

# Forensic Accounting: A Preferred Technique for Modern Fraud Detection and Prevention in the Public Sector (A Case of Nasarawa State)

Ibrahim Adagye DAUDA<sup>1</sup>, Bala Azagaku OMBUGADU<sup>2</sup>, Sylvester Umbugadu AKU<sup>3</sup>

<sup>1,2,3</sup> Department of Accountancy, Nasarawa State Polytechnic, Lafia, Nasarawa State, Nigeria.

---

## ARTICLE INFO

## ABSTRACT

Although, the Traditional External Auditors examines financial records so as to detect and prevent fraud in organisations be it public or private, they seems to miss out from tackling the emerging modern fraud, most especially in the public sector. The study determines whether Forensic Accounting technique is preferred for fraud detection and prevention in the Nigeria public service, a case of Nasarawa State. Both primary and secondary sources of data were appropriately used. 94 questionnaires were administered to Nasarawa state civil servants who are either ANAN or ICAN members, all were returned filled. Tables and simple percentages were used to analyze the data. The statistical tool used to test hypotheses was chi square. Findings revealed that, Forensic accounting is relevant in fraud detection and prevention in the Nigeria public sector, that, the role of Forensic Accounting helps in fraud detection and prevention in the Nigeria public sector and finally that, the functions of Forensic accounting relates to external auditing hence the use of Forensic Accounting can help better in detecting and preventing fraud cases in the public sector organizations.

corresponding Author:

**Ibrahim Adagye DAUDA<sup>1</sup>**

Department of Accountancy,  
Nasarawa State Polytechnic,  
Lafia, Nasarawa State, Nigeria

The study recommends that various agencies fighting corruption particularly in the Nigeria public sector should engage the service of forensic accountants to compliment efforts of other professional in reducing fraudulent activities and installing fraud proof internal control system.

---

**KEYWORDS:** *Forensic Accounting, Fraud, Public Sector.*

---

## Introduction

Incidences of financial fraud have been growing in high frequency and sophistication among many businesses both at the private and the public sectors especially as the world economic recovery drags on and some employees give in to the

temptation to embezzle funds from their employers. The sophistication involved by the perpetrators of these acts of frauds and embezzlements has given rise to the field of forensic accounting. Forensic accounting is a specialty practice area of accounting that focuses

on uncovering financial fraud. It also encompasses other types of engagements resulting from disputes and litigation between parties. In fact, the term “forensic” means “suitable for use in a court of law”. According to Degboro & Olofinsola (2007), forensic accounting is the application of criminalistics methods and integration of accounting investigative activities and law procedures to detect and investigate financial crimes and related accounting misdeeds.

As observed by Okoye & Gbegi (2013). Government spending has always been a big business, but it has become so massive today that the public through its legislators is demanding to know whether the huge outlays of money are being spent wisely or whether they should be spent at all and that, officials and employees who manage public sector activities are by virtue of that duty, required to render adequate accounts of their activities to the public. In the Nigeria public sector, every Naira and Kobo is legally appropriated for use, were it is consequently misuse; it will impact negatively, on where it should have legally been used. This will affect organization or a whole nation. The effect which is either directly and or indirectly may affect facilities and infrastructure that are supposed to be beneficial to the concerned. Here the public who are supposed to have benefited from the legally appropriated spending who has now been affected negatively by the fraud and embezzlement will want to seek redress.

It is worthy to note that seeking for redress will mean engaging relevant government’s institutions and or agencies like the Police, the law court, anti-corruption agencies etc. While we understand that the aforementioned agencies and or institutions are in place to cater for such redress and to ensure it prevention, there are series of, and persistent occurrence of these acts even when both internal and external auditors examine financial records in order to detect and or prevent it. This may be as a

result of the fact that modernization has created rooms for perpetrators to explore other means to beat the auditors and other agencies. This paper therefore provides evidence on the need to adopt forensic accounting practices in order to tackle modern frauds as outlined by Okoye & Gbegi (2013) to include: white collar crimes such as security fraud, embezzlement, bankruptcies, contract disputes and possibly criminal financial transaction; including money laundering by organized criminals and to provide litigation support and investigative accounting.

### Objective Of The Study

Mainly, the objective of this study is to determine whether Forensic Accounting is a preferred technique for fraud detection and prevention in the Nigeria public service, a case of Nasarawa State. To meet up this objective, the study is specifically,

- i. Examine the relevance of forensic accounting in fraud detection and prevention in the Nigeria public sector.
- ii. Examine the role of forensic accounting in fraud detection and prevention in the Nigeria public sector.
- iii. Examine the relationship between the functions of Forensic Accounting and those of the External Auditing in the Nigerian public sector.

### Research Hypotheses

For the purpose if this study, the following hypothesis were tested in null form.

**H<sub>01</sub>:** Forensic accounting is not relevant in fraud detection and prevention in the Nigeria public sector.

**H<sub>02</sub>:** The role of Forensic Accounting will not help in fraud detection and prevention in the Nigeria public sector.

**H<sub>03</sub>:** The functions of Forensic Accounting does not relate to external auditing in the Nigeria Public service.

## Conceptual Framework/Literature Review

### The Concept of Fraud

Although authors and or scholars vary significantly in their expressions about fraud, defining it is as difficult as identifying it. No definite and invariable rule can be laid down as a general proposition in defining fraud as it includes surprise, trick, cunning and unfair ways by which another is cheated (Enofe, Okpako & Atube, 2013). Enofe, Okpako & Atube further opined that Fraud is a legal term that refers to the intentional misrepresentation of the truth in order to manipulate or deceive a company or individual. It is to create a misjudgment or maintain an existing misjudgment to induce somebody to make a contract. It involves enriching oneself intentionally by reducing the value/worth of an asset in secret. Fraud includes a wide range of illegal activities, mainly based on intentional deception. However, theft of funds or information or misuse of someone's assets that can cause loss of money, clients' confidence and reputation at the market are the most usual (Grubo, Ristić & Simeunović, 2013). Okafor (2004) reported that fraud is a generic term and embraces all the multifarious means which human ingenuity can devise, which are resorted to by one individual to get advantage over another in false representation. According to Anyanwu (1993), fraud is an act or course of deception, deliberately practiced to gain unlawful or unfair advantage; such deception directed to the detriment of another. Legally, fraud has been defined as the act of depriving a person dishonestly of something, which is, or of something to which he is or would or might be entitled but for the perpetration of fraud.

### Forensic Accounting

Forensic accounting as ascribed by Joshi (2003) its origination has been traced to Kutilya, the first economist to openly recognize the need for the forensic accountant. He, however, stated that the term "forensic accounting was coined by Peloubet

in 1946. It is a special area of the accountancy profession which involves engagements that result from actual or anticipated disputes or litigation. It has been variously defined, by various authors. Williams (2002) looked at Forensic accounting as a particular form of professional expertise and endowed with specific attributes. The definition emphasises specialty and the use of certain professional expertise in the practice. It is a science that deals with the application of accounting facts and concepts gathered through auditing methods, techniques and procedures to resolve legal problems which requires the integration of investigative, accounting, and auditing skills (Arokiasamy & Cristal, 2009). This entails providing evidence suitable to courts of judicature or to public discussion. The combination of skills in accounting, auditing and investigation is adopted. Jafaru (2011) understands Forensic and investigative accounting as the application of financial skills and investigative mentality conducted within the context of the rules of evidence to resolve unresolved issues. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation (Okunbor & Obaretin, 2010). In the view of Howard & Sheetz (2006), forensic accounting is the process of interpreting, summarizing and presenting complex financial issues clearly, succinctly and factually often in a court of law as an expert.

From the various meaning as defined by authors, forensic accounting encompasses discipline that has its own models and methodologies of investigative procedures toward given assurance, attestation and advisory perspective to produce legal evidence. It provides an accounting analysis that is suitable to the court, which will form the basis of discussion, debate and ultimately dispute resolution. Forensic accounting becomes prominence as a result of growing wave of modern crime in our various public and private offices..

### Forensic Accounting in Public Sector

The public service in Nigeria has suffered from corruption and financial crimes perpetrated by those entrusted with the responsibility of taking care of public funds or their collaborators. Those who should have firsthand information in these matters are those who are usually investigated. These financial crimes are not just mere outright theft, the case of a file containing incriminating materials disappears or relevant parts of them cannot be found is an example of such crime. Although the Economic and Financial crime commission (EFCC) and other agencies were established to combat financial and economic crimes and also to prevent, investigate, prosecute and penalize economic and financial crimes, these are special crimes that need a specially formed investigative measure. Accountants here are trained to look beyond the numbers and deal with business reality of the situation in order to acquire skills that will enable adopts the forensic technique in their auditing and investigative process. Forensic accounting can therefore be seen as an attainable effort to improve quality alternative research in accounting which shall significantly impact on the investigative procedure of fraud and financial crimes in the public service in Nigeria.

### The Role and Skills of Forensic Accountants

Forensic accounting, financial accounting and auditing although share similar goals, it differs from traditional financial accounting and auditing. According to Grubo, Ristić & Simeunović, (2013), it searches only for suspicious transactions, and using a strict digital forensic process. This process consists of many steps such as identifying, recording, settling, extracting, sorting and reporting exceptions, irregularities and suspicious transactions, and verifying digital financial data and other accounting activities, with the purpose of making a firm evidence for legal process. Bhasin (2007) has identified the

objectives of forensic accounting to include: assessment of damages caused by an auditors' negligence, fact finding to see whether an embezzlement has taken place, in what amount, and whether criminal proceedings are to be initiated; collection of evidence in a criminal proceedings; and computation of asset values in a divorce proceedings. He argues that the primary orientation of forensic accounting is explanatory analysis (cause and effect) of phenomenon including discovery of deception (if any), and its effects introduced into the accounting domain.

This therefore means that the personnel involved in the process of forensic accounting is expected to be trained and must have gather certain skills specifically for forensic investigation. Thus, such personnel could be referred to as forensic accountant. Forensic accountant or fraud investigator or fraud examiner can therefore be defined as an accountant with accounting, auditing and forensic skills that investigates financial fraud cases. Sometimes he may be called a litigation support accountant and acts as an expert witness on trial in the courtroom. However, if a regular accountant or an accounting auditor wants to become a forensic accountant he must take a variety of courses in financial and advanced fraud accounting and auditing, and digital forensic investigation (Grubo, Ristić & Simeunović, 2013).

### Methodology

A field work shall be undertaken to ascertain the superiority of forensic accounting, hence the use of questionnaire is adopted in sourcing for data. Data collected are analyzed using a simple chi square technique. Primary data were used for the purpose of this work. The information gotten from the questionnaire distributed to the respondents within the study scope forms our primary data, while other documented evidences were used as the situation determined.

**Population of the Study**

The population under consideration consists of all registered professional accountants (ANAN & ICAN) in the Nasarawa state public service that is 117 and 6 respectively for the ANAN and ICAN members. This gives a total of 123 as the study population. The use of professional accountants is justified by the fact that about 90% of accountants in the Nasarawa State public service are ANAN members; hence the areas of auditing and investigation are dominated by them.

**Sample size/technique**

The simple random sampling method, which is a kind of probability technique, has been used to pick our sample from the population so as to give every member of the population equal chance of being chosen. For the sample size, the use of

arithmetical formular was adopted with a 5% level of significance as used in Adefila (2008) as cited in Okoye & Gbegi 2013.

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

Where: n = Sample size  
 N = Population size = 123  
 e = Level of significance = .05  
 Therefore n =  $\frac{123}{1 + 123(0.05^2)}$   
 $= \frac{123}{1 + 123(0.0025)}$   
 $= \frac{123}{1 + 0.3075}$   
 $= \frac{123}{1.3075}$   
 $= 94$

**Data Presentation, Analysis and findings**

**Questionnaire Response Analysis**

**Q1** Forensic accounting can be used to locate diverted funds or assets

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
30(31.9%)	44(46.8%)	18(19.2%)	02(02.1%)	00(0.00%)	94(100%)

Source: Field Survey (2015)

From the table above, the analysis of the response to the question, indicates that 30(31.9%) and 44(46.8%) respondents ticked strongly agree and

agree respectively, 18 representing 19.2% ticked undecided while 02(02.1%) and 0.00% disagree and strongly disagree respectively.

**Q2** Forensic accounting can identify misappropriated funds or assets.

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
32(34.1%)	54(57.4%)	04(04.3%)	02(02.1%)	02(02.1%)	94(100%)

Source: Field Survey (2015)

The response to question 2 above shows that 32 respondents ticked strongly agree, while 54 and 4 of the respondents chose agree and undecided

respectively. For disagree and strongly disagree, only 2.1% in each case responded in its favour.



**Q3** Forensic accounting is effective as a fraud detection and prevention tool

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
36(38.3%)	52(55.3%)	02(02.1%)	03(03.2%)	01(01.1%)	94(100%)

Source: Field Survey (2015)

The analysis of the response to question 3 reveals that 36, 52 and 02 of the respondents chose strongly agree, agree and undecided respectively

which represents 38.3%, 55.3%, and 2.1% of the sample while 03 and 01 respondents ticked disagree and strongly disagree respectively

**Q4.** Forensic Accounting is solely enough as a tool to detect suspicious or fraudulent transactions

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
18(19.1%)	18(19.1%)	38(40.4%)	12(12.8%)	08(08.6%)	94(100%)

Source: Field Survey (2015)

The response to question 4 shows that 18 (19.1%), 18(19.1%), and 38(40.4%) of the respondents ticked strongly agree, agree and undecided

respectively, while about 12.8% and 8.6% had contrary views.

**Q5.** Risk assessment processes under forensic accounting specifically cover risk of fraud.

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
31(33.0%)	50(53.2%)	09(09.6%)	03(03.2%)	01(01.1%)	94(100%)

Source: Field Survey (2015)

The analysis of the response to question 5 reveals that 31, 50, and 09 respondents ticked strongly agree, agree and undecided respectively while

3.2% and 1.1% disagree and strongly disagree respectively.

**Q6.** Forensic accounting Enhances quality of financial reporting

Strongly Agree	Agree	Undecided	Disagree	Strongly Agree	Total
27(28.7%)	45(47.9%)	14(14.8%)	04(04.3%)	04(04.3%)	94(100%)

Source: Field Survey (2015)

The table above, analyses question 6 as follows: 27(28.7%) and 45(47.9%) respondents ticked strongly agree and agree respectively, 14

representing 14.8% ticked undecided while a total of 08(08.6%) disagree and strongly disagree

**Q7** Forensic accounting improves stakeholder confidence in corporate finances

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
29(30.9%)	48(51.1%)	11(11.6%)	03(03.2%)	03(03.2%)	94(100%)

Source: Field Survey (2015)

The response to question 7 above shows that 29 respondents ticked strongly agree, while 48 and 11 of the respondents chose agree and undecided

respectively. For disagree and strongly disagree; a total of 06.6% responded to its effect..

**Q8** Accountants/auditors with forensic accounting skills will deliver more quality financial reporting.

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
32(34.1%)	50(53.2%)	08(08.5%)	02(02.1%)	02(02.1%)	94(100%)

Source: Field Survey (2015)

The analysis of the response to question 8 reveals that 32, 50 and 08 of the respondents chose strongly agree, agree and undecided respectively

which represents 34.1%, 55 3.2%, and 8.5% of the sample while 02 and 02 respondents ticked disagree and strongly disagree respectively.

**Q9** Forensic investigations deals directly with fraud investigation and this reduces financial reporting “expectations gap”

Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree	Total
36(38.3%)	52(55.3%)	04(04.3%)	02(02.1%)	00(0.00%)	94(100%)

Source: Field Survey (2015)

The response to question 9 above shows that 36 respondents ticked strongly agree, while 52 and 4 of the respondents chose agree and undecided

respectively. For disagree, only 2.1% is in its favour.

**Hypotheses Testing and Analysis**

This section relates to the testing of hypotheses earlier stated. For the sake of understanding, the hypotheses will be restated before presenting the

result analyses. The decision rule is to reject the null hypothesis and accept the alternative if the  $X^2$  calculated is greater than the critical value of  $X^2$  at 5% significant level with degree of freedom of 4

**Hypothesis One:** Forensic accounting is not relevant in fraud detection and prevention in the Nigeria public sector.

Responses	Q1	Q2	Q3	Total Observation	Expected Observation	(o-e)	(o-e) <sup>2</sup>
Strongly Agree	30	32	36	98	56.4	41.6	1730.6
Agree	44	54	52	150	56.4	93.6	8761.0
Undecided	18	04	02	24	56.4	-32.4	1049.8



Disagree	02	02	03	07	56.4	-49.4	2465.1
Strongly Disagree	00	02	01	03	56.4	-53.4	2851.6
Total				282	282		16858.1
X <sup>2</sup> Cal = $\sum(o-e)^2/\sum e$							59.8
X <sup>2</sup> 0.95,4							9.488

From the above analysis, the null hypothesis is rejected since the X<sup>2</sup> calculated value of 59.8 is greater than the critical table value of 9.488 at 95% confidence interval. This therefore means

that, Forensic accounting is relevant in fraud detection and prevention in the Nigeria public sector.

**Hypothesis two:** The role of Forensic Accounting will not help in fraud detection and prevention in the Nigeria public sector.

Responses	Q4	Q5	Q6	Total Observation	Expected Observation	(o-e)	(o-e) <sup>2</sup>
Strongly Agree	18	31	27	76	56.4	20.4	416.2
Agree	18	50	45	113	56.4	56.6	3203.6
Undecided	38	09	14	61	56.4	04.6	21.2
Disagree	12	03	04	19	56.4	-37.4	1398.8
Strongly Disagree	08	01	04	13	56.4	-43.3	1883.6
Total				282	282		6923.4
X <sup>2</sup> Cal = $\sum(o-e)^2/\sum e$							24.6
X <sup>2</sup> 0.95,4							9.488

From the above analysis, the null hypothesis is rejected and the alternate accepted since the X<sup>2</sup> calculated value 24.6 is greater than the critical value of 9.488 at 95% confidence interval. The

role of Forensic Accounting helps in fraud detection and prevention in the Nigeria public sector.

**Hypothesis three:** The functions of Forensic Accounting does not relate to external auditing in the Nigeria Public service.

Responses	Q7	Q8	Q9	Total Observation	Expected Observation	(o-e)	(o-e) <sup>2</sup>
Strongly Agree	29	32	36	97	56.4	40.6	1648.4
Agree	48	50	52	150	56.4	93.6	8761.0
Undecided	11	08	04	23	56.4	-33.4	1115.6
Disagree	03	02	02	07	56.4	-49.4	2465.1
Strongly Disagree	03	02	00	05	56.4	-51.4	2642.0
Total				282	282		16632.1
X <sup>2</sup> Cal = $\sum(o-e)^2/\sum e$							59.0
X <sup>2</sup> 0.95,4							9.488

From the above analysis, the null hypothesis is rejected since the X<sup>2</sup> calculated value of 59.0 is greater than the critical table value of 9.488 at 95% confidence interval. The functions of

greater than the critical table value of 9.488 at 95% confidence interval. The functions of



Forensic Accounting relates to external auditing in the Nigeria public service.

### Findings

The study sort to determine whether Forensic accounting is a preferred technique for fraud detection and prevention in the Nigeria public service. From the statistical analysis, the following findings were discovered:

- i. That, Forensic accounting is relevant in fraud detection and prevention in the Nigeria public sector. This portrays the fact that forensic accounting is significant as far as modern fraud detection and prevention techniques are concern in the Nigeria public service.
- ii. That, the role of Forensic Accounting helps in fraud detection and prevention in the Nigeria public sector. This however identifies the roles of forensic accounting toward fraud prevention and detection in public sector of Nigeria.
- iii. The functions of Forensic accounting relates to external audits. Both have the focus of checking and correcting wrong dealings in financial activities of a concern.

Although interview and documents investigated has shown that, in Nasarawa state, forensic accounting appeared to be completely off from the schemes of things, it is understood as a scientific approach to handle the modern fraud technique.

It can equally be deduced from the two hypotheses analyzed that the services of Professional Forensic Accountants will definitely be required in Kogi State ministries, since services are provided by the Traditional External Auditor, yet fraud are still being perpetrated in the ministries.

### Conclusion/Recommendations

This study has been able to establish the need for application of forensic accounting technique to investigate and detect cases of corruption in Nigeria the Nigeria public service. It concludes

that Forensic accounting is the bests ever growing areas of accounting that enhances the chances of success in day to day life of public corporations by ensuring that modern fraud can be detected, controlled and prevented. It therefore important that various agencies fighting corruption particularly in the Nigeria public sector and worldwide need to engage the service of forensic accounting to compliment efforts of other professional in reducing fraudulent activities and installing fraud proof internal control system. It is no doubt that the role of forensic accounting will become very major in public organisations; public accounting and in all awareness of government in the days to come.

Forensic Accounting will institute good corporate governance in the public sector which will instill public confidence in the government and the entire system as the traditional auditing has limitation in detecting fraudulent practices which the forensic accountants will effectively fill. It is therefore a more preferred fraud detection and prevention technique.

### References

1. Adefila, J.J.(2008). *Research Methodology in Behavioural Sciences*. Kaduna, Aprni Publication.
2. Anyanwu, J. C. (1993). *Monetary economics: Theory, policy and institution*. Onitsha: Hybrid.
3. Arokiasamy, L., & Cristal-Lee. S. (2009). Forensic accounting: Public acceptance towards occurrence of fraud detection. *International Journal of Business and Management*. 4(6), 145-160
4. Bhasin, M. (2007). Forensic accounting: A new paradigm for niche consulting. *The Chartered Accountant, Country*, 1000-1010.
5. Degboro, D., & Olofinsola, J. (2007). Forensic accountants and the litigation

- support engagement. *Nigerian Accountant*, 40(2), 49-52.
6. Enofe, A. O, Okpako, P. O & Atube, E. N (2013). The Impact of Forensic Accounting on Fraud Detection. *European Journal of Business and Management*. 5(26). 61-72
  7. Howard, S. & Sheetz, M. (2006). Forensic accounting and fraud investigation for non-experts. New Jersey: John Wiley and Sons Inc.
  8. Grubor, G, Ristić, N & Simeunović, N. (2013) Integrated Forensic Accounting Investigative Process Model in Digital Environment. *International Journal of Scientific and Research Publications*, 3(12),
  9. Jafar, J. (2011) Forensic Accounting Practice in Nigeria: A New Paradigm for Stakeholders. Available from [www.iiued.ed.press/journal/sds](http://www.iiued.ed.press/journal/sds) Retrieved 18/12/2013.
  10. Joshi, M. S. (2003): "Definition of Forensic,Accounting"  
[www.forensicaccounting.com](http://www.forensicaccounting.com).
  11. Okafor, B. (2004). Strategic approach to reduction of employee, theft fraud and embezzlement. *Nigerian Accountant*, 37(4), 3-5.
  12. Okoye, E.I., & Gbegi, D.O. (2013). An evaluation of forensic accountants to planning management fraud risk detection procedures. *Global Journal of Management and Business Research*, 13(1), 1-17
  13. Okunbor, J.A., & Obaretin, O. (2010). Effectiveness of the application of forensic accounting services in Nigerian organisations. *Journal of Management Sciences*, 1(1), 171-184.
  14. Williams, J. W. (2002). *Playing the Corporate Shell Game: The Forensic Accounting and Investigation Industry, Law, and the Management of Organizational Appearances*. Doctoral Dissertation, Toronto: York University.