

EFFECT OF PROCUREMENT MANAGEMENT ON SERVICE DELIVERY OF SELECTED MANUFACTURING FIRMS IN NORTH-EASTERN NIGERIA.

¹HAMMA, Bamai Damaturu, ¹MOHAMMED, Mahmuda Khalifa & ³OGAJI, Salim Muhammad

^{1,2&3}Department of Business Administration, Nasarawa State University Keffi
email: bamaihamma@gmail.com¹, malgruz@yahoo.com², ibnogaji@gmail.com³

Abstract

The declining level of quality of products and services of manufacturing firms in Nigeria necessitated this study which examined the effect of procurement management proxied by procurement policy and supplier selection on service delivery of selected manufacturing firms in North-Eastern Nigeria. Survey design was adopted, whereas structured questionnaires were administered to a sample of 83 who are employees at management level of the selected firms. Multiple regression analysis was employed to test the hypotheses formulated and the result indicates that procurement policy has insignificant positive effect on service delivery and a significant negative effect of supplier selection on service delivery of the selected firms. The study therefore recommended that manufacturing firms should ensure that their procurement policies are clearly defined especially as it relates to the physical or functional characteristics, the requirements to be satisfied and performance indicators by which these policies will be measured against. Also, that manufacturing firms should review their criteria for selecting and contracting a supplier to limit approval to only suppliers that have the wherewithal to deliver at the best price, time and quality. This should also be drafted into the procurement policy of the firms and therefore, firms should ensure strict compliance to these criteria.

Keywords: Procurement, Procurement Policy, Supplier Selection, Service delivery.

INTRODUCTION

The prominence of procurement management in developing nations is rising and it now makes up a sizable fraction of overall spending (Rono, 2017). An organization's procurement department supports operations by ensuring the timely acquisition of inputs and raw materials that are both high quality and affordable. It is essential that procurement workers have the requisite abilities and knowledge of contemporary technologies for procurement management given the ongoing increase of procurement requirements and operations. Procurement management also evolving as progressive organizations shift their focus from price-per-piece to concentrate more attention on Total Cost of Ownership (TCO) and best value whereby executive decision-makers who embrace these procurement best practices will lead the way to real savings, improved productivity and stronger financial performance. Therefore, procurement practices are a set of activities undertaken by an entity with a view to promoting effective and efficient management of its supply chain (Sollish & Semanik, 2012).

According to Schooner and Whiteman (2000), procurement policy contributions in facilitating service delivery in an efficient manner are undisputed generally. Various aspects of procurement policy have a distinct influence on service delivery. However, procurement policy stimulates transparency and integrity in the procurement cycle positively influenced the procurement process. According to Rehmatulla, et al (2017), procurement entities that have good procurement policies also have better service delivery. Transparency ensures that the procurement of goods, works and services are of high quality and meets the right specification which enables the Organization to provide quality service. A transparent policy such as E-procurement ensures value for the organization's resources by awarding contracts to suppliers who can provide high-quality services and materials at a reasonable price. In addition, supplier selection is the screening process to identify the best responsible supplier of goods and services (Drinkwater, 2011). In the selection process, the focus is placed on competitive pricing, ability to meet specifications and standards, product and service quality, product yields and durability, reliable delivery methods, quality control methods and practices, technical abilities and leadership, ability to provide niche or unique product offering and/or design concept, financial stability and credit strength.

However, it was observed after a pilot survey by the researcher, that most manufactured products in Nigeria are characterized to be substandard products with poor quality of goods and services, in spite of the efforts

by the manufacturing firms to improve services of the procurement management of the various departments. Failure to comply with the regulations or implement the recommended performance standards has led to irregular and subjective decisions. These decisions have been costly to the entities thus affecting service delivery. Therefore, this study sought to establish the effects of procurement management on service delivery with specific interest in manufacturing firms in North-East Nigeria. The hypotheses for this research are stated in a null form as shown below:

H₀₁: Procurement policy has no significant effect on service delivery of selected manufacturing firms in North-Eastern Nigeria.

H₀₂: Supplier selection has no significant effect on service delivery of selected manufacturing firms in North-Eastern Nigeria.

LITERATURE REVIEW

Concept of Procurement Management

Cole (2007) defines procurement management as the purchase of merchandise or services at the optimum possible total cost in the correct amount and quality. He further reiterated that Procurement can also be simply defined as the procedure in which goods or commodities are bought when prices are low. Conversely, Kyengo (2012) describes procurement management as managing business activities and relationships internally within an organization, with immediate suppliers, with first and second-tier suppliers and customers along the supply chain, and with the entire supply chain. Procurement as the chain linking each element of the manufacturing and supply process from raw materials through to the end user, encompassing several organizational boundaries. Thus, according to this definition procurement encompasses the entire value chain and addresses materials and supply management from the extraction of raw materials to its end of useful life.

According to Chikwere et al. (2022), procurement management is the overarching function that describes the activities and processes to acquire goods and services. Importantly, and distinct from “purchasing”, procurement involves the activities involved in establishing fundamental requirements, sourcing activities such as market research and vendor evaluation and negotiation of contracts. It can also include the purchasing activities required to order and receive goods. Also, procurement management is the acquisition of works, goods and/or services. It is favorable that the goods/services are appropriate and that they are procured at the best possible total cost of ownership to meet the needs of the purchaser in terms of quality and quantity, time, and location. Corporations and public bodies often define procurement as the processes intended to promote fair and open competition for their business while minimizing exposure to fraud and collusion (Masuruli, 2021). Procurement management is the process where the right goods and services are acquired at the right price. Hommen and Rolfstarn (2009) viewed public procurement as a process where a public agent contracts private companies for supply of works, goods and services. Procurement can be divided into three broad categories namely; competitive methods (open tendering), non- competitive or negotiated methods (request for Quotations) and single sourcing procurement methods. In most countries competitive procurement is preferred as it avoids infiltration of cartels, promotes openness, transparency and favoritism.

Concept of Procurement Policy

According to Eyaa and Oluka (2011), procurement policy can be defined as a plan or description of the physical or functional characteristics, or of the nature of a supply, service, or construction item; the requirements to be satisfied by a product, material, or process indicating, if appropriate, the procedures to determine whether the requirements are satisfied. Procurement policy is a statement of the attributes of a product, process or service user departments’ wishes to purchase, and consequently, which the supplier is expected to supply. Nichols (2002) asserts that procurement policy is a principal function of procurement that contributes immensely to government operations successfully and facilitates effective service delivery. Schooner and Whiteman (2000) affirms that procurement policy contributions in facilitating service delivery in an efficient manner are undisputed generally.

Various aspects of procurement policy have a distinct influence on procurement process (Tkachenko et al, 2017). For instance, procurement policy that stimulates transparency and integrity in the procurement cycle positively influenced the procurement process. According to Rehmatulla et al. (2017), procurement entities that have good procurement policies also have better service delivery. Transparency ensures that the procurement of goods, works and services are of high quality and meets the right specification which enables the Organisation to provide quality service. A transparent policy such as E-procurement ensures value for the organization's resources by awarding contracts to suppliers who can provide high-quality services and materials at a reasonable price (Vecchiato & Roveda, 2014).

Concept of Supplier Selection

Supplier selection is the process by which firms identify, evaluate and contract with suppliers. The supplier selection process deploys a tremendous amount of firm's financial resources. In return, firms expect significant benefits from contracting with suppliers" offering high value. Suppliers have been acknowledged as the best intangible assets of any business organization (Manoharan et al. 2012). Supplier selection has become one of the most important issues for establishing an effective supply chain system. Indeed, supplier selection and evaluation represent one of the significant roles of purchasing and supply management functions. Arguably purchasing and supply chain plays a crucial role in supply chain management through proper selection of competent suppliers. Weber et al. (2011) affirm that firms cannot successfully produce low cost, high quality products without judicious selection and maintenance of a competent group of suppliers.

According to Shah and Hasan (2016), supplier selection is one of the most important decisions in the procurement of goods. Other studies conducted a broad analysis of the criteria and methods for supplier selection in general. Criteria often used include price, on time delivery and quality. Procurement process begins with the realization of the need for new suppliers, the formulation of decision criteria, manufacturers invite suppliers to make a bid. According to Nugroho and Iskandar (2020), supplier selection decisions are generally regarded as one of the most significant in the responsibilities of managers. To maintain a competitive edge in global markets, organizations should consider environmental issues and embrace the supplier selection evaluation model. Supplier selection decisions can be applied in many situations such as many supplier cases, as well as in various stages of life cycle products from the initial raw material purchase to the end of the service provider.

Concept of Service Delivery

Service delivery is a measure of how products and services supplied by a company meet or surpass client expectation. Service delivery is also defined as the number of clients, or percentage of total clients, whose reported experience with a firm, its products or its services (ratings) exceeds specified satisfaction goals (Lysons & Farrington. 2010). And yet another definition of service delivery is it refers to the extent to which clients are happy with the products and/or services provided by a business. Further definition of service delivery is it is a term generally used to measure a client's perception of a company's products and/or services. It's not a straight forward science however, as service delivery will vary from person to person, depending on a whole host of variables which may be both psychological and physical. The usual measures of service delivery involve a survey with a set of statements using a Likert Technique or scale (Burt, 2013). According to Langseth (2006), service delivery is defined as a collection of outcomes of perception, evaluation and psychological reactions to the consumption experience with a product/service.

According to Kakwezi (2020), service delivery is a collection of outcomes of perception, evaluation and psychological reactions to the consumption experience with a product/service. Service delivery is a part of client's experience that exposes a supplier's behavior on client's expectation. It also depends on how efficiently it is managed and how promptly services are provided. This satisfaction could be related to various business aspects like marketing, product manufacturing, quality of products and services, responses client's problems and queries, completion of project, post delivery services and complaint management (Basheka, 2020).

Empirical Review

Procurement Policy and Service Delivery

Mwakiru and Barasa (2022) examined the influence of public procurement policy on service delivery in Kilifi County government, Kenya. The study adopted descriptive research design. The study was guided by three theories namely agency theory, stakeholders and contingency theory. Employees who dealt with procurement were selected purposively and census technique was adopted to select respondents from procurement department. The study population comprised of 70 respondents that included the procurement staff, head of procurement as well as committee members of the budget. Primary data was collected using closed-ended questionnaires. A pilot study was done in Mombasa County to determine any possible weakness in the instruments. Data was analyzed using Statistical Software for Social Sciences (SPSS). Cronbach Alpha used to measure the coefficient of reliability that yielded 0.788 in this study. Frequency distribution table were used in the presentation of the data. Multiple regression models were used to analyze data. The findings of the study showed that the predictors variables that included Procurement planning practice, Tendering Practice, Procurement Policy and Financial Management Practice explained 81.7% in the variation of service delivery in Kilifi County with the R square value ($R^2=0.817$). The study concluded that independent variables significantly influenced the service delivery in Kilifi County with; Procurement planning practice However, the study was conducted in Kenya which results might be different from studies in Nigeria.

Leila et al. (2020) established the influence of procurement policy by the county government in supporting SMES' growth in Samburu County. The research followed a descriptive design. The target population was be made up of 2,546 SME owners and 15 Government officers. The research used a sample of 255 SME owners and 15 government officials chosen using simple random sampling technique and purposive sampling technique respectively. The researcher collected data using questionnaires and schedules for interviews. The study undertook a pre-test study in Samburu County using 26 SME owners (10 percent of the study) that were not in the sampled size of the study. The 26 SME owners were selected by simple random method. Quantitative data analysis was performed using descriptive statistics such as frequencies, percentages, and means; and inferential statistics such as Pearson Correlation and Regression Processing, using SPSS Version 24. There was a positive significant relationship between procurement practices and growth performance of SMEs. This implies that procurement practices support from the county government had a significant impact towards contribution on the growth of their businesses over the last three years. R value was 0.801 while R-square value was 0.642. This was explained that procurement practices predicted 64.2 percent of growth performance variable. Procurement practices had a $\beta=0.098$ and a $p\text{-value}=0.001$. However, the study gathered from procurement practices variable that in Samburu county, the government had allowed an open access for SMEs to contract opportunities. SMEs owners however complained on limited efforts facilitated through county government to make sure that SMEs remained competitive as compared to other types of businesses. However, the results revealed that serial correlation was not found in the study. More so, the relationship between the control variables and the dependent variable. was weak among the variables.

Anane et al. (2019) determined the effect of procurement policy, procurement planning and sustainable procurement on service delivery. The study employed a quantitative research approach and explanatory design. The target population for the study was staff and management of the Volta River Authority. Structured questionnaire was used to gather primary data. The study used SPSS version 32.0 for the data analyses. The study found that 73.6% variations in service delivery were explained by Procurement Policy, Procurement Planning and Sustainable Procurement. The study found that Procurement Policy ($\beta = 0.623$ $q=0.000 < 0.05$) are significant determinants of service delivery thus a unit change in procurement policy will result in 62.3% change in service delivery. Procurement Planning ($\beta = 0.027$, $q=0.080 < 0.05$) are significant determinants of service delivery thus a unit change in procurement planning will result in 2.7% change in service delivery. Sustainable Procurement ($\beta = 0.39$ $q=0.000 < 0.05$) are a significant determinant of service delivery. Thus, a unit change in Sustainable Procurement will result in 39% change in service delivery. From the model estimation, procurement policy was the strongest predictor of service delivery followed by sustainable procurement and lastly procurement planning. The study revealed a strong

significant positive correlation between procurement policy and service delivery. Moreover, the result showed a strong significant positive correlation between procurement planning and service delivery. Again, the study found a significant positive correlation between sustainable procurement and service delivery. The study concludes that Procurement Policy, Procurement Planning and Sustainable Procurement significantly predict service delivery of VRA. However, the study did not provide an insight review into the relationship between procurement management and serviced delivery based on a detailed review of literature on the subject in both developed and developing economies.

Supplier Selection and Service Delivery

Amenya et al. (2022) determined the effect of supplier selection on performance in Kenya. The study was anchored on Agency theory and Stakeholder theory. The study adopted descriptive research design to draw the purpose of the inquiry. The target population was 60 employees working in the selected departments of Rongo University. The study used census sampling to select all 60 employees under the study. The main research instrument was the questionnaires to collect primary data and document analysis guide for secondary data collection. Descriptive statistics; percentage, mean and standard deviation was used to analyze the collected data. The researcher collected data from the respondents from individual departments. The study found that tendering practices was applicable in the university. The study found that procurement plans indicate timelines of what and when items would be procured, followed by infrastructural projects contracts are completed within set period. Advertisement of infrastructural project tenders considers the mode to use. The study established that supplier selection is applied in the university. The prequalification of infrastructural bidders is objective, the supplier selection criteria is objective to bidders. Competence of bidders improves performance of infrastructural projects. However, the study did not provide an insight review into the relationship between supplier selection and service delivery based on a detailed review of literature on the subject in both developed and developing economies.

Gallea et al. (2022) examined the influence of supplier selection routines, supplier evaluation routines and managerial attitude towards relational and performance risks on the future intention to form buyer–supplier partnerships, based on relational and evolutionary economics theory. The analysis was based on 156 questionnaires received from senior executives and supply/logistics managers of UK firms. They found that partner selection routine positively influences firms' propensity (future intention) to form buyer–supplier partnerships, unlike the supplier evaluation routine and perceptions of both relational risk and performance risk, which were not found to have a significant role. The findings suggested that firms wishing to initiate buyer–supplier partnerships can increase the likelihood of doing so by ensuring that their supplier selection routines incorporate efforts to establish potential suppliers' inclination for openness in a relationship, to establish their track record of demonstrating a high degree of integrity with other buyers and to confirm that potential suppliers have a deep knowledge and understanding of the buyer's business, a recognized strong reputation, and demonstrable financial stability.

Nugroho and Iskandar (2020) focused on supply selection in construction company in South Tangerang. Analytical Hierarchy Process (AHP) is used to determine the best supplier; there are 4 variables that are reference in conducting the selection of suppliers, such as: cost, quality, delivery, and service. Data analysis result from AHP calculation, obtained using a questionnaire of 5 respondents, stating that the alternative selection of each main material selected and best according to the criteria, for iron suppliers is PT. CBL, cement supplier is PT. SAS, and natural material supplier is PT. Citra BSD. The result in the selection of the supplier company is cost with a weight of 0.268, quality with a weight of 0.290, delivery with a weighting of 0.248, and the service with a weight of 0.194 where conclusions obtained from the analysis of the selection of the best suppliers and in accordance with the criteria, namely PT. CBL for iron suppliers, PT.SAS for cement suppliers, and PT. Citra BSD for suppliers of natural materials. However, more empirical literature should have been reviewed and critiqued with and post estimation test was not conducted.

Obanda et al (2019) centered on tactical supplier selection and service delivery using a case of Rakai District. The study used three objectives, that is; to examine the effect of specification on service delivery in Rakai District Local Government, to evaluate the effect of selection on service delivery in Rakai District Local

Government and to establish the relationship between contract award and service delivery in Rakai District Local Government. A cross-sectional research design was used for the study since data was collected as single point in time and this enabled the researchers to collect detailed and in-depth data from the respondents. The researchers used questionnaire and interview guide to collect data from the respondents and 58 respondents formed the sample size of the study. The findings of the study indicated that there is a strong positive linear relationship between specification, selection and contract award and service delivery ($r = .901$), specification, selection and contract award account for 81.2% variance of service delivery. In addition, the coefficients of each tactical procurement management indicators show that Specification, selection and contract award significantly affect service delivery ($p < .05$). Specification most affects service delivery ($t = 4.454$) followed by selection ($t = 3.324$) and contract award ($t = 2.967$), respectively. The study recommends Public Procurement and Disposal Authority should eliminate all elements of corruption in public procurement and promote integrity in the procurement process. This will in turn lead to improvement service delivery. However, more empirical literature should have been reviewed and critiqued with and post estimation test was not conducted.

Agency Theory of Procurement System

The agency theory of procurement is an agency model developed by Lupia (1998), which analyzes and postulates that service delivery requires a specification of procurement. Principal-agent theory is more accurately described as a family of formal models addressing related concerns with similar styles of analysis. It is not much of a stretch to suppose that for any given actors labeled “principal” and “agent,” and any pattern of interaction between the two, a principal-agent model can be written down with that pattern as an equilibrium outcome and modelers might consider it a parlor game of sorts to do it. Given that, one must be aware of claims to “test” principal- agent theory empirically in any broad sense. By the same token, it is always possible to defend any status quo interaction between a “principal” and an “agent” as reflecting the greatest degree of service delivery to which the agent can be held by the principal, given various informational asymmetries and commitment problems. Thus, from the above theory, the principal-agency theory underpins this study. This explain how effective procurement may affect the service delivery of a firm in a number of ways. The theory includes the extent to which there is support for sustainable procurement at the strategic organizational level and the degree to which organizational practices and hierarchy accelerate or impedes sustainable procurement.

METHODOLOGY

The research design adopted for the study was the survey research design. The population of this study comprised all eighty-three (83) management level employee of six (6) selected manufacturing firms operating in North-Eastern Nigeria (See Appendix). Considering the sample number of the population, the study adopted a census sampling technique whereby the entire population is taken as sample size hence, the sample size of the study is 83. Structured five-point Likert scale questionnaire was designed and made into copies for each respondent in the sample size. The questionnaire was subjected to reliability test using the Cronbach Alpha and all the indicators reveal an alpha value greater than 0.60 which is the minimum threshold recommended by Sekaran (2006). Multiple regression analysis with the aid of SPSS was employed to test the hypotheses earlier formulated.

The model for the multiple regression analysis to test the two hypotheses formulated is specified thus:

$$SDL = \beta_0 + \beta_1 PRP + \beta_2 SUS + e$$

Where: SDL = Service delivery, PRP = Procurement Policy, SUS = Supplier selection, β_0 = Intercept, $\beta_1 \beta_2$ = Coefficient of independent variables, e = error term.

RESULTS AND DISCUSSIONS

A total of 83 copies of questionnaire were distributed to the respondents out of which 81 were successfully retrieved and considered valid after screening. Subsequent analyses were conducted using 81 representing 98% response rate. This response rate was achieved because the study employed a one-on-one approach using representatives from each of the six (6) firms selected who aided in the data collection.

Table 1: Correlations

		PRP	SUS	SDL
PRP	Pearson Correlation	1	.756**	.704**
	Sig. (2-tailed)		.000	.000
	N	81	81	81
SUS	Pearson Correlation	.756**	1	.707**
	Sig. (2-tailed)	.000		.000
	N	81	81	81
SDL	Pearson Correlation	.704**	.707**	1
	Sig. (2-tailed)	.000	.000	
	N	81	81	81

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

Source: SPSS Output, 2023

One of the basic assumptions of the Ordinary Least Squares (OLS) regression is absence of multicollinearity among the independent variables and hence the need to run a correlation analysis to assess its presence or absence. Table 1 above shows the correlation result of the variables under study. The result revealed a positive relationship between procurement policy, supplier selection and service delivery. Procurement policy has a positive relationship with supplier selection which stood at 0.756 and significant at 5% level of significance. This however falls below the 0.80 multicollinearity measurement threshold (Berry & Feldman, 1985).

Table 2: Model Summary^b

Model	R	R Square	Adjusted Square	Std. Error of the Estimate	Durbin-Watson
1	.753 ^a	.567	.564	.71123	1.963

a. Predictors: (Constant), PRP, SUS

b. Dependent Variable: SDL

Table 3: ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	175.815	2	87.908	173.782	.000 ^b
	Residual	134.050	78	.506		
	Total	309.866	80			

a. Dependent Variable: SDL

b. Predictors: (Constant), PRP, SUS

Table 4: Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	1.022	.167		6.126	.000		
	PRP	.362	.057	.396	.670	.504	.428	2.337
	SUS	-.372	.056	-.408	-4.735	.000	.428	2.337

a. Dependent Variable: EPF

Source: SPSS Output, 2023

The result, as shown in the tables above revealed an R-square value of 0.567 which implies that 57% of the variation in Service Delivery (SDL) could be explained by the combination of procurement policy and supplier selection. The remaining 43% variation could be explained by other factors not included in this study. The f-statistics stood at 173.782 and also the probability of the f-statistics was found to be significant at 5% level of significance ($p < 0.000 < 0.05$) which therefore, indicates that the model is fit to measure the association between the variables under study.

The regression result indicates that procurement policy has insignificant effect on service delivery of manufacturing firms in North-Eastern Nigeria which implies that procurement policies of these firms may have been designed in a manner that is ambiguous thereby making its implementation challenging and hence its inability to significantly contribute towards service delivery. The probability of t-statistics stood at 0.504 which is greater than 0.05 level of significance and as such the study accepts the null hypothesis which states that procurement policy has no significant effect on service delivery of selected manufacturing firms in North-Eastern Nigeria. This finding disagrees with that of Mwakiru and Barasa (2022) Leila et al. (2020) Anane et al. (2019) who found significant effect of procurement policy on performance.

The regression result indicates that supplier selection has a significant effect on service delivery of manufacturing firms in North-Eastern Nigeria. However, this effect was found to be negative thereby signifying that criteria used in assessing and choosing suppliers of items are weak leading to wrong choices of suppliers who later default either in time, quality or quantity of their supplies and hence affecting service delivery adversely. The probability of t-statistics stood at 0.000 which is less than 0.05 level of significance and as such the study accepts the alternative hypothesis which states that supplier selection has significant effect on service delivery of selected manufacturing firms in North-Eastern Nigeria. This finding agrees with that of Gallear et al. (2022) Obanda et al (2019) who found significant effect of supplier selection on service delivery.

CONCLUSION AND RECOMMENDATIONS

Based on the results and findings, the study concludes that procurement policy and supplier selection of selected manufacturing firms in North-East Nigeria have not enhanced quality service delivery. Even, lapses in procurement policy and supplier selection have hindered their ability to deliver better and improved service. Therefore, this study recommends thus:

- i. Manufacturing firms should ensure that their procurement policies are clearly defined especially as it relates to the physical or functional characteristics, the requirements to be satisfied and performance indicators by which these policies will be measured against.
- ii. Manufacturing firms should review their criteria for selecting and contracting a supplier to limit approval to only suppliers that have the wherewithal to deliver at the best price, time and quality. This should also be drafted into the procurement policy of the firms and therefore, firms should ensure strict compliance to these criteria.

References

- Amenya, J. M., Ngacho, C., Nyaboga, Y. (2022). Effect of procurement practices and government policies on performance of the infrastructural project in public universities in Kenya: A case of Rongo University. *International Academic Journal of Procurement and Supply Chain Management*, 3(2), 238-262.
- Awuah, G., Anane, A. & Egyir, S.K. (2022). The Effect of procurement process on procurement performance of public tertiary institutions in Ghana. *World Journal of Advanced Research and Reviews*, 13(02), 121–130.
- Basheka, B. C. (2020). Determinants of unethical public procurement in local government systems of Uganda. *International Journal of Procurement Management*, 3(1), 81-94.
- Chikwere, D., Chikazhe, L. & Tukuta, M. (2022). The influence of public procurement practices on service delivery: Insights from Zimbabwe's rural district councils. *Journal of Tianjin University Science and Technology*, 55(9)
- Cole, C. (2007). Value creation in e-business. *Strategic Management Journal*, 22 (6-7): 493520

- Drinkwater, M., (2011). The impact of competitive tendering on social services and service users. Available from: <http://www.communitycare.co.uk/2011/11/17/the-impact-of-competitive-tendering-on-social-services-and-service-users/#.U5N5wnaPCPo>, (Accessed: 7 June, 2014).
- Eyaa, S., & Oluka P., (2011). Explaining non- compliance in public procurement in Uganda. *International Journal of Business and Social Science*, 2(11).
- Gallear, D., Ghobadian, A., He, Q., Kumar, V. & Hitt, M. (2022) Relationship between routines of supplier selection and evaluation, risk perception and propensity to form buyer–supplier partnerships. *Production Planning & Control*, 33(14), 1399-1415, <https://doi.org/10.1080/09537287.2021.1872811>
- Guo, D.J., Sarpong, P.B., Antwi, H.A. & Mensah, I.A. (2020). Evaluation of green procurement practices among mining companies' hospitals in Ghana: A qualitative analysis. *Environmental Health Insights Volume 14: 1–11. Article reuse guidelines: sagepub.com/journals-permissions*
- Jepchumba, M., & Kibet, Y. (2019). Effect of supplier evaluation on service delivery at moi university. *International Journal of Research in Education and Social Sciences (IJRESS)* 2(4), 15-26.
- Kakwezi, N. (2020). Procurement processes and performance efficiency in Kenya. university of Nairobi Unpublished MBA Project, 30-33.
- Kariuki, K.D. (2020). Procurement Process: A Key Component in Service Delivery in Solid Waste Collection under PPP Arrangement. *International Journal of Research and Innovation in Social Science*, 4(2).
- Kyengo, A, (2012); Effect of procurement on performance of constituency development fund projects in Kenya: Case Study of Kikuyu Constituency. Retrieved from Jomo Kenyatta University of Agriculture and Technology, Department of Entrepreneurship and Procurement.
- Lysons, K. & Farrington, B. (2010). *Supply Management*, (7th ed.). London, Pearson Education Limited.
- Manoharan, T. R., Muralidharan, C., & Deshmukh, S. G. (2012). A composite model for employees' performance appraisal and improvement. *European Journal of Training and Development*, 36(4), 448-480.
- 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.
- Nugroho, R.E. & Iskandar, M.S. (2020). Application of AHP for Supplier Selection in Construction Companies. *Saudi Journal of Engineering and Technology*. 5(4): 179-186.
- Nugroho, R.E. & Iskandar, M.S. (2020). Application of AHP for supplier selection in construction companies. *Saudi Journal of Engineering and Technology*. 5(4): 179-186.
- Obanda, P.W., Pule, S. & Aturinda, B. (2019). Examining the effects of tactical procurement practices on service delivery. *International Journal of Managerial Studies and Research*, 7(6).
- Oenga, N.O., Thogori, M. & Wabwire, M.J. (2022). Influence of procurement plan on the effectiveness of procurement process among public universities in eastern region, Kenya. *International Journal of Economics, Business and Management Research*, 6(2), 34-40.
- Rehmatulla, N., Smith, T. & Tibbles, L. (2017). The relationship between EU's public procurement policies and energy efficiency of ferries in the EU. *Marine Policy*, 75:278-289.
- Rono, T. K. (2017). Effects of Procurement Practices on Organizational Performance in Public Sector: A case of East African Portland Cement Company Ltd. *International Journal of Business and Commerce*, 48-61.
- Schooner, S., & Whiteman, N. (2000). Purchase cards and micro purchases. *Public Procurement Law Review*, 9(4), 148-170.
- Shah, S. & Hasan, S. (2016). Procurement practices in project-based manufacturing environments. *MATEC Web of Conferences* 76, 02007
- Sollish F. & Semanik J. (2012). The procurement and supply managers' desk reference. 2nd Ed USA, New Jersey: Wiley & Sons.
- Tkachenko, A., Yakovlev, A., & Kuznetsova, A. (2017) Sweet deals: State-owned enterprises, corruption and repeated contracts in public procurement. *Economic Systems*, 3(1):33-44.
- Vecchiato, R. & Roveda, C. (2014). Foresight for public procurement and regional innovation policy: The case of Lombardy. *Research Policy*, 43(2):438-450.

Appendix: Manufacturing Firm in North East Nigeria

S/N	List of Firm	Number of employees
1	Lafargw Africa (Ashaka Cement)	32
2	Simba Industries Limited	8
3	Wadi Multi-Link Company	7
4	Nguru oil mills	14
5	Adama Beverages Ltd (Faro)	13
6	Jemero Palm Oil Refine, Nig. Ltd	9
Total		83