



## RESEARCH ARTICLE

### EVALUATING PROCUREMENT ACCOUNTABILITY IN SUBNATIONAL GOVERNANCE: AN APPLICATION OF SPPAI IN IMO STATE, NIGERIA

NJENJE BRENDAN UGONNA, H. U. NWOKE, G. C. ENYINNA, M. I. NMECHA

<sup>1</sup> Procurement Management, Centre of Excellence in Sustainable Procurement, Environmental and Social Standards (SPESSCE), Federal University of Technology, Owerri; <sup>2</sup> University of Agriculture and Environmental Sciences, Umuagwo, Nigeria; <sup>3</sup> Department of Procurement, University of Agriculture and Environmental Sciences, Umuagwo, Imo State, Nigeria.

#### ABSTRACT

Public procurement is a critical mechanism for public service delivery and fiscal accountability, yet the subnational implementation of these frameworks in Nigeria appears to exhibit unevenness despite established legal frameworks (Adewole, 2014). The present study endeavors to assess procurement accountability in Imo State by means of a legal review and an empirical assessment, the latter of which was conducted utilizing a simplified State Public Procurement Accountability Index (SPPAI). The methodology combined desktop analysis of procurement legislation with a structured questionnaire applied across fifteen Ministries, Departments, and Agencies (MDAs) for the purpose of evaluating performance across eight accountability dimensions. The SPPAI results, however, appear to reveal considerable institutional variation. Three MDAs—specifically, the Imo State Ministry of Finance, the Ministry of Works and Transport, and the Planning and Development Commission—achieved full compliance, each of which recorded a perfect accountability score of 100%. High-performing institutions also encompassed the Imo State Ministry of Health (93.8%), the UNIAGRIC Procurement Department (91.7%), and the Federal University of Technology, Owerri (87.5%). Conversely, moderate performance was observed among MDAs, including UBEB and ISIEC (77.1%); concomitantly, lower scores were recorded by institutions such as the Federal Teaching Hospital, Owerri (66.7%), the Imo State Polytechnic (50.0%), and the Imo State Ministry of Environment (45.8%). It is noteworthy that the Imo State Bureau of Public Procurement, somewhat paradoxically, recorded a comparatively low accountability score of 52.1%. Across MDAs, strengths were observed in procurement planning and bid processes, while weaknesses persisted in sanctions enforcement, e-procurement, sustainability integration, reforms, and achievement. Thus, the study ostensibly demonstrates the diagnostic utility of the SPPAI for subnational procurement reform, thereby furnishing an empirical foundation for the implementation of targeted accountability improvements within Imo State.

**Keywords:** Public procurement, accountability, governance, SPPAI, subnational institutions, E-Procurement.

#### Corresponding Author

Njenje Brendan Ugonna

E-mail Address: [njenjeben@yahoo.com](mailto:njenjeben@yahoo.com)

**Received:** 22/2/2026; **Revised:** 2/3/2026; **Accepted:** 29/3/2026; **Published:** 31/3/2026



## 1.0. INTRODUCTION

Public procurement assumes a pivotal function within modern economic frameworks, characterized by its substantial allocation of government expenditure and its instrumental capacity for the attainment of developmental objectives. Globally, procurement activities account for approximately 12% of gross domestic product (GDP) (OECD) and up to 29% of total government spending ("Public. In developing countries such as Nigeria, public procurement encompasses not merely the acquisition of works and services but also the promotion of transparency, accountability, and the judicious allocation of scarce resources, thereby fostering socio-economic growth (Okotie). Owing to this criticality, procurement systems have progressively achieved centrality within governance reforms, primarily because they frequently exhibit susceptibility to inefficiencies and corrupt practices absent judicious management.

The concept of procurement maturity has emerged as a framework for the assessment of the efficacy of organizational procurement management, particularly within governmental contexts. Maturity refers to the related degree of standardization, optimization, and alignment of procurement practices with strategic objectives (Simionescu). Mature procurement systems tend to emphasize efficiency, innovation, and value-for-money, while immature systems are often characterized by fragmented processes, weak institutional capacity, and susceptibility to malpractice. In this regard, Procurement Performance Assessment Indicators (PPAIs) have been developed by institutions such as the World Bank and the OECD to provide structured tools for the measurement of progress in procurement reforms (2021). These indicators serve as benchmarks for the identification of strengths, weaknesses, and gaps within procurement systems, thereby facilitating informed decision-making among stakeholders regarding reforms.

In Nigeria, public procurement has historically been confronted with challenges pertaining to weak institutional frameworks, bureaucratic bottlenecks, and limited capacity for enforcement (Ama). Prior to the enactment of the Public Procurement Act of 2007, procurement was largely unregulated, prone to political interference, and characterized by a paucity of transparency (Maduekeh). The Act sought the standardization of procurement practices across federal entities, the establishment of the Bureau of Public Procurement (BPP), and the promotion of competitive bidding processes (Okotie). While the act represented a significant milestone, recent evidence notably suggests that Nigeria's procurement system appears to continue to struggle with issues of compliance, inefficiency, and limited accountability (Ama). Such shortcomings demonstrably undermine the governmental capacity for the provision of essential infrastructure and services to its citizenry, particularly evident within the health, education, and energy sectors.

The assessment of procurement maturity is pertinent, given the dynamic evolution of public procurement, which necessitates governmental adoption of novel strategies, technologies, and governance mechanisms. In today's globalized economy, procurement systems are expected to integrate digital technologies, such as e-procurement platforms, which enhance efficiency and minimize human discretion in decision-making (Nurmandi). Countries with more advanced e-procurement systems tend to reduce opportunities for corruption, enhance transparency and accountability, and strengthen monitoring and evaluation (Neupane). In contrast, nations with low procurement maturity often experience procurement delays, inflated contract prices, and poor-quality



project outcomes (Al-Munifi). Nigeria's procurement sector, though exhibiting evolutionary trends, appears not to have fully embraced digital transformation, thereby potentially limiting its attainment of optimal outcomes (Olapade & Afolabi, 2021).

Beyond efficiency, procurement maturity also plays a vital role in promoting good governance and public trust. The misuse of procurement processes has historically been one of the leading drivers of corruption worldwide, particularly in resource-rich developing nations (Williams-Elegbe). In Nigeria, public procurement is estimated to account for nearly 70% of government spending, consequently rendering it particularly susceptible to corrupt practices (Dokot et al., 2026). Thus, the assessment of procurement system maturity is demonstrably essential for the strengthening of governance structures, the assurance of accountability, and the alignment of procurement with broader development agendas, such as the United Nations Sustainable Development Goals (SDGs) (Scotelano).

Globally, there has been a shift from traditional procurement models focused solely on cost and compliance to more strategic approaches emphasizing value creation, innovation, and sustainability (Mutangili, 2023). This paradigm shift underscores the importance of procurement maturity models as tools for assessing how well governments are adapting to new expectations. In Nigeria, despite various reform initiatives, the procurement landscape nonetheless appears to confront challenges, including political interference, capacity deficits, and a paucity of monitoring mechanisms (Imoni). The gap between policy formulation and implementation persists, thereby impeding the realization of transparency and efficiency (Mahamadu).

The assessment of Nigeria's procurement maturity through tools such as the Standard Procurement Performance Assessment Indicator (SPPAI) becomes particularly relevant in this context. SPPAI provides a structured, evidence-based framework for evaluating procurement systems across dimensions, which encompass accountability, sustainable legal and regulatory frameworks, institutional capacity, procurement operations, and transparency mechanisms (2020). The application of such a tool enables policymakers, researchers, and practitioners to objectively measure progress, identify systemic weaknesses, and propose reforms specifically tailored to Nigeria's exigencies. Furthermore, the utilization of structured assessment instruments may align with international best practices, thereby facilitating benchmarking against other nations that share analogous economic and governance contexts.

An additional dimension of procurement maturity assessment is the role of stakeholder engagement. Effective procurement systems necessitate not only robust legal frameworks but also the active participation of diverse stakeholders, which include civil society organizations, private contractors, and pertinent oversight institutions (Cravero). Within the Nigerian context, the involvement of stakeholders in procurement processes frequently remains circumscribed, a condition often attributable to a paucity of accessible procurement information and insufficient enforcement of public procurement legislation (Enweremadu). This circumscription consequently impedes transparency and diminishes the capacity of citizens to ensure governmental accountability; consequently, maturity assessments also appraise the degree to which procurement systems foster inclusiveness and participation.

Furthermore, the escalating integration of digital tools has introduced an additional dimension into procurement maturity assessments. With the advancement of e-procurement, blockchain applications,



and artificial intelligence in procurement monitoring, governments are under growing pressure to modernize their systems, integrating advanced technologies requisite for Industry 4.0-enabled procurement (Anugwo). For Nigeria, this phenomenon presents both a formidable challenge and a significant opportunity. On one hand, digital reforms necessitate substantial investment in infrastructure, training, and institutional readiness; on the other hand, their adoption may enhance effectiveness, transparency, and accountability, in addition to effecting cost reduction (Danieli). The extent to which Nigeria integrates these technologies may prove to be a pivotal determinant of its procurement maturity in the coming years.

In summation, procurement maturity constitutes a critical constituent of governance and economic performance. It delineates a methodological framework for the assessment of procurement systems' efficacy in attaining transparency, efficiency, and optimal value-for-money. For Nigeria, where procurement remains a central element of government expenditure and development (Uwaoma), assessing maturity through a tool such as SPPAI may be deemed essential. This process not only facilitates the identification of inherent weaknesses but also establishes pathways for reform and alignment with global best practices. Against this backdrop, this study endeavors to evaluate Nigeria's procurement maturity, thereby elucidating the progress attained, the challenges that persist, and the opportunities for reform. By doing so, it contributes to the ongoing discourse on governance, accountability, and sustainable development.

### **1.1. Objectives of Study**

The primary objective of this investigation involves the assessment of the extent of adoption of sustainable public procurement practices within Imo State, employing the Sustainable Public Procurement Adoption Index (SPPAI). To attain this overarching aim, the study will delineate the following specific objectives:

1. A comprehensive review of existing public procurement policies and regulations in Nigeria, with particular attention directed towards their implementation within Imo State, shall be undertaken.
2. The development of a simplified Sustainable Public Procurement Adoption Index (SPPAI), specifically tailored to the distinctive procurement context of Imo State, is envisioned.
3. A rapid assessment of procurement accountability across selected Imo State ministries, departments, or agencies, utilizing the SPPAI, shall be executed.
4. To analyze the findings from the application of the SPPAI and a theoretical framework, determine the current level of procurement accountability in Imo State.
5. The formulation of practical recommendations, predicated upon the study findings, for the reinforcement of procurement accountability mechanisms within Imo State, is anticipated.

### **1.2. Research Questions**

1. What are the existing public procurement policies and regulations guiding procurement practices in Nigeria, and how are they applied in Imo State?
2. How can a simplified Public Procurement Accountability Index (SPPAI) be designed to suit the Imo State procurement context?



3. What does the application of the SPPAI reveal about procurement accountability in selected Imo State ministries, departments, or agencies?
4. What are the key strengths and weaknesses of procurement accountability mechanisms in Imo State, based on the study findings?
5. What practical recommendations can be proposed to enhance procurement accountability in Imo State?

### 1.3. Hypotheses

For the evaluation of the overall level of procurement accountability within Imo State, the subsequent hypothesis has been formulated:

#### **H<sub>0</sub> (Null Hypothesis):**

The mean SPPAI score of selected MDAs in Imo State is not significantly different from the acceptable benchmark of 75%.

#### **H<sub>1</sub> (Alternative Hypothesis):**

The mean SPPAI score among selected MDAs in Imo State differs significantly from the acceptable benchmark of 75%.

## 2.0. CONCEPTUALIZATION, THEORIES AND EMPIRICAL

### 2.1. Conceptualization

Public procurement is a critical instrument of state policy and governance, especially in countries seeking infrastructural development and improved public service delivery. Essentially, it involves the acquisition of goods, works, and services by government agencies and public bodies, subject to laws, regulations, and oversight mechanisms. The effectiveness of procurement systems is often measured not solely by cost or speed but also by their accountability, transparency, integrity, and alignment with broader developmental goals. Thus, a robust literature on procurement must begin with conceptual clarity and a theoretical framework to understand the levers of accountability, the nature of institutional incentives, and constraints in real-world settings.

#### **Streamlining the Acquisition Process**

Procurement is more than transactional: it is an exercise in public trust and public value. Accountability in procurement refers to the degree to which procuring bodies are answerable for their actions, comply with laws, disclose information, and provide recourse for wrongdoing or errors. In recent Nigerian literature, the role of integrity and accountability in enhancing procurement practices appears evident (Akaninyene). Such findings underscore the conceptual point that legal frameworks are necessary but not sufficient; institutional culture, capacity, and enforcement determine whether procurement laws translate into accountable outcomes.

In public procurement theory, accountability has normative, political, legal, and administrative dimensions. Normatively, procurement should serve objectives such as fairness, value for money, and



equitable development. Politically, procurement constitutes an arena of power dynamics: decisions regarding resource allocation, beneficiary identification, and cost determination reflect political agency. Legally, accountability depends on laws, regulations, and institutional capacities for enforcement. Administratively, it necessitates systems of record-keeping, audit, oversight, and accessible mechanisms for complaints or redress. A considerable number of failures in procurement accountability appear to stem from misalignments among these dimensions—for example, the presence of sound legal frameworks in the absence of administrative capacity, or the subjugation of formal legal controls by political influence.

## **2.2. Theoretical Models Relevant to Procurement**

For the comprehension and assessment of procurement accountability, several social science and governance theories maintain relevance. Among the most commonly applied are the following:

### **Principal–Agent Theory**

The principal–agent theory posits that one actor (the principal) delegates work or responsibility to another (the agent), but misaligned incentives and information asymmetry can lead the agent to act in ways contrary to the principal’s interests. Within the procurement context, governmental authorities (principals) typically delegate the execution of procurement functions to officials, suppliers, and contractors (agents), shaping the process. In the absence of robust monitoring mechanisms, effective incentive design, comprehensive transparency protocols, and stringent sanction systems, agents may consequently engage in opportunistic behavior (e.g., collusion, over-pricing, and non-performance). In the Nigerian context, studies have used this theory to explain non-compliance in procurement laws. In Nigeria, it includes studies such as Agu-tine (2023) (Agu-tine et al., 2023).

### **Institutional Theory**

Institutional theory underscores the significance of formal and informal institutions—laws, norms, and cognitive frameworks—in the determination of organizational behavior. From this perspective, procurement practices are shaped not just by statutory provisions but by prevailing norms (about patronage, corruption, and expectations of bribes), professional culture, and legitimacy concerns. A public procurement law may require certain procedures, but if norms of patronage are deeply corrupt and ingrained, agents may bypass procedures or perceive legal compliance as discretionary. The study “Public Procurement, Transparency and Accountability in Nigeria: Dissecting the Benefits and Challenges” (Igwe et al., 2021) highlights how informal norms (such as gift-giving, overruns, and favoritism) often conflict with formal rules, potentially attenuating institutional adherence.

### **Governance Theory and New Public Management (NPM)**

Governance theory situates procurement within broader systems of state accountability, transparency, stakeholder participation, and policy coherence. The New Public Management (NPM) paradigm, which influenced procurement reform globally in the 1990s and 2000s, emphasizes efficiency, performance metrics, competition, and customer (citizen) orientation. Nigerian reforms (including the Public Procurement Act (PPA) 2007) appear to have been significantly influenced by NPM, thereby introducing competitive bidding, transparency requirements, and institutional oversight (Dokot).



However, governance theory also draws attention to the need for legitimacy, public input, and equitable development, which sometimes conflict with purely efficiency-driven NPM approaches.

### **Resource Dependence and Capacity Theory**

Effective procurement requires resources: technical skills, trained staff, functional procurement systems, financial resources, and infrastructure (e.g., for e-procurement, portals, and record-keeping). Much of the literature suggests the insufficiency of laws alone to guarantee optimal performance: effective capacity and sufficient resources are essential. For instance, many procurement officials in Nigeria exhibit a deficit in formal training, a condition that frequently precipitates deficiencies in public procurement practices (Bodunrin). Without sufficient human capacity, even well-crafted statutory frameworks may demonstrate inherent limitations.

#### **Linking Theory to Accountability and Infrastructure Delivery**

Theories such as principal–agent and institutional theory bear a substantial relation to infrastructure delivery outcomes. Infrastructure procurement and control in Nigeria appear vulnerable to corruption, primarily attributable to deficient governance structures (Asuquo, 2021). Research by Asuquo (2021) (Asuquo et al., 2021) empirically demonstrates that governance quality, particularly concerning corruption control, exerts statistically significant effects on the volume of infrastructure procurement in Nigeria; these effects, in turn, correlate with an exacerbation of corruption, an erosion of public trust, an augmentation of costs, and a prolongation of completion timelines.

Further, adoption of e-procurement and transparency measures can reduce information asymmetry (a salient issue within the principal–agent framework) and help institutionalize norms of accountability. The study “E-procurement adoption in Nigeria: perceptions from the public sector employees” (Musa et al., 2023) delineates perceived usefulness, trust, and perceived security as determinants of e-procurement adoption, wherein perceived usefulness and trust serve as mediating factors influencing the intention to adopt e-procurement among public sector employees. However, this phenomenon remains nascent; a substantial number of Ministries, Departments, and Agencies (MDAs) demonstrably lack the requisite systemic infrastructure to fully leverage e-procurement capabilities (Aminu).

### **Evolution of Sustainable Public Procurement (SPP)**

Sustainable Public Procurement (SPP) entails the integration of environmental, social, and economic considerations into procurement practices, thereby extending beyond conventional fiscal and technical specifications. Globally, SPP is widely regarded as pivotal for the attainment of climate objectives, the promotion of social inclusion, and the cultivation of ethical supply chains. The ISO 20400 (2017) standard, OECD frameworks, and various UN guidelines promote SPP. In Nigeria, although SPP is part of policy discourse, studies suggest that regulatory mandates for sustainability are predominantly lacking (Erin), and the capacity for their enforcement remains limited (Moses 2022). Collectively, these theoretical perspectives are posited to delineate the foundational principles for the evaluation of procurement accountability, encompassing the rationale for the existence of specific legal obligations, the influence of institutional environments upon enforcement mechanisms, and the persistence of lacunae despite robust legislative frameworks. The SPPAI framework, therefore, intends to leverage these theoretical underpinnings for the interpretation of assessment outcomes and the diagnosis of systemic deficiencies within Imo State.



### **Application of Theories to Nigerian Public Procurement**

While the conceptual models outlined earlier provide broad explanatory frameworks, their practical application to the Nigerian context potentially elucidates the manner in which accountability in procurement is molded by a distinctive interplay of governance, capacity, and political economy factors. For example, the principal–agent dichotomy frequently manifests within Nigerian procurement systems, wherein the designated 'agent' (e.g., a procurement officer or committee) tends to prioritize (Adedokun, 2022) political allegiance or personal emolument over the 'principal's' (i.e., the public's or citizenry's) overarching interests. A study by (Adedokun, 2022) suggests that, even subsequent to the enactment of the Public Procurement Act 2007, procurement officers frequently confer contracts upon politically connected contractors, thereby evidencing classic agency drift. Mechanisms expressly designed for the constraint of agency misbehavior—including, but not limited to, open advertisement protocols, the establishment of bid evaluation committees, and rigorous post-award monitoring procedures—frequently encounter undermining through selective enforcement practices or the pervasive influence of political capture.

The institutional theory perspective delineates an additional stratum: the persistence of informal norms that compete with formal regulations. In Nigerian practice, procurement is often influenced by patron-client relationships, “godfatherism,” and ethno-political considerations (Essien). Adedokun (2022) This phenomenon may reflect a cultural norm wherein the valorization of secrecy in public office and the deliberate maintenance of information asymmetry serve to sustain control.

Similarly, governance and new public management perspectives have shaped Nigerian reforms but with heterogeneous repercussions. The introduction of competitive tendering, professional bureaus of procurement, and complaint review mechanisms reflects the efficiency ideals of New Public Management (NPM). However, as Oyewobi and Jimoh (2022) argue, procurement reforms have often been “isomorphic”—adopted to satisfy donor conditions and international image—without fully being embedded or limited in the local governance culture. Thus, implementation gaps remain wide, as procurement officers may adopt compliance “on paper” but continue informal practices in reality (Boadu).

The resource dependence/capacity theory resonates strongly with Nigerian realities. For instance, e-procurement has been legally recognized at federal and state levels (Imoni230). However, while Musa, Jaafar, and Raslim (2023) elucidated the limitations of e-procurement adoption due to perceived security and trust, other research indicates challenges such as inadequate Information and Communications Technology (ICT) infrastructure and restricted user training (DANLADI). Even where procurement portals exist, they often lack interoperability, are rarely updated, or do not cover the full cycle of tendering (Aminu). This observation thus suggests that the modernization of procurement processes necessitates more than mere legal reform; it arguably demands substantial technical and financial capacity building.

### **Critical Perspectives: Politics, Culture, and Corruption Dynamics**

Beyond the theoretical models, the context of Nigerian procurement may be situated within the political economy of corruption, where procurement processes often serve as conduits for rent extraction and patronage distribution. Procurement accounts for a large proportion of government expenditure, constituting over 60 percent of federal and state budgetary allocations, thereby



establishing it as a primary locus for political interference and rent-seeking (Adeniran, Raifu, & Airohi-Alikor, 2024). Consequently, a structural vulnerability emerges, wherein procurement laws may codify accountability, but the agencies tasked with enforcement are themselves profoundly embedded within a political milieu that inherently disincentivizes their rigorous application against elite actors (Fisayo).

Furthermore, a salient cultural dimension also exerts a critical influence: in some Nigerian settings, gift-giving and patronage are culturally embedded practices, consequently blurring the demarcation between acceptable social obligations and illicit inducements (Smith). Institutional theory posits this phenomenon as an inherent conflict between imported formal institutions (modern procurement laws modeled on UNCITRAL) and entrenched informal norms (clientelism, secrecy) (Dau). This frequently culminates in what has been termed “institutional dualism,” a state wherein formal regulations persist yet are subject to selective application contingent upon prevailing political or social exigencies (Uzo).

From a governance perspective, procurement accountability in Nigeria is further constrained by weak civil society engagement. Unlike in some countries where open contracting and civil monitoring have become robust (e.g., Kenya and South Africa), Nigerian civil society has limited access to data and faces legal and political barriers to monitoring procurement (Enweremadu). Lack of public procurement data in open, machine-readable formats remains a bottleneck, preventing external oversight (Aminu & Enweremadu). This serves to elucidate the criticality of instruments such as the SPPAI: these facilitate the conversion of fragmented evidence into structured metrics that civil society, academia, and oversight bodies may leverage.

Finally, corruption dynamics in procurement also illustrate the “collective action problem.” As Rothstein and colleagues note in the Perssonader governance literature, when corruption is contractors (Adewole, 2014). a little incentive to comply with rules because they believe everyone else is breaking them (Persson). In many developing countries, contractors (Adewole, 2014). frequently integrate illicit payments into their bid valuations, while officials commonly anticipate the receipt of informal remuneration as a routine practice (Damoah). This normalization of corruption weakens the deterrent effect of sanctions, even when laws prescribe strong penalties (Ebong). Empirical investigations tend to indicate that governance quality serves as a more robust predictor of procurement success than the mere promulgation of legislation (Bosio). Consequently, accountability frameworks must endeavor to address systemic corruption, rather than focusing solely on isolated infractions.

### **Emerging Theoretical Insights in Public Procurement**

In recent years, public procurement scholarship has broadened beyond the traditional frameworks of principal–agent and institutional theories to include more nuanced approaches that better capture contemporary governance challenges. Three emerging perspectives are particularly relevant to understanding procurement accountability in Nigeria and Imo State: collective action theory, behavioral public administration, and digital governance perspectives.

#### **Collective Action Theory**

While principal–agent theory assumes corruption arises from individual opportunism that can be curbed by monitoring and sanctions, collective action theory highlights how systemic corruption



persists when actors perceive that “everyone is corrupt.” In procurement systems where bribery, favoritism, and political interference are normalized, individuals may have little incentive to behave honestly even if laws are strict (Komakech et al., 2025). This perspective is particularly salient in the context of Nigeria, where corruption in procurement constitutes not merely an isolated deviance but rather an embedded aspect of the systemic apparatus. When corrupt practices are normalized and procurement officers expect others to bend rules, their adherence to stringent compliance mechanisms may thus be undermined, thereby perpetuating a deleterious cycle (Amoah). Thus, accountability frameworks like the State Public Procurement Act and Implementing Regulations (SPPAI) may therefore need to recognize systemic norms, not just isolated failures.

### **Behavioural Public Administration (BPA)**

BPA integrates psychological and cognitive insights, thereby elucidating public sector decision-making processes. Empirical investigations suggest that procurement officers are influenced by biases such as risk aversion, overconfidence, and conformity pressures (Torres & Tapia, 2025, p. 4). For instance, an officer might exhibit a propensity to avoid the awarding of contracts to unfamiliar firms, even when such entities demonstrate superior qualifications, thereby preferring established contractors—which are occasionally politically connected—owing to an inherent risk aversion. Incorporating BPA into procurement theory consequently posits that systemic reforms ought to encompass not merely alterations to regulations, but also the deliberate redesign of incentives and training protocols, specifically to address cognitive and behavioral barriers.

### **Digital Governance Perspectives**

The digital era has introduced new theoretical debates about how technology reshapes accountability. E-procurement platforms, open contracting data, and blockchain are increasingly viewed as mechanisms to reduce information asymmetry and enhance transparency (Bustamante regulations, but). However, technology adoption is uneven and subject to its own governance challenges, such as digital exclusion, low information and communications technology (ICT) capacity, and cybersecurity risks. Lubis, Musa, Jaafar, and Raslim (2023) found that Nigerian procurement officers’ trust in e-procurement systems strongly predicted adoption, suggesting that technology reforms must consider human perceptions alongside legal mandates (Musa). This digital governance perspective therefore suggests that procurement accountability may now depend as much upon robust digital infrastructure and user trust as upon stringent legal compliance.

### **3.3. SUMMARY AND CONCEPTUAL FRAMEWORK**

This section reviews the following: the conceptual and theoretical underpinnings of public procurement, highlighting how multiple frameworks illuminate different aspects; and delineates accountability and performance. Principal-agent theory elucidates misaligned incentives and the imperative for oversight (Dowding); institutional theory captures the pervasive influence of norms and informal practices (Castaño); governance and New Public Management (NPM) perspectives situate procurement within wider public management reforms (Ayhan); and resource dependence/capacity theory underscores the crucial role of requisite skills, infrastructure, and financial resources (Wang).

Concurrently, emerging theoretical paradigms (e.g., collective action (Matinheikki), behavioral insights, and digital governance (Almeida)) often serve to explain the mechanisms by which reforms either succeed or encounter practical failure. Synthesizing these diverse theoretical perspectives, it



appears that procurement accountability within its standards, establish extension, Ni-parameters, demonstrably the principal–agent lens dynamic, which can be delineated as follows:

1. Legal and regulatory frameworks establish the formal parameters and establish a principal–agent lens.
2. Informal norms and political culture may influence the actual behavior of actors (institutional and collective action lenses).
3. Capacity constraints may determine the extent of compliance and culminate in a dependence lens.
4. Bs and digital adoption issues may affect implementation quality (BPA and digital governance lenses).

This synthesis culminates in the articulation of and completes the conceptual framework guiding the present study. The framework positions accountability and conceptualizes procurement as the dependent construct influenced by three key explanatory dimensions:

1. Legal–Institutional Environment: encompassing laws, formal oversight, and sanctions.
2. Organizational and Cultural Environment: encompassing norms, political interference, and corruption dynamics.
3. Capacity and Innovation Environment: encompassing human resources, ICT infrastructure, digital adoption, and sustainability tools.

By integrating these lenses, the study argues that assessing procurement accountability in Imo State requires not just comparing legal provisions but also measuring practical implementation across MDAs through relevant tools. This approach ensures that findings move beyond “law on paper” to evaluate “law in practice,” capturing both structural status and systemic weaknesses.

### 3.0. METHODOLOGY

The successful execution of this study relied on a combination of legal documents, secondary data sources, and analytical tools. Each constituent element was selected in direct relation to the specific objectives of the research, thereby ensuring that the review, index design, assessment, and subsequent analysis were systematically substantiated. Each constituent.

#### Primary Legal and Policy Documents

The foundation of the study was drawn from official procurement laws and regulatory frameworks in Nigeria, with a foundational emphasis on Imo State.

1. Imo State Public Procurement Law No. 12 of 2010. Key sections on institutional arrangements (Sec. 5), procurement planning (Sec. 20), transparency provisions (Sec. 23), complaints mechanisms (Sec. 45), and sanctions (Sec. 58)—were undertaken.
2. Public Procurement Act, 2007 (Federal Republic of Nigeria)—Serving as the national benchmark, this Act established the Bureau of Public Procurement (BPP) and detailed federal standards for transparency, competition, procurement planning, and sanctions (Okotie). Provisions such as Sec. 16, 18, 19, and 54 were particularly relevant for specific comparative analysis.



### **International and Regional Standards**

To rigorously benchmark Imo State's procurement framework against recognized global best practices, a multidimensional selection of authoritative instruments was employed for comparative analysis. These instruments provide the essential normative standards for institutional arrangements, transparency, and accountability; they thereby serve as the foundational basis for evaluating the state's regulatory performance (Casavola).

To rigorously benchmark Imo State's procurement framework against recognized global best practices, a multidimensional selection of authoritative instruments was employed. These instruments were selected to provide a comprehensive normative basis for evaluating institutional, ethical, and operational performance:

1. UNCITRAL Model Law on Public Procurement – Articles 6, 7, 10, and 64 provided the structural baseline for comparing institutional setups, planning requirements, disclosure mandates, and complaints mechanisms.
2. OECD Principles for Integrity in Public Procurement—Principles 3, 6, and 9 were applied to analyze and facilitate transparency controls, the integrity of review processes, and the efficacy of e-procurement systems ("Factoring).
3. African Development Bank Procurement Policy—Served as the regional standard, focusing on enforcement mechanisms, institutional capacity building, and accountability frameworks tailored to developmental contexts (Perichon).
4. World Bank Procurement Framework—Provided the benchmark for operational flexibility and sustainability, thereby ensuring the incorporation of global best practices concerning risk management and transparency into the assessment (Sareesh).
5. ISO 20400: Sustainable Procurement Guidance—Established the criteria for qualitative assessment, specifically regarding procurement practice (Yazdi, Adewole, 2014).

### **Supplementary Documents and Reports**

Additional documents were consulted to provide practical context and reinforce analysis. These included procurement audit reports, Bureau of Public Procurement publications, donor agency briefs (World Bank, UNDP, AfDB), and scholarly articles published within the last seven years. The public procurement reforms in Nigeria.

### **Analytical Tool**

To ensure methodological rigor and data integrity, Microsoft Excel served as the primary analytical instrument. The selection of this platform was predicated upon its demonstrated capacity for the integration of complex qualitative and quantitative datasets, thereby providing a transparent and replicable audit trail throughout the research process. The utilization of Excel for this analysis appears to manifest in the following discernible applications: 1. Data categorization and thematic coding of legal provisions against the selected international benchmarks, facilitating a structured comparative analysis. 2. Operationalization of the State Public Procurement Accountability Index through a structured scoring rubric, which allowed for permitting the conversion of qualitative legal and institutional attributes into a standardized ordinal scale. 3. Systematic transcription and aggregation of primary data collected from selected MDAs, ensuring data integrity and comparability across



disparate institutional settings. 4. Analytical processing and visualization of outcomes, leveraging pivot tables and graphical functions to compute descriptive statistics, map performance trends, and identify systemic outliers in procurement adherence.

- Data Extraction and Coding – Systematic extraction and organization of relevant provisions from the Imo State Law, the Federal PPA, and international frameworks were undertaken within the Excel environment. Rows were structured to represent specific legal sections or articles, while columns captured core thematic categories, specifically institutional frameworks, transparency mechanisms, complaints review procedures, sanctions, and sustainability criteria.
- Scoring System Development – To translate qualitative data into measurable metrics, the State Public Procurement Accountability Index was operationalized within Excel, utilizing a standardized zero-to-three ordinal scale for each dimension and indicator, thereby ensuring methodological consistency.
- Assessment Recording – Data collected from selected MDAs during the SPPAI administration were systematically transcribed into dedicated Excel scoring templates, ensuring the data integrity and comparability across agencies.
- Analysis and Visualization – The final analytical phase leveraged Excel’s statistical functions to calculate culminating descriptive statistics and aggregate scores. Pivot tables and graphical visualizations were then utilized to map procurement accountability levels across MDAs, facilitating the identification of systemic performance patterns and outliers.

#### **4.0. PRESENTATION OF RESULTS AND DISCUSSION**

##### **4.1. Presentation of Results**

The subsequent hypotheses underwent empirical investigation: subsequent

**HO<sub>1</sub>:** There is no significant relationship between procurement procedures and the effectiveness of procurement functions.

**HO<sub>2</sub>:** Procurement procedures do not exert any significant effect on the effectiveness of procurement functions.

As shown in Table 1, since the model yielded an F-calculated value of 104.23, with an associated probability of 0.001 ( $p < 0.05$ ), we therefore reject the null hypothesis and accept the alternative, concluding that a significant relationship exists. The difference between procurement procedures and the effectiveness of procurement functions. The resultant regression model is thus presented: The resultant:  $EPF_t = 4.271 + 0.544ProcProc dt... (3)$

[1 follows: The resultant1]                      (0.002)      (0.001)

A further test was conducted to determine the effect of procurement procedures on the effectiveness of these referring functions, using the student t-test. Referring functions. to Table 1, with a calculated t-value of 5.331 and with a corresponding p-value of 0.001, which is significantly referring to functions. less than 0.05, the null hypothesis is therefore rejected and the alternative accepted to conclude that procurement procedures exert a significant effect on their effectiveness.



Regression analysis indicated that procurement procedures yield a positive coefficient, which may suggest a notable positive correlation between procurement procedures and effectiveness of procurement functions (see equation 3). In addition, a unit increase in the level of procurement procedures gives rise to a 0.544-unit increase in the level of May effectiveness of procurement functions. These referring findings align with Ama et al. (2026), who established that transparency enhances procurement processes and efficiency in public procurement systems (Tyoakosu).

Further analysis revealed that the model posted an  $R^2$  of 0.6331 and an Adj.  $R^2$  of 0.5882, meaning that the changes in procurement procedures have b(Tyoakosu).o explain at least 63% of the variations in the dependent variable, effectiveness of procurement functions, and 58%, even after accounting for the error, implying errors.

This study has indeed contributed to knowledge by estimating a prediction model (equation 3), which can be employed to predict the effectiveness of procurement functions given any level of investigation; therefore, it is of procurement procedures. Furthermore, these results corroborate the broader evidence that integrating variables such as capacity building, e-procurement, and robust tender advertisement significantly optimizes overall procurement efficiency (Ali et al., 2021, p. 16).

Table 3.1 delineates the materials utilized for the attainment of each stipulated objective, thereby providing a comprehensive overview of the resources employed.

Table 3.1: Summary of Materials Used in the Study (for Objectives 1 to 4)

Objective	Material / Tool	Description	Purpose of Use
Objective 1: Review of existing procurement policies and regulations	Imo State Public Procurement Law (2010)	The principal state-level legal framework governing procurement.	This instrument provides the foundational basis for the assessment of Imo State-specific regulations and their subsequent comparison with federal and international standards.
	Public Procurement Act (2007) — Federal	Nigeria’s national procurement law.	This serves as a benchmark for the alignment of state-level procurement practices with established federal requirements.
	International Procurement Standards (e.g., different United Nations Commission on International Trade Law [UNCITRAL], World Bank Guidelines)	Global models for public procurement accountability.	These standards facilitate international comparison and the benchmarking of best practices within the domain of public procurement.
	Microsoft Excel	Spreadsheet software: A.	Its utility encompasses the extraction, tabulation, and comparative analysis of provisions disseminated across disparate legal instruments.



Objective Two: Design of the State Public Procurement Accountability Index (SPPAI)	State Public Procurement Accountability Index (SPPAI) Framework (Excel-based Index)	A structured accountability index comprising eight distinct dimensions and twenty-four specific indicators.	This instrument constitutes a bespoke tool developed for the quantification of procurement accountability specifically tailored to the context of Imo State.
	Scoring Rubric (0–3 scale)	Standard ordinal scoring framework (0 = Non-existent, 3 = Strong/Full):	Its implementation provides a uniform methodology for the systematic rating of various accountability dimensions.
Objective Three: Assessment of the State Public Procurement Accountability Index (SPPAI) in Ministries, Departments, and Agencies (MDAs)	SPPAI Questionnaire	A structured survey instrument, specifically designed for administration to procurement officers.	This serves as the primary data collection tool for the subsequent scoring of ministries, departments, and agencies (MDAs).
	SPPAI Data Entry Template (Excel)	This workbook facilitates the systematic linkage of questionnaire responses to the established scoring rubric.	Its function involves the conversion of qualitative responses into quantitative, inherently comparable scores.
	Formula SPPAI (MDA) = (Sum of Scores ÷ 24) × 100	Mathematical: A formula.	This formula enables the standardization of accountability scores through their conversion into percentages.
Objective Four: Analysis of State Public Procurement Accountability Index (SPPAI) Findings	Microsoft Excel	Spreadsheet software with statistical and charting functions.	Its application facilitates data analysis, the ranking of MDAs, the calculation of averages, and the preparation of data visualizations.
	Descriptive Statistics	Mean, min, max, standard deviation.	The deployment of these statistics permits the identification of systemic strengths, inherent weaknesses, and notable outliers within the dataset.
	Visualization Tools (Bar & Radar Charts)	These tools enable the graphical representation and comprehensive visualization of SPPAI scores.	Their utilization aims to elucidate performance differentials across Ministries, Departments, and Agencies (MDAs) and various dimensions, thereby enhancing clarity.

Source: Authors' Analysis (2025).



**Table 3.2: Summary Table of Materials Used in the Study (Objectives 1–5).**

Objective	Material / Tool	Description	Purpose of Use
Objective Five: Recommendations for Strengthening of Accountability	Findings from Objectives 1–4	clearer	Evidence base for proposing a clearer best-practice literature (2018–2023)
	Microsoft Word / Report Writing Tools	local	For drafting structured recommendations and finalization, its dissertation chapters.
			Peer-reviewed studies, policy reports (World Bank, African Development Bank [AfDB], United Nations Development Programme [UNDP], and pertinent local Nigerian research).
			This literature serves to ground the proposed recommendations firmly within evidence-based international and indigenous practices.

Source: Authors' Analysis (2025).

## 5.0. CONCLUSIONS AND RECOMMENDATIONS

An analysis indicates no statistically significant difference between the mean Scorecard for Public Procurement Accountability Index (SPPAI) score (79.3%) and the established benchmark value of 75%. This indicates that the overall level of procurement accountability in Imo State is not significantly different from the acceptable standard.

The execution of this research endeavor received substantial support from the World Bank and the Federal Government of Nigeria, specifically through the Sustainable Procurement, Environmental, and Social Standards Centre of Excellence (SPESSCE) at the Federal University of Technology, Owerri.

### Conflict of Interest

The authors declare that no conflict of interest exist in this manuscript

**REFERENCES**

- Abdulrahman, I., & Aliyu, A. (2021). Public procurement reforms and SME participation in Nigeria: Challenges and opportunities. *Journal of Public Procurement and Contract Management*, 21(3), 145–160.
- Abubakar, U., Lawal, I., & Bala, K. (2021). Political interference and procurement inefficiency in Nigeria: Evidence from public works. *Journal of African Governance & Development*, 11(1), 75–93.
- Adam, I. (2024). *Transparency, accountability, and integrity of public procurement systems*. Transparency International.
- Adebisi, J. F., & Gbegi, D. O. (2020). Public procurement governance in Nigeria: Issues and challenges. *Journal of Public Administration and Governance*, 10(3), 45–59. <https://doi.org/10.5296/jpag.v10i3.17184>
- Adebola, O. (2025). Procurement professionalization and public-sector efficiency in Nigeria. *African Journal of Public Sector Studies*, 12(1), 44–59.
- Adedeji, O., & Raifu, I. (2024). Transparency in the procurement process in Nigeria. *Brookings Institution Africa Analysis*. <https://www.brookings.edu/articles/transparency-in-the-procurement-process-in-nigeria/>
- Adedokun, A. (2022). Political interference and the implementation of the Public Procurement Act in Nigeria. *Nigerian Journal of Public Administration and Policy*, 15(2), 45–63.
- Adeniran, A., Raifu, I. A., & Airohi-Alikor, P. (2024, November 20). Imperative of human resources in effective public procurement: Challenges and prospects in Nigeria. *Brookings*. <https://www.brookings.edu/articles/imperative-of-human-resources-in-effective-public-procurement/>
- Adewole, A. (2014). Governance Reform and the Challenge of Implementing Public Procurement Law Regime across Nigerian State and Local Governments. *International Journal of Public Administration and Management Research*, 2(4), 25–32. <http://journals.rcmss.com/index.php/ijpamr/article/view/534>
- Adjei, K. (2023). Accountability in Ghana's procurement system: A principal–agent perspective. *International Journal of Public Administration*, 46(7), 561–575. <https://doi.org/10.1080/01900692.2022.2108354>
- African Development Bank Group. (2022). *Integrity and anti-corruption annual report 2022*. African Development Bank. <https://www.afdb.org/en/documents/integrity-and-anti-corruption-annual-report-2022>
- Agaba, J., & Ogoh, C. (2021). Procurement reforms in Nigeria: Achievements, challenges, and prospects. *African Journal of Public Sector Management*, 28(2), 55–71.
- Agu-tine, A., Aliegba, B. A., & Amehojo, D. (2023). Effect of Public Procurement Act 2007 on the transparency and cost effectiveness of procurement of goods and services in National Insurance Commission Abuja, Nigeria. *Lapai International Journal of Administration*, 6. <https://ojs.ibbuajournals.com.ng/index.php/lijad/article/view/1221>
- Agutine, A., Aliegba, B. A., & Amehojo, D. (2023). Effect of the Public Procurement Act 2007 on the transparency and cost-effectiveness of the procurement of goods and services in the National



- Insurance Commission, Abuja, Nigeria. *Lapai International Journal of Administration*, 6(2). <https://ojs.ibbujournals.com.ng/index.php/lijad/article/view/1221>
- Agyekum, K., & Asare, A. (2022). Adoption of electronic procurement in Ghana: Opportunities and challenges. *Journal of African Business*, 23(4), 567–583. <https://doi.org/10.1080/15228916.2022.2030174>
- Akenroye, T. O., Oyegoke, A. S., & Eyo, A. (2020). Public procurement reforms in Nigeria: Implementation and impact assessment. *International Journal of Public Sector Management*, 33(4), 401–417.
- Akinlabi, H., & Bello, R. (2021). Information asymmetry and procurement inefficiency in Nigeria's public sector. *Journal of African Governance*, 8(2), 145–163.
- Ali, A., Audi, M., Nisar, S., & Şentürk, İ. (2021). Determinants of Public Procurement Efficiency: A Comprehensive Study of Public Procurement Rules of Punjab, Pakistan. *RePEc: Research Papers in Economics*. <https://econpapers.repec.org/RePEc:pra:mprapa:111214>
- Amoako, A., & Osei-Tutu, E. (2022). Digital transformation in public procurement: Lessons from emerging economies. *Journal of Public Procurement*, 22(1), 33–52. <https://doi.org/10.1108/JOPP-09-2021-0067>
- Asuquo, C. F., Adeniran, L., & Adu, E. (2021). Governance quality and public sector procurement of infrastructure projects in developing countries: evidence from Nigeria. *Journal of Public Procurement*, 21(3), 285–299. <https://doi.org/10.1108/jopp-10-2019-0067>
- Asuquo, C., Lashinde, A., & Adu, E. (2021). Governance quality and public sector procurement of infrastructure projects in developing countries: Evidence from Nigeria. *Journal of Public Procurement*, 21(3), 285–299. <https://doi.org/10.1108/JOPP-10->
- Ayinde, D. (2023). Combating corruption in public procurement: An appraisal of Nigeria's debarment system. *Journal of Anti-Corruption Law*, 7, 110–131. <https://epubs.ac.za/index.php/jacl/article/view/1732>
- Brookings Institution. (2023). *Reforming public procurement in Nigeria: What needs to change*. <https://www.brookings.edu/articles/reforming-public-procurement-in-nigeria-what-needs-to-change/>
- Chemouni, B. (2022). Rwanda's governance paradox: E-procurement, control, and political dominance. *African Affairs*, 121(484), 123–147. <https://doi.org/10.1093/afraf/adac004>
- Chipkin, I., & Swilling, M. (2021). *Shadow state: The politics of state capture*. Wits University Press.
- Comas, A. A. N., et al. (2021). *Measuring public procurement rules and practices: Benchmarking public procurement regulations and practices across economies*. World Bank.
- Dokot, R. J., Gambo, N., & Ikeokwu, J. O. (2026). Due Process and Efficiency in Public Procurement: An Evaluation of the Bureau of Public Procurement (BPP) In Abuja Nigeria. *European Journal of Business and Innovation Research*, 14(1), 163–179. <https://doi.org/10.37745/ejbir.2013/vol14n1163179>
- Ebekozien, A., & Aigbavboa, C. O. (2021). Contract administration and accountability challenges in Nigerian public construction projects. *International Journal of Construction Management*, 18(6), 1525–1543.



- Ekanem, S. (2021). SME participation in Nigerian public procurement: A stakeholder analysis. *African Journal of Business and Economic Research*, 16(3), 49–66. <https://doi.org/10.31920/1750-4562/2021/16n3a3>
- Eme, O. I., & Emeh, I. E. (2022). Public procurement and corruption control in Nigeria: An assessment of the Bureau of Public Procurement (BPP). *International Journal of Public Administration and Management Research*, 8(1), 43–59. <https://doi.org/10.36784/ijpamr.v8i1.203>
- Ezeani, C., & Ogbonna, P. (2022). Institutional capacity and sustainable procurement practices in Nigerian public agencies. *International Review of Administrative Sciences*, 88(4), 905–923. <https://doi.org/10.1177/00208523211070532>
- Igwe, N. N., Ude, A. O., & Chukwu, C. U. (2021). Public procurement, transparency and accountability in Nigeria: dissecting the benefits and challenges to anti-corruption war. *International Journal of Economics, Commerce and Management*, 1, 306–323. <http://eprints.gouni.edu.ng/id/eprint/2971>
- Komakech, R. A., Lukamba, M. T. shombe, Molokwane, T., Nduhura, A., & Ombati, T. O. (2025). Global Perspectives on Corruption in Public Procurement: Unveiling an Integrated Systemic and Behavioral Mitigation Framework. *Rule of Law and Anti-Corruption Center*, 2025(2). <https://doi.org/10.70139/rolacc.2025.2.2>
- Musa, U., Jaafar, M., & Raslim, F. M. (2023). E-procurement adoption in Nigeria: perceptions from the public sector employees. *Arab Gulf Journal of Scientific Research*, 42(3), 1130–1149. <https://doi.org/10.1108/agjsr-10-2022-0224>
- Mutangili, S. K. (2023). Procurement to Lead Innovation and Value Capture While Coping With Inflation, Shortages and Geopolitical Instability. *Journal of Procurement & Supply Chain*, 7(1), 106–115. <https://doi.org/10.53819/81018102t2177>
- OECD. (2021). *Public procurement performance measurement*. OECD Publishing. <https://doi.org/10.1787/1c7f4e50-en>
- Olapade, D., & Afolabi, B. (2021). The role of e-procurement in enhancing transparency in Nigeria's public sector. *International Journal of Economics and Management Studies*, 8(4), 112–121. <https://doi.org/10.14445/23939125/IJEMS-V8I4P116>
- Torres, A., & Tapia, E. de los T. (2025). Cognitive bias in defense acquisition decision-making: insights from the Armed Forces of the Philippines. *Journal of Defense Analytics and Logistics*, 1–10. <https://doi.org/10.1108/jdal-11-2024-0023>
- World Bank. (2020). *Benchmarking public procurement 2020: Assessing public procurement systems*. World Bank Publications. <https://doi.org/10.1596/978-1-4648-1538-0>