Forensic Accounting and Financial Irregularities in Nigeria's Public Sector: Evidence from Detection, Prevention, Control and Accountability

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Abstract

Financial irregularities such as ghost workers, inflated contracts and embezzlement persist in Nigeria's public sector despite the creation of anti-corruption agencies, and evidence on how far forensic accounting curbs them remains limited. This study examines the effect of forensic accounting on financial irregularities in Nigeria's public sector, focusing on fraud detection, prevention, and financial control and accountability. Adopting a positivist philosophy and explanatory design, the study surveyed 200 respondents purposively drawn from twenty institutions spanning the public sector, private sector, financial institutions, and regulatory agencies, using a structured Likert questionnaire. Multiple regression tested three hypotheses. Results show forensic accounting jointly explains 75.1% of variance in financial irregularities ($R^2 = .751$, $F = 197.392$, $p < .05$). Detection ($\beta = .352$, $p < .001$) and prevention ($\beta = .467$, $p < .001$) significantly reduce irregularities, with prevention the strongest predictor, while control and accountability ($\beta = .114$, $p = .091$) showed no independent significant effect. This reflects its strong correlation with detection ($r = .778$) and prevention ($r = .806$), which leaves little unique variance for it once the other two are controlled, and does not mean that accountability is unimportant. The study concludes detection and prevention are the dominant channels through which forensic accounting curbs public sector fraud, recommending accountability mechanisms be embedded within these functions rather than treated separately.

Keywords: Forensic Accounting, Fraud Detection, Fraud Prevention, Financial Irregularities, Public Sector Accountability.

Introduction

A perennial issue in public financial management in the developing world is the diversion of money intended for public use into private pockets (Chioke, 2026). The fraudulent practices of public institutions in Nigeria range from ghost workers in payrolls, to contract inflation, and complete embezzlement of funds, and are no longer occasional lapses but a key dimension of the operations of public institutions (Ezejiofor & Okonkwo, 2025). According to the Chartered Institute of Forensic and Investigative Professionals of Nigeria, the country loses seventy-to-seventy five per cent of its annual budget to corruption every year, which makes corruption

an industry with its stakeholders and returns, rather than an aberration (Ugwu, 2021).

Conventional auditing was not designed to stand this burden. In fact, professional pronouncements didn't even use the word fraud up until well into the 20th century, instead using the term irregularities, and auditors continued to keep their distance from any responsibility for searching for fraud. This changed only at mid-century, when a few writers forewarned that it would become the accepted practice for auditors to test directly for material defalcation, instead of confirming the balance of books (Brown, 1962). Despite the softening of the position, the tools available, mostly rule-based compliance checks, remained more adept at detecting clerical errors than deliberate cover-ups, and internal control systems designed to ensure financial discipline have, in practice, proved to be ineffective against technology-driven and well-concealed fraud (Efenyumi et al., 2026).

This space conventional audit had eschewed was the very space forensic accounting filled with a blend of accounting knowledge and investigative method, which introduces an orientation towards evidence that is also court-proof (Sabo et al., 2024). The practice predates the profession itself: accounting historians backdate the origins of the practice to the time of the scribes in ancient Egypt, who were responsible for keeping the books of Pharaoh's grain and gold and faced harsh penalties for any suspicion of fudging of the books (Zysman, 2004).

Nigeria has tried to respond to the problem of fraud with some fair level of institutional reforms; including the Economic and Financial Crimes Commission, the Independent Corrupt Practices Commission, the Whistleblower Protection Act of 2016, and the International Public Sector Accounting Standards (Ogunode & Dada, 2022). All of it has not reduced the level and volume of irregularities in the ministries, departments and agencies as was promised (Vutumu et al., 2025). These inadequate governance and internal control systems that place excessive trust in a few keep creating space for public officials that take advantage of them (Suleiman & Othman, 2017).

Statement of the Problem

Many fraudulent acts in the public sector in Nigeria remain undetected, and even when they are caught, the evidence required to secure a conviction may be lacking, which is the reason forensic accounting is needed in the first place (Carroll, 2015). High-ranking officials are seldom punished, not because the fraud is difficult to prove, but because the specialist knowledge needed to build a case that can succeed in court is not always available (Anthony & Gavine, 2022). The problem is not confined to Nigeria, since even large and well-audited international companies such as Enron and WorldCom have fallen prey to financial irregularity (Egiyi, 2022). What is peculiar to Nigeria is that the incidence and scale of corruption continue to grow despite the creation of specialised bodies to fight it (Agbiboa, 2012). Traditional auditing and internal control, the systems meant to ensure financial discipline, are failing to deter financial leakages in ministries, departments and agencies (Ezejiofor & Okonkwo, 2025), particularly where the fraud is concealed, technology-enabled or patient (Efenyumi et al., 2026).

What remains unclear is the impact forensic accounting has once it is implemented. Despite the high level of financial losses reported by public sector agencies in Nigeria, the literature has paid less attention to these agencies than to banks and small and medium enterprises (SMEs) (Almustapha et al., 2025). The studies conducted in the private sector are also mixed: some find that forensic accounting helps detect fraud but does not prevent it, while others find that it supports detection and prevention but does not determine whether uncovered fraud attracts any repercussions (Ojo-Agbodu et al., 2022; Akinninyi et al., 2025). This inconsistency leaves the true worth of forensic accounting in the public sector open to debate. This study therefore examines the impact of forensic accounting on financial irregularities in Nigeria's public sector along the three avenues through which the discipline is expected to operate: fraud detection, fraud prevention, and financial control and accountability.

Literature Review and Hypotheses Development

Forensic Accounting and Fraud Detection

Forensic accounting is a specialized area in accounting and auditing which is dedicated to uncovering any discrepancy not captured by the general accounting and auditing process which may be presented in court (Sabo et al., 2024). Forensic accounting is not only focused on the paper trail of a transaction, but also on the substance of the transaction (Eiya & Otalor, 2013). With respect to detection, that distinction is critical: many frauds that slip through a regular audit are frauds that are packaged up in such a way as to pass the compliance audit but contain a different set of frauds under the hood (Deshi et al., 2025).

In this context fraud detection is not a single entity, but an amalgamation of risk detection and action taken when a red flag is spotted (Deshi et al., 2025). Even though Ojo-Agbodu et al. (2022) established that there was no similar effect on prevention, the same study revealed that forensic accounting and fraud detection were related in the deposit money banks in Nigeria. Okoye and Jonathan (2019) also established a similar relationship based on information that bank auditors provided, which revealed that forensic investigation is tightly connected with the rate of identification of fraud, and its degree of accuracy. This is also reflected in more recent studies from the public sector: Almustapha et al. (2025) discovered that the skills of forensic accounting, rather than just the designation, were directly associated with good outcomes of fraud management in the study on finance ministries in the Northwest of Nigeria; Sulaimam et al. (2025) also found that the technical competence of the finance ministry, not merely the designation, was what led to detection outcomes in their study of the same ministry setting.

The skill set used in the process is not a by-product. DiGabriele (2009) argued that forensic accounting education should be targeted specifically at the development of investigative and analytical skills, so that practitioners can detect the motives behind transactions. Polycarp (2019) came to a similar conclusion in studying economic crime detection in general, and Adegbite (2021) indicated that the use of forensic skill in the public sector in Nigeria was closely linked with the effectiveness of detection and prevention of the economic crime, while cautioning that the use of forensic skill does not automatically guarantee the institutional will to act on what is detected and prevented. Further, Anthony and Gavine (2022) contended that forensic accounting is an essential part of the tool box that can be used to fight fraud, not just an audit tool.

Not every finding is going in the same direction and there appears to be a distinction based on the level of forensic development that has been achieved in an institution. A study of the Lagos State government by Ogbaini et al. (2024) revealed minimal application of the tools of forensic accounting in the state and the absence of a specialised department and staff training in the state led to a limited role that the discipline could play in detection. Ukeni and Umobong (2026) also found, using data for 1999 to 2024, that investigative accounting, data mining and litigation support, when used for detection, had no significant long-run effect on public sector fraud in Nigeria, although data mining reduced fraud significantly in the short run. The literature suggests that the contribution forensic accounting makes to detection is not necessarily based upon the theories, but on whether institutions are willing to invest in the use of the approach. Based on this, the research suggests that:

H01: Forensic accounting has no significant effect on fraud detection in Nigeria's public sector.

Forensic Accounting and Fraud Prevention

The problem of detection and prevention are oftentimes conflated into the same issue. The two are prevention and investigation and recovery, and according to Erbuga (2022): prevention is the basis. In the past 20 years, the Nigerian public sector has stolen a lot of preventive measures, such as the formation of the EFCC and ICPC as anti-corruption agencies, the Whistleblower Protection Act, implementation of IFPAS and capacity building programmes through professional bodies like ICAN and ANAN (Ogunode & Dada, 2022).

The literature is not as clear about the use of forensic accounting as a prevention tool, and not as a detection

tool. Eze and Okoye (2019), in Imo state, reported that the forensic accounting system is effective in detecting and preventing fraud in public sector. Based on EFCC samples, Auditor General office, and Accountants General office samples, Obafemi (2021) found a positive correlation between forensic investigation and fraud management as a whole. Indeed, recent studies have demonstrated that the presence of forensic accountants in the organisation had a deterrent effect on irregularity, even if not investigated (Ogunode & Dada, 2022), while regular forensic audits are linked to lesser incidence of irregularity (Vutumu et al., 2025).

Eko (2022) discussed the forensic accounting's preventive power in two ways, namely forensic accounting as a reactive tool to prevent fraud, and forensic accounting as a proactive tool to prevent fraud. Eko (2022) also quoted Wahyudi et al. (2024), who said that forensic accounting is one of the prevention tools that can be used together with internal control and the investigative audit, which does not compete in preventing fraud. The findings of manufacturing companies by Adamu et al. (2024) revealed that the practice of forensic accounting and financial accountability results were positively correlated and the findings were reasonably generalisable to the public sector because the financial accountability weaknesses were similar. These prevention based studies are not only about the technique or "how" things are done, but about the people; the real good and capable forensic accountant is not only technically proficient, but must also have a sound judgment, ethicalism and knowledge of information systems that enables him/her detect irregularity, which a mere numbers only review would fail to detect, and these skills are not evenly shared among the population of the Nigerian public institutions (Verdian, 2026).

However, Ojo-Agbodu et al. (2022) did not obtain any significant relationship between forensic accounting and prevention in the same banking sample, while they found significant relationship between forensic accounting and detection in the same banking sample, which suggests that forensic accounting and prevention are not always related in the same banking sample. In the public sector, Ukeni and Umobong (2026) found that investigative accounting and data mining had no significant long-run effect on the prevention of public sector fraud, while litigation support was significantly associated with higher, not lower, fraud, which they read as a sign that the judiciary is failing to help the fight against fraud. The study thus proposes the following hypothesis:

H02: Forensic accounting has no significant effect on fraud prevention in Nigeria's public sector.

Financial Control and Accountability, Forensic Accounting.

The bottom line on the possibility of detection and prevention is accountability: an institution can continue to discover fraud again and again without being able to ever hold someone accountable for it (Kenton, 2026). Adamu et al. (2024) looked into three interconnected aspects of the role of forensic accounting in accountability which are the reliability of the financial statements, the integrity of internal control systems which are designed to identify accounting errors at an early stage and compliance with external accounting standards set by institutions such as Financial Reporting Council of Nigeria. These three elements will make the financial reporting more transparent overall when forensic accounting is present (Kombe, 2025).

Whilst there is less public sector evidence on this channel than there is on detection or prevention, there is some and the evidence is pointing in the same direction. Ukeni and Umobong (2026), having found that forensic accounting tools did not deliver long-run reductions in public sector fraud, pointed to the failure of the courts to help the fight against fraud and called for a more independent judiciary and less undue political influence on high-profile fraud cases. For financial integrity, Akinninyi et al. (2025) found positive relationships between financial integrity and the internal control and accountability outcome, but this finding was greatly moderated by the absence of a forensic function within the institution, which is in line with the Lagos State finding by Ogbaini et al. (2024). The same study by Widnyana and Widyawati (2022) using the fraud diamond theory, which states that the value of forensic accounting in the accountability aspect is not just for fraud detection but also in closing fraud opportunities for concealment.

Older evidence from Nigeria is the same story. Likewise, Ehioghiren and Atu (2016) found that forensic

accounting practice effectively brings about a better outcome in the management of fraud in the organisations they studied; while Joseph et al. (2016) established a similar outcome for the public sector in Nigeria where they studied, finding that forensic accounting contributes to a better control environment and not just the actual detection of a fraud. In a more recent development, while engaging with the operatives and trainers of the Economic and Financial Crimes Commission (EFCC), Ogwiji (2023) learned about the first-hand observation of the role of institutional support in the belief that forensic accounting contributes to the management of financial crime, particularly in the ones it sampled who were directly involved in financial crimes enforcement. This is part of a longer journey as Torres (2021) explained that forensic accounting is no longer a specialized field but rather the norm in financial governance of institutions, however Nigerian public institutions have not been as responsive as the private ones have. On this basis, the following is suggested:

H03: Forensic accounting has no significant effect on financial control and accountability in Nigeria's public sector.

Theoretical Framework

Fraud Triangle Theory

Cressey's (1953) Fraud Triangle is the reference point most Nigerian public sector fraud studies return to. The theory holds that fraud becomes likely when three conditions converge: pressure, an incentive or need that pushes someone toward wrongdoing; opportunity, a weakness in oversight that makes the act possible without immediate detection; and rationalization, the internal justification that lets the individual live with the decision (Hidayah & Saptarini, 2019; Chiezey & Onu, 2013). Of the three, opportunity is the one most directly shaped by an organisation's control environment, which is also where forensic accounting does its work: tighter internal controls, sharper transaction monitoring and more transparency all shrink the room within which fraud can occur undetected.

Fraud Diamond Theory

Wolfe and Hermanson (2004) extended Cressey's model by adding capability, on the observation that pressure, opportunity and rationalization together are not enough if the individual lacks the skill or position to carry out the fraud and reasonably expect it to pass unnoticed (Ozili, 2015). Capability and opportunity interact closely here, since weak preventive controls create exactly the conditions under which someone with the requisite knowledge and access can act (Dele-Oladejo & Olorunsola, 2023).

Fraud Pentagon Theory

Crowe Howarth's fraud pentagon model extends Cressey's triangle by adding two further elements, competence and arrogance, the first of which overlaps substantially with the capability construct in Wolfe and Hermanson's diamond model (Hidayah & Saptarini, 2019). Arrogance captures the sense of superiority or immunity from consequence that lets some individuals override internal controls even while knowing those controls exist, a dimension that matters in public sector settings where seniority and political connection often shield offenders from scrutiny.

Rotten Apple Theory

The Rotten Apple Theory pushes against the temptation to treat fraud as purely an individual failing. It accepts that it is comforting to blame a single bad actor or renegade faction within an organisation, but argues that organisations themselves shape the conduct of their members, so understanding fraud requires looking at both the individual and the system around them (Dele-Oladejo & Olorunsola, 2023). Applied to Nigeria's public

sector, this suggests that forensic accounting's role cannot stop at identifying and removing individual offenders; it also needs to expose the organisational conditions, weak oversight, blurred lines of responsibility, inconsistent enforcement, that let the same pattern of fraud recur under different names.

This study is anchored on the Fraud Triangle Theory, since its three elements map most directly onto the channels through which forensic accounting is expected to act: detection targets the concealment that sustains rationalization and hidden opportunity, prevention closes down opportunity before it can be exploited, and financial control and accountability address the structural weaknesses that make opportunity available in the first place. The Fraud Diamond, Fraud Pentagon and Rotten Apple perspectives are drawn on as complementary lenses, since the individual capability, positional arrogance and organisational conditions they introduce help explain why forensic accounting's effect is not uniform across institutions, an observation that keeps surfacing in the empirical literature reviewed above (Ogbaini et al., 2024; Akinninyi et al., 2025).

Methodology

This study adopts the positivist research philosophy, which holds that the relationship between forensic accounting and financial irregularities can be observed, measured and tested empirically. An explanatory design is used, since the goal is to explain the direction and strength of that relationship, not merely describe practice.

The population comprises professionals engaged in forensic accounting, auditing, financial reporting and fraud investigation in Nigeria, spanning the public sector, private sector, financial institutions and regulatory agencies.

A purposive sampling technique was adopted given the specialised knowledge required (Almustapha et al., 2025). Twenty institutions were selected, comprising five institutions from each of the four categories in the population (public sector, private sector, financial institutions and regulatory agencies). Ten respondents were drawn from each institution, giving a sample of 200 respondents (twenty institutions with ten respondents each). Within each institution, the respondents were professionals engaged in forensic accounting, auditing, financial reporting or fraud investigation.

A structured five-point Likert questionnaire served as the instrument, pretested with experienced forensic accountants and academics for clarity. Face and content validity were established through expert review, and reliability was assessed using Cronbach's Alpha, with a coefficient above 0.70 treated as acceptable using SPSS. Multiple regression, alongside descriptive statistics, test the hypotheses, isolating each construct's independent contribution. Anonymity and informed consent addressed the sensitivity of fraud related disclosure.

Model Specification

The model has one dependent variable, financial irregularities (FIR), and three independent variables, which are the detection (FAD), prevention (FAP) and control and accountability (FAA) dimensions of forensic accounting. The proxies used to measure each variable are shown below.

Variable

Proxy / Dimension

Forensic Accounting (Detection)

Speed of fraud identification, accuracy of forensic investigation, use of data analytics in uncovering irregularities

Forensic Accounting (Prevention)

Strength of internal control, deterrence effect of forensic presence, staff training and awareness

Forensic Accounting (Control and Accountability)

Accuracy of financial reporting, regulatory compliance, internal audit oversight

Financial Irregularities (Dependent Variable)

Frequency of fraud cases, revenue leakages, embezzlement incidents

The functional relationship between forensic accounting and financial irregularities is expressed as:

FIR = f(FAD, FAP, FAA)

$FIR = \beta_0 + \beta_1 FAD + \beta_2 FAP + \beta_3 FAA + \alpha$

Where:

FIR = Financial Irregularities

FAD = Forensic Accounting (Detection)

FAP = Forensic Accounting (Prevention)

FAA = Forensic Accounting (Control and Accountability)

β_0 = Constant

β_1 to β_3 = Regression coefficients

α = Error term

Data Presentation and Analysis

Response Rate and Respondent Profile

Two hundred copies of the questionnaire were purposively distributed across the twenty sampled institutions, drawn five each from the public sector, private sector, financial institutions and regulatory agencies. All 200 copies were duly completed and returned, representing a response rate of 100%, an outcome attributable to the researcher's direct, on-the-spot administration of the instrument given the specialised nature of the purposively selected respondents. The full return therefore supports the reliability of the analysis that follows.

Table 4.1: Questionnaire Administration

S/N

Questionnaire Status

Frequency

Percentage (%)

1

Retrieved and usable

200

100.0

2

Not retrieved / discarded

0

0.0

Total

200

100.0

Source: Field Survey, 2026.

Table 4.2 shows the profile of the 200 respondents in terms of gender, age, education, years of service and the types of organisation. The majority of respondents were male (59.0%) and most of the respondents (70.0%) were from the age group of 30 to 49 years. Most (75.0%) had worked for five years or more and 43.0% have a first degree (HND/B.Sc), while the rest have a Master's degree qualification or PhD. The respondents were evenly distributed across the four sampled organisation categories (25.0% for each) reflecting the purposive sampling design, and thus the sample was well suited to offer informed judgements about forensic accounting practice.

Table 4.2: Respondent Profile (N = 200)

Category

Classification

Frequency

Percentage (%)

Gender

Male

118

59.0

Female

82

41.0

Age

20 - 29 years

34

17.0

30 - 39 years

78

39.0

40 - 49 years

62

31.0

50 years and above

26

13.0

Highest Educational Qualification

HND/B.Sc.

86

43.0

Master's Degree

64

32.0

Professional Qualification

40

20.0

Ph.D.

10

5.0

Years of Working Experience

Less than 5 years

24

12.0

5 - 10 years

76

38.0

11 - 15 years

62

31.0

16 - 20 years

26

13.0

Above 20 years

12

6.0

Organisation

Public Sector

50

25.0

Private Sector

50

25.0

Financial Institution

50

25.0

Regulatory Agency

50

25.0

Source: Field Survey, 2026.

Reliability of Research Instrument

Internal consistency was assessed using Cronbach's Alpha, with a minimum acceptable threshold of 0.70 (Hair et al., 2019). As shown in Table 4.3, all four constructs exceeded this threshold, and the overall 20-item instrument returned a coefficient of 0.951, confirming that the instrument was reliable for the purpose of this study.

Table 4.3: Reliability Statistics

Construct	No. of Items	Cronbach's Alpha	Remark
Forensic Accounting - Detection (FAD)	5	0.872	Reliable
Forensic Accounting - Prevention (FAP)	5	0.811	Reliable
Forensic Accounting - Control & Accountability (FAA)	5	0.827	Reliable
Financial Irregularities (FIR)	5	0.876	Reliable
Overall Instrument	20	0.951	Reliable

Source: Field Survey, 2026.

Descriptive Analysis of Study Variables

Table 4.4 presents the descriptive statistics for the twenty questionnaire items, all measured on a five-point Likert scale. Item means range from 3.92 (“forensic accounting reduces repeat fraud cases”) to 4.43 (“forensic

accounting techniques detect fraudulent transactions quickly"). At the construct level, financial irregularities recorded the highest composite mean (4.21), followed closely by detection (4.20), prevention (4.16) and control and accountability (4.13). This pattern indicates a broadly positive perception of forensic accounting practice across all four constructs, with respondents rating detection-related items only marginally above the other dimensions.

Table 4.4: Descriptive Statistics of Study Constructs (N = 200)

No.

Item

Mean

Std. Dev.

1

Forensic accounting techniques detect fraudulent transactions quickly

4.43

0.97

2

Forensic accounting improves the accuracy of fraud detection

3.99

1.09

3

Forensic investigation uncovers irregularities routine audits miss

4.28

1.00

4

Data analysis tools help identify hidden discrepancies

4.03

1.05

5

Forensic accounting enhances tracing of concealed transactions

4.26

0.88

6

Presence of forensic accountants discourages fraudulent activities

3.96

1.21

7

Forensic accounting practices strengthen internal control systems

4.36

1.03

8

Regular forensic audits reduce financial irregularities

4.26

1.16

9

Forensic accounting training improves staff fraud awareness

4.30

0.94

10

Forensic accounting reduces repeat fraud cases

3.92

1.24

11

Forensic accounting improves accuracy of financial reporting

4.12

1.09

12

Forensic accounting strengthens regulatory compliance

3.95

1.29

13

Forensic accounting enhances internal audit oversight

3.98

1.02

14

Forensic accounting improves transparency in transactions

4.23

1.01

15

Forensic accounting holds officials accountable for decisions

4.37

0.93

16

Frequency of fraud cases has reduced

4.11

1.05

17

Revenue leakages have declined

4.38

0.93

18

Embezzlement incidents have reduced

4.16

1.01

19

Financial losses from irregularities have decreased

4.30

0.96

20

Overall financial discipline has improved

4.11

1.15

Source: Field Survey, 2026.

Regression Analysis and Test of Hypotheses

To test the study's hypotheses, item scores were averaged into composite construct scores for FAD, FAP, FAA and FIR. Multiple regression was estimated using the model: $FIR = \beta 0 + \beta 1FAD + \beta 2FAP + \beta 3FAA + \alpha$. Variance Inflation Factors for the three predictors ranged from 2.87 to 3.53, well below the threshold of 10, confirming that multicollinearity did not distort the estimates.

Table 4.5: Regression Model Summary

R

R Square

Adjusted R Square

Std. Error of Estimate

F

df1

df2

Sig.

.867[a]

.751

.748

2.1016

197.392

3

196

.000

Source: Field Survey, 2026.

The model returned an R Square of 0.751, indicating that forensic accounting detection, prevention, and control and accountability jointly explain 75.1% of the variance in financial irregularities. The Adjusted R Square of 0.748 confirms the model's stability after accounting for the number of predictors.

Table 4.6: ANOVA

Model

Sum of Squares

Df

Mean Square

F

Sig.

Regression

104.623

3

34.874

197.392

.000[b]

Residual

34.628

196

.177

Total

139.251

199

Source: Field Survey, 2026.

The ANOVA result (F = 197.392, p = .000) confirms that the overall regression model is statistically significant at the 5% level, indicating that the combined predictors meaningfully explain financial irregularities.

Table 4.7: Regression Coefficients

Variable

B

Std. Error

Beta

T

Sig.

Decision

(Constant)

.300

.165

1.817

.071

FAD (Detection)

.361

.062

.352

5.830

.000

Reject H01

FAP (Prevention)

.462

.063

.467

7.286

.000

Reject H02

FAA (Control & Accountability)

.115

.068

.114

1.700

.091

Fail to Reject H03

Source: Field Survey, 2026. Dependent Variable: Financial Irregularities.

H01: Forensic accounting has no significant effect on fraud detection in Nigeria's public sector. This is rejected (β = .352, p = .000); detection is a strong, significant predictor, consistent with Ojo-Agbodu et al. (2022) and Okoye and Jonathan (2019) on the contribution of forensic investigation to fraud detection.

H02: Forensic accounting has no significant effect on fraud prevention in Nigeria's public sector. This is rejected (β = .467, p = .000); prevention is the single strongest predictor in the model, corroborating Eze and Okoye (2019) on the deterrent value of forensic practice.

H03: Forensic accounting has no significant effect on financial control and accountability in Nigeria's public sector. This is not rejected (β = .114, p = .091); control and accountability shows a positive but statistically weak independent effect once its shared variance with detection and prevention (r = .778 and r = .806 respectively) is accounted for, echoing Ojo-Agbodu et al. (2022), who similarly found one forensic accounting channel not significant even where others were.

Discussion of Findings

The findings revealed that detection and prevention are each statistically significant, so both functions of forensic accounting contribute to reduced financial irregularity in the public sector in Nigeria, with the three dimensions together accounting for 75.1% of the variance in the outcome. Although the descriptive mean of prevention (4.16) was not amongst the highest of all the substantive constructions, the results indicated that prevention was the strongest predictor (β = .467), as Erbuga (2022) posited, that prevention is the more basic of the two functions as far as institutions are concerned. The significant effects of detection and prevention

here differ from the finding of Ukeni and Umobong (2026) that forensic accounting tools had no significant long-run effect on public sector fraud. The difference may lie in design, since this study captured respondents' perceptions at one point in time, whereas Ukeni and Umobong (2026) tested short-run and long-run effects over 1999 to 2024. The present results should therefore be read as evidence of perceived effectiveness and not as evidence of lasting effects.

Detection also had a significant contribution ($\beta = .352$) and it had the second highest composite mean (4.20), as affirmed by Almustapha et al. (2025) and Sulaimam et al. (2025) on the role of forensic skill and technical competence in uncovering concealed transactions. Control and accountability, however, was not statistically significant as an independent predictor ($p = .091$) although it had a respectable descriptive mean (4.13). This does not imply that accountability is not relevant; it just means that the role of forensic accounting in reducing financial irregularities seems to be taken up mostly through, and overlaps with, the detection and prevention channels as opposed to as a separate channel of its own per se, as observed by Ojo-Agbodu et al. (2022) that forensic accounting channels do not always move together in the same institutional setting to reduce financial irregularities.

The results reinforce the Fraud Triangle Theory which focuses on opportunity: accountability mechanisms are positively related to the outcomes, but they will only be statistically significant when they are related to forensic detection and prevention and not separate from it, as they will reduce the opportunity for fraud to occur undetected.

Implications of the Study

The findings carry practical implications for public sector institutions. Detection and prevention were the only dimensions with a significant independent effect, so resources committed to forensic capacity, such as data analytics tools, investigative training, a visible forensic presence and regular forensic audits, are likely to yield the most direct reduction in financial irregularities. Prevention carried the largest effect, which implies that managers of ministries, departments and agencies should treat forensic accounting not only as a means of investigating fraud after it occurs but as a standing safeguard that discourages fraud before it happens.

For policy makers and regulatory agencies, the non-significant independent effect of control and accountability does not imply that accountability is unimportant. Its strong correlation with detection and prevention suggests that accountability measures such as compliance reporting and internal audit oversight work best when they are built into forensic detection and prevention activities. Oversight bodies should therefore design accountability requirements around these two functions and not as a separate, stand-alone layer of control.

For theory, the results support the emphasis of the Fraud Triangle Theory on opportunity, since the two channels that reduce the room for fraud to occur undetected were the ones with significant effects. They also show that the accountability channel cannot be isolated convincingly with the present measures, which points to the need for models that account for the overlap among the three dimensions of forensic accounting.

Conclusion and Recommendations

Conclusion

This study examined the effect of forensic accounting on financial irregularities in Nigeria's public sector. Fraud detection and prevention each had a significant effect, with prevention the stronger, and the three dimensions jointly explained 75.1% of the variance. Control and accountability had no significant independent effect because it overlaps strongly with the other two. The study concludes that forensic accounting curbs financial irregularities mainly through detection and prevention, which limit the opportunity

for fraud, and that accountability works through these two functions rather than as a separate channel.

Recommendations

Based on the findings, the following recommendations are made:

- Capacity building of forensic detection at Public Institutions (using data analytics tools and investigative trainings) should be retained as it has been found to be very vital in the fight against financial irregularities.
- Preventative role of forensic accounting, vigilant presence of forensic accountants in the workplace, regular forensic audits and training on fraud awareness should be given priority and resources as prevention proved to be the most significant indicator of a decrease in irregularities in this study.
- Since control and accountability didn't seem to be an independent predictor, it's important to embed accountability measures, like compliance reporting, and internal audit oversight, into the detection and prevention processes instead of separate functions.
- Further investigation is needed to re-examine the source of control and accountability with more accurate proxies and a longitudinal study design; an independent impact is not necessarily an indicator of a lack of such impact in the future.

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