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Adoption of Sustainable Public Procurement in the Public Institutions in the Public Federal Institutions in Southeast Nigeria: Influencing Factors and Challenges

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Abstract **Review Article**

Sustainable Public Procurement (SPP) is an important governance tool that is cost-effective in the long run and will anchor social and economic values and environmental attributes within public procurement. However, despite Nigerian subscribes to the Sustainable Development Goals, the implementation of SPP in the federal institutions is low with poor representation of the Southeast geopolitical zone in empirical literature.

The study seeks to identify institutional factors influencing SPP implementation in selected federal public institutions of Southeast Nigeria, barriers, and capacity factors (finance, economy, regulation, and policy).

The study used a cross-sectional survey design. Data were collected from 186 procurement, finance, works and tender-board officers in federal universities and polytechnics in the five Southeast states using a structured questionnaire. Data were analysed using descriptive statistics and multiple regression at 0.05 level of significance.

Except for lack of appropriate capacity, policy and regulatory barriers had the greatest negative influence on SPP implementation ($\beta = -0.442$, $p = 0.000$) followed by financial and economic barriers ($\beta = -0.298$, $p = 0.000$). Institutional determinants ($\beta = 0.376$, $p = 0.000$) and capacity determinants ($\beta = 0.213$, $p = 0.002$) had positive significance. These were absence of mandatory sustainability clauses in the 2007 Public Procurement Act, poor enforcement mechanisms, financial constraints, and multiple spending priorities.

The interplay of institutional and organisational resources in SPP implementation is curbed by regulatory and budgetary constraints in the study area. To overcome this set of barriers to mainstreaming SPP, there is a need to reform laws, fund, build capacity, and commit the leadership.

Keywords: Sustainable public procurement, determinants, barriers, federal public institutions, Southeast Nigeria.

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Introduction

Public procurement is among the largest single mechanisms for governments to translate budget allocations into goods, works and services. Public procurement accounts for 15-30 percent of gross domestic product globally, endowing governments with increasing market power to influence production and consumption patterns (Shahin, Polonsky & Wood, 2025; United Nations Environment Program (UNEP), 2015). It is, thus, a major procurement budget category that necessitates the integrity of the procurement system as well as the quality of service provision, fiscal responsibility, and contributing to quality infrastructure and, thus, for the annual capital expenditure in Nigeria, the MDAs' procurement outlay (Obodoh, Anachuna, & Alor, 2023). Thus, sustainable public procurement (SPP) has emerged as a governance tool in this context.

SPP is "the process whereby an organization meets its needs for goods, services, works and utilities in the most effective way in terms of generating value for money on a whole life basis while in parallel protecting the environment and society" (UNEP, 2015). It embeds the three pillars of sustainability (economic, environmental and social) into the procurement decisions (Elkington, 1997; UNEP, 2015). Sustainable Development Goal 12, target 12.7, specifically urges countries to promote sustainable public procurement practices in accordance with national policies and priorities (Green Policy Platform, 2020).

However, SPP remains very low in Nigerian public institutions despite the global consensus. Evidence from federal institutions indicates that awareness of SPP is moderate but uneven, and that a persistent gap exists between theoretical understanding and practical application, with economic considerations continuing to dominate environmental and social dimensions (Sarki, 2026). The highlight barrier has been the failure to fund it, bureaucratic delays, weak policy frameworks, low technical capacity and resistance to change (Sarki, 2026). A survey of procurement specialists at the national level identified high-level of procurement resistance to change in the form of lack government commitment, poor state of sustainable supplier availability, financial constraints and weak regulatory structures and knowledge of sustainable principles as the barriers to the implementation of sustainable procurement practice in Nigeria (Makeri, 2026).

The Public Procurement Act (PPA) 2007 is a major piece of law governing the federal procurement system which also set up the National Council on Public Procurement and Bureau of Public Procurement (BPP) aimed at entrenching competition, transparency and value-for-money (Obodoh et al., 2023). However, the Act is ambivalent on the requirement of sustainability criterion: there are no mandatory provisions on climate risk assessment, life cycle costing and entrenched environmental performance criterion (Green Procurement Practices, 2026). Thus, the federal procuring entities are operating under weak sustainability provisions and accountability regime (Sarki, 2026).

In Nigeria, the Southeast geopolitical zone that comprises Abia, Anambra, Ebonyi, Enugu and Imo States presents a very good case study for the examination of SPP practice in federal institutions. It is home to several federal universities, federal polytechnics and federal medical centers, as well as federal roads, etc., with telling procurement portfolios. However, the zones have deep-seated procurement problems. An audit of works procurement management and delivery in Abia, Enugu and Ebonyi States revealed that procurement performance was negatively affected by inadequate funding, corruption, poor planning practices, delayed payments to contractors, bureaucratic delays, political interference and reduced willingness to use digital systems (Onyenso, Ugulu, Okereke, & Nmecha, 2025). Structural and institutional factors in Anambra State that hinder practical law-regime effectiveness were political discontinuity, weak enforcement, and discretionary disclosure rules (Obodoh et al., 2023).

Others, the enablers of SPP, such as institutional pressures, leadership commitment, organisational learning, regulatory reform, capacity building and market readiness, have been less systematically studied in the Southeast

federal context. However, institutional theory contends that pressures toward SPP to organisations are coercive, normative, and mimetic, but not without mediation by organisational learning and absorptive capacity (Shahin et al., 2025). It also synthesises the Resource-Based View, which focuses on internal (financial, human, technological and leadership) resources in the organization to facilitate transformation of external pressures for the development of SPP practices (Sarki, 2026).

This study thus attempts to help bridge a gap in the literature by systematically examining the factors that encourage or hinder SPP in selected federal public institutions in Southeast Nigeria. Specifically, it aims at identifying the enablers and barriers considered most important by procurement officers and other stakeholders as well as analysing the interactions of institutional, financial, regulatory, and capacity-related variables in such a regional/institutional context.

Design of the study

The study adopted Descriptive Survey Design. A design was preferred since it assisted the researcher to collect data from a sample of the respondents at a time to establish the determinants and barriers of SPP implementation. The quantitative approach was helpful for statistical analysis of variables (Creswell & Creswell, 2018).

Area of Study

The study was carried out in the Southeast geopolitical zone of Nigeria which consists of Abia, Anambra, Ebonyi, Enugu and Imo States. The zone has some federal public institutions in the form of federal universities, federal polytechnics, and federal MDAs with huge procurement portfolios.

2.2 Study Population.

The population comprised tender boards, procurement committees, and procurement officers, finance officers, works, and technical officers in the selected federal public institutions in Southeast. The institutions included the federal universities, federal polytechnics, and federal MDAs with functional procurement units. The population was 450 procurement and finance staff strength of the selected institutions.

Sampling Design and Methods

"A multi-stage sampling technique." In the first stage, federal public institutions with a functioning procurement department were purposively sampled. In the second stage, respondents were classified into procurement officers, finance officers, works and technical officers, and tender board members using stratified sampling. Finally, in third stage simple random sampling was used to pick the respondents from each stratum. The sample size (212) was determined using Taro Yamane formula at 5% margin of error.

Data collection instrument

It was a structured questionnaire titled the Sustainable Public Procurement Determinants and Barriers Questionnaire (SPPDBQ). It contained sections on demographic information, institutional determinants, financial and economic barriers, regulatory and policy barriers, capacity-related determinants, and barrier overcoming strategies. Items were rated on a 5-point Likert scale (5 =Strongly agree and 1= Strongly disagree).

Instrument Validity and Reliability

The instrument was face and content validated by three experts in public procurement, project management, and measurement and evaluation. A pilot test was carried out on 30 procurement officers from federal institutions in the Southeast not part of the main study sample. The reliability of the instrument was tested using Cronbach's alpha coefficient, and a coefficient of 0.70 was deemed adequate (Taber 2018).

Data Collection Process and Measurements

Questionnaires were administered by two trained research assistants to the respondents. Of the 212 questionnaires targeted, 186 were correctly filled

and returned, a response rate of 87.7 per cent. Respondents were assured anonymity and confidentiality.

Data analysis method

Research questions were responded to with descriptive statistics (frequencies, percentages, means, and standard deviations). The criterion mean was 3.00. Multiple regression analysis was used to test the hypotheses at 0.05 level of significance. The regression model is:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon$$

Where Y = SPP implementation; X_1 = institutional determinants; X_2 = financial and economic barriers; X_3 = regulatory and policy barriers; X_4 = capacity-related determinants. Analysis was conducted using the Statistical Package for the Social Sciences Version 25.

Ethical consideration:

Relevant institutional research ethics committee approval was sought. The respondents were informed of the research and allowed to give their informed consent, and confidentiality and freedom to opt-out at any time were assured with the respondents.

Findings and discussion of research

Respondents' Profile

A total of 186 valid responses were analysed. Majority of the respondents were from federal MDAs (40.9%), federal universities (36.6%) and federal polytechnics (22.6%). For designation, most respondents were procurement officers (39.8%). The majority of the respondents had 6–10 years of procurement experience (38.2%), and most of the respondents held HND/B.Sc. (52.7%). Just 36.0% had undergone any training on sustainable procurement, indicating a significant capacity gap.

Response to Research Questions

Institutional Factors: Respondents agreed that institutional determinants foster implementation of SPP (grand mean = 3.64). The highest-rated item was leadership commitment from top management (M = 4.12, SD = 0.78), followed by governance arrangements that promote transparency (M = 3.89, SD = 0.88) and the incorporation of sustainability into organisational strategy (M = 3.78, SD = 0.91). Procuring against sustainability targets was the lowest-rated institutional item (M = 3.34, SD = 1.11).

Financial and Economic Barriers: The financial barriers registered the highest grand mean (M =3.92). Competing spending priorities (M = 4.08, SD = 0.81), late release of procurement funds (M = 4.05, SD = 0.83), budget (M = 4.21, SD = 0.74) and general macro-economic conditions (M = 4.14, SD = 0.77) were the worst. The procurement culture that emphasised short-term price versus whole life value (M = 3.92, SD = 0.90) was also severe.

Regulatory and Policy Constraints: The grand mean (4.02) for this category was the highest of all indicating that the most severe constraint is regulatory and policy barriers. The most acute constraints were not having mandatory sustainability provisions in the PPA 2007 (M = 4.32, SD = 0.69), followed by weak regulatory structures (M = 4.24, SD = 0.72) and weak enforcement mechanisms (M = 4.18, SD = 0.75), followed by bureaucratic delays (M = 4.09, SD = 0.79).

Capacity factors: The mean capacity factors were 3.51. Regular training on sustainable procurement (M = 3.85, SD = 0.91), availability of practical personnel on sustainability (M = 3.72, SD = 0.95), and organisational learning (M = 3.63, SD = 0.98) were the most highly rated capacity factors. However, life-cycle costing knowledge (M = 3.41, SD = 1.09) and BPP technical support (M = 3.22, SD = 1.15) were rated lower.

Strategies to overcome barriers: The proposed strategies to overcome the barriers were all highly rated (grand mean = 4.02). The top three strategies included amending the PPA 2007 to make sustainability mandatory (M = 4.38, SD = 0.66), strengthening enforcement mechanisms (M = 4.24, SD = 0.71), and providing dedicated budget lines for sustainable procurement (M =

4.15, SD = 0.76).

Testing of hypotheses.

Multiple regression analysis model results indicated that the model was statistically significant [F(1, 173) = 87.342; p < 0.000] and R2=0.659 with the four independent variables together explaining 65.9 per cent variation on the level of implementation of SPP.

Table 1: Multiple Regression Results

Model	B	Std. Error	Beta	t	Sig.
(Constant)	1.245	0.312	—	3.990	0.000
Institutional determinants (X_1)	0.342	0.058	0.376	5.897	0.000
Financial barriers (X_2)	−0.287	0.061	−0.298	−4.705	0.000
Regulatory barriers (X_3)	−0.415	0.055	−0.442	−7.545	0.000
Capacity determinants (X_4)	0.198	0.064	0.213	3.094	0.002

First hypothesis ($H0_1$): The institutional determinants do not have a significant effect on the SPP implementation. The null hypothesis was rejected. B = 0.342, t = 5.897, p = 0.000. Institutional factors have a significant positive effect on SPP implementation.

H0 2: Financial and economic barriers do not significantly constrain SPP implementation. The null hypothesis was rejected (B = −0.287, t = −4.705, p = .000). From the result, the financial barrier negatively and significantly constrains SPP implementation.

$H0_3$: Regulatory and policy barriers do not significantly constrain SPP implementation. The result (B = -0.415, t = -7.545, p = 0.000) led to the rejection of the null hypothesis. Regulatory barriers exerted the most negative influence on SPP implementation.

$H0_4$: Deterrents of the capacity kind do not have any significant impact on SPP implementation. The null hypothesis was rejected (B = 0.198, t = 3.094, p = 0.002). Capacity-related factors have a significant positive influence on SPP implementation.

Discussion of the results

The finding that institutional factors are major drivers in SPP implementation corresponds to the 10-Year Framework of Programs on Sustainable Consumption and Production, which argues that SPP implementation requires strong senior-level champions to advocate for SPP and ensure that sufficient resources are allocated for SPP implementation (10YFP SPP Program, 2015). This also corroborates Nsiah-Sarfo, Ofori & Agyapong (2023), who found sustainable leadership to be one of the most critical internal drivers that interlink environmental protection, social justice, and economic growth.

The prevalence of financial and economic barriers is supported by Sarki (2026), who found that financial constraints are the most dominant barrier to SPP implementation in federal institutions in Nigeria, and Makeri (2026), who found that financial constraints are one of the most dominant barriers in a national survey. The finding that procurement culture favours short-term price and not whole-life value indicates both a real lack of resources and a systemic bias against sustainability (Testa, Annunziata, Iraldo, & Frey, 2016).

The finding that regulatory and policy barriers are the most serious constraint is consistent with Atanga et al. (2025), who reported that inadequate regulations are a major barrier to green public procurement performance evaluation. It is also consistent with Makeri

(2026), who identified regulatory and institutional barriers as the largest contributor to the variance in the implementation of green public procurement in Nigeria. And as PPA 2007 is permissive and not prescriptive regulatory cultures, it does not allow for climate risk assessment and life-cycle costing and enforceable environmental performance criteria (Green Procurement Practices, 2026).

Testa et al. (2016) supplemented the importance of skills by arguing that procurement officers need technical capacity to draft sustainability specifications, undertake life-cycle costing, assess environmental/social criteria and monitor contract performance despite leadership commitment and legislation. Similarly, Van Zyl and Sewry (2023) have observed that employment of experienced procurement staff with adequate knowledge of sustainability affects sustainable procurement.

The strong support for strategies such as revisiting the PPA 2007, enhancing enforcement along with dedicated budget lines is similar to the recommendations by Atanga_et_al (2025), Makeri (2026), and Sarki (2026). The results confirm the combined theoretical framework used in the study involving the interaction of institutional pressures and organisational resources to determine SPP outcome.

5. Conclusion

The study findings revealed that the organisational resources and the institutional pressures decides SPP adoption in federal public institutions in Southeast Nigeria. It notes that regulatory and policy barriers and financial and economic barriers are the most serious constraints to the extent of SPP implementation, while institutional and capacity determinants are noted as important enablers. In particular, the current regulatory framework, in particular the PPA 2007, is permissive (and not prescriptive) on sustainability and this severely constrains the pace and depth of SPP implementation. In the absence of legislative passage of mandated inclusion of sustainability considerations and accompanying enforcing institutions, improved enforcement based on the availability of dedicated funding, capacity building, and leadership commitment is required for SPP not to continue to remain at the fringes of the federal procurement practice in the region.

The study recommends amending the PPA 2007 to include mandatory sustainability provisions, strengthening enforcement with BPP, dedicating budget allocations for sustainable procurement, institutionalizing integrated capacity building programs, establishing sustainability units in federal procuring institutions, and promoting leadership commitment and senior champions for SPP. Mainstreaming SPP in the federal public institutions in Southeast Nigeria requires a multi-dimensional approach that includes legal reform, financial commitment, capacity building, and leadership commitment.

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