



POLAC INTERNATIONAL JOURNAL OF ECONS & MGT SCIENCE (PIJEMS)
DEPARTMENT OF ECONOMICS & MANAGEMENT SCIENCE
NIGERIA POLICE ACADEMY, WUDIL-KANO



EFFECT OF PROCUREMENT PRACTICES ON THE PERFORMNACE OF MANUFACTURING FIRMS IN NORTH-CENTRAL, NIGERIA

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Abstract

The decline in manufacturing sector's contribution to the Nigerian economy necessitated this study which examined the effect of procurement practices on the performance of manufacturing form in North-central, Nigeria. The survey research design method was adopted. The population comprises all the manufacturing firms in North-central, Nigeria and this study used survey research design. Taro Yammane formula was used to determining the sample size 251manager of manufacturing firms for this study. Primary source of data collection was used using 5-point likert scale questionnaire. Data was analyzed using Partial Least Squares Structural Equation Model (PLS-SEM). The study revealed inventory management has positive and significant effect on performance of manufacturing firm while contract management has negative and significant effect on the performance of manufacturing firms in North-central, Nigeria. The study recommended that organization should provide training for staff on best practices in inventory management. Ensure that employees understand the importance of efficient inventory handling and the impact on overall performance also, they should conduct regular inventory audits to identify discrepancies and areas for improvement. This can help maintain accuracy and streamline processes. In addition, manufacturing companies should invest in contract management software that offers features like tracking, reminders, and reporting. This can improve oversight and ensure compliance with contract terms. They should also foster better communication between departments involved in contract management (e.g., legal, procurement, and finance). Clear communication can help prevent misunderstandings and ensure all parties are aligned.

Keywords: Procurement Management, Inventory Management, Contract Management, Performance

1. Introduction

The organizations, globally, is achieving set goals and having desired performance. Corporate success nowadays transcends customers and/or employees relationship management, to include suppliers' technical, competence and capabilities development. Worldwide, procurement has become an issue of concern and debate, and has been subjected to reforms, restructuring, rules and regulations. Fast-paced growth experienced within the last three decades globally, has reinforced the interconnectedness between buying and supplying firms to manage supply chain as part of a broader business strategy, and in particular to build and exploit shared relationships with supply chain partners (Ndanusa & Daniel, 2020; Armoh et al., 2023). Procurement function plays a pivotal role in the smooth business operations of a manufacturing organization as it ensures that all goods, materials,

services are procured at optimal times and prices, and optimal level of inventory is maintained. Procurement management practices serve as an important strategy for organizations to remain competitive for both present and future. Procurements should be based on value for money rather than initial purchase price (Hasan & Cross, 2020).

The procurement function is responsible for managing the purchasing activity for the company; therefore, effective and efficient procurement systems and collaborative relationships are essential to the achievement of organizational goals, cost reduction and supply chain performance. Through adoption of procurement practices, organizations around the world have begun to tackle difficulties associated with performance. The linkage of procurement to organizational performance in particular, makes the

embracing of best practices important to present organizational success (Kyalo & Osoro, 2022; Yehuila, 2023). Anthony (2016) noted that in spite of the fact that procurement management has gained recognition amongst companies in the developed countries, procurement in many developing countries like Nigeria has been identified with inherent weaknesses, making the system ineffective and non-responsive to procurement management needs of organizations and government alike. The duty of the procurement management professionals is to see that the funds commixed to purchases are fully utilized in line with procurement management ethics, principles and practices (Otieno & Jackline, 2023). Current cutting-edge procurement processes are no longer a luxury but a necessity for businesses across the globe (Mutuku & Osoro, 2022; Omigie & Kubeyinje, 2022).

In Nigeria, the National Bureau of Statistics (NBS) reported that the manufacturing industry contributed to the nation's GDP by 14.18 percent in the second quarter of 2021, which outstripped its contribution of 11.79 percent in the same period of 2020 (Anyalewechi, 2021). In the dynamic manufacturing industry, the significance of service delivery extends far beyond the production line, encompassing a multifaceted approach that is integral to the success and sustainability of manufacturing firms. Service delivery in manufacturing involves a comprehensive set of processes and strategies designed to meet and exceed customer expectations, from the initial stages of product design to the post-sales support. In an era where customer-centricity is paramount, manufacturing firms increasingly recognise the need to offer not only high-quality products but also exceptional service experiences (Zamolo, 2021). This entails a seamless integration of various elements, including timely order fulfillment, effective communication channels, responsive customer support, and a commitment to continuous improvement. As manufacturing becomes more interconnected with global markets, the service delivery landscape transforms into a critical differentiator, influencing customer loyalty, brand reputation, and overall competitiveness. Nigeria's manufacturing sector is among the key productive sectors identified for economic growth and

development because of its immense potential for wealth, employment creation and poverty alleviation.

However, the growing competition in the marketplace, advance in manufacturing technologies, and shorter product lifecycles have exerted strong impacts on the manufacturing industry. Under such a dynamic environment, manufacturing enterprises have deployed various approaches to reposition their competitive position and priorities (Wanjau et al., 2010). As part of the strategies to the reposition of the industry, manufacturing firms sought to optimise their activities through a variety of supply chain management practices (Choi, 2021). The supply chain system deals with managing flow of products and the processes involved from transforming the raw materials to finished products. SCM practices have been defined as the set of activities undertaken in an organisation to promote effective management of the supply chain (Mukabi et al., 2014). Procurement management practices have been classified differently by authors over the years. These classifications include: demand management, procurement management, and logistics management (Bizana et al., 2015); demand management, information flow management, customer relationship management and supplier relationship management (Elgazzar & Elzarka, 2017); Kenyi and Barasa (2021) classified contract management as a supply chain management practice. However, this study focused only on inventory management and contract management and how they affect performance of manufacturing firms in North-central, Nigeria. Inventory management is necessary at different locations within an organization or within multiple locations of a supply chain, to protect (the production) from running out of materials or goods. Adequate inventories kept in manufacturing companies will smooth the production process. The wholesalers and retailers can offer good customer services and gain good public image by holding sufficient inventories. The basic objective of inventory management is to achieve a balance between the low inventory and high return on investment (ROT). (Johson et al, 1974). Inventory levels have been seen as one of the most interesting areas for improvement in organization materials management (Kumar et al. 2008).

Contract management is a supply chain management practice that has been getting a lot of attention in both private and public enterprises globally. In the ever-changing world of business and service delivery, efficient contract administration is essential to guaranteeing the smooth and effective delivery of services. The absence of systemic contract management is one of the core reasons for contract failure which affects the quality-of-service delivery (Meričková & Nemec, 2013). Effective contract management reduces the risks associated with it and enhances the product/service delivery quality (Komakech, 2020; Deo, 2019). Also, procurement management has emerged as a strategic cornerstone in the productivity and also extend beyond simply acquiring goods and services, to cost-effectiveness, quality assurance, supply chain resilience, innovation, and sustainable business practices and when properly managed, improves service delivery when properly managed in an organization (Mutembei, 2019; Martemyanova, 2018). In many emerging economies, including Nigeria, manufacturing firms have been the economic growth engine and the major tradable sector in these economies.

Despite their contribution, manufacturing firms in Nigeria have recorded inconsistent and dwindling performance overtime. Recently, the National Bureau of Statistics (NBS, 2023) reported a decline in the manufacturing sector contribution to the GDP from 10.12% in the 1st quarter of 2023 to 8.40% in the 3rd quarter which signifies a quarter-on-quarter decline of 17.2%. The Nigerian government has launched a series of initiatives to alleviate manufacturing industry bottlenecks and promote industrialisation, including the review of the Nigerian Industrial Revolution Plan (NIRP), access to raw materials to export promotion, formulation of various industrial policies and a number of economic reforms by Nigerian policy makers to stimulate manufacturing activities among others, yet the poor situation is far from being salvaged as many of these firms are at the brink of exit. It is on the basis of the foregoing that this study specifically examined the effect of procurement practices proxied by inventory management and contract management on the performance of manufacturing firms in north-central, Nigeria. The following objective were formulated:

- i. examined the effect of inventory management on the performance of manufacturing firms in North-central, Nigeria.
- i. investigate the effect of contract management on the performance of manufacturing firms in North-central, Nigeria.

2. Literature Reviews

2.1 Conceptual Definitions

Concept of Performance

Abdiaziz (2019), organizational performance comprises the actual output or results of an organization as measured against its intended outputs (or goals and objectives). According to Maestrini et al. (2017) operational performance refers to “set of metrics used to quantify the efficiency and effectiveness of supply chain processes and relationships, spanning multiple organizational functions and multiple firms and enabling supply chain orchestration”. In addition to this, Amarjit et al. (2016) described a firm’s performance as a measure of how well a firm uses its assets from its core operations and generates revenues over a given period of time. This measure is thus compared to some given industrial average standard of similar firms in the same industry. In the same vein, Hwang et al. (2014) perceived operational performance as firm’s performance measured against standard or prescribed indicators of effectiveness and efficiency. Also, Azim et al. (2015) argues that performance refers to the measurable aspects of the outcomes of an organization’s processes, such as reliability, production cycle time, and inventory turns. The aim of every organization is to enhance the performance but for improvement, they must need to measure it accurately first. The operational performance proposed by the study is expressed by customer satisfaction, competitive advantage, cost efficiency, operational efficiency and customer service delivery. Performance measures can be grouped into two basic types: those that relate to results (outputs such as competitiveness or financial performance) and those that focus on the determinants of the results (inputs such as quality, flexibility, resource utilization, innovation or operational performance) (Solomon and Ayebeale, 2017). This

suggests that performance measurement frameworks can be built around the concepts of results and determinants. Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues (Araz & Ozkarahan, 2017).

Concept of Procurement Management

Procurement management is the process of creating alignment and consistency of action that establishes the range of objectives and overall strategy or course of action by which procurement function fulfils its mission (Anand & Grover, 2015). According to Sollish and Semanik (2012), procurement management practices are described as the process of obtaining goods and services for a firm according to the set policies governing the selection of products, suppliers and methods aiming to utilize sound business methods while maximizing the value of the organization. Lyson and Farrington (2012), in their definition of procurement both maintained that procurement is a wider term than purchasing and has been defined as the process of acquiring goods, works and services covering both acquisitions from third parties and from in-house providers. The process spans the whole lifecycle from identification of needs, through to the end of the useful life of an asset. It involves options, appraisal and critical make or buy's decision.

Procurement management function as argued by Muiga and Kwasira (2016) has increasingly recognized the importance of strategic supply chain relationship that fosters competitiveness and generates positive effect on the firm's financial performance as well as business policy and strategic management. Strengthening this view, Aliyu (2016) contend that procurement has a long history, nevertheless its role as a strategic part of the organizational structure is recently identified. Aliyu (2016) further noted that procurement management can be approached from three main dimensions namely: (a) development and management of key suppliers, (b) internal operation of procurement function and coordination of purchasing with other functions within the firm, (c) and efforts to meet or exceed customer expectations

Concept of Inventory management

According to Miller (2010), inventory management involves all activities put in place to ensure that customer has the needed product or service. It coordinates the purchasing, manufacturing and distribution functions to meet the marketing needs and organizational needs of availing the product to the customers. Inventory management is primarily involved with specifying the size and placement of stocked goods. Inventory management is required at different locations within a facility or within multiple locations of a supply network to protect the regular and planned course of production against the random disturbance of running out of materials. The scope of inventory management also involves managing the replenishment lead time, replenishment of goods, returns and defective goods and demand forecasting, carrying costs of inventory, asset management, physical inventory, available physical space, demand forecasting, inventory valuation, inventory visibility, future inventory price forecasting and quality management. With a balanced of these requirements, it is possible to reach an optimal inventory level, which is an on-going process as the business needs a shift and react to the wider environment (Ogbo et al, 2014). Inventory control means availability of materials whenever and wherever required by stocking adequate number and kind of stocks. The sum total of those related activities essential for the procurement, storage, sales, disposal or use of material can be referred to as inventory management. Inventory managers have to stock-up when required and utilize available storage space resourcefully so that available storage space is not exceeded. Maintaining accountability of inventory assets is their responsibility. They have to meet the set budget and decide upon what to order, how to order and when to order so that stock is available on time and at the optimum cost (Benedict & Margeridis, 1999). Hence, inventory management involves planning to organize and controlling the flow of materials from their initial purchase unit through internal operations to the service point through distribution (Smaros, et al., 2003).

Concept of Contract Management

Contract management is the process of making sure that all parties involved in a contract adhere to its terms

and conditions, as well as documenting and approving any modifications that may be necessary to carry out the contract (Nyaga & Mwangangi, 2019). Because contract management is a process, there are goals that must be met in order to reap its rewards. According to Eriksson and Westerberg (2017), managing relationships, contract administration, dispute resolution, contractor monitoring and acceptance management, and contract closure are among the most crucial contract management tasks. Ensuring that all contracting parties fulfill their obligations in accordance with the provisions of the agreement is the main goal of contractor monitoring and acceptance management. Through early supplier involvement, relationship management inside the contract, and on-time supplier payment, the purchasing entity can enhance supplier performance (Olendo & Kavale, 2017). Maintaining an up-to-date contact form, organising and tracking contract modifications, making sure contractors are paid on schedule, keeping an eye on asset use, creating reports, and using the proper protocols for terminating contracts are all part of contract administration (Namusonge, 2016).

2.2 Empirical Review

Inventory management and Performance

Odumusor, (2024) examine the effect of inventory management on the production efficiency of manufacturing organizations: A study of selected manufacturing firms in Nigeria. The study specifically set out to examine the effect of inventory availability on the production efficiency of selected manufacturing firms in Calabar, to determine the effect of inventory accuracy on the production efficiency of selected manufacturing firms in Calabar, and to examine the effect of inventory coverage on the production efficiency of selected manufacturing firms in Calabar. The study adopted the descriptive research design. The population of this study was seven hundred seven (707), cutting across management and non-management employees in the selected companies, respectively, and a sample size of 370 was selected using the Taro Yamane formula. The study adopted a stratified random sampling technique, while a standardized questionnaire was used to gather responses from the research participants. Using SPSS 27.0, quantitative and qualitative data were analyzed.

The results were summarised using descriptive statistics and Ordinary Least Squares regression. The regression analysis revealed that inventory availability ($\beta_1=0.668$, $p=0.000$, $t=8.055$) had a significant and favourable influence on the organizational production efficiency of the selected manufacturing businesses in Calabar. The study also discovered that some manufacturing companies in Calabar might enhance their production efficiency by assuring the accuracy of their inventory ($\alpha_1=0.267$, $p=0.000$, $t=3.777$). The study revealed that inventory coverage had a substantial influence on production efficiency ($\beta_1=0.117$, $p=0.000$, $t=2.297$) for certain industrial companies in Calabar.

King'oo and Muli (2019) examined the influence of procurement practices on organizational performance in the ministry of education. The variables of study were; inventory control, contract management and organizational performance. The target population was 150 employees working in procurement department in the ministry of education headquarters in Nairobi. A total of 45 respondents constituting all levels of employees in Jogoo house were selected using stratified sampling technique. Data collection used the questionnaire as the research instrument. Pilot testing of the research instruments to establish their validity and reliability was also conducted. The descriptive statistics used included frequencies, means, standard deviation, correlations and regression analysis generated by the SPSS data analysis tool. The findings revealed a positive correlation between inventory control and organizational performance and a positive correlation between contract management and organizational performance at the ministry of education.

Contract Management and Performance

Masuruli (2021) examined the effect of contract management practices on the procurement performance in public procuring entities at the Ministry of Finance and Planning. Specific objectives of the study were to: examine the effect of contract administration on procurement performance, determine the effects of contract risk management on procurement performance, and evaluate the effects of contract dispute resolution on procurement performance at the Ministry of Finance and Planning.

The study employed a sample of 81 respondents from the Ministry of Finance and Planning were involved. Methods used in Data collection included an interview, questionnaire and documentary review. Qualitative data were analysed using content and thematic analysis while quantitative data analysis was done using Statistical Package for Social Sciences (SPSS) in which descriptive statistics, correlation and multiple regression analysis were used. Findings revealed that contract administration, contract risk management and contract dispute resolution were contract management practices applied in the Ministry of Finance and Planning. Findings further indicated that contract administration, contract risk management and dispute resolution were positively and significantly related to procurement performance in public procuring entities at the Ministry of Finance and Planning.

Ahmad and Ogaji (2024) examined the effect of supply chain management practices on service delivery of manufacturing firms in North-East Nigeria. Contract management and procurement management were the two selected supply chain management practices and their effects on service delivery was assessed. Survey design was adopted wherein data were collected using structured questionnaire from 422 respondents who were senior level employees of 20 manufacturing firms in the area. The sample were selected using a census sampling technique due to the small size of the population. Data collected were analysed using the multiple regression analysis and the findings revealed that contract management has insignificant positive effect on service delivery.

2.3 Theoretical Review

Transaction Cost Economy Theory

The model was founded by Oliver E. Williamson an American economist in 1950. The main question his transaction cost economy theory tries to answer is „why firms exist? In procurement management context, transaction cost economy aims to reduce the costs associated with carrying out a transaction when deciding whether to make-or-buy. There are three attributes which influence a firm's decision to make or buy: frequency of transaction, asset specificity and degree of uncertainty associated with a transaction. In general transaction cost economy theory argues that

different control and governance mechanisms should be employed to mitigate the risk of opportunistic behaviour of manufacturing firms when outsourcing. Transaction cost theory tries to explain why companies exist, and why companies expand or source out activities to the external environment. The transaction cost theory supposes that companies try to minimize the costs of exchanging resources with the environment, and that companies try to minimize the bureaucratic costs of exchanges within the company. Companies are therefore weighing the costs of exchanging resources with the environment, against the bureaucratic costs of performing activities in-house (Novack, et al, 1995).

The theory sees institutions and markets as different possible forms of organizing and coordinating economic transactions. When external transaction costs are higher than the company's internal bureaucratic costs, the company will grow, because the company is able to perform its activities more cheaply, than if the activities were performed in the market. However, if the bureaucratic costs for coordinating the activity are higher than the external transaction costs, the company will be downsized. According to Ronald (2007), every company will expand as long as the company's activities can be performed cheaper within the company, then by e.g. outsourcing the activities to external providers in the market.

According to Williamson (2001), a transaction cost occurs "when a good or a service is transferred across a technologically separable interface". Therefore, transaction costs arise every time a product or service is being transferred from one stage to another, where new sets of technological capabilities are needed to make the product or service. The transaction costs related to the exchange of resources with the external environment could be reflected by the following factors. The list is not exhaustive; environmental uncertainty, opportunism, risks, bounded rationality and core company assets. The factors above will all potentially increase the external transaction costs, where it may become rather expensive for a company to control these factors. Therefore, it may very well be more economical to maintain the activity in house, so that the company will not use resources on e.g. contracts with suppliers, meetings, supervision etc. Therefore, if companies see the environmental

uncertainty as high, they might choose to not outsource or exchange resources with the environment.

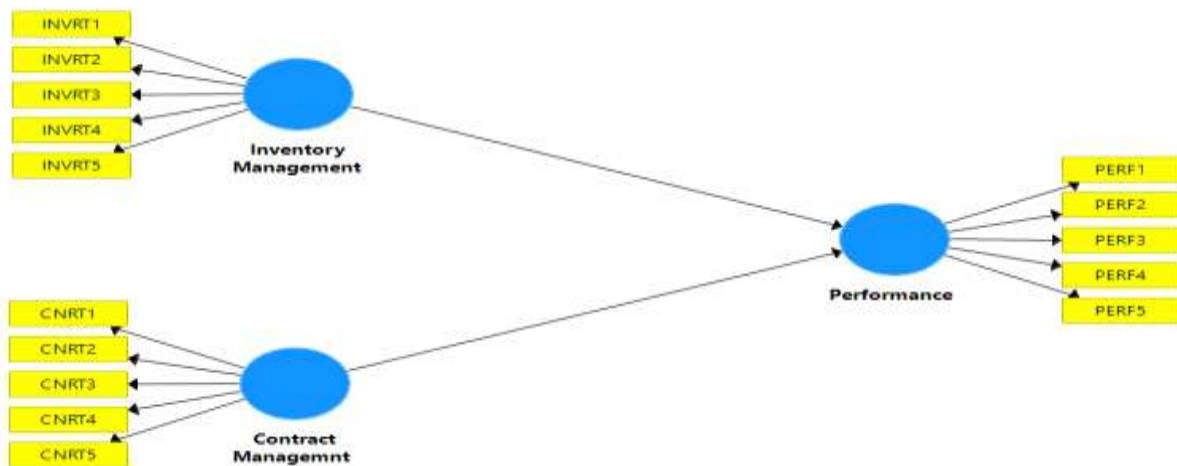
3. Methodology

3.1 Research Design

The research design adopted for the study was the survey research design. The population of this study comprise of 669 managers of the manufacturing firms operating in North-central, Nigeria. The sample size of

251 was determined using Taro Yammane sample determination formular. Primary source of data collection was used using five-point likert scale questionnaire, Purposive and convenience sampling technique was used for the study. Partial least square structural equation modelling was used to analyzed the data collected. The model for the analysis is specified thus

3.2 Model Specification



Source: SMART-PLS Output, 2025

Figure1: Model Specification

4. Results and Discussion

Out of the two hundred and seventy-six (276) distributed questionnaires, 264 were properly filled and

returned giving a response rate of 96%. Subsequently, all further analyses were done using 264 responses data.

Table 1: Descriptive Statistics

variable	Mean	Median	Min	Max	SDV	Kurtosis	Skewness
INRT	3.7	4.10	1	5	0.96	-1.59	-0.09
CNRT	2.0	2.34	1	5	0.97	0.90	-0.98
PERF	2.1	1.94	1	5	0.89	0.20	-0.68

Source: SMART, PLS Output, 2025.

Data on the study variables were described in Table 1 above in terms of the mean, minimum, maximum, standard deviation, skewness and kurtosis values. Inventory management (INRT) revealed an average value of 3.7 with a standard deviation value of 0.96. However, the minimum and maximum values stood at 1 and 5 respectively. Contract management (CNRT) had minimum and maximum values of 1 and 5 respectively however, it showed an average of 2.0 along with a standard deviation of 0.97. Furthermore, performance (PERF) showed a minimum value of 1 and a maximum value of 5 with an average value of

2.1 accompanied with a standard deviation value of 0.89. All the skewness and kurtosis values were less than 1 which shows that there is a normal distribution of data.

4.1 Assessment of Measurement Model

In assessing the measurement model, the researcher began by assessing the item outer loadings. As a rule, loadings above 0.708 are recommended, as they indicate that the construct explains more than 50 percent of the indicator's variance, thus providing acceptable item reliability (Hair, et al., 2019).

However, Hair, et al., (2019) posited that low but significant indicator loading of 0.50 can be included hence justifying why indicators with loadings less than

0.708 and above 0.50 were not deleted from the model as seen in figure 2 below.

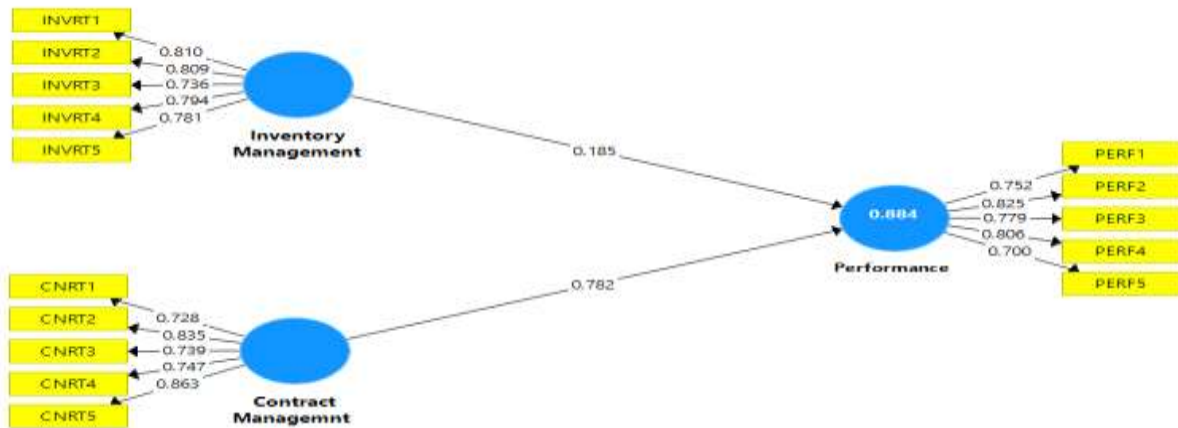


Fig 2: Indicator Loadings.

Source: SMART, PLS Output, 2024

Table 2: Reliability of study scale

S/N	Variables		Factor Loadings	Cronbach Alpha	Composite Reliability	Average Variance Extracted (AVE)	No of Items
1	Inventory management (INRT)	INRT1	0.810	0.848	0.890	0.618	5
		INRT2	0.809				
		INRT3	0.736				
		INRT4	0.794				
		INRT5	0.781				
2	Contract Management (CNRT)	CNRT1	0.728	0.842	0.888	0.615	5
		CNRT2	0.835				
		CNRT3	0.739				
		CNRT4	0.747				
		CNRT5	0.863				
3	Performance (PERF)	PERF1	0.752	0.833	0.881	0.598	5
		PERF2	0.825				
		PERF3	0.779				
		PERF4	0.806				
		PERF5	0.700				

Source: SmartPLS Output, 2025

Composite reliability of Jöreskog's (1971) was applied to test for internal consistency of the study. All the values fall within the Hair, et al., (2019) rating of good consistency. The Cronbach alpha value was above 0.60 which is the minimum threshold as recommended by Sekaran (2010). To test for the convergent validity, the average variance extracted (AVE) was used. All the latent variables showed values greater than 0.50

which indicates that the constructs explain at least 50 percent of the variance of its items. According to Henseler, et al., (2015) the Fornell-Larcker criterion does not perform well when explaining discriminant validity, particularly when the indicator loadings on a construct differ only slightly. As a replacement, they proposed the Heterotrait-Monotrait (HTMT) ratio of the correlations which is the mean value of the item

correlations across constructs relative to the (geometric) mean of the average correlations for the items measuring the same construct (Voorhees et al.,

2016). Discriminant validity problems are present when HTMT values are high than 0.90 for structural models (Henseler, et al., 2015).

Table 3: Heterotrait-Monotrait Ratio (HTMT)

	Inventory Management	Contract Management	Performance
Inventory management	1.000		
Contract Management	0.548	1.000	
Performance	0.654	0.452	1.000

Source: SmartPLS Output, 2025

The variance inflation factor (VIF) was used to evaluate collinearity of the formative indicators. All the VIF values were less than 5 indicate the absence of critical collinearity issues among the indicators of formatively measured constructs (Hair, et al., 2019).

4.2 Model Goodness of Fit (GoF)

Sequel to the need to validate the PLS model, there is a need to assess the goodness of fit of the model as Hair, et al. (2017) suggested. This study used the standardised root mean square residual's (SRMR). The choice of this index was based on the fact that the SRMR provides the absolute fit measure where a value of zero indicates a perfect fit. The study adopted Hu

& Bentler (1998) suggestion that a value of less than 0.08 represents a good fit while applying SRMR for model goodness of fit. The study result indicates an SRMR value of 0.030. This indicates the model is fit.

4.3 Assessing the Structural Model

Having satisfied the measurement model assessment, the next step in evaluating PLS-SEM results is to assess the structural model. Standard assessment criteria, which was considered include the path coefficient, t-values, p-values and coefficient of determination (R^2). The bootstrapping procedure was conducted using a resample of 5000.

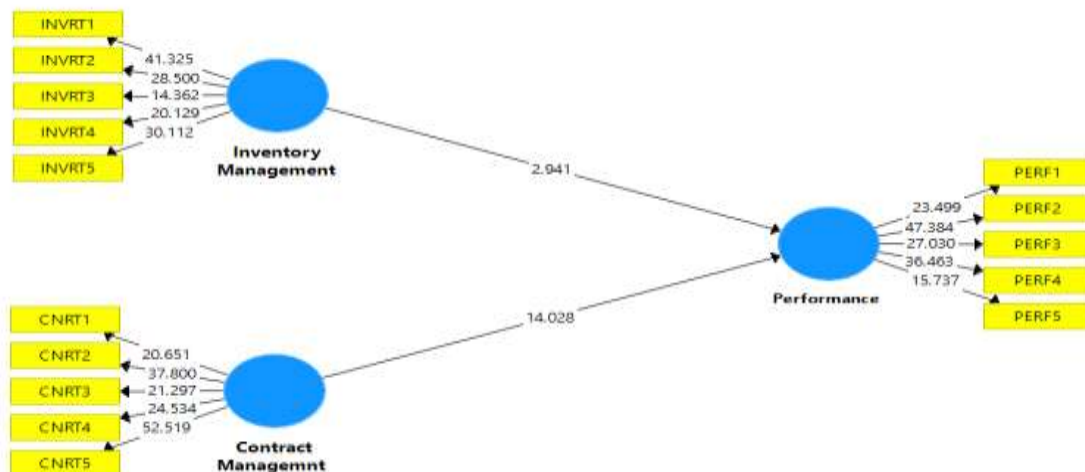


Fig. 3: Path Coefficients of the Regression Model.

Source: SMART, PLS Output, 2024

Table 4: R^2 and predictive Relevance of the Model

	R Square	Q^2 (=1- P val. SSE/SSO)
Performance	0.884	0.876

Source: SmartPLS Output, 2024

The R-square value stood at 88.4% indicating that procurement management practices proxied by inventory management and contract management are responsible for 88% variation in the performance. The remaining 12% variation could be explained by other

factors not included in the study. Based on Hair, et al., (2019), the r-square is considered substantial. The result of the path analysis is presented in the table below:

Table 5: Path Coefficients

Variable	Path Coefficient ***(Beta)	t-value	p-value	Findings
Inventory management-> Performance	0.185	2.941	0.003	Rejected
Contract management-> Performance	-0.782	1.373	0.000	Rejected

Source: SmartPLS Output, 2024

The result from the analysis indicates that inventory management has positive and significant effect on performance of manufacturing firms in north-central, Nigeria. The decision was reached based on the t-value of 2.941 which is greater than 1.964 and a beta value of 0.187 with a p-value of 0.003. The positive effect implies that as the quality of inventory management improves, the performance of manufacturing firms also improves as the quality of inventory management improves, the performance of manufacturing firms also improves. This finding agrees with that of King'oo and Muli (2019) who found that inventory management has positive and significant effect on organizational performance in the ministry of education

The result from the analysis indicates that contract management has negative and significant effect on performance of manufacturing firms in north-west Nigeria. The decision was reached based on the t-value of 1.373 which is less than 1.964 and a beta value of -0.782 with a p-value of 0.000. This implies that as the quality or intensity of contract management increases, the performance of manufacturing firms' decreases. This could mean that overly complex, inefficient, or poorly implemented contract management practices are detrimental to the firm's performance. This finding agrees with that of Masuruli (2021) who made similar findings about contract management and performance.

Also, this study disagrees with the finding of Ahmad and Ogaji (2024) who found that contract management has positive but insignificant effect on service delivery of manufacturing firms in North-East Nigeria

5. Conclusion and Recommendations

The study concluded that procurement management practices has significant effect performance in north-west Nigeria. Based on the study's findings,

- i. Manufacturing firms should provide training for staff on best practices in inventory management. Ensure that employees understand the importance of efficient inventory handling and the impact on overall performance also, they should conduct regular inventory audits to identify discrepancies and areas for improvement. This can help maintain accuracy and streamline processes.
- ii. manufacturing companies should invest in contract management software that offers features like tracking, reminders, and reporting. This can improve oversight and ensure compliance with contract terms. They should also foster better communication between departments involved in contract management (e.g., legal, procurement, and finance). Clear communication can help prevent misunderstandings and ensure all parties are aligned.

References

- Ahmad, A. S. & Ogaji, S. M. (2024) Effect of supply chain management practices on service delivery of manufacturing firms in north east Nigeria, *FULafia International Journal of Business and Allied Studies*, 2 (3)
- Aliyu, D. (2016), Organizational legitimacy, social values and organizational behavior. *Journal of Sociology*, 18 (6), 122 – 136.
- Anand, N., & Grover, N. (2015). Measuring retail supply chain performance: Theoretical model using key performance indicators (KPIs). Benchmarking: *An International Journal*, 22(1), 135-166.
- Anichebe, N.A & Agu, O.A (2013) Effect of inventory management on organisational effectiveness, *Information and Knowledge Management*, 3,(8)
- Anthony, K. B (2016). Empirical Review and Analysis of Public Procurement Practices in Nigeria: Challenges and Prospects. *Public Policy and Administration Research*, 6(3)
- Anyalewechi, C. (2021). Nigeria's manufacturing sector records real GDP growth of 3.49% in Q2 2021. Available at: <https://nairametrics.com/2021/08/26/nigerias-manufacturingsector-records-real-gdp-growth-of-3-49-in-q2-2021/>
- Armoh, M. B., Agyei, P. M., Bossman, A., Gonu, E. & Asare-Larbi, M. (2023). Effect of supplier relationship appraisal on firm performance in Ghana: Views of employees of selected manufacturing firms. *scientific Africa*, 21(1-16).
- Benedict, C., and Margeridis, H. (1999) Reaction. *Charter*, 70(2):464-479
- Bizana, N., Naudé, M. J. & Ambe, I. M. (2015). Supply chain management as a contributing factor to local government service delivery in South Africa. *Journal of Contemporary Management*, 2, 638–657.
- Choi, T. M. (2021). Risk analysis in logistics systems: A research agenda during and after the COVID-19 pandemic. *Transportation Research Part E: Logistics and Transportation Review*, 145, 102190.
- Edwin S and Florence M (2015) The effect of inventory management on profitability of cement manufacturing companies in Kenya: A case study of listed cement manufacturing companies in Kenya, *International Journal of Management and Commerce Innovations* 3(2) 111-119,
- Elgazzar, S. & Elzarka, S. (2017). Supply chain management in the service sector: An applied framework. *The Business and Management Review*, 8(5), 118-129
- Eriksson, P. E. & Westerberg, M. (2017). Effects of procurement on construction project performance. *International Conference on Management of Technology*, 5(9)
- Hassan, S. N. & Cross, O. D. (2020). Effect of supplier development on operational performance of manufacturing firms in Nigeria. *International Journal of Managerial Studies and Research* 8(6); 13-25.
- Johson R. A., Newell, W. T. & Vergin, R. C. (1974) Production and operations management. houghton mifflin company
- Kamau L W & Assumpta W. K (2015) Influence of inventory management practices on organizational competitiveness: A case of safaricom Kenya Ltd, *International Academic Journal of Procurement and Supply Chain Management*,1(5) 72-98
- Kenyi, J. A. & Barasa, P. W. (2021). Influence of contract management practices on service delivery in the public sector: A case study of Uganda Civil Aviation Authority. *International Journal of Scientific and Research Publications*, 11(10), 161-175. <http://dx.doi.org/10.29322/IJSRP.11.10.2021.p11820>
- King'oo, D. M., & Muli, S. (2019). Influence of procurement practices on organizational performance in Kenyan Public Sector. A case of Ministry of Education. *The Strategic Journal of Business & Change Management*, 6 (2), 2400 – 2412.
- Kumar, A., Ozdamar, L., & Zhang, C. N. (2008). Supply Chain Redesign in the Healthcare Industry of Singapore. *Supply Chain Management: An International Journal*, 13(2) 95- 103.
- Kyalo, M. A. & Osoro, A. (2022). Procurement practices and performance of manufacturing industry in Nairobi County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 39(3), 154-166.
- Lysons, K., & Farrington, B. (2012). Acquisition and store network the board. Pearson Higher Ed.
- Magnus, T. J. (2006). Organizational legitimacy, social values and organizational behavior. *Journal of Sociology*, 18 (6), 122-136.
- Masuruli, F. (2021). The effect of contract management practices on the procurement performance in public procuring entities in Tanzania: A case of the ministry of finance and planning. *Journal of Management*, 4(3), 4-11

- Muiga, P. M., & Kwasira, J. (2016), Role of strategic procurement practice in realization of corporate goals in public secondary schools in Molo Sub-County, Nakuru, Kenya. *International Journal of Economics, Commerce and Management*, 4(5) 21 - 33
- Muiga, P. M., & Kwasira, J. (2016), Role of strategic procurement practice in realization of corporate goals in public secondary schools in Molo Sub-County, Nakuru, Kenya. *International Journal of Economics, Commerce and Management*, 4(5) 21 - 33
- Mukabi, M., Kibet, Y., & Musiega, D. (2014). Determinants of supplier selection on the performance of public institutions in Kenya. *International Journal of Management Research & Review*, 4(5).
- Mutuku, K. A. and Osoro, A. (2022). Procurement practices and performance of manufacturing industry in Nairobi County, Kenya. *International Journal of Social Sciences Management and Entrepreneurship*, 39(3),154-166.
- Namusonge, G. (2016). The effect of monitoring, evaluation and risk management of projects on performance of firms in the telecommunication sector in Kenya. *Strategic Journal of Business & Change Management*, 3(4).
- Ndanusa, S.A. and Daniel, C.O. (2020). Effect of supplier development on operational performance of manufacturing firms in Nigeria. *International Journal of Managerial Studies and Research* 8(6), 13-25.
- Novack, R.A., Langley, Jr. C.J., & Rinehart, L.M. (1995). Creating logistics value: themes for the future. Oak Brook, IL: Council of Logistics Management; 1995
- Nyaga, M. M. & Mwangangi, P. (2019). Influence of contract management practices on performance of Kiambu County. *The Strategic Journal of Business & Change Management*, 6(1), 661– 675.
- Odumisor, C. J. (2024) Effect of Inventory Management on the Production Efficiency of Manufacturing Firms in Nigeria, *IRJEMS International Research Journal of Economics and Management Studies*,3(1) 399-413
- Ogbo, A. I., Onekanma I. V & Wilfred I. U (2014) The Impact of Effective Inventory Control Management on Organisational Performance: A Study of 7up Bottling Company Nile Mile Enugu, Nigeria, *Mediterranean Journal of Social Sciences*, 5(10)
- Olendo, J. A. & Kavale, S. (2016). Effects of supplier relationship management on supply chain performance at Bamburi Cement Mombasa, Kenya. *International Journal of Business & Management*, 4(7), 436-452
- Omigie, S. O. & Kubeyinje, G. T. (2022). Supply chain management and performance. Evidence from manufacturing organizations in Nigeria. *Journal of Technology and Operations Management*, 17(2),72-84
- Smaros S.J., Lehtonen, J. M. Appelquist, P. & Holmstrom, J. (2003) The impact of increasing demand visibility on production and inventory control efficiency. *International Journal of Physical Distribution and Logistics*, 33(4) 445-465.
- Sollish & Semanik, 2012. The procurement and supply manager's desk reference, 2nd Ed. John Wiley and Sons Inc., Hoboken, New Jersey.
- Wanjau, K., Gakure, R., & Kahiri, J. (2010). The role of quality in growth of small and medium enterprises and economic development in Kenya. Nairobi: Scientific Conference Proceedings.
- Yehuila, A. A. (2023). The effects of suppliers' relationship management practices of organizational performance and competitive advantage of large manufacturing companies in Bahir Dar, Ethiopia. *Journal of Future Sustainability*, 3(4), 233-242.
- Zamolo, A. (2021). Top 7 manufacturing trends for 2022. <https://www.beekeeper.io/blog/manufacturing-trends>

Keywords: SA = Strongly Agree, A = Agree, U = Undecided, D = Disagree, SD = Strongly Disagree.

	Inventory management
INRT1	Our firms deploy advance inventory management techniques
INRT2	Available space in our warehouse is utilized optimally
INRT3	Our firm keeps buffer/extra stock to meet unexpected demands
INRT4	There are effective stock control systems in our firms
INRT5	Our firm keeps adequate level of all stock
	Contract management
CNRT1	Contract management processes are occasionally improved to enhance service excellence and mitigate risks
CNRT2	There are methods in place to address and resolve disputes that may arise from contractual obligation
CNRT3	Contract are reviewed and updated to align with changing business need and industry standard
CNRT4	Contract monitoring and oversight are in place to ensure compliance with agreements
CNRT5	Contract optimization is essential to ensure mutual benefit of the parties involved.
	Performance (PERF)
PERF1	Our firm recorded increase in market share over the last three years
PERF2	Increase in revenue from sales of our product in the last three years
PERF3	Increase in employee involvement and suggestions in the last three years
PERF4	Our firms improved in their delivering speed in the last three years
PERF5	Increase in number of customer retention in the last three years