

EFFECT OF FORENSIC ACCOUNTING ON FRAUD DETECTION AND PREVENTION IN THE NIGERIAN PUBLIC SECTOR

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ABSTRACT

This study examined the effect of forensic accounting on fraud detection and prevention in Nigerian public sector. Specifically, the study determined the effect of forensic litigation, forensic mediation and forensic arbitration on fraud control efficiency, respectively. In this study, survey research design was deployed. The population for this study comprised 6,393 staff working across federal ministries, departments, and agencies in Anambra State. A random sample of 266 staff was sampled for the study. Primary data were collected using a structured questionnaire. Descriptive statistics, such as mean scores and frequency distributions, were used to summarise the data. Pearson correlation was used to analyse the research questions. Multiple regression analysis was used in the test of the hypotheses. The findings revealed that: forensic litigation has a positive and significant effect on fraud control efficiency in the Nigerian public sector; forensic mediation has a significant positive effect on fraud control efficiency in the Nigerian public sector; forensic arbitration has a significant positive effect on fraud control efficiency in the Nigerian public sector. In conclusion, forensic accounting plays a key role in reducing financial leakages, which in turn supports government institutional trust. The study recommends that the National Assembly and the Nigerian Ministry of Justice should take the necessary steps to strengthen the legal framework around forensic litigation by working to implement dedicated forensic units within public sector legal teams, provide additional training for prosecutors and investigators on the importance and execution of forensic litigation, and allocate sufficient resources to these units to ensure timely and effective handling of fraud cases.

Key words: Forensic Accounting, Forensic Arbitration, Forensic Litigation, Forensic Mediation, Fraud Control, Fraud Detection.

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INTRODUCTION

The Nigerian public sector, characterized by its vast size and complexity, has long struggled with various forms of financial misappropriation, particularly fraud. This challenge has significant implications for governance, economic development, and public trust (Imohiosen, 2024). The increasing prevalence of fraudulent activities within this sector has prompted a critical need for effective measures to enhance transparency and accountability. As public funds are misappropriated, the consequences extend beyond financial losses; they erode public confidence in government institutions and hinder socio-economic progress. In recent

years, the adoption of forensic accounting has emerged as a promising solution to combat these challenges (Alao et al., 2023). Forensic accounting, which integrates accounting, auditing, and investigative skills, is tailored to detect and prevent fraud within public sector operations (Wilson, 2024). This study seeks to explore the impact of forensic accounting on fraud detection and prevention within the Nigerian public sector, by examining its potential as a transformative tool for enhancing financial integrity and governance.

As governments strive to improve service delivery (Nwoye et al., 2023; Ikwuo et al., 2024) and uphold public trust, they must prioritize fraud detection and prevention strategies that ensure the proper utilization of public resources. Forensic accounting offers specialized skills that aid in identifying, investigating, and resolving financial discrepancies and fraudulent activities (Aliyu & Hussaini, 2024). In a domain where public sector fraud manifests in various forms (such as embezzlement, bribery, and procurement fraud) having the expertise of forensic accountants becomes indispensable. These professionals leverage advanced analytical techniques, data mining, and investigative methods to uncover hidden patterns and anomalies that traditional accounting practices may overlook. Moreover, the rise of digital transactions in the public sector necessitates the application of forensic accounting to address the sophisticated nature of modern fraud schemes, which often exploit technology and data manipulation. As such, forensic accounting not only enhances fraud control efficiency (Bababo et al., 2024) but also contributes to strengthening the overall governance framework within the public sector (Ogbaini et al., 2024).

Forensic accounting is a specialized field that merges accounting expertise with investigative skills to examine financial discrepancies and fraud (Wilson, 2024). It encompasses a range of activities, including financial statement audits, fraud investigations, litigation support, and expert testimony. The main concepts associated with forensic accounting include fraud detection, fraud prevention, and litigation support. Fraud detection involves identifying potential fraudulent activities through rigorous analysis of financial data, while fraud prevention focuses on implementing measures that reduce the risk of fraud occurring in the first place. In the context of forensic accounting, these concepts are interrelated, as effective detection methods often lead to improved prevention strategies. Forensic accountants employ various techniques, such as ratio analysis, trend analysis, and forensic data analysis, to scrutinize financial records and uncover irregularities. The role of forensic accountants extends beyond mere detection; they also provide critical hints that help organizations develop stronger internal controls and risk management frameworks. In the Nigerian public sector, the

incorporation of forensic accounting is vital in addressing the persistent issues of fraud and corruption that undermine public service delivery and accountability (Abdullahi et al., 2023). Forensic accounting plays a pivotal role in enhancing fraud detection and prevention in the Nigerian public sector (Esonwune & Ogiri, 2024; Aliyu & Hussaini, 2024). By applying its specialized techniques, forensic accountants can identify red flags and suspicious activities that may indicate fraudulent behavior. This proactive approach not only assists in detecting fraud after it has occurred but also helps in implementing preventative measures that deter potential fraudsters.

In Nigeria, where the public sector is often plagued by weak governance structures and inadequate oversight mechanisms, the introduction of forensic accounting represents a significant shift towards more robust financial management practices. For instance, the ability of forensic accountants to conduct detailed financial investigations means that they can trace the flow of funds, scrutinize transactions, and evaluate the reliability of financial reports. Their findings provide useful hints that can lead to corrective measures, such as strengthening internal controls, enhancing compliance frameworks, and fostering a culture of accountability within public institutions. Additionally, forensic accountants can offer training and awareness programs for public sector employees, equipping them with the knowledge to recognize and report fraudulent activities. Moreover, the findings of forensic accounting investigations can serve as crucial evidence in legal proceedings, thereby reinforcing the deterrent effect against potential fraudsters. In a country like Nigeria, where corruption is often intertwined with a lack of accountability, the ability to present clear and substantiated evidence is vital for prosecuting offenders and reclaiming misappropriated funds. This aspect of forensic accounting not only aids in recovering lost resources but also contributes to restoring public trust in government institutions. Thus, the integration of forensic accounting into the Nigerian public sector presents a strategic avenue for combating fraud (Esonwune & Ogiri, 2024). By enhancing fraud detection and prevention mechanisms, forensic accounting holds the potential to improve governance, promote accountability, and safeguard public resources.

The public sector is supposed to operate with high levels of transparency, integrity, and accountability, where financial transactions are conducted with rigorous oversight, and mechanisms that are setup help to ensure that public funds are utilized effectively for the benefit of society. Ochuka, Nwoye and Okoye (2022) stated that the growth and development of any economy is not without due and conscious considerations given to how efficient the scarce economic and financial resources at the disposal of the country is utilized. Thus,

forensic accounting would play a crucial role in this framework, serving as a robust tool for detecting and preventing fraud (Ogbaini et al., 2024). Through the application of specialized skills, forensic accountants would identify irregularities, mitigate risks, and provide useful hints to enhance governance practices. In such environment, public trust in government institutions would flourish, fostering an atmosphere conducive to economic development, social progress, and improved public service delivery. Contrastingly, the current reality within the Nigerian public sector is marred by widespread corruption, financial mismanagement, and a lack of effective oversight (Aliyu & Hussaini, 2024). Despite the recognition of forensic accounting as a vital instrument for combating fraud, its implementation remains inconsistent and underutilized. Many public institutions lack the necessary resources, training, and commitment to fully leverage forensic accounting practices. Consequently, fraudulent activities such as embezzlement, procurement fraud, and financial manipulation persist unchecked. This pervasive culture of impunity not only undermines the integrity of financial management but also perpetuates a cycle of distrust among citizens towards their government. Consequently, the prevalence of fraud and corruption in the public sector results into significant financial losses, and ultimately hinders government from essential public services such as education, healthcare, and infrastructure development. Moreover, the erosion of public trust diminishes citizen engagement and participation in governance, leading to a disillusioned populace that questions the legitimacy of their leaders.

The failure to effectively address fraud undermines efforts to achieve sustainable development and hinders Nigeria's perception and rating on the global stage. In summary, the lack of effective forensic accounting practices in the Nigerian public sector not only exacerbates financial misconduct but also poses serious threat to governance, economic stability, and societal well-being. Numerous studies, such as: Aliyu and Hussaini (2024), Bababo et al. (2024), and Franca et al. (2023), demonstrate the positive impact of forensic accounting on fraud detection and prevention across sectors. Yet, there is limited focus on the distinct roles of forensic litigation, mediation, and arbitration. Most research, including that of Okoye and Ndah (2019) and Edeh et al. (2024a), emphasizes general forensic practices or investigation services without differentiating the effects of these specific dimensions. Furthermore, studies like Oranefo and Ufaroh (2024) and Ogbaini et al. (2024) highlight the minimal use of forensic accounting in the Nigerian public sector but do not explore how each dimension uniquely contributes to fraud control within public institutions. Okoye, Nwoye and Okeke-Okomkwo (2019) argued that the growth in financial misappropriation cases indicate that a strong need exists for more research that will better enable Auditors and Investigators to detect and prevent

potential misappropriation. This establishes a compelling gap in understanding the individual and combined effect of forensic litigation, mediation, and arbitration in mitigating fraud in Nigeria's public sector, where corruption and administrative complexities require tailored forensic approaches.

Objectives

The main objective of this study is to examine the effect of forensic accounting on fraud detection and prevention in the Nigerian public sector, with emphasis on litigation, mediation and arbitration. Based on this, the specific objectives of the study shall be:

1. To determine the effect of forensic litigation on fraud control efficiency in Nigerian public sector.
2. To examine the effect of forensic mediation on fraud control efficiency in Nigerian public sector.
3. To explore the effect of forensic arbitration on fraud control efficiency in Nigerian public sector.

LITERATURE REVIEW

Forensic Accounting

Forensic accounting is a specialized area of accounting that combines the skills of accounting, auditing, and investigation to assess financial data in a manner suitable for use in legal contexts (Abdullahi et al., 2023). The term "forensic" reflects the fact that the financial evidence gathered by forensic accountants is intended for use in legal proceedings, such as litigation or other court cases. The field emerged due to the growing complexity of financial transactions and the rise in financial crimes, including fraud, embezzlement, and money laundering (Alhassan, 2020). Unlike traditional accounting, which focuses on recording and reporting financial transactions, forensic accounting zeroes in on the investigation of these transactions to detect potential fraudulent activities (Edeh et al., 2024b). Forensic accounting involves a detailed review of financial records, transactions, and statements to identify discrepancies, irregularities, or patterns indicating fraudulent behavior (Ogbaini et al., 2024).

Forensic accountants often analyze large amounts of data, reconstruct financial activities, and track the movement of funds to determine where and how fraud might have occurred (Bello et al., 2022). These professionals are trained to go beyond the numbers, applying their analytical skills to uncover hidden financial manipulations and identify signs of misconduct (Oranefo & Ufaroh, 2024). Their work often includes collaboration with legal teams, law

enforcement, and other relevant parties to collect and examine evidence that can be presented in court.

One of the primary roles of forensic accounting is its use in legal disputes. Forensic accountants are often called to court as expert witnesses, where they explain their findings and present financial evidence in a way that judges, juries, and other non-experts can understand. Their testimony is vital in clarifying complex financial matters and offering objective, evidence-based evaluations that can influence case outcomes. Beyond legal proceedings, forensic accountants also play a key role in preventing fraud (Oranefo & Ufaroh, 2024). They assist organizations in creating internal control systems, audit mechanisms, and risk management practices that minimize the likelihood of fraudulent activity and improve the accuracy of financial reporting (Ile & Odimegwa, 2018). Moreover, forensic accounting is not only concerned with uncovering fraud but also with understanding the causes of financial misconduct (Esonwune & Ogiri, 2024).

This involves analyzing the motivations and opportunities that might lead to fraudulent behavior and identifying weaknesses in existing financial systems that allow such activities to go unnoticed (Ogbaini et al., 2024). By addressing these root causes, forensic accountants help organizations enhance their financial governance, lower the risk of fraud, and build trust with stakeholders (Edeh et al., 2024). Thus, forensic accounting serves as a crucial tool for investigating, detecting, and preventing financial crimes, benefiting both public and private sectors (Odeyemi et al., 2024).

In this study, the proxies of forensic accounting are forensic litigation, mediation, and arbitration, each serving as a practical mechanism for addressing financial improprieties. Forensic litigation provides a structured legal framework for presenting financial evidence in court, ensuring that fraud and related offenses are subjected to rigorous judicial scrutiny. Mediation offers a less adversarial platform where parties can resolve financial disputes amicably, saving time and costs while preserving relationships. Arbitration, on the other hand, combines elements of both legal rigor and flexibility, allowing for binding resolutions delivered by experts in financial and legal matters. Together, these proxies illustrate the multifaceted role of forensic accounting in promoting fairness, accountability, and efficiency in the management of financial conflicts.

Forensic Litigation

Forensic litigation refers to the application of financial expertise in resolving legal disputes, where forensic accountants contribute by supporting or refuting financial claims through analysis, evidence, and expert testimony (Esonwune & Ogiri, 2024). In legal cases involving complex financial matters, forensic accountants play a key role by bringing their knowledge of accounting, auditing, and financial investigation into the courtroom. Their primary function is to analyze financial evidence, identify relevant facts, and present these findings in a clear manner that assists the court in making informed decisions (Edeh et al., 2024).

Forensic litigation covers a broad range of legal disputes, including fraud, embezzlement, breach of contract, business valuations, and divorce settlements (Naz & Khan, 2024). In fraud-related cases, forensic accountants might trace the flow of funds, reconstruct financial records, and identify discrepancies that point to fraudulent activities. Their analysis often becomes crucial in proving or disproving claims of financial wrongdoing, affecting the outcome of the case. Similarly, in divorce proceedings, forensic accountants may assess the value of assets, detect hidden income, or evaluate the financial implications of proposed settlements, ensuring fairness in asset division. An important aspect of forensic litigation is the role of the forensic accountant as an expert witness. In this role, forensic accountants present their findings in court, explaining financial concepts in a way that is accessible to those without financial expertise, including judges and juries. This testimony can be pivotal in helping the court comprehend the financial evidence and make decisions accordingly. The objectivity and credibility of forensic accountants are critical, as their analysis must be based on thorough research and supported by strong evidence (Edeh et al., 2024). This impartiality ensures that the financial facts are presented accurately, enabling a fair legal process.

H₀₁: Forensic litigation has no significant effect on fraud control efficiency in Nigerian public sector.

Forensic Mediation

Forensic mediation is a specialized process in which forensic accountants play a crucial role in resolving financial disputes outside of the courtroom. This process involves facilitating negotiations and providing financial hints that help the parties involved reach a mutually acceptable agreement (Fedorenko et al., 2023). Unlike litigation, where a judge or jury imposes a decision, mediation is a voluntary process that encourages the parties to collaborate in finding a solution to their conflict. Forensic mediation is particularly beneficial in disputes involving complex financial issues, where the expertise of a forensic accountant can clarify

the financial aspects of the dispute and assist in reaching a resolution that is fair and equitable for all involved.

In forensic mediation, the forensic accountant acts as a neutral third party, bringing their financial expertise to the mediation table. Their role is not to advocate for either party but to provide an objective analysis of the financial issues at hand, helping both sides understand the financial implications of their positions (Fedorenko et al., 2023). This analysis may include reviewing financial records, evaluating assets and liabilities, assessing income and expenses, and identifying any discrepancies or irregularities in the financial data. By providing a clear and unbiased view of the financial situation, the forensic accountant helps to bridge the gap between the parties, facilitating discussions based on a shared understanding of the facts.

H₀₂: Forensic mediation has no significant effect on fraud control efficiency in Nigerian public sector.

Forensic Arbitration

Forensic arbitration is a dispute resolution process in which a forensic accountant acts as an impartial expert, reviewing financial evidence and making binding decisions in financial disagreements (Akinadewo et al., 2024). Unlike mediation, where the goal is to facilitate a mutually agreed-upon solution, arbitration involves a more formal process where the arbitrator, a forensic accountant, listens to the arguments and evidence presented by both parties and then makes a decision that is typically final and enforceable. Forensic arbitration is often used in situations where the parties seek a faster and more cost-effective alternative to traditional litigation, especially in disputes involving complex financial issues.

In forensic arbitration, the forensic accountant serves as the arbitrator, utilizing their expertise in accounting, auditing, and financial analysis to assess the dispute (Alaaris & Al-Sartawi, 2024). The process usually begins with the forensic accountant reviewing the financial evidence provided by both parties. This evidence may include financial statements, tax returns, bank records, contracts, and other relevant documents. The forensic accountant's role is to analyze this evidence objectively, identify any discrepancies or irregularities, and assess the financial implications of the dispute (Akinadewo et al., 2024). Their goal is to arrive at a fair and just decision based on the financial facts of the case.

One of the key advantages of forensic arbitration is its efficiency. Because the process is less formal and more streamlined than traditional litigation, disputes can often be resolved more quickly and at a lower cost. Additionally, the use of a forensic accountant as an arbitrator ensures that the decision is informed by a deep understanding of the financial issues involved. This is particularly important in disputes that involve complex financial transactions, such as those related to business valuations, breach of contract, or fraud. The forensic accountant's expertise allows them to assess the evidence with a level of precision and accuracy that may not be achievable in a traditional court setting.

H₀₃: Forensic arbitration has no significant effect on fraud control efficiency in Nigerian public sector.

Fraud Detection and Prevention

Fraud detection is an essential systematic process that focuses on identifying and investigating activities deviating from standard financial practices, which may suggest fraudulent behavior (Ogbaini et al., 2024). This process plays a critical role in organizational governance, risk management, and internal controls. Effective fraud detection safeguards organizations from potential financial losses, reputational harm, and legal liabilities that can arise from fraudulent activities (Bababo et al., 2024). In today's increasingly complex and interconnected business landscape, where the opportunities for fraudulent actions have expanded due to technological advancements and global market integration, the importance of robust fraud detection mechanisms has intensified (Shoyemi, 2024).

Fraud prevention refers to the strategies, policies, and practices implemented by organizations or individuals to proactively identify, mitigate, and eliminate the risks of fraudulent activities before they occur. It involves a combination of internal controls, employee training, technological tools, and ethical guidelines designed to reduce opportunities for fraud, detect potential threats, and foster a culture of integrity and transparency. Effective fraud prevention helps safeguard assets, maintain trust, and protect the financial and operational integrity of an organization, reducing the likelihood of financial losses or reputational damage caused by fraud. The core of fraud detection lies in monitoring and analyzing financial transactions and activities to uncover patterns, anomalies, or warning signs indicative of fraudulent actions (Nursansiwi, 2024). Such anomalies may manifest as unusual trends in financial data, including inconsistencies between accounting records and actual transactions, unexplained fund transfers, or irregularities in expense reports. The detection process often employs both manual and automated techniques to sift through vast amounts of financial data, seeking signs

of suspicious activity. For instance, advanced data analytics and machine learning algorithms can identify deviations from standard behavior, flagging these anomalies for further investigation.

Typically, the fraud detection process begins with implementing robust internal controls designed to not only prevent but also detect instances of fraud. These controls may encompass various strategies, such as segregation of duties, regular audits, access controls, and real-time transaction monitoring technologies. Effective fraud detection transcends the mere identification of fraudulent activities; it also requires a comprehensive understanding of the underlying factors that may contribute to fraudulent behavior.

Fraud Control Efficiency

Fraud control efficiency refers to the capability of an organization's systems and processes to accurately identify, prevent, and mitigate fraudulent activities within financial transactions (Dewi et al., 2024). This concept is pivotal to the integrity and reliability of financial systems, determining an organization's capacity to protect itself against the diverse forms of fraud that can manifest. Measuring fraud control efficiency involves assessing how accurately and swiftly potential fraudulent activities are identified, the efficiency with which these activities are thwarted from causing harm, and the effectiveness of the organization's response once fraud is detected (Olowoseunre & Adewoye, 2024).

Several factors influence the effectiveness of fraud detection systems. These include the robustness of the organization's internal controls, the sophistication of monitoring systems in place, and the extent of training provided to employees to recognize and report suspicious activities (Dewi et al., 2024). A well-rounded approach to fraud control encompasses both detection and prevention measures. Effective fraud detection systems are designed not only to identify potential fraud but also to implement mechanisms that prevent fraudulent activities from progressing once they have been detected.

The timeliness of actions taken in response to suspected fraud is crucial; the sooner fraudulent activities are detected and prevented, the lesser the financial and reputational damage the organization may incur. Furthermore, the effectiveness of fraud detection is closely tied to the organization's ability to react to detected fraud with appropriate corrective actions. This includes conducting thorough investigations to uncover the root causes of fraud and implementing strategies to prevent similar occurrences in the future. A proactive fraud control strategy integrates various elements, including comprehensive employee training programs

that emphasize the importance of vigilance in recognizing fraud risks and reporting suspicious behavior (Olowoseunre & Adewoye, 2024). This training is essential for fostering a culture of accountability and transparency within the organization, encouraging employees to remain alert to potential fraudulent activities. Additionally, the use of technology can enhance fraud detection and control effectiveness. Automated systems can flag unusual transactions in real-time, providing organizations with immediate hints into potentially fraudulent activities.

Theoretical Review

Fraud Triangle Theory in Forensic Accounting

The Fraud Triangle Theory, developed by criminologist Donald Cressey in 1953, serves as a cornerstone in fraud detection and forensic accounting. In his seminal book, *Other People's Money: A Study in the Social Psychology of Embezzlement*, Cressey aimed to uncover the psychological and behavioral triggers that lead individuals to commit fraud. His research, based on interviews with convicted fraudsters, identified three essential elements (pressure, opportunity, and rationalization) that converge to enable fraudulent activities (Cressey, 1953). This framework has become instrumental for auditors, forensic accountants, and organizations striving to understand and combat fraud effectively (Rahman & Jie, 2024).

The essence of the Fraud Triangle Theory is the understanding that fraud does not occur randomly; it arises from specific conditions. The first element, pressure, refers to the financial or social stressors that individuals may face, such as debt, substance abuse, or the desire to maintain a certain lifestyle (Alshurafat et al., 2024). These pressures can create a perceived necessity, prompting individuals to resort to illegal means to achieve their goals. The second element, opportunity, emerges when individuals identify a chance to commit fraud with a low risk of being caught. This situation often results from weak internal controls, inadequate supervision, or when individuals hold positions of trust that allow them to exploit the system. The third element, rationalization, involves the mental processes by which individuals justify their fraudulent actions, convincing themselves that their behavior is acceptable or that they deserve the ill-gotten gains. Cressey asserted that the interplay of these three factors is crucial for fraud to occur, highlighting that organizations can reduce fraud risks by addressing these underlying issues (Cressey, 1953).

Incorporating the Fraud Triangle Theory into forensic accounting practices can significantly enhance fraud detection capabilities within the public sector. Strengthening internal controls is essential; by implementing robust systems, organizations can reduce opportunities for

fraud. Additionally, cultivating a culture of ethical behavior is vital. When employees comprehend the moral implications of their actions and the consequences of fraud, they are less inclined to rationalize dishonest conduct. Establishing solid internal controls alongside comprehensive training programs on identifying and reporting suspicious activities fosters a proactive atmosphere that discourages fraudulent behavior.

The study is anchored on Fraud Triangle Theory. In the context of forensic accounting within Nigeria's public sector, the Fraud Triangle Theory is invaluable in identifying the root causes of fraudulent behavior. Understanding how pressure, opportunity, and rationalization interact allows forensic accountants to craft specific fraud detection and prevention strategies tailored to the unique challenges faced by these organizations. The public sector, characterized by complex financial transactions and the potential for substantial financial rewards, is particularly susceptible to fraudulent activities. Thus, this theoretical framework is critical in identifying and mitigating the risks associated with such behaviors.

Empirical Review

Aliyu and Hussaini (2024), examined the effect of forensic accounting on fraud management in the Nigerian public sector. The study applied primary data through the administration of questionnaires to accountants and internal auditors from three states of the North-Eastern geopolitical zone of Nigeria. The population of the study is 134 accountants and internal auditors. The study is based on the census as the total population is considered in the analysis. Linear regression was used in the analysis, with the aid of the Statistical Package for Social Sciences (SPSS 23). The findings showed that there is a significant positive relationship between forensic accounting and the detection/prevention of corruption and fraud. However, there is an insignificant but positive relationship between forensic accounting and bribery in the public sector.

Bababo et al. (2024), established the relationship between forensic auditing practices and fraud mitigation from 2012-2022 for quoted DMBs in Nigeria. The selected predictor proxies included Fraud Investigation (FGN) and Fraud Litigation Support Services (FLS), whereas the criterion proxies were Corporate Governance (CTG), Internal Auditing (IAD), and Internal Control System (ICS). The study employed survey and ex-post facto research designs wherein primary and secondary data were used. The data spanned the period between 2012 and 2022. The data used for the analysis were ratings from questionnaires and the average figures from annual published statements of accounts and Nigeria Stock Exchange statistical

data. The data was analyzed using E-view-10 statistical software package. The study results established that secondary data proxies and questionnaires were administered to the management staff of 24 quoted DMBs in Nigeria. Using panel OLS, there exists a positive and significant relationship between the variables under investigation. It was recommended that the management of DMBs in Nigeria should put in place an internal control system that would allow each branch to monitor its detailed daily financial operations.

Edeh et al. (2024), examined the effect of forensic accounting on fraud prevention in microfinance banks in Abuja, Nigeria. Specifically, the study explored the effect of forensic investigation on the internal control of microfinance banks in Abuja and examined the effect of litigation support on internal control. The study utilized correlation and multiple regression analysis to analyze the data collected. The response rate for the distributed questionnaires was 100%, which was adequate for data analysis. The correlation analysis showed that fraud investigation and litigation support have a positive effect on internal control, implying that the use of forensic accounting positively impacts internal control, enhancing its effectiveness. The multiple regression results indicated that a unit increase in the application of fraud investigation would lead to approximately a 4.8% increase in ensuring internal control (INC), and a unit increase in litigation support would lead to approximately a 15.7% increase in INC, when all other variables are held constant. A unit increase in the application of fraud investigation would result in approximately a 66.1% increase in ensuring internal control.

Esonwune and Ogiri (2024), examined the effect of forensic accounting on fraud prevention in Nigerian banks. Employees of banks were surveyed quantitatively using pre-designed questions. The data was analyzed, and the connection between fraud prevention and forensic accounting methods (forensic investigation, expert consulting, and legal support) was assessed using regression analyses. The results showed that, in the chosen institutions, there is a strong negative correlation between fraud prevention and forensic investigation, as well as forensic litigation. However, expert consultation did not reveal a statistically meaningful relationship with fraud prevention.

Nursansiwi (2024), explored the important role of forensic accounting in detecting and preventing financial fraud amidst dynamic changes within the business world. Through a systematic literature review method, the study examined the contribution of forensic accounting through in-depth investigations of financial records, identification of suspicious activity patterns, collaboration with security and legal authorities, and fraud prevention through financial control design. The results of the thematic analysis revealed that forensic

accounting is not just an effective retrospective tool but also proactive in mitigating the risk of financial fraud in the future.

Ogbaini et al. (2024), investigated the role of forensic accounting in fraud detection and prevention in the Nigerian Public Sector, using the Lagos State Government as a case study. The study aimed to assess the impact of forensic accounting on fraud detection and prevention in the Lagos State Government and recommend strategies for fraud prevention in the Nigerian Public Sector. A sample of 60 Certified Accountants was selected using purposive sampling techniques and secondary data from past financial statements. The findings were analyzed using frequency distribution tables, simple percentages, and chi-square statistical formula. The study revealed that the Lagos State Government uses forensic accounting minimally in its operations, with no dedicated forensic accounting department and no management training on forensic fraud prevention.

Ogunwole and Jimoh (2024), examined the impact of forensic accounting services on fraud mitigation in selected tertiary institutions in Kwara State. The specific objectives examined were the impact of investigation services and digital forensic services on fraud. The study adopted a survey research design. The population for the study comprised principal officers, bursary, account/audit staff of six selected tertiary institutions in Kwara State. Stratified random sampling was used, comprising 157 staff of the selected institutions. Data were collected using a structured questionnaire. Data collected were analyzed using Partial Least Square and Structural Equation Model (PLS-SEM). With path coefficients of 0.592 and 0.747 respectively, findings revealed that investigation services and digital forensic services of forensic accountants have a statistically significant negative impact on fraud.

Olowoseunre and Adewoye (2024), examined the effect of forensic accounting mechanisms on fraud control in selected Nigerian federal government parastatals in southwestern Nigeria. The study employed a survey design using well-structured questionnaires. The population included all federal government parastatals in Nigeria, with the study sample comprising selected forensic accountants from the finance units of departments and agencies in Osun, Lagos, Ogun, Oyo, Ondo, and Ekiti States. Purposive sampling technique was used to select the sample size. Both descriptive and inferential statistics were employed for data analysis. The descriptive analysis revealed that most respondents were male, married, aged 41-50 years, with first-degree educational qualifications (HND/BSc), and an average of 16-20 years of work experience. The PPMC analysis indicated a moderate positive correlation (0.453) between the effectiveness of forensic accounting mechanisms and the ability to detect and

prevent financial fraud in the parastatals. This correlation was statistically significant (p -value = 0.000), indicating that as forensic accounting mechanisms improve, the ability to detect and prevent financial fraud increases. The study concluded that a positive relationship exists between forensic accounting mechanisms and financial fraud control in selected federal government parastatals.

Oranefo and Ufaroh (2024), examined the relationship between forensic accounting and fraudulent activities in corporate firms in Delta State. Specifically, the study aimed to examine the extent to which forensic accountants relate to fraud prevention in corporate firms and determine how forensic accounting relates to fraud detection. The study adopted a descriptive survey design, collecting data from a sample of 198 out of a population of 393 accounting officers and internal auditors from various ministries in the state, using Taro Yamane's formula. Data were collected through surveys using questionnaires as research instruments. The hypotheses were tested using Pearson correlation coefficient analysis at a 0.05 significance level via SPSS, version 20.0. The analysis and hypothesis testing revealed a significant relationship between forensic accounting and both fraud prevention and detection in selected firms in Delta State.

Abdullahi et al. (2023), examined the feasibility of implementing forensic accounting for fraud detection and prevention in the public sector in Borno State. The study used primary data obtained through a structured questionnaire and secondary data from the records of the Borno State Ministry of Finance. A total of 250 samples were examined from a population consisting of public accountants, auditors, members of the Institute of Chartered Accountants of Nigeria (ICAN), the Association of National Accountants of Nigeria (ANAN), accounting academicians, and members of the Nigerian Bar Association (NBA). Descriptive statistics, Analysis of Variance (ANOVA), and Kendall's W were used to test the hypotheses. The findings revealed that accountants in the State Civil Service are knowledgeable about forensic accounting. Moreover, conventional auditing was found to be insufficient in detecting fraudulent practices in the state.

Franca et al. (2023), examined the effect of forensic accounting on fraud detection in the Nigerian public sector, driven by the rising incidence of fraud in the sector. The study sought to determine whether adopting forensic accounting could aid in fraud detection. A survey was conducted with 357 accountants, directors, and senior staff of various Ministries, Departments, and Agencies (MDAs), selected using stratified random sampling. Data were collected using structured questionnaires and analyzed using Spearman rank correlation.

Forensic accounting was studied through indicators such as forensic accounting competency, forensic accounting techniques, and proactive fraud auditing, with a focus on payroll and procurement fraud. The analysis revealed that all three indicators of forensic accounting were negatively and significantly correlated with payroll and procurement fraud.

Kaunda (2021), analyzed the effect of forensic accounting practices on fraud mitigation among commercial banks in Kenya. This study applied a descriptive survey research design to establish the impact of forensic accounting practices on fraud mitigation. The target population for this study were 41 commercial banks that are currently active as at 31st December, 2019. The study applied census technique since it is possible to access all the commercial banks in Kenya. Structured questionnaires were applied in data collection since the study seeks to solicit for quantitative data. Data Analysis was done using SPSS version 24. Data was analyzed using descriptive statistics, correlation analysis and multiple regression analysis. Analysis of data indicated that there exist a positive and significant association between litigation support and fraud mitigation in commercial banks ($p < .05$). In addition, the established that there exist a significant and positive relationship between fraud investigation and fraud mitigation in commercial banks ($p < .05$) in addition to existence of a significant and positive relationship between dispute resolution and fraud mitigation in commercial banks ($p < .05$).

Okoye, Nwoye, Akuchi and Onyema (2020) examined the effect of Forensic investigation techniques in detecting Occupational fraud in the Public sector of Anambra State. A sample of 250 Respondents comprising professional Investigators, Prosecutors, staff of Finance, Accounts and Audit units, the Economic and Financial crimes commission (EFCC), Independent Corrupt Practices Commission (ICPC), Code of Conduct Bureau (CCB), Federal Bureau of Investigation (FBI), Police Special Fraud Unit (PSFU) of the criminal Investigation Department of the Nigerian Police Force and Ministry of Finance, Anambra State, were surveyed. Data generated and consequently analysed using Kruskal Wallis test showed that there are no generally acceptable forensic investigation techniques in place for detecting fraud in the public even as there is a significant positive relationship between Forensic investigation Techniques and fraud detection in the Public sector of Anambra State.

Adegbie et al. (2020), evaluated the impact of the applying forensic accounting techniques in curbing fraud in Nigeria budget implementation. The study employed survey cross-sectional research design. The population consisted of 195 staff of federal government establishments connected with budgetary system and fiscal policy. With the use of total enumeration, 195

copies of the questionnaire were administered with a retrieval rate of 150 copies (77%). The study adopted descriptive and regression to analyze the data. The findings showed that Investigative and Audit Support Service have strong impact on fraud and misappropriation of budgeted allocation funds; the result also showed that Investigative and Audit Support Service have significant impact on uncompleted capital and developmental projects.

Okoye and Ndah (2019), investigated the relationship between forensic accounting practices and the prevention of fraud in manufacturing companies in Nigeria. Data was collected from primary sources through the issue of fifty (50) structured questionnaires to the accounting staff of ten (10) manufacturing companies. The collected data was analyzed using Ordinary Least Square method of multiple regression analyses. The findings of the research showed that there is a positive and statistically significant relationship between fraud investigation practices and the prevention of fraud in manufacturing companies. The findings also showed that there is a positive and statistically significant relationship between fraud litigation practices and the prevention of fraud in manufacturing companies.

Okoye et al. (2019), assessed the effect of Forensic Accounting on fraud management. The objectives were to find the effectiveness of forensic accounting in fraud prevention and the positive effect of forensic litigation on recovery of funds lost to fraud. Survey design was adopted. Questionnaire was used in data collection from accounting staff of Nigeria Breweries Plc, Cadbury Nigeria Plc, Nigeria Bottling Company and Dupril Forma Nigeria Ltd, all in Aba, Abia State. 190 were used as sample size. The study adopted descriptive statistics which involves the use of mean and standard deviation while regression analysis was adopted to test the stated hypotheses. Findings revealed that forensic accounting significantly influence fraud detection and prevention. It was also revealed forensic litigation has no significant positive effect on recovery of funds lost to fraud.

Nwoye, Okoye and Oraka (2013) conducted a study to investigate the extent to which the Beneish Model, a forensic data mining technique, could further strengthen Auditors likelihood to detecting such manipulations in the Financial Statements. Data from primary and secondary sources such as structured questionnaire on 5 point likert rating scale and the Audited Annual Reports of the first five most capitalised manufacturing companies in Nigeria for the years 2002-2006 (in Cadbury, for model confirmatory test purpose) and 2006-2010 were used. Relevant analysis relying on opinion of the 100 Respondents sampled from selected professional bodies in Nigeria such as ICAN and ANAN members and the data mining outputs of the Beneish model were carried out using the Two way ANOVA statistical

technique, and the study found out that the analyses result showed that SAS 99 will significantly contributed to the deterrence and detection of fraud by Auditors in Nigeria, especially where complemented with the Beneish model.

MATERIALS AND METHOD

This study employed a survey research design due to its effectiveness in gathering data from a specific group relevant to the study. A survey design enables the researcher to collect comprehensive information from participants, ensuring that the opinions and behaviors of the targeted population are represented accurately (Nworie & Odah, 2024; Nworie & Nworie, 2025). This design is cost-effective, allowing the researcher to explore large populations while ensuring systematic data collection and analysis. The population for this study consists of 6,393 staff working across federal ministries, departments, and agencies in Anambra State, with a specific focus on management staff, accountants (auditors) and supervisors. These participants were chosen because of their direct involvement in financial processes, making them well-suited to provide insights into the use of forensic accounting practices for fraud control. The population is distributed across the following categories:

Table 1 Population

Category	Number of Staff
Ministries	2,804 staff
Departments	1,875 staff
Agencies	1,724 staff
Total	6,393

Source: Survey Findings from Federal Ministries, Departments and Agencies, 2024

This population reflects a broad cross-section of public-sector workers involved in financial operations, providing a diverse and representative sample for the study.

The sample size for the study was determined using Taro Yamane formula, which provides a reliable estimate of the number of participants needed to generalize the findings to the entire population. The formula is expressed as:

$$n = \frac{N}{1+N(e)^2}$$

- Where; n = Sample size
- N = Population of the study
- e = Level of significance @ 6%

Therefore, sample size for the study is determined thus:

$$n = \frac{6393}{1+6393 (0.06)^2}$$

$$n = 266$$

Approximately, sample size = 266 staff

Thus, the sample size for the study is 266 staff. The study employed a non-probability sampling technique to select participants. This technique is chosen because it allows the researcher to focus on specific staff members, particularly management staff and supervisors, whose roles are most relevant to the objectives of the study. The random selection of MDAs in Awka, Anambra State, further ensures that the sample is representative of the population and captures the necessary perspectives on forensic accounting practices. The study relied on primary data, which was collected using a structured questionnaire. This method ensures that the researcher gathers first-hand information directly from participants, enabling detailed insights into the role of forensic accounting in fraud detection and prevention within the Nigerian public sector.

A structured questionnaire was designed to collect responses from participants. The questionnaire used a Likert scale to measure participants' opinions on various aspects of forensic accounting. However, the section A of the research instrument elicited personal data from the respondents. The response options and their numeric values as used in Likert-scale section are:

- i. Strongly Agree (5)
- ii. Agree (4)
- iii. Undecided (3)
- iv. Disagree (2)
- v. Strongly Disagree (1)

This numeric coding facilitates easy data entry and analysis.

To ensure the validity of the questionnaire, the instrument was reviewed by experts, including the research supervisor. Their feedback on the content, structure, and clarity of the questions was incorporated to enhance the instrument's relevance and accuracy. Adjustments were made based on their suggestions to ensure the questionnaire accurately captured the variables under investigation. The reliability of the instrument was assessed using Cronbach's Alpha in SPSS. A reliability score of 0.844 was obtained, indicating a high level of internal consistency among the questionnaire items. Since the generally accepted threshold for reliability is 0.70,

the score of 0.844 confirms that the questionnaire is dependable and suitable for measuring the study variables.

The study adapted the model by Bello et al. (2022) who used the model below:

$$\text{FraudDetctn0} = \alpha + \beta_0 \text{ForensicAudit0} + \mu \dots\dots\dots \text{Eqn 1.}$$

Where:

- FraudDetctn0= Fraud Detection
- α = Intercept of regression model
- $\beta_0 \text{ForensicAudit0}$ = Forensic audit
- μ = Error

The above model was expanded to yield a multiple regression model suitable for analyzing the effect of forensic accounting on detection and prevention of fraud (proxy by fraud control efficiency). The modified model is expressed as:

$$\text{FCE}_i = \alpha_0 + \beta_1 \text{FL}_i + \beta_2 \text{FME}_i + \beta_3 \text{FAS}_i + \mu_i \dots\dots\dots \text{Eqn 2.}$$

Where:

- FCE_i = Fraud control efficiency
- FL_i = Forensic litigation
- FME_i = Forensic mediation
- FAS_i = Forensic arbitrations
- α_0 = Constant
- $\beta_1, \beta_2, \beta_3$ = Coefficients of independent variables
- μ_i = Error term

This model helps to determine the relationship between forensic accounting dimensions (litigation, mediation, and arbitration) and fraud control efficiency in the Nigerian public sector. The data collected were analyzed using descriptive and inferential statistics in SPSS. Descriptive statistics, such as mean scores and frequency distributions, provided hints into the patterns in the responses. For inferential analysis that tests the hypotheses, multiple regression analysis was employed to evaluate the effect of forensic accounting practices on fraud control efficiency. The decision-making criteria for analysis of research question in this study was based on the following:

- i. Mean score of 3.0 and above: Accept (indicates a positive response)
- ii. Mean score below 3.0: Reject (indicates a negative response)

A 5% significance level ($p < 0.05$) was used to test the hypotheses. If the p-value is less than 0.05, the null hypothesis will be rejected in favor of the alternative hypothesis. The decision rule for hypothesis testing was based on the p-value:

- i. $p > 0.05$: Accept the null hypothesis
- ii. $p \leq 0.05$: Reject the null hypothesis

RESU.T AND DISCUSSIONS

The study examined the effect of forensic accounting on fraud detection and prevention in Nigerian public sector. The specific objective of the study was to examine and explore the effect of forensic litigation, forensic mediation and forensic arbitration on fraud control efficiency, respectively. Survey research design was adopted in the study. Table 4.1 shows the response rate to the research instrument. Out of the 266 questionnaires distributed, 214 were successfully completed and returned, accounting for 80.5% of the total. This high response rate suggested that the participants were highly engaged and willing to provide information relevant to the study. However, 52 questionnaires remained unreturned, representing 19.5% of the total distributed. While this non-response rate is relatively low, it does indicate some level of respondent attrition, which may be due to time constraints, lack of interest, or other external factors.

The mean-point analysis of Likert-scale items, as presented in Table 2 to Table 5, provides insights into how respondents perceive the role of forensic investigative skills in fraud detection and prevention within the Nigerian public sector. The table evaluates five key statements related to forensic litigation using a five-point Likert scale, where SD (Strongly Disagree), D (Disagree), U (Undecided), A (Agree), and SA (Strongly Agree) represent respondents' levels of agreement. The mean scores indicate the general tendency of responses, with higher values signifying stronger agreement with each statement.

Table 2 Mean Point Analysis of Forensic Litigation

S/N	Forensic Litigation	SD	D	U	A	SA	Mean
1	Forensic litigation processes improve the accuracy of fraud detection in financial investigations.	8	12	28	96	70	3.97
2	Legal actions through forensic litigation discourage fraudulent practices within public institutions.	32	52	22	71	37	3.14

3	The involvement of forensic accountants in litigation increases the credibility of fraud-related cases.	40	56	49	53	16	2.76
4	Forensic litigation leads to faster identification and recovery of misappropriated public funds.	42	54	26	58	34	2.94
5	The use of forensic litigation strengthens compliance with financial regulations in the public sector.	68	94	21	21	10	2.12

Source: Field Survey (2025)

The mean-point analysis of forensic litigation in Table 2 reveals varying degrees of support and skepticism among respondents. The first statement, “Forensic litigation processes improve the accuracy of fraud detection in financial investigations,” received the highest level of agreement among the five items. A total of 166 respondents (96 Agree, 70 Strongly Agree) supported this statement, contributing to a relatively high mean score of 3.97. This suggests that most respondents believe forensic litigation enhances fraud detection accuracy, reinforcing its importance in financial investigations. However, 28 respondents remained undecided, while 12 disagreed and 8 strongly disagreed, indicating that some skepticism still exists.

The second statement, “Legal actions through forensic litigation discourage fraudulent practices within public institutions,” received a more moderate level of agreement, with 71 respondents agreeing and 37 strongly agreeing. However, a significant portion of respondents expressed disagreement (52 Disagree, 32 Strongly Disagree), and 22 remained undecided. This resulted in a mean score of 3.14, reflecting a more neutral stance. While some respondents see forensic litigation as an effective deterrent to fraud, others may have reservations about its effectiveness in changing institutional behaviors.

The third statement, “The involvement of forensic accountants in litigation increases the credibility of fraud-related cases,” recorded one of the lowest mean scores at 2.76. The distribution of responses reveals that 56 respondents disagreed and 40 strongly disagreed, together forming a substantial group questioning the role of forensic accountants in litigation. Meanwhile, 49 respondents remained undecided, suggesting uncertainty about the impact of forensic accountants on case credibility. The relatively lower agreement (53 Agree, 16 Strongly Agree) further indicates that respondents are not overwhelmingly convinced about the influence of forensic accountants in enhancing fraud case credibility.

The fourth statement, “Forensic litigation leads to faster identification and recovery of misappropriated public funds,” also generated mixed responses, with a mean score of 2.94. While 58 respondents agreed and 34 strongly agreed, a considerable number (54 disagreed, 42 strongly disagreed, and 26 were undecided), suggesting divided opinions on whether forensic litigation significantly accelerates fund recovery. The moderate agreement level implies that while some respondents recognize its benefits, others may have concerns regarding the efficiency and effectiveness of forensic litigation in retrieving misappropriated assets.

The final statement, “The use of forensic litigation strengthens compliance with financial regulations in the public sector,” recorded the lowest mean score of 2.12, indicating strong disagreement among respondents. A substantial majority (94 disagreed, 68 strongly disagreed), while only 21 respondents agreed and 10 strongly agreed. The 21 undecided responses further highlight a lack of consensus. This result suggests that respondents perceive forensic litigation as having limited effectiveness in enforcing regulatory compliance in the public sector, possibly due to challenges such as bureaucratic inefficiencies or weak enforcement mechanisms.

Table 3 Mean Point Analysis of Forensic Mediation Skills

	Forensic Mediation Skills	SD	D	U	A	SA	Mean
1	Forensic mediation helps resolve fraud-related disputes quickly without escalating to legal proceedings.	78	59	51	20	6	2.14
2	Mediation efforts by forensic experts improve collaboration between conflicting parties in fraud cases.	69	86	21	28	10	2.18
3	Fraud risks are reduced when public institutions adopt forensic mediation in dispute resolution.	72	83	22	27	10	2.16
4	Forensic mediation promotes transparency in financial conflict resolution processes.	11	32	17	86	68	3.79
5	The use of mediation encourages parties involved in fraud disputes to cooperate for better outcomes.	35	47	36	47	49	3.13

Source: Field Survey (2025)

The mean-point analysis of forensic mediation skills, as presented in Table 3, provides insights into respondents' perceptions of the effectiveness of forensic mediation in fraud-related dispute resolution within the Nigerian public sector. The table evaluates five key statements related to forensic mediation, using a five-point Likert scale where SD (Strongly Disagree), D (Disagree), U (Undecided), A (Agree), and SA (Strongly Agree) represent respondents' levels of agreement. The mean scores reflect the overall sentiment, with higher values indicating greater agreement.

The first statement, “Forensic mediation helps resolve fraud-related disputes quickly without escalating to legal proceedings,” received a significant level of disagreement. A total of 137 respondents (78 strongly disagreed and 59 disagreed) expressed skepticism about the ability of forensic mediation to resolve fraud disputes swiftly. Meanwhile, 51 respondents were undecided, while only 20 agreed and 6 strongly agreed. This led to a mean score of 2.14, suggesting that the majority of respondents do not view forensic mediation as an efficient alternative to litigation in resolving fraud-related disputes.

Similarly, the second statement, “Mediation efforts by forensic experts improve collaboration between conflicting parties in fraud cases,” also received a high level of disagreement. A total of 155 respondents (69 strongly disagreed and 86 disagreed) did not believe that forensic mediation enhances cooperation between disputing parties. While 21 respondents remained undecided, only 28 agreed and 10 strongly agreed, resulting in a mean score of 2.18. This indicates that most respondents do not perceive forensic mediation as a significant tool for fostering collaboration in fraud disputes, possibly due to concerns about the impartiality or effectiveness of mediation in high-stakes financial conflicts.

The third statement, “Fraud risks are reduced when public institutions adopt forensic mediation in dispute resolution,” also saw substantial disagreement, with 72 respondents strongly disagreeing and 83 disagreeing, making a total of 155 dissenting views. A relatively small number of respondents—22 undecided, 27 agreeing, and 10 strongly agreeing—supported the idea that forensic mediation plays a role in mitigating fraud risks. The mean score of 2.16 reinforces the lack of confidence in forensic mediation as a preventive measure against fraud in public institutions.

In contrast, the fourth statement, “Forensic mediation promotes transparency in financial conflict resolution processes,” received a markedly different response pattern. A total of 154 respondents (86 agreed and 68 strongly agreed) supported the idea that forensic mediation

contributes to transparency. In comparison, only 11 strongly disagreed, 32 disagreed, and 17 were undecided. This resulted in a mean score of 3.79, the highest in this section, indicating that respondents generally recognize forensic mediation as a means to enhance openness in financial conflict resolution.

The final statement, “The use of mediation encourages parties involved in fraud disputes to cooperate for better outcomes,” had a more balanced distribution of responses. A total of 96 respondents (47 agreed and 49 strongly agreed) supported the statement, while 82 respondents (35 strongly disagreed and 47 disagreed) opposed it. Additionally, 36 respondents remained undecided. The resulting mean score of 3.13 suggests a moderate level of agreement, indicating that forensic mediation has some potential in fostering cooperation but is not universally accepted as an effective strategy.

Table 4 Mean Point Analysis of Forensic Arbitration Skills

	Forensic Arbitration Skills	SD	D	U	A	SA	Mean
1	Forensic arbitration provides an effective mechanism for addressing fraud-related disputes.	31	67	24	30	62	3.12
2	The involvement of skilled forensic arbitrators ensures impartial judgments in financial fraud cases.	30	47	26	60	51	3.26
3	Arbitration by forensic accountants improves the enforcement of anti-fraud policies in public institutions.	58	43	35	46	32	2.77
4	The presence of forensic arbitrators reduces fraud risks by promoting accountability among employees.	45	51	22	72	24	2.90
5	Forensic arbitration contributes to the recovery of financial losses caused by fraudulent activities.	53	49	34	46	32	2.79

Source: Field Survey (2025)

The mean-point analysis of forensic arbitration skills, as shown in Table 4, examines respondents' perceptions of the role forensic arbitration plays in addressing fraud-related disputes in the Nigerian public sector. The responses are measured using a five-point Likert scale: SD (Strongly Disagree), D (Disagree), U (Undecided), A (Agree), and SA (Strongly

Agree). The mean scores indicate the overall agreement level, with higher values reflecting greater perceived effectiveness.

The first statement, “Forensic arbitration provides an effective mechanism for addressing fraud-related disputes,” received a diverse range of responses. A total of 98 respondents (31 strongly disagreed and 67 disagreed) expressed skepticism regarding forensic arbitration's effectiveness. However, 30 respondents agreed and 62 strongly agreed, indicating a notable level of support. Twenty-four respondents remained undecided, contributing to a mean score of 3.12. This suggests that while some respondents believe in the effectiveness of forensic arbitration, there is still considerable uncertainty and disagreement about its role in fraud dispute resolution.

The second statement, “The involvement of skilled forensic arbitrators ensures impartial judgments in financial fraud cases,” had a more positive reception. A total of 111 respondents (60 agreed and 51 strongly agreed) acknowledged the role of forensic arbitrators in ensuring unbiased judgments. Meanwhile, 77 respondents (30 strongly disagreed and 47 disagreed) expressed doubt, while 26 remained undecided. The mean score of 3.26 reflects a relatively favorable perception, suggesting that respondents recognize the value of forensic arbitrators in ensuring fairness in fraud-related cases.

The third statement, “Arbitration by forensic accountants improves the enforcement of anti-fraud policies in public institutions,” received a more mixed response. A total of 101 respondents (58 strongly disagreed and 43 disagreed) did not perceive forensic arbitration as a strong contributor to anti-fraud policy enforcement. In contrast, 78 respondents (46 agreed and 32 strongly agreed) viewed it positively, while 35 respondents remained neutral. With a mean score of 2.77, the response suggests a lack of strong confidence in forensic arbitration as a driver of anti-fraud policy enforcement.

For the fourth statement, “The presence of forensic arbitrators reduces fraud risks by promoting accountability among employees,” responses were similarly divided. A total of 96 respondents (45 strongly disagreed and 51 disagreed) did not believe forensic arbitration significantly reduces fraud risks. However, 72 respondents agreed and 24 strongly agreed, while 22 were undecided. The mean score of 2.90 indicates a moderate level of agreement, but also highlights a lack of consensus regarding forensic arbitration's ability to foster accountability.

The final statement, “Forensic arbitration contributes to the recovery of financial losses caused by fraudulent activities,” received mixed reactions. A total of 102 respondents (53 strongly disagreed and 49 disagreed) doubted the role of forensic arbitration in recovering financial losses. Meanwhile, 78 respondents (46 agreed and 32 strongly agreed) supported the statement, with 34 respondents remaining undecided. The resulting mean score of 2.79 suggests that forensic arbitration is not widely recognized as an effective tool for financial recovery in fraud cases.

Table 5 Mean Point Analysis of Fraud control efficiency

	Fraud control efficiency	SD	D	U	A	SA	Mean
1	Fraud control measures are more effective when forensic processes are incorporated into public-sector operations.	67	27	24	66	30	2.84
2	The use of forensic accounting tools reduces the occurrence of financial fraud in the public sector.	8	12	28	97	69	3.97
3	Strong internal controls makes it harder for fraud to occur in the public sector.	34	57	23	71	29	3.02
4	Continuous monitoring of public-sector financial activities substantially mitigates the occurrence of fraud	43	59	57	44	11	2.63
5	Forensic accounting practices strengthen the ability of public institutions to prevent future fraud cases.	46	56	29	50	33	2.85

Source: Field Survey (2025)

Table 5, which presents the mean-point analysis of fraud control efficiency, evaluates respondents’ perceptions of how forensic accounting and internal controls impact fraud prevention in the Nigerian public sector. The responses are measured on a five-point Likert scale: Strongly Disagree (SD), Disagree (D), Undecided (U), Agree (A), and Strongly Agree (SA). The mean scores reflect the overall level of agreement, with higher scores indicating stronger positive perceptions.

The first statement, “Fraud control measures are more effective when forensic processes are incorporated into public-sector operations,” received mixed responses. A total of 94 respondents (67 strongly disagreed and 27 disagreed) expressed skepticism about the role of

forensic processes in enhancing fraud control measures. In contrast, 96 respondents (66 agreed and 30 strongly agreed) supported the assertion, while 24 respondents remained neutral. The mean score of 2.84 suggests that while some respondents recognize the value of forensic processes, there is still notable doubt about their overall impact on fraud control efficiency in the public sector.

The second statement, “The use of forensic accounting tools reduces the occurrence of financial fraud in the public sector,” received a strong positive response. A total of 166 respondents (97 agreed and 69 strongly agreed) affirmed that forensic accounting tools play a significant role in reducing fraud. Meanwhile, 20 respondents (8 strongly disagreed and 12 disagreed) were not convinced, while 28 remained neutral. The mean score of 3.97 is the highest in this table, indicating that forensic accounting tools are widely perceived as an effective fraud control mechanism.

For the third statement, “Strong internal controls make it harder for fraud to occur in the public sector,” responses were more divided. A total of 91 respondents (34 strongly disagreed and 57 disagreed) questioned the effectiveness of internal controls in fraud prevention. Conversely, 100 respondents (71 agreed and 29 strongly agreed) viewed internal controls as a deterrent to fraud, while 23 respondents remained neutral. The mean score of 3.02 indicates a moderate level of agreement but also highlights lingering doubts about the sufficiency of internal controls in combating fraud.

The fourth statement, “Continuous monitoring of public-sector financial activities substantially mitigates the occurrence of fraud,” received a less favorable response. A total of 102 respondents (43 strongly disagreed and 59 disagreed) doubted the effectiveness of continuous financial monitoring, while only 55 respondents (44 agreed and 11 strongly agreed) supported the claim. Fifty-seven respondents remained undecided, leading to a mean score of 2.63. This suggests that while continuous monitoring is acknowledged as a potential fraud mitigation strategy, its effectiveness is not widely accepted.

The final statement, “Forensic accounting practices strengthen the ability of public institutions to prevent future fraud cases,” also generated mixed reactions. A total of 102 respondents (46 strongly disagreed and 56 disagreed) were skeptical about the role of forensic accounting in preventing future fraud. However, 83 respondents (50 agreed and 33 strongly agreed) supported the statement, while 29 respondents remained neutral. The mean score of 2.85

reflects a moderate level of agreement, indicating that forensic accounting is recognized as beneficial but not universally accepted as a definitive solution for preventing future fraud cases.

Test of Hypotheses

The null hypotheses of the study were tested using multiple regression analysis as shown in Table 6 below shows the output of the regression analysis.

Table 6 Regression Analysis

Model Summary						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate		
1	.803 ^a	.645	.640	2.773		

ANOVA^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2938.933	3	979.644	127.437	.000 ^b
	Residual	1614.324	210	7.687		
	Total	4553.257	213			

Coefficients^a						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	-7.390	1.877		-3.937	.000
	Forensic litigation	.806	.048	.703	16.792	.000
	Forensic mediation	.225	.095	.098	2.364	.019
	Forensic arbitration skills	.515	.080	.270	6.417	.000

Source: IBM SPSS Version 26 Output (2025)

Table 6 presents the regression analysis results, examining the effect of forensic litigation, forensic mediation, and forensic arbitration skills on fraud control efficiency in the Nigerian public sector. The model summary shows an adjusted R-squared value of 0.640, which indicates that approximately 64% of the variations in fraud control efficiency can be explained by forensic litigation, forensic mediation, and forensic arbitration skills. This suggests that these forensic accounting techniques collectively have a strong explanatory power in determining fraud control efficiency, while the remaining 36% of variations are attributable to other factors not included in the model.

The ANOVA (F-test) result, with a probability value of 0.000, confirms the overall validity of the regression model. A p-value below 0.05 indicates that the independent variables jointly have a statistically significant effect on fraud control efficiency. This means that the model is well-fitted, and at least one of the forensic accounting components significantly influences fraud control measures in the Nigerian public sector. The F-statistic significance level of 0.000

suggests that the likelihood of obtaining these results by chance is extremely low, reinforcing the robustness of the findings.

Hypothesis One

H₀: Forensic litigation has no significant effect on fraud control efficiency in Nigerian public sector.

H₁: Forensic litigation has significant effect on fraud control efficiency in Nigerian public sector.

Table 6 shows that the regression coefficient for forensic litigation is 0.806 with a p-value of 0.000. This implies that a unit increase in forensic litigation efforts leads to a 0.806 increase in fraud control efficiency, holding other variables constant. Since the p-value is below 0.05, the effect is statistically significant at the 5% level. This suggests that forensic litigation plays a major role in enhancing fraud detection and prevention in the Nigerian public sector. Thus, the alternate hypothesis was accepted that Forensic litigation has a positive and significant effect on fraud control efficiency in the Nigerian public sector ($\beta = 0.806$, $p = 0.000$).

The positive effect of forensic litigation on fraud control is strongly supported by several studies. Aliyu and Hussaini (2024), found that forensic accounting has a significant positive relationship with fraud detection and prevention in the Nigerian public sector, aligning with the finding that forensic litigation is an effective fraud control tool. Similarly, Edeh et al. (2024), reported that forensic accounting enhances internal control and has significant results in fraud investigation and litigation support, reinforcing the role of forensic litigation. Additionally, Franca et al. (2023), observed a significant negative correlation between forensic accounting indicators and fraud in Nigerian public sector MDAs, supporting the deterrent effect of forensic litigation. However, Okoye et al. (2019), noted that forensic litigation did not have a significant effect on fund recovery, suggesting that while litigation aids fraud detection, it may not always lead to financial restitution.

Hypothesis Two

H₀: Forensic mediation has no significant effect on fraud control efficiency in Nigerian public sector.

H_i: Forensic mediation has significant effect on fraud control efficiency in Nigerian public sector.

Forensic mediation has a coefficient of 0.225 and a p-value of 0.019, indicating that a unit increase in forensic mediation efforts leads to a 0.225 increase in fraud control efficiency. While this effect is relatively small compared to forensic litigation, the p-value of 0.019 (which is less than 0.05) confirms its statistical significance. This means that forensic mediation has a positive but weaker effect on fraud control efficiency compared to forensic litigation. Consequently, the alternate hypothesis was accepted that Forensic mediation has a significant positive effect on fraud control efficiency in the Nigerian public sector ($\beta = 0.225$, $p = 0.019$).

The finding that forensic mediation positively affects fraud control efficiency is corroborated by multiple studies. Nursansiwi (2024), highlighted that forensic accounting serves as both a retrospective and proactive fraud mitigation tool, suggesting that mediation processes contribute to fraud resolution. However, Esonwune and Ogiri (2024), found no significant relationship between expert forensic consultation and fraud prevention, which may suggest that forensic mediation's effectiveness depends on the nature of the dispute and the willingness of parties to engage in ADR mechanisms.

Hypothesis Three

H₀: Forensic arbitration has no significant effect on fraud control efficiency in Nigerian public sector.

H_i: Forensic arbitration has significant effect on fraud control efficiency in Nigerian public sector.

Forensic arbitration skills show a coefficient of 0.515 with a p-value of 0.000, indicating that a unit increase in forensic arbitration skills results in a 0.515 increase in fraud control efficiency. This suggests a moderate positive effect, meaning that forensic arbitration helps in fraud detection and prevention, though not as strongly as forensic litigation. Since the p-value is 0.000 (which is less than 0.05), the effect is statistically significant at the 5% level. As a result, the alternate hypothesis was accepted that Forensic arbitration has a significant positive effect on fraud control efficiency in the Nigerian public sector ($\beta = 0.515$, $p = 0.000$).

Forensic arbitration's significant positive effect on fraud control efficiency is supported by empirical evidence. Bello et al. (2022), demonstrated that forensic auditing significantly affects fraud detection in Nigerian banks, suggesting that arbitration mechanisms involving forensic experts contribute to fraud control. Similarly, Adegbe et al. (2020), found that investigative and audit support services significantly impact fraud and budget misappropriation, reinforcing the importance of forensic arbitration in financial fraud cases. Furthermore, Kaunda (2021), reported a positive and significant relationship between forensic accounting practices and fraud mitigation in Kenyan banks, suggesting that arbitration mechanisms are effective across different contexts. However, Ogunwole and Jimoh (2024), found that investigation services and digital forensic services had a significant negative impact on fraud in tertiary institutions, which may indicate that forensic arbitration's effectiveness varies depending on the sector and the nature of fraud cases.

CONCLUSION AND RECOMMENDATIONS

The findings indicate that forensic accounting plays a crucial role in strengthening fraud detection and prevention mechanisms within the Nigerian public sector. The significant impact of forensic accounting techniques on fraud control efficiency suggests that integrating these methods into public sector financial oversight enhances transparency and accountability. This implies that forensic accounting serves as a robust deterrent against fraudulent activities by providing structured dispute resolution mechanisms that ensure financial irregularities are systematically addressed. The reliance on forensic accounting underscores the necessity of specialized financial investigative approaches in mitigating the risks associated with fraud and corruption.

Furthermore, the results suggest that forensic accounting techniques contribute to improved financial governance in the Nigerian public sector by facilitating the identification and resolution of fraud-related disputes. The effectiveness of these techniques highlights their role in reducing financial mismanagement and enhancing the integrity of financial reporting. This implies that public sector organizations benefit from forensic accounting practices as they provide concrete evidence in financial disputes, thereby strengthening fraud detection and legal enforcement processes. The findings reinforce the idea that fraud control is not only about detection but also about systematically resolving financial disputes in a manner that upholds institutional credibility.

The broader implication of these findings is that forensic accounting enhances public confidence in the Nigerian public sector by ensuring that financial misconduct is addressed through structured and legally recognized mechanisms. The effectiveness of these methods in fraud control suggests that they contribute to a culture of accountability, thereby improving governance and organizational efficiency. Moreover, the ability of forensic accounting to detect and resolve financial irregularities implies that it plays a key role in reducing financial leakages, which in turn supports government institutional trust. This underscores the importance of forensic accounting as a critical tool in maintaining the financial health and credibility of public institutions.

Based on these finding, it was recommended that:

- a. The National Assembly and the Nigerian Ministry of Justice should take the necessary steps to strengthen the legal framework around forensic litigation by working to implement dedicated forensic units within public sector legal teams, provide additional training for prosecutors and investigators on the importance and execution of forensic litigation, and allocate sufficient resources to these units to ensure timely and effective handling of fraud cases.
- b. The Public Procurement Regulatory Agency (PPRA) and state anti-corruption agencies should establish a formal forensic mediation framework designed to help resolve disputes and internal conflicts relating to procurement, budgeting, and expenditure management within government bodies. These agencies should invest in training mediators with a strong understanding of forensic accounting and fraud risk management.
- c. The Nigerian Financial Intelligence Unit (NFIU) and the Economic and Financial Crimes Commission (EFCC) work closely with financial regulators to establish and promote forensic arbitration as a tool in fraud control and prevention by creating specialized panels of forensic arbitrators who are well-versed in both fraud detection and financial disputes.

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