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Assessment of impact of technology innovation on procurement transparency in selected public sector in South-East Nigeria

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Abstract - This research study assessed the influence of technology on procurement transparency in selected public sector in South-East, Nigeria. The study employed the survey method, and a stratified random sampling technique to ensure representation of study population such as procurement, audit, finance, and administrative departments. Questionnaires were administered via face-to face to the study participants. Descriptive and inferential statistics using Pearson correlation techniques, simple regression techniques analysis of variance (ANOVA) were utilised to test hypotheses and determine the strength and direction of relationships between variables. Empirical evidence from research hypothesis one showed that e-tendering significantly influences transparency in decision making in the selected public sector. The study recommends public agencies to formally adopt and integrate e-tendering mechanisms into procurement frameworks to ensure standardized transparency. Procurement regulatory bodies should design policies that mandate ethical compliance in e-tender processes, minimizing loopholes that could weaken integrity.

Keywords: Technology, E-Tender, Procurement Transparency, transparency in decision making

1. Introduction

Technology adoption has become a central driver of reform in public and private procurement systems, particularly through the use of digital tools such as- e-tendering, and e-procurement platforms. These innovations are targeted to enhance efficiency, reduce transaction costs, and, importantly, strengthen procurement transparency. On the other hand, transparency in procurement is crucial for accountability, trust, and fairness, especially in public sector contexts where corruption risks are heightened (Musah et al., 2025). E-procurement systems that adhere to good governance principles play a vital role in limiting human manipulation and ensuring comprehensive digital audit documentation.

Several empirical studies on technology adoption and procurement transparency across different sectors and geographies have generated multiple results. In Ghana, Musah et al. (2025) found that the government's e-procurement system (GHANEPS) enhanced accountability by

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ensuring open competition and equal access to tender opportunities. Similarly, Kubwimana and Nimpano (2025) reported that Rwanda Polytechnic's adoption of e-tendering reduced irregularities and fostered greater compliance with procurement principles. In Malaysia's construction industry, Rafian and Haron (2025) showed that small and medium-sized contractors benefited from improved transparency and reduced corruption risks after adopting e-tendering platforms. In Europe, Croket et al., (2025) illustrated how digital twin integration with e-tendering increased openness and traceability in local governance procurement processes.

Despite these positive findings, challenges remain. Research highlights issues such as digital illiteracy, resistance to change, cyber security threats, and inadequate infrastructure that can limit the full transparency potential of e-tendering systems (Rafian & Haron, 2025). Moreover, while blockchain-based frameworks promise immutable and tamper-proof tendering systems (Ananthajothi & Duraimurugan, 2024), their real-world adoption is still limited to pilot projects and small-scale applications. Studies also note disparities between developed and developing countries, where resource constraints hinder full-scale deployment of digital procurement systems (Kubwimana & Nimpano, 2025).

The research gap lies in understanding how different contexts—such as regulatory frameworks, poor governance, inadequate record-keeping and limited transparency (accountability, openness), inadequate infrastructure, human resource constraints and resistance to change—affect the success of technology adoption in procurement. Previous studies focuses on either efficiency gains or technical aspects of e-tendering, with less attention given to how transparency outcomes vary across industries and governance environments. Present research intends to explore how technology adoption such as, e-tendering impact on procurement transparency in Public Sector Southeast, Nigeria. This is the gap study seek to fill.

Technology adoption in procurement has been a central focus in recent scholarship, with many studies highlighting how digital innovations enhance efficiency, transparency, and accountability. Research indicates that organizations adopting e-procurement technologies—such as e-tendering, experience faster decision-making and improved cost savings compared to traditional systems (Madzimure, 2018; Obunde, 2019).

The diffusion of innovations theory has been widely applied to explain adoption behaviours, particularly within public institutions in developing countries, where infrastructure and capacity challenges hinder full integration (Wako, 2024). Recent studies show that smart contracts built on blockchain are emerging as enablers of trust in procurement ecosystems by automating compliance and reducing manual oversight (Tukur, 2024).

E-tendering refers to the use of digital platforms to manage the tendering process, from advertising procurement opportunities to receiving bids and awarding contracts (Xiong et al., 2019; Rafian and Haron (2025). It is one of the central components of e-procurement systems, designed to reduce paperwork, streamline processes, and ensure equal access to opportunities. E-tendering is closely linked to procurement transparency, as it minimizes face-to-face interactions, reduces the likelihood of corruption, and allows for open, traceable competition among suppliers. By digitizing the tendering process, governments and organizations aim to achieve greater efficiency, accountability, and fairness in procurement (Xiong et al., 2019). Tendering is a central element of modern procurement, involving the solicitation of competitive bids from suppliers or service providers for goods, services, or works. Its core principles include competitiveness, fairness, accessibility, and transparency.

E-tendering strengthens procurement processes by leveraging digital platforms to enhance cost efficiency, competitiveness, and transparency in procurement. It reduces information asymmetry, ensures open access to bidding opportunities, and promotes accountability in contract awards. Despite these benefits, challenges remain in technical and legal domains, while diverse international legal frameworks complicate harmonization in global e-procurement. Emerging technologies such as AI and blockchain are anticipated to improve transparency, contract oversight, and supplier evaluation (Kang & Peng, 2018).

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Croket et al. (2025) highlighted how integrating e-tendering into digital twin models for local governance fosters transparency and efficiency. By enabling cross-sector collaboration, e-tendering systems increased openness and traceability in procurement, aligning with broader smart governance strategies.

Procurement decision-making has shifted toward data-driven approaches with the adoption of digital platforms, creating more openness in supplier selection and evaluation processes. Scholars emphasize that e-tendering and e-bidding systems provide equal opportunities for participation, thereby reducing favouritism and enhancing competitive advantage (Wako, 2024).

Procurement visibility has been identified as a critical factor in enhancing accountability, as it allows organizations to maintain comprehensive audit trails and monitor processes in real time (Tukur, 2024). Empirical evidence suggests that openness not only improves governance but also fosters trust among stakeholders, particularly in public sector procurement, where transparency is crucial to minimizing corruption (Obunde, 2019).

Procurement decision-making is critical in ensuring that organizations achieve cost efficiency, quality assurance, and sustainability. Recent studies emphasize the use of data-driven approaches and analytics to improve supplier selection, risk assessment, and contract management (Tukur, 2024). Decisions are increasingly influenced by the availability of real-time procurement data and the integration of AI-driven systems that can predict supplier reliability and optimize supply chain resilience.

Moreover, procurement decisions are not solely based on price but also involve considerations such as ethical compliance, supplier diversity, and environmental impact. Organizations now balance financial objectives with broader social responsibilities, aligning procurement strategies with sustainable development goals (Singh et al., 2025).

Musah et al. (2025) examined the impact of electronic procurement on public sector accountability in Ghana. The study utilized a quantitative survey using structured questionnaires, to source for data. The study used regression analysis to test correlation between e-procurement adoption and accountability using public sector agencies. Findings revealed that e-procurement significantly enhances accountability by reducing manual errors, limiting discretion, and improving audit trails. However, infrastructural gaps and resistance to adoption remain major barriers.

Nyaboe et al. (2025) analysed E-procurement procedures and performance in Nyamira County, Kenya. The research adopted a descriptive research design with mixed-method approach, combining interviews and survey with aid of county procurement officials to collect data. The findings revealed that E-procurement procedures improved efficiency, reduced tender manipulation, and increased supplier participation. Challenges included low ICT literacy among suppliers.

Ofoegbu et al. (2025) evaluated Electronic procurement and firm performance: Nigerian capital markets. The study used a correlational survey of 150 listed companies in Nigeria's capital market. Primary data were analysed using regression models. The findings demonstrated that Electronic procurement adoption positively affected firm performance by improving transparency, reducing costs, and enhancing compliance. Resistance to change and weak infrastructure remained barriers.

Table 1: Research Gap

S/N	Thematic Area	Authors	Country	Methodology	Key Findings	Research Gaps	S/N
1	Impact of electronic procurement on public sector	Musah et al. (2025)	Ghana	quantitative survey using structured questionnaires	Findings revealed that e-procurement significantly	Limited focus on fairness of decision-	1

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	accountability.				enhances accountability by reducing manual errors, limiting discretion, and improving audit trails.	making processes using public sector in South-East, Nigeria	
2	Analyzed E-procurement procedures and performance.	Nyaboe et al. (2025)	Nyamira County, Kenya.	Mixed-method approach, combining interviews and survey.	The findings revealed that E-procurement procedures improved efficiency, reduced tender manipulation, and increased supplier participation	The present study utilized survey.	2
3	Examined the effect of e-procurement on institutional efficiency.	Kubwimana and Nimpano (2025)	Rwanda using case of Polytechnic.	Previous study adopted structured questionnaires	The study findings showed that E-procurement increased institutional efficiency by lowering transaction costs and improving procurement cycle times.	The present study utilized public sector to fill research gap.	3

A growing body of research has examined how technology innovation—especially e-procurement and blockchain—impacts transparency in public sector procurement in Nigeria and comparable contexts.

Multiple studies confirm that e-procurement adoption in Nigeria's public sector leads to significant improvements in transparency, efficiency, and accountability. E-procurement tools such as e-tendering, e-invoicing, and e-sourcing streamline processes, reduce paperwork, and limit opportunities for corruption by automating records and increasing auditability (Oniyangi & Ibrahim, 2024; Afolabi et al., 2020; Aliyu & Ibrahim, 2021).

Empirical evidence from surveys of procurement staff and public sector employees in Nigeria shows that e-procurement positively affects project completion times and organizational performance, with higher implementation levels resulting in shorter project durations and improved transparency (Oniyangi & Ibrahim, 2024; Aliyu & Ibrahim, 2021). However, successful adoption requires investment in IT infrastructure, capacity building, and supportive government policies (Afolabi et al., 2020; Ama et al., 2023; Aliyu & Ibrahim et al., 2021).

Recent research highlights the potential of blockchain-based systems to further enhance transparency and trust in public procurement. Blockchain enables secure, tamper-proof

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transaction records, increases citizen participation, and allows for transparent project monitoring and auditing (Akaba et al., 2020; Khalfan et al., 2022; Mircea et al., 2022).

Case studies in Nigeria and other developing countries suggest that blockchain can address persistent challenges such as lack of trust, weak documentation, and corruption by providing decentralized, verifiable records (Akaba et al., 2020; Khalfan et al., 2022). However, implementation is still in early stages and faces barriers such as regulatory uncertainty and the need for stakeholder buy-in (Akaba et al., 2020; Khalfan et al., 2022; Mircea et al., 2022).

Despite the benefits, several challenges hinder the full realization of technology's impact on procurement transparency. These include inadequate legal frameworks, resistance to change, insufficient digital literacy, and weak enforcement mechanisms (Afolabi et al., 2020; Ogunsanya et al., 2019; Ama et al.,2023). Studies recommend legal reforms, harmonization of regulations, and ongoing training for procurement personnel to overcome these obstacles (Ama et al., 2023; Ogunsanya et al., 2019).

While most research focuses on Nigeria, studies from Kenya and other African countries reinforce similar findings: technology adoption in procurement increases transparency and efficiency, but success depends on robust institutional frameworks and continuous policy support (Mandala et al., 2024a; Mandala et al., 2024b). International best practices, such as those from Singapore and the UK, offer valuable lessons for Nigeria's ongoing reforms (Ama et al., 2023).

Public sector institutions are central to effective service delivery, yet their procurement processes frequently suffer from governance deficiencies, weak record management, limited transparency and accountability, infrastructural inadequacies, human capacity gaps, and institutional resistance to reform. Mismanagement—manifested through weak leadership, insufficient supervision, or failure to enforce policies—reduces the effectiveness of technological tools in procurement. Without proper oversight, e-procurement and other digital systems are frequently underutilized or misapplied, diminishing their potential impact on efficiency and accountability.

Poor record-keeping and lack of transparency further compromise procurement integrity within the public sector particularly local government areas (LGAs). Deficient documentation produces unreliable data, limiting technology's ability to detect irregularities and ensure accountability. Concurrently, opaque procedures and weak disclosure practices prevent effective monitoring by oversight institutions and the public. Together, these challenges erode public trust, discourage fair competition, and hinder the realization of open, efficient, and equitable procurement processes in LGAs.

Many local government institutions also face limited technical expertise which weakens procurement transparency. Even when technological solutions like e-procurement are introduced, insufficient staff skills may lead to errors, misuse, or underutilization of digital platforms. A lack of proper training can result in poor data entry, mismanagement of digital records, and an inability to generate meaningful reports for oversight, reducing accountability and limiting the effectiveness of technology.

Inadequate infrastructure further constrains the functionality of technological systems. Weak network connectivity, outdated hardware, and insufficient software capacity restrict data accessibility and processing, preventing digital platforms from fully supporting transparency and efficient procurement operations.

Furthermore, resistance to change significantly impedes the adoption of e-procurement in local governments. Reluctance to adopt new systems slows implementation, reduces compliance with digital procedures, limits participation in training programs, and reinforces traditional bureaucratic practices. Consequently, the potential of e-procurement to enhance transparency, accountability, and efficiency remains largely unrealized. Therefore, the aforementioned challenges such as- poor governance, inadequate record-keeping and limited transparency (accountability, openness), inadequate infrastructure, human resource constraints

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and resistance to change motivate the need for the study, which is guided by the objectives outlined below.

The main objective of this study will be to investigate the role of technology innovation in enhancing procurement transparency in selected public sector, South East, Nigeria. Drawn from the general objectives, the Specific objectives of this study is stated as ascertain the relationship between e-tendering and fairness in decision making in selected Public Sector, South-East, Nigeria.

The following research question will guide this study . What is the relationship between e-tendering and fairness in decision-making in selected Public Sector, South-East, Nigeria.

The research hypothesis: stated that HO_1**:** There is no significant relationship between e-tendering and fairness in decision-making in selected Public Sector, South-East, Nigeria.

The scope of this study will be restricted to the role of technology innovation in enhancing procurement transparency in selected public sector particularly local government area in South-East Nigeria. Questionnaires was administered to participants of the public sector organization. The sub-variable covered in this study is: e-tender.

2. Method

The South-East geopolitical zone of Nigeria, encompassing five states—Abia, Anambra, Ebonyi, Enugu, and Imo—is among the nation's most densely settled regions. Dominated by the Igbo population, it thrives on commerce, markets, and small-scale industry, with cities such as Aba and Onitsha serving as economic hubs. Ongoing initiatives by both government and development agencies aim to modernize infrastructure and strengthen growth (Cyprine & Simwa, 2023).

2.1 Research Design

The study employs a descriptive survey design because it allows the researcher to gather data from a large population and describe the role of technology in procurement practices. The descriptive survey design is ideal for investigating relationships between variables such as e-tendering, archiving, and procurement transparency indicators. Since the study seeks to determine how technology affects transparency, a survey allows systematic collection of data from employees directly involved in procurement processes.

A descriptive survey design allows for the use of structured questionnaires with Likert-scale items to generate quantifiable data. This data can then be analysed using **descriptive statistics** (means, frequencies, percentages) and inferential statistics (correlation, regression), which aligns with the research objectives and hypotheses.

2.2 The Population

The population for this study comprises of; procurement officers, finance department staff, internal auditors/compliance officers, and administrative officers. These groups were selected because they are the primary actors in tendering processes, and their experiences provide critical insights into how technology influences procurement practices and enhances transparency. The total population across the selected public sector in South East, Nigeria is 1,535 employees, from which a representative sample will be drawn for the study.

2.3 Sample Size and Sampling Techniques

The study's population of procurement professionals was chosen from whom the respondents using the Yamane in 1967. The formula is stated as follows:

$$n = \frac{N}{1+Ne^2}$$

Where n → the required sample size, N = the Target Population, e = accuracy level required standard error = 5%

Where: N = 1535, e = 0.05 (margin of error), n= 1535/ (1+ 1535 $(0.05)^2$n= 317.313

Thus, the sample size = 317 employees.

A stratified random sampling technique was employed to ensure representation from procurement, audit, finance, and administrative departments.

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2.4 Method of Data Collection

Primary data were collected through self-administered questionnaires. A structured questionnaire allows for systematic gathering of quantifiable data from a large number of respondents. The structured format ensures that all participants respond to the same set of questions, which promotes consistency, reliability, and comparability of responses across the study population.

2.4.1 Justification for Using a Five-Point Likert Scale

(1) Quantifiable Measurement: It converts qualitative opinions into numerical data, allowing for statistical analysis such as means, correlations, and regression. (2) Ease of Analysis: The ordinal nature of the Likert scale facilitates straightforward coding, scoring, and interpretation of responses. (3) Captures Variability in Opinions: Respondents can indicate varying degrees of agreement or disagreement, providing nuanced insights into perceptions of technology adoption and transparency. (4) Standardization: Ensures uniformity in responses, reducing bias and enhancing the reliability of collected data. (5) Suitability for Large Samples: It is efficient for collecting data from a sizable population, such as the 307 employees across selected LGAs in Abia State.

In addition, the structured questionnaire with a five-point Likert scale is appropriate for this study because it enables systematic, reliable, and valid measurement of the influence of technological interventions on procurement transparency.

2.5 Validity of the Instrument

In achieving the study objective, content and face validity were established by subjecting the research instrument to expert review to ensure that the questionnaire accurately measures what it is intended to assess.

2.5.1 Justifications for Using Validity

Ensures Relevance of Items: Experts in procurement ensured that each question is relevant to the study's objectives, particularly in assessing how technology enhances procurement practices and transparency.

(1) Enhances Comprehensiveness: Review by experts ensures that all important aspects of the constructs—such as e-tendering, e-auctions, electronic bidding, ethical compliance, and record-keeping—are adequately covered.

(2) Improves Clarity and Understandability: Face validity guarantees that the items are clear, unambiguous, and easily understood by respondents, reducing the likelihood of misinterpretation.

(3) Strengthens Credibility of Findings: Expert validation lends credibility to the instrument, ensuring that collected data are accurate, reliable, and suitable for statistical analysis.

(4) Reduces Measurement Error: By confirming that items accurately reflect the constructions under investigation, content and face validity help minimize potential errors in data collection.

In essence, content and face validity serve as a quality check, confirming that the questionnaire is both comprehensive and appropriate for capturing the perceptions of procurement and administrative staff regarding technology-driven transparency in the selected public sector

2.6 Reliability of the Instrument

To establish validity and reliability, a pilot study was first conducted to refine the instrument. Statistical assessments, including factor analysis, correlation coefficients, and Cronbach's alpha, were then employed to confirm accuracy and internal consistency.

Cronbach's alpha is particularly appropriate for this study for the following reasons:

(1) Internal Consistency Measurement: It assesses the degree to which items on a questionnaire are correlated and measure the same underlying construct, such as transparency in procurement or the influence of technology.

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(2) Suitability for Likert Scales: The instrument uses a five-point Likert scale, and Cronbach's alpha is widely recognized as the standard method for evaluating the reliability of such ordinal-scale items.
(3) Quantifiable Reliability Coefficient: Cronbach's alpha produces a coefficient (α) ranging from 0 to 1, with values above 0.7 generally indicating acceptable reliability, which provides an objective measure of the instrument's consistency.
(4) Ease of Interpretation and Reporting: It allows researchers to identify items that may reduce overall reliability, enabling refinement of the questionnaire before full-scale administration.
(5) Standard Practice in Procurement Research: Many studies in procurement and public administration adopt Cronbach's alpha to ensure that survey instruments accurately capture constructs like accountability, transparency, and ethical compliance.

Cronbach's alpha was applied in the study to ensure that the questionnaire is a reliable instrument, providing confidence that the collected data accurately reflects respondents' perceptions and experiences regarding the role of technology in enhancing procurement practices and transparency.

2.7 Data Analysis

In this study, data collected from the structured questionnaire were analysed using a combination of descriptive and inferential statistics to provide a comprehensive understanding of the role of technology in enhancing procurement transparency.

(i) The study applied descriptive statistics (mean, frequency, and percentages) to present respondent demographics and perceptions of technology in procurement. This approach simplifies large datasets, reveals general tendencies, and enhances clarity through visual representation. The study applied descriptive statistics (mean, frequency, and percentages) to present respondent demographics and perceptions of technology in procurement. This approach simplifies large datasets, reveals general tendencies, and enhances clarity through visual representation.

(ii) Inferential Statistics, precisely Pearson correlation and regression analysis, were used to examine the relationships between technology adoption (e-tendering, archiving) and procurement transparency indicators (decision-making transparency, openness of information, ethical compliance, and records transparency). This approach allows the researcher to test hypotheses and determine the strength and direction of relationships between variables. Apart from that, it enables the estimation of how changes in technology adoption influence procurement transparency outcomes.

3. Results and Discussion

3.1 Results

In this section, the study examined how technology innovations influence procurement transparency in the public sector of South-East Nigeria. The findings are presented in alignment with the research objectives. Primary data were collected, organized, and analysed using the Statistical Package for Social Sciences (SPSS, Version 25). Of the 317 questionnaires distributed, 289 were completed and returned, while 28 were not returned and were therefore excluded from the analysis. The demographic characteristics of the respondents are summarized below (Field Survey, 2025).

3.1.2 Analysis of Research Question

What is the relationship between e-tendering and transparency in decision-making in selected public sector, South-East, Nigeria?

4.1.2.1 Research Hypotheses One

H_{O1}: e-tendering significantly influence transparency in decision making in the selected public sector.

3.1.2.2 Decision Rule

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The null hypothesis is rejected when the p-value is less than 0.05; if not, the alternative hypothesis (HA) is accepted. Ordinary Least Squares (OLS) regression results in Table 4.2 indicate a p-value of 0.000, below the critical value of 0.05. Hence, the null hypothesis was rejected in favor of the alternative, which asserts that e-tendering significantly influences transparency in the decision making in the selected public sector. This result confirms that there is a correlation between independent and dependent variables.

It demonstrates, through regression analysis, that e-tendering has a strong and statistically significant influence on procurement transparency ($R = 0.812$, $R^2 = 0.659$, $F(1, 68) = 132.46$, $p < 0.001$). The coefficient of determination (65.9%) shows that e-tendering explains a substantial proportion of the variation in transparency outcomes. Furthermore, the regression coefficient ($B = 0.684$, $p < 0.001$) highlights that effective implementation of e-tendering enhances transparency in decision-making, accountability, and fairness.

3.2 Discussion

The analysis shows that 51.21% of respondents are B.Sc. graduates, suggesting they are sufficiently educated to assess procurement technology adoption. A total of 13.5% of respondents reported holding a diploma, signifying representation of those with technical or vocational expertise. Respondents with M.Sc. (13.49%) and Ph.D. (6.23%) degrees had their formal education, suggesting that the respondents possess critical and research-oriented skills to enhance the robustness of the study.

The 15% representation of S.S.C.E. holders suggests a minority with lower academic qualifications, minimizing the risk of conceptual misinterpretation given the dominance of higher-educated respondents. Nearly half of the respondents (45%) fall under the "Others" category, reflecting the inclusion of specialized certifications or non-traditional qualifications that expand analytical perspectives.

The first research objective one was tested using Ordinary Least Squares or simple regression technique. The result showed that e-tendering platforms significantly improve transparency in decision making in the public sector. Research indicates that e-tendering systems strengthen procurement transparency by automating key procedures, thereby minimizing opportunities for subjective decision-making and granting all suppliers equitable access to bidding opportunities. The finding aligns with earlier research of Oyuga and Juma (2025), who reported that electronic procurement promotes transparency in the hospitality sector. In the same vein, Musah et al. (2025) showed that e-procurement improves accountability by reducing errors, curbing discretion, and reinforcing audit processes.

4. Conclusion

The following conclusions can be made from the results of the study. The study examined the role of technology innovation in enhancing procurement transparency within selected public sector organizations in South-East Nigeria. Empirical evidence from research hypothesis one showed that e-tendering significantly influences transparency in decision making in the selected public sector. E-tendering has been shown to advance fairness in procurement by ensuring equal accessibility to tender opportunities, curbing undue human influence, and streamlining administrative workflows that previously lacked clarity.

On the contrary, evidence from research hypotheses three also found that e-bidding is associated with diminished ethical compliance, implying that although the system automates bidding processes, it may inadvertently encourage unethical practices such as bid manipulation, collusion, or circumvention of procedural rules in public enterprise

The following recommendations were made to guide study outcome. (a) Government agencies should formally integrate e-tendering systems into procurement policies and institutional frameworks to ensure uniform adoption across public sector organizations. (b) Strong monitoring and compliance mechanisms must be established to guard against misuse of digital platforms and to ensure that transparency objectives are achieved. (c) Procurement

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regulatory bodies should design policies that mandate ethical compliance in e-tendering processes, minimizing loopholes that could weaken integrity. (d) Civil society and the private sector should be involved in monitoring procurement platforms to foster accountability and inclusive governance.

The study Provide empirical evidence using public sector to examine how technological mechanisms to substantially enhance procurement transparency in the South-East Nigerian region. The study advances knowledge by linking (e-tendering) to procurement transparency, a dimension less explored using public sector in local literature. Findings contribute to policy debates on digital governance and procurement reforms, offering a localized case for broader adoption of e-procurement technologies in Nigeria.

Future study should expand the study beyond South-East Nigeria to other regions or the national level would provide comparative insights into regional adoption challenges and successes. Qualitative studies could explore perceptions of civil servants, contractors, and civil society groups on the effectiveness of e-tendering for ensuring fairness. Future studies could investigate how emerging technologies (AI, machine learning, and big data analytics) can be combined with smart contracts to further optimize procurement transparency.

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