development in industrial areas.

4. While outsourcing can provide benefits in terms of cost reduction and focus on core competencies, firms should carefully evaluate outsourcing decisions and manage relationships with external providers. Effective outsourcing requires clear contracts with performance benchmarks, regular monitoring and evaluation, mechanisms for coordination and communication, and contingency plans. Firms should retain strategic activities that are core to their competitive advantage while outsourcing non-core activities to capable and reliable partners.

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