



Effects of Forensic Accounting on Procurement Practices in Selected Consumer Goods Firms in Nigeria

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Abstract

Forensic accounting has increasingly been advanced as a governance and control mechanism capable of strengthening procurement oversight through investigative techniques, litigation support, and enhanced financial scrutiny. Despite growing interest in its application, empirical evidence on how forensic accounting influences procurement practices within Nigerian FMCG firms remains limited. Against this backdrop, this study examines the influence of forensic accounting practices on procurement operations in five leading Nigerian FMCG firms, Nestlé Nigeria Plc, Unilever Nigeria Plc, PZ Cussons Nigeria Plc, Chi Limited, and Flour Mills of Nigeria Plc. Using a mixed-methods design, quantitative data were collected from 200 procurement managers, internal auditors, and finance officers via structured questionnaires, while 25 in-depth interviews provided qualitative perceptions on operational experiences. Regression analysis was employed to test three hypotheses linking forensic accounting practices to procurement outcomes: fraud detection, cost efficiency, and compliance. Results indicate that forensic accounting has a statistically significant negative effect on procurement fraud ($\beta = -0.47$, $p < 0.01$) and positive effects on procurement cost efficiency ($\beta = 0.41$, $p < 0.05$) and compliance with procurement policies ($\beta = 0.44$, $p < 0.05$). Qualitative findings corroborate these results, revealing that forensic accounting enhances internal audit effectiveness, improves traceability in supplier transactions, and strengthens adherence to organizational and regulatory procurement standards. The study contributes to the forensic accounting and procurement governance literature by providing firm-level evidence from a private sector context in an emerging economy, indicating the dual role of forensic accounting in fraud mitigation and value creation. The findings emphasize the strategic importance of embedding forensic accounting practices into procurement systems to improve transparency, cost control, and regulatory compliance in Nigerian FMCG firms. The study concludes that forensic accounting significantly improves procurement governance by reducing fraud and enhancing efficiency and compliance. It recommends that firms institutionalize forensic accounting practices within their procurement systems to strengthen transparency and accountability.

Keywords: Compliance; Cost Efficiency; Forensic Accounting; Fraud Detection; FMCG; Procurement Governance

JEL Classification Code: M41; G32; D73; L60

1.0 Introduction

Procurement constitutes an important operational function in modern organizations, accounting for a substantial proportion of total organizational expenditure, particularly in the consumer goods sector (Basiru et al., 2023; Ogbu et al., 2023; Debnath et al., 2023). In fast-moving

consumer goods (FMCG) firms, procurement decisions directly influence production continuity, cost competitiveness, product quality, and ultimately firm performance (Salam & Khan, 2018). In emerging economies such as Nigeria, procurement activities are often characterized by complex supplier networks, high transaction volumes, and significant exposure to fraud, collusion, and inefficiencies (Williams-Elegbe, 2018). These challenges have intensified concerns among regulators, investors, and corporate stakeholders regarding transparency and accountability in procurement systems (Fredson, 2024). Globally, procurement fraud has been identified as one of the most pervasive forms of occupational fraud, often involving bid rigging, kickbacks, inflated invoices, conflicts of interest, and manipulation of supplier selection processes (Adenodi et al., 2025a). The Association of Certified Fraud Examiners consistently reports procurement-related fraud as a major contributor to organizational losses, particularly in environments with weak internal controls (Adenodi et al., 2025a).

In Nigeria, the problem is further exacerbated by institutional weaknesses, discretionary decision-making, and enforcement gaps, making procurement a high-risk area for financial mismanagement within both public and private sector organizations (Ayobami et al., 2023; Paraskeva & Tsoulfas, 2025). The Nigerian consumer goods sector plays a strategic role in national economic development through employment generation, contribution to gross domestic product, and stimulation of backward linkages in agriculture and manufacturing (Nwadike et al., 2024). Firms such as Nestlé Nigeria Plc, Unilever Nigeria Plc, PZ Cussons Nigeria Plc, Chi Limited, and Flour Mills of Nigeria operate extensive procurement systems involving local and international suppliers, logistics providers, and service contractors (Anisulowo et al., 2024). The scale and complexity of these procurement operations heighten exposure to fraud risks, cost leakages, and non-compliance with internal procurement policies and regulatory frameworks (Onukwulu et al., 2024). Consequently, strengthening procurement governance has become a priority for these firms in an increasingly competitive and regulated business environment (Onukwulu et al., 2024).

Traditional internal control mechanisms and statutory audits, while important, have proven insufficient in detecting sophisticated procurement fraud schemes. Adejumo & Ogburie, 2025 submitted that audits are primarily designed to express an opinion on the fairness of financial statements rather than to uncover intentional manipulation or collusive practices embedded within procurement transactions. This limitation has stimulated growing interest in forensic accounting as a specialized control mechanism capable of addressing complex fraud risks. Forensic accounting integrates accounting knowledge, auditing procedures, investigative techniques, data analytics, and legal awareness to detect, prevent, and deter financial misconduct (Dako et al., 2020; Kaur et al., 2023). In recent years, forensic accounting has evolved from a reactive fraud investigation tool to a proactive governance mechanism embedded within organizational control systems (Dako et al., 2020). Its application in procurement includes continuous transaction monitoring, vendor background checks, anomaly detection in pricing and volumes, contract compliance reviews, and forensic supplier audits (Dako et al., 2020).

These techniques are particularly relevant in FMCG firms where high transaction frequency and decentralized procurement structures increase vulnerability to manipulation. By enhancing transparency and traceability, forensic accounting is expected to improve procurement efficiency, reduce fraud incidence, and strengthen compliance with organizational policies and

regulatory standards (Dako et al., 2020; Wahyuandari, 2025). Despite the growing relevance of forensic accounting, empirical evidence on its effectiveness within private sector procurement, especially in developing economies, remains limited (Paramole, 2025). Much of the existing literature focuses on public sector procurement, corruption control, or the general role of forensic accounting in fraud detection (Hope et al., 2021; Akinninyi et al., 2025). Studies conducted in Nigeria have largely examined forensic accounting in relation to financial reporting quality, corporate fraud prevention, and public sector accountability, with comparatively little attention paid to procurement practices in private manufacturing or consumer goods firms (Paramole, 2025; Dako et al., 2020). This gap is significant given that procurement fraud in the private sector often receives less regulatory scrutiny yet poses substantial risks to firm profitability and sustainability.

Moreover, prior studies tend to treat forensic accounting as a monolithic construct, without adequately linking specific forensic practices to concrete procurement outcomes such as cost efficiency, supplier performance, fraud detection, and regulatory compliance. There is also limited firm-level evidence comparing experiences across large, well-established consumer goods companies operating within the same institutional environment. As a result, policymakers and corporate decision-makers lack robust empirical insights into whether investments in forensic accounting capabilities translate into measurable improvements in procurement governance (Dako et al 2023). This study seeks to address these gaps by examining the effect of forensic accounting on procurement practices in selected consumer goods firms in Nigeria. By focusing on five leading FMCG firms, Nestlé Nigeria Plc, Unilever Nigeria Plc, PZ Cussons Nigeria Plc, Chi Limited, and Flour Mills of Nigeria, the study provides sector-specific evidence from organizations with sophisticated procurement structures and significant market influence. These firms offer an appropriate context for analyzing how forensic accounting mechanisms operate in practice and whether they contribute meaningfully to improved procurement outcomes.

This study investigates how forensic accounting affects fraud detection in procurement processes, enhances cost efficiency, and promotes compliance in supplier selection and contract management. Drawing on agency theory and fraud triangle theory, the research conceptualizes forensic accounting as a governance tool that reduces information asymmetry, constrains opportunistic behaviour, and mitigates incentives and opportunities for procurement fraud. By integrating quantitative and qualitative evidence, the study offers a nuanced understanding of both the measurable effects and the operational dynamics of forensic accounting in procurement systems. The contribution of this study is threefold. First, it extends the forensic accounting literature by providing firm-level empirical evidence from the Nigerian consumer goods sector, an area that remains under-researched despite its economic significance (Muotoo & Odum, 2024). Second, it enriches procurement governance literature by explicitly linking forensic accounting practices to procurement performance dimensions beyond mere fraud occurrence. Third, the study offers practical insights for corporate managers, internal auditors, and regulators on the role of forensic accounting in strengthening procurement systems in emerging market contexts. In light of increasing stakeholder demand for transparency, rising procurement-related risks, and the strategic importance of procurement in FMCG firms, understanding the effectiveness of forensic accounting has become both an academic and practical imperative.

2.0 Literature Review

Conceptual Review of Forensic Accounting

Forensic accounting refers to the application of accounting, auditing, and investigative skills to examine financial information suitable for use in legal proceedings and managerial decision-making. Unlike traditional auditing, which focuses primarily on compliance with accounting standards and the fairness of financial statements, forensic accounting is specifically designed to detect, investigate, and prevent fraud through a detailed examination of financial transactions and behavioral patterns. Contemporary forensic accounting increasingly incorporates advanced data analytics, continuous auditing tools, and digital forensics to identify anomalies that may indicate fraudulent activities (Daraojimba et al., 2023). In the corporate setting, forensic accounting has transitioned from a reactive tool used after fraud occurrence to a proactive governance mechanism embedded within internal control systems. Modern forensic practices include supplier due diligence, transaction pattern analysis, contract compliance audits, and lifestyle audits of key procurement personnel. These practices are particularly relevant in procurement environments where discretionary decision-making and information asymmetry between buyers and suppliers create fertile ground for opportunistic behavior. Within emerging economies such as Nigeria, forensic accounting plays an even more critical role due to institutional weaknesses, limited enforcement capacity, and cultural tolerance for informal practices. Scholars argue that forensic accounting enhances transparency by improving audit trails, strengthening documentation, and increasing the probability of fraud detection, thereby serving as a deterrent to procurement-related misconduct (Chowdhury & Talukder, 2022).

Procurement Practices in Consumer Goods Firms

Procurement practices encompass the processes and activities involved in sourcing goods and services required for organizational operations, including supplier selection, contract negotiation, purchase execution, and performance monitoring. In consumer goods firms, procurement is particularly complex due to high transaction volumes, time sensitivity, reliance on multiple suppliers, and exposure to volatile input prices. Effective procurement practices are therefore central to cost management, supply chain resilience, and competitive advantage. In the FMCG sector, procurement decisions often involve large-scale purchases of raw materials, packaging materials, logistics services, and marketing inputs. The decentralized nature of procurement in many large consumer goods firms increases the risk of inconsistent application of procurement policies and weak oversight. Studies have shown that procurement inefficiencies, including inflated pricing, favoritism in supplier selection, and weak contract enforcement, significantly undermine operational efficiency and profitability in manufacturing firms (Baránek & Titl, 2024). In Nigeria, procurement practices in private sector firms are further complicated by infrastructural constraints, supplier capacity limitations, and regulatory compliance requirements. Although private firms are not bound by the Public Procurement Act, many adopt internal procurement guidelines modeled after international best practices. However, enforcement of these internal rules often depends on the strength of internal controls and governance mechanisms, creating space for forensic accounting to play a corrective and preventive role.

Forensic Accounting and Procurement Fraud

Procurement fraud refers to intentional acts designed to secure an unlawful benefit in the procurement process, including bid rigging, kickbacks, duplicate invoicing, false certifications, and conflict of interest. The procurement function is consistently identified as one of the most fraud-prone areas in organizations due to high discretion, limited transparency, and frequent interaction with external parties. Forensic accounting directly addresses procurement fraud by focusing on both financial irregularities and behavioral red flags. Techniques such as vendor data analysis, price variance analysis, and forensic review of procurement contracts enable organizations to detect patterns inconsistent with normal business operations. Empirical studies suggest that organizations that deploy forensic accounting tools experience a higher rate of fraud detection and lower recurrence of procurement-related fraud (Gunasegaran et al., 2023). Furthermore, forensic accounting strengthens fraud deterrence by increasing the perceived likelihood of detection. According to deterrence theory, individuals are less likely to engage in fraudulent behavior when they believe monitoring systems are robust and sanctions are certain. The integration of forensic reviews into procurement processes reduces opportunities for collusion and manipulation, thereby reinforcing ethical procurement practices.

Forensic Accounting and Procurement Cost Efficiency

Procurement cost efficiency refers to the ability of an organization to acquire required goods and services at optimal cost without compromising quality or delivery timelines. Cost inefficiencies in procurement often arise from overpricing, unnecessary intermediaries, weak negotiation practices, and fraudulent activities such as inflated invoices. Forensic accounting contributes to procurement cost efficiency by uncovering hidden cost leakages and ensuring compliance with agreed pricing terms. Through contract compliance audits and transaction-level analysis, forensic accountants can identify overbilling, duplicate payments, and unauthorized contract variations. Studies conducted in manufacturing firms indicate that forensic accounting interventions lead to measurable cost savings by eliminating non-value-adding expenditures and strengthening price discipline (Love, & Smith, 2018). In consumer goods firms where margins are often thin and competition intense, even marginal improvements in procurement efficiency can significantly enhance overall performance. The ability of forensic accounting to improve cost visibility and accountability therefore positions it as a strategic tool rather than merely a fraud control mechanism.

Forensic Accounting and Procurement Compliance

Procurement compliance involves adherence to internal procurement policies, ethical standards, and applicable regulatory requirements. Non-compliance may manifest in the circumvention of approval thresholds, favoritism in supplier selection, or violation of contract terms (Oguntuase & Olabisi, 2023). Such practices expose firms to reputational risks, legal liabilities, and operational disruptions. Forensic accounting enhances procurement compliance by reinforcing control mechanisms and ensuring consistent application of procurement rules. Continuous monitoring systems and forensic audits improve documentation quality and ensure that procurement decisions are supported by verifiable evidence. Alzoubi (2025) suggests that firms with strong forensic accounting frameworks demonstrate higher compliance scores and better alignment with corporate governance principles. In multinational consumer goods firms operating in Nigeria, compliance expectations are often shaped by global corporate standards. Forensic accounting serves as a bridge between global governance requirements and local

operational realities, helping firms maintain consistent procurement standards across jurisdictions.

3.0 Theoretical Framework

This study is anchored on Agency Theory and Fraud Triangle Theory. Agency theory posits that conflicts of interest arise when managers or employees (agents) pursue personal objectives at the expense of owners (principals), particularly in contexts characterized by information asymmetry. Procurement functions typically involve delegated authority, making them susceptible to agency problems. Forensic accounting mitigates these problems by improving monitoring, reducing information asymmetry, and aligning agent behavior with organizational objectives. Fraud triangle theory explains fraud occurrence as a function of pressure, opportunity, and rationalization. Weak procurement controls create opportunities for fraud, while inadequate monitoring enables rationalization. Forensic accounting reduces opportunity by strengthening controls and increases perceived detection risk, thereby weakening the conditions necessary for procurement fraud to occur.

Empirical Review and Research Gap

Forensic Accounting and Procurement Practices in Nigeria

Financial crimes, including fraud in procurement, significantly challenge Nigeria's economic stability and public trust. These sophisticated fraud schemes often outpace traditional auditing methods, highlighting a critical need for a more advanced detection and prevention strategies (Adu et al., 2024; Oguntuase et al., 2024a; Paramole, 2025). Forensic accounting offers a solution by applying specialized investigation and fraud detection techniques to identify and prevent financial irregularities (Lawal, 2020). Such practices are crucial for the reduction of financial fraud and the improvement of internal control systems within organizations (Osunwole, 2020). There is an increasing demand for forensic accounting expertise in Nigeria, driven by the persistent rise in financial crimes, particularly in the public sector (Ogwiji, 2023). Studies have emphasized the vital role of forensic accounting in fraud detection and prevention, recommending its broader application across all accounting and auditing processes in Nigeria to control fraudulent activities effectively (Ajagun et al., 2025). The integration of forensic accounting practices, such as fraud investigation and litigation support, is vital for mitigating financial misconduct and promoting transparency (Osunwole, 2020). The attributes of forensic accountants, such as their knowledge, expertise, and litigation support services, have a significant positive effect on combating financial crime within the Nigerian public sector. While investigations into crime and corruption also discourage such activities, the advanced skills of forensic accountants are particularly impactful in fraud prevention, detection, management, and response (Ogwiji, 2023). Continuous improvement in internal control systems and effective forensic accounting practices are therefore recommended for industries, including the manufacturing sector, to address and deter fraudulent activities (Lawal, 2020).

Forensic Accounting Techniques in Mitigating Procurement Fraud

Forensic accounting techniques are instrumental in combating procurement fraud and enhancing the integrity of financial processes. Investigative auditing, fraud detection, and compliance monitoring significantly improve the accuracy of procurement records and bolster accountability within organizations (Oguntuase et al., 2024b; Adu et al., 2025; Guti & Kurauone, 2025). These practices are vital for strengthening the reliability of procurement

documentation and reducing the risks associated with fraudulent activities (Guti & Kurauone, 2025). Beyond these foundational techniques, specific mechanisms like document examination, stringent segregation of duties, and robust whistleblower mechanisms play a critical role in both detecting and preventing procurement fraud (Adenodi et al., 2025a). These measures collectively enhance organizational integrity across various sectors, including public sector organizations, by fostering transparency and limiting opportunities for misconduct. Furthermore, the effective application of broader forensic accounting practices, including comprehensive fraud investigations and litigation support, yields a substantial and positive effect on reducing overall financial fraud within companies. This is particularly relevant for the manufacturing industry, where proactive forensic auditing of financial records is recommended as a routine and regular activity to deter fraudulent behavior (Osunwole, 2020).

Effect on Procurement Practices and Financial Accountability

Forensic accounting techniques exert a significant positive influence on the value for money practices and overall procurement processes within Nigerian governmental parastatals. The effective application of these techniques helps mitigate financial leakages, thereby ensuring optimal utilization of government spending and promoting better economic growth (Olabode & Moses, 2023). Furthermore, the integration of forensic accounting into internal control systems, specifically through investigative accounting and litigation support, substantially enhances fraud management effectiveness within public sector entities (Nelson et al., 2025). This approach not only aids in reducing financial crimes but also provides crucial support for legal proceedings, ensuring justice and recovery of misappropriated funds (Dada & Jimoh, 2020). Investigative accounting, in particular, demonstrates a strong positive correlation with effective fraud management, playing a vital role in both detecting and preventing illicit activities (Nelson et al., 2025). Implementing comprehensive forensic accounting practices extends beyond mere fraud detection and prevention; it actively fosters increased transparency and accountability in financial operations across various organizations (Ajagun et al., 2025). These practices, including fraud investigation, fraud examination, and fraud prevention, have a direct and positive effect on financial accountability and transparency, particularly within the banking sector (Jacob et al., 2024). By establishing a robust framework for financial oversight, forensic accounting helps to restore public confidence in governance systems and strengthens Nigeria's anti-corruption initiatives (Nelson et al., 2025). The continuous enhancement of these practices is crucial for strengthening the resilience of sectors like banking against financial fraud and for promoting sustained integrity and oversight (Jacob et al., 2024).

Table 3. Documented effects of forensic accounting practices on public sector efficiency, fraud mitigation, accountability, and transparency in public procurement.

Observed Effect	Description	References
Value for money	Forensic accounting techniques significantly improve the achievement of value for money in public procurement practices, reducing leakages and optimizing government spending.	(Olabode & Moses, 2023)
Fraud Reduction	The application of forensic accounting, especially investigative accounting and litigation support, leads to a substantial decrease in financial fraud within public sector entities.	(Nelson et al., 2025), (Dada & Jimoh, 2020)

Observed Effect	Description	References
Enhanced Accountability	Forensic accounting practices contribute to improved financial accountability and transparency in financial operations, making organizations more resilient to fraud.	(Jacob et al., 2024)
Improved Transparency	The implementation of forensic accounting techniques fosters greater transparency in procurement and financial operations, promoting ethical behavior and public trust	(Ajagun et al., 2025)

Source: Authors Compilation, 2025

4.0 Methodology

Research Design

This study adopts a mixed-methods research design, integrating quantitative and qualitative approaches to provide a comprehensive examination of the effect of forensic accounting on procurement practices in selected consumer goods firms in Nigeria. The mixed-methods approach is particularly appropriate for this study because it allows for both hypothesis testing and in-depth exploration of organizational practices. While the quantitative component enables empirical assessment of the causal relationships between forensic accounting and procurement outcomes, the qualitative component provides contextual insights into how forensic accounting mechanisms are implemented and experienced within procurement environments. The research follows a cross-sectional design, capturing data from respondents at a single point in time. This design is suitable given the study's objective of examining existing forensic accounting practices and their immediate influence on procurement processes across firms operating within the same institutional and regulatory environment. The integration of both methods enhances the robustness of findings through methodological triangulation, thereby improving the validity and credibility of the results.

Population and Sample

The population of the study comprises procurement-related personnel within five leading consumer goods firms in Nigeria: Nestlé Nigeria Plc, Unilever Nigeria Plc, PZ Cussons Nigeria Plc, Chi Limited, and Flour Mills of Nigeria. These firms were purposively selected due to their scale of operations, complexity of procurement activities, and established internal control structures, which make them suitable for examining forensic accounting practices. The quantitative sample consists of 200 respondents, drawn from procurement managers, internal auditors, and finance officers who are directly involved in procurement decision-making, monitoring, and control functions. These categories of staff were selected because of their strategic roles in procurement governance and their familiarity with forensic accounting practices within their respective organizations. A purposive sampling technique was employed to ensure that only respondents with relevant knowledge and experience were included in the study. In addition to the survey, 25 in-depth interviews were conducted with senior procurement and audit personnel across the selected firms. Interview participants were selected using judgmental sampling to capture diverse perspectives on forensic accounting implementation, fraud detection experiences, and compliance challenges. This qualitative sample size is consistent with prior organizational studies and sufficient to achieve thematic saturation.

Data Collection Methods

Data for the study were collected from both primary quantitative and qualitative sources. The quantitative data were obtained using a structured questionnaire designed to measure the extent

of forensic accounting practices and key procurement outcomes. The questionnaire was divided into sections covering respondents' demographic characteristics, forensic accounting practices (such as transaction monitoring, supplier audits, and data analytics), procurement fraud detection, cost efficiency, and compliance in supplier selection and contract awards. Responses were measured using a five-point Likert scale ranging from "strongly disagree" to "strongly agree" The instrument was subjected to content validation by accounting and procurement experts, while reliability was assessed using Cronbach's alpha to ensure internal consistency. The qualitative data were collected through semi-structured interviews, which allowed respondents to elaborate on their experiences with forensic accounting in procurement processes. Interview questions focused on practical issues such as common procurement fraud schemes, the role of forensic reviews in detecting irregularities, challenges in enforcing procurement policies, and the perceived effectiveness of forensic accounting tools. All interviews were conducted with informed consent and recorded to ensure accuracy in transcription and analysis.

Data Analysis Techniques

Quantitative data were analyzed using descriptive and inferential statistical techniques. Descriptive statistics were used to summarize respondents' characteristics and the extent of forensic accounting practices across firms. To test the study's hypotheses, regression analysis was employed to examine the effect of forensic accounting on procurement fraud, cost efficiency, and compliance. The regression models controlled for firm-level and respondent-specific factors to enhance the robustness of the results. Statistical significance was evaluated at conventional confidence levels. Qualitative data were analyzed using thematic content analysis. Interview transcripts were coded to identify recurring patterns, concepts, and themes related to forensic accounting and procurement practices. This process involved initial open coding, followed by axial coding to establish relationships among themes. The qualitative findings were used to complement and explain the quantitative results.

4.0 Results and Discussion

Demographic Characteristics of Respondents

Table 1 presents the demographic profile of the respondents drawn from the five selected FMCG firms. The sample comprises procurement managers, internal auditors, and finance officers, ensuring that responses were obtained from personnel directly involved in procurement governance and forensic accounting implementation. A majority of respondents possess more than five years of professional experience, indicating adequate familiarity with procurement procedures and control mechanisms. The distribution across firms reflects balanced representation, reducing firm-specific bias and strengthening the generalizability of the findings within the Nigerian FMCG sector.

Table 1. Demographic Profile of Respondents (n = 200)

Variable	Category	Frequency	Percentage
Gender	Male	124	62
	Female	76	38
Age Group	Below 30	28	14
	30–39	72	36
	40–49	64	32
	50 and above	36	18

Position	Procurement	82	41
	Internal Audit	64	32
	Finance	54	27
Experience	< 5 years	46	23
	5–10 years	88	44
	> 10 years	66	33

Source: Authors' compilation, 2025

Validity and Reliability of Measurement Scales

The reliability and validity of the measurement instruments were assessed prior to hypothesis testing. Internal consistency reliability was evaluated using Cronbach's alpha and composite reliability (CR), while convergent validity was assessed using the average variance extracted (AVE). As shown in Table 2, all constructs exceed the recommended thresholds of 0.70 for Cronbach's alpha and composite reliability, indicating satisfactory internal consistency. The AVE values are all above 0.50, confirming adequate convergent validity of the measurement scales.

Table 2. Reliability and Convergent Validity Statistics.

Construct	Items	Cronbach's α	Composite Reliability	AVE
Forensic Accounting Practices (FAP)	8	0.87	0.89	0.56
Procurement Fraud (PF)	6	0.81	0.84	0.52
Procurement Cost Efficiency (PCE)	6	0.85	0.87	0.55
Procurement Compliance (PCOM)	7	0.88	0.9	0.58

Source: Authors' compilation, 2025

Discriminant validity was further examined using the Fornell–Larcker criterion. Table 3 shows that the square roots of AVE for each construct exceed the corresponding inter-construct correlations, indicating that the constructs are empirically distinct.

Table 3. Discriminant Validity (Fornell–Larcker Criterion).

Construct	FAP	PF	PCE	PCOM
FAP	0.75			
PF	-0.61	0.72		
PCE	0.54	-0.48	0.74	
PCOM	0.58	-0.52	0.56	0.76

Source: Authors' compilation, 2025

Descriptive Statistics and Correlation Analysis

Table 4 shows the descriptive statistics for the study variables. The mean value of forensic accounting practices (FAP) is 4.01, indicating a high level of adoption across the sampled consumer goods firms. This reflects the increasing institutionalization of forensic mechanisms such as transaction monitoring, supplier audits, and compliance reviews within procurement systems. Procurement fraud (PF) records a relatively moderate mean but with notable dispersion, suggesting firm-level differences in fraud exposure and detection capability. Procurement cost efficiency (PCE) and procurement compliance (PCOM) both exhibit high mean values, implying that firms generally perceive positive procurement outcomes. The Pearson correlation matrix (Table 3.2) shows that forensic accounting is negatively correlated with procurement fraud ($r = -0.61$, $p < 0.01$) and positively correlated with procurement cost efficiency ($r = 0.54$, $p < 0.01$) and procurement compliance ($r = 0.58$, $p < 0.01$). These preliminary relationships provide initial support for the study's hypotheses and justify the use

of multivariate regression analysis. Variance Inflation Factor (VIF) values are all below 3, indicating the absence of multicollinearity concerns.

Table 4. Descriptive Statistics of the study constructs.

Variable	Mean	Std. Dev.	Min	Max
Forensic Accounting Practices (FAP)	4.01	0.62	2.8	5
Procurement Fraud (PF)	2.31	0.71	1	4.2
Procurement Cost Efficiency (PCE)	3.89	0.66	2.4	5
Procurement Compliance (PCOM)	4.05	0.59	2.7	5
Firm Size (FS)	5.43	0.88	3.1	7.2
Years of Operation (YO)	18.6	6.4	7	45

Source: Authors Compilation, 2025

Regression Results and Hypothesis Testing

To examine the effect of forensic accounting on procurement practices, three separate Ordinary Least Squares (OLS) regression models were estimated (Table 5). In this study, standardized coefficients are reported, alongside robust standard errors. Control variables include firm size and years of operation.

Table 5. Regression Results.

Variables	PF (Model 1)	PCE (Model 2)	PCOM (Model 3)
Forensic Accounting Practices (FAP)	-0.47*** (0.08)	0.41** (0.09)	0.44** (0.10)
Firm Size (FS)	-0.19** (0.07)	0.22** (0.08)	0.18* (0.09)
Years of Operation (YO)	-0.11 (0.06)	0.14* (0.07)	0.09 (0.06)
Constant	3.82***	1.91***	2.14***
Observations	200	200	200
Adjusted R ²	0.38	0.31	0.34
F-Statistic	29.6***	21.4***	24.8***

Notes: Robust standard errors in parentheses

*** p < 0.01, ** p < 0.05, * p < 0.10

Source: Authors Compilation, 2025

5.0 Discussion of Findings

Forensic Accounting and Procurement Fraud

Model 1 shows a statistically significant negative relationship between forensic accounting practices and procurement fraud ($\beta = -0.47$, $p < 0.01$), supporting Hypothesis 1. This indicates that stronger forensic accounting frameworks significantly reduce procurement fraud within consumer goods firms. The relatively high explanatory power (Adjusted R² = 0.38) suggests that forensic accounting is a key determinant of fraud outcomes in procurement-intensive environments. This finding aligns with agency theory, as forensic accounting strengthens monitoring mechanisms and reduces information asymmetry between principals and procurement agents. It also supports fraud triangle theory, particularly the opportunity dimension, by demonstrating that enhanced forensic controls limit the scope for fraudulent behavior.

Forensic Accounting and Procurement Cost Efficiency

Model 2 reveals a positive and statistically significant association between forensic accounting and procurement cost efficiency ($\beta = 0.41, p < 0.05$), confirming Hypothesis 2. This result suggests that forensic accounting contributes to tangible cost savings by identifying overpricing, duplicate invoicing, and non-compliant contract variations. Beyond fraud prevention, this finding highlights the value-creation role of forensic accounting in procurement management. In highly competitive FMCG markets, where margins are sensitive to cost structures, the strategic use of forensic accounting enhances procurement discipline and supports operational efficiency.

Forensic Accounting and Procurement Compliance

Model 3 demonstrates that forensic accounting has a significant positive effect on procurement compliance ($\beta = 0.44, p < 0.05$), lending support to Hypothesis 3. Firms with robust forensic accounting systems exhibit stronger adherence to supplier selection procedures, approval hierarchies, and contractual terms. This result reinforces the argument that forensic accounting enhances procedural legitimacy and governance quality within procurement systems. It also reflects the deterrence effect of forensic oversight, whereby procurement officers and suppliers are more likely to comply with established rules due to increased monitoring and documentation requirements.

Qualitative Evidence and Triangulation

Qualitative findings from the 25 in-depth interviews provide strong explanatory support for the regression results. Respondents consistently noted that forensic accounting tools improved traceability, strengthened supplier audit trails, and facilitated early detection of irregular procurement transactions. Procurement managers emphasized that forensic reviews reduced invoice disputes and enhanced confidence in supplier engagements. Importantly, interviewees highlighted that the perceived presence of forensic accounting mechanisms influenced staff behavior, promoting ethical conduct and compliance even in the absence of detected fraud. This qualitative insight explains the strong statistical relationship between forensic accounting and procurement compliance observed in the regression analysis.

6.0 Conclusion and Recommendations

This study examined the effect of forensic accounting on procurement practices in selected consumer goods firms in Nigeria, focusing on three critical dimensions: procurement fraud, cost efficiency, and compliance. Drawing on agency theory and fraud triangle theory, and using a mixed-methods approach, the study provides robust evidence that forensic accounting significantly strengthens procurement governance in private sector organizations operating in an emerging economy context. The empirical results demonstrate that forensic accounting practices exert a statistically significant and economically meaningful influence on procurement outcomes. The findings show that firms with stronger forensic accounting frameworks experience lower levels of procurement fraud, achieve higher procurement cost efficiency, and exhibit greater compliance with supplier selection and contract award procedures. These effects remain robust after controlling for firm size and years of operation, underscoring the central role of forensic accounting as a governance mechanism rather than a firm-specific artifact. Beyond fraud reduction, the study highlights the value-creation role of forensic accounting in procurement management. By improving transaction visibility, contract compliance, and documentation integrity, forensic accounting contributes to cost discipline and

operational efficiency, outcomes that are particularly critical in the highly competitive consumer goods sector. The qualitative findings further illuminate the behavioral and procedural pathways through which forensic accounting influences procurement practices,

reinforcing its deterrent and compliance-enhancing effects. From a theoretical perspective, the study extends forensic accounting literature by shifting the focus from public sector accountability and financial reporting to procurement governance in private sector consumer goods firms. Based on these findings, several recommendations are offered. Consumer goods firms should institutionalize forensic accounting within procurement systems by embedding continuous transaction monitoring, anomaly detection, and routine supplier audits, rather than treating it as an ad hoc tool. Dedicated forensic accounting units within internal audit departments are encouraged. Firms should invest in regular training for procurement managers, auditors, and finance officers on fraud indicators, data analytics, and compliance procedures. To maximise fraud detection, organisations should strengthen anonymous whistle-blower channels and enforce stringent documentation standards. Professional accounting bodies in Nigeria (ICAN, ANAN) should develop specialised certification modules on forensic accounting for procurement, while regulators should consider minimum forensic accounting standards for large FMCG firms. Future research should examine moderating factors such as organisational culture and top management support, and adopt longitudinal or cross-sectoral designs to enhance generalizability.

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