

FORENSIC ACCOUNTING SERVICES AND FRAUDS MITIGATION

ESUIKE BENJAMIN UWEHVWIYOVWE
DEPARTMENT OF BANKING & FINANCE
DENNIS OSADEBAY UNIVERSITY, ASABA
DELTA STATE, NIGERIA
benesuike@gmail.com

&

INIFADHE UYOYOH LINUS
McADAMS ASSOCIATES LIMITED
FINANCIAL ADVISORY DEPARTMENT
LAGOS STATE, NIGERIA
uyoyoh@yahoo.com

ABSTRACT

Despite the widespread application of traditional accounting services, the increasing rate of fraud in Nigeria is worrisome. Against this backdrop, this paper investigated the impact of forensic accounting services on fraud mitigation in Nigeria. The objective was achieved using a correlation coefficient matrix and a probit regression model. The findings revealed that fraud detection, with a correlation coefficient of 0.72 and a regression coefficient of -0.0934, has the greatest impact on fraud mitigation in Nigeria. Based on these findings, the study recommends, among other measures, that Nigeria should intensify the application of sophisticated forensic accounting services in the fight against fraudulent activities, especially in this era of technological revolution. Secondly, a robust whistleblower and reporting mechanism should be established, with adequate protection provided for whistleblowers. Finally, organizational management should integrate forensic accounting into its internal control systems.

Keyword: Forensic accounting, Services, Fraud mitigation, Nigeria.

1.1 INTRODUCTION

Globally, no nation is immune from fraud as both developed and developing nations have its share of fraud experience. In developed economics from 1970 to date, over one hundred firms have experiences major fraud in a number of transactions resulting in either closure of firms, bankruptcy or huge financial loss (Ozili, 2015). Thus, the problems of fraud is pervasive as it cut across all continents ranging from USA as evidenced by Fraud in Enron Corporation resulting in its shares dropping from \$90 to \$0.50, loss of 85,000 jobs, loss of investors savings and the world financial crisis (Chen, 2016). Also, in Dominican as the case of Banco International, in Australia as evidenced by HIH Insurance, in Phillipines as revealed by the case of Urban Bank, in Canada as shown by the case of Bre-X and London as indicated by the case of Barings Bank (Kiprono, 2018).

In developing economies, the influence of fraud is pervasive as it orchestrated the failure of financial institutions especially the 52 failed banks in Nigeria in 2006, about ₦105.7 billion worth of fraud infractions were recorded across Ministries, Departments and Agencies in Nigeria in 2018 (The Socio-Economic Rights and Accountability Project (SERAP), 2021). The inability to account for over N1 trillion Naira statutory revenue to government by the NNPC in 2018 (CBN, 2020). All these put to question the efficacies of traditional accounting systems.

Also, the Case of Niger Delta Development Commission (NDDC) a Nigeria Public Organization where the Federal Executive Council approved the appointment of Eight (8) different Field Expert Forensic Accountants to conduct forensic audit of the commission from 2001 to 2019, the continuous cases of budget padding, extra-Budgetary spending and non-remittance of statutory revenues by various Ministries, Departments and Agencies (MDAs) of government, irregularities in payment/expenditure, unretired advances, circumvention of procurement process adversely affecting the liquidity position of various tiers of government and the needed funds to finance governments' operations has brought to the front burner the issues of Forensic Accounting Services.

Similarly, the disturbing fraud cases in Nigeria such as ₦195 Billion fraud in pension commission, the \$6bn Fuel Subsidy Scam, ₦32.8 billion police pension funds fraud, \$15 million in Private Jet Arms Scandal and ₦105.7 billion payment for services not rendered and contracts not executed, further, brought to fore the weakness of tradition accounting process and standard. (Okafor & Agbiogwu, 2016).

In the same vein, the increasing number of frauds in the Nigeria banking sector is alarming, making it difficult to monitor transactions by applying traditional or manual accounting services. This in turn makes the control utility of auditing system in banking sector ineffective (Centre for Forensic Studies, 2020). Consequently, all the weaknesses

and challenges identified in the banking industry in Nigeria's post-consolidation as well as the litigations and prosecutions arising from them, make forensic accounting services imperative.

The need for fraud mitigation in the workplace has promoted the awareness and incorporation of forensic accounting services in educational systems. Thus, forensic accounting education is growing in tertiary institutions in Nigeria as the Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices and Other Related Offences Commission (ICPC) are using forensic accounting services to track down fraudsters. Thus, the rise in corporate fraud has forced corporations and organizations both quoted and non-quoted firms to look for a possible way of tackling the menace. Today, fraud has become a norm in most organizations and because of its widespread occurrence, conventional auditing and investigations have become unproductive in its mitigation and detection. Also, the introduction of information technology has further unleashed serious treats to firms' security with an unprecedented increase in fraud, especially in the Nigeria banking sector. Despite regulations and audit of the financial statements of the Nigerian banks, the incidences of fraud are still on the increase.

Given this scenario and with the advances in global technologies, forensic accounting services is perceived to be the solution in mitigating frauds in Nigeria as it encapsulates all other investigation related areas in uncovering financial fraud. Also, the increasing sophistication of financial frauds require that forensic accounting services be added to the tools necessary to bring about the successful investigation and prosecution of those involved in fraudulent activities. Forensic accounting, the tripartite practice of utilizing accounting, auditing and investigative skills to assist in mitigating frauds, is perceived as timely to prepare the accounting profession to deal effectively with problem of frauds arising from manual audit failure in Nigeria. It assumed that if well applied, forensic accounting services can help reverse the leakages that cause corporate failures (Centre for Forensic Studies, 2020). It is against this back drop that this paper investigated the impact of forensic accounting services on fraud mitigation in Nigeria.

2. LITERATURE REVIEW

2.1 CONCEPTUAL REVIEW

Forensic accounting services and fraud mitigation examines how the discipline integrates accounting, auditing, investigation and legal expertise to detect, prevent and deter financial fraud. It is the application of accounting and investigative skills to matters that have legal consequences. It focuses on reconstructing financial transactions and presenting findings in a manner suitable for use in court. According to (Sydney, 1986), fraudulent activities involve the use of deceit and tricks to change the truth so as to deprive another person of his right. The concept of fraud in itself is a disorder. Fraud as defined by EFCC is a non-violent criminal and illicit activity committed with objective of earning wealth illegally either individually or in a group or organized manner thereby violating existing legislation governing the economic activities of government and its administration.

Nwawe, (2012), defined fraud as a predetermined as well as planned tricky process or device usually undertaken by a person or group of persons with the sole aim of cheating another person or organization to gain ill-gotten advantage which would not have accrued in the absence of such deceptive procedure.

2.2 THEORETICAL FRAMEWORK

According to Donald R. Cressey (1950), fraud cannot be perpetrated by any individual or group except they have the capability or occupy an enabling position in the entity that give them the room to carry out their motives unhindered. Therefore, this paper is anchored on three theories of fraud. The fraud triangle theory, the fraud diamond theory and fraud box key model.

(i) **Fraud Triangle Theory:** The proponents of fraud triangle theory has it that , the act of indulging in fraud arises from the pressure to commit the fraud and this pressure can either be internal or external. Employees who commit fraud generally are able to do so because of the interaction between perceived pressures, perceived opportunity and rationalization. For fraud to occur, all three elements of the fraud triangle must be present.

Pressure is frequently what cause a person to commit fraud. This can be prompted by family situations, medical bills, expensive tastes or addiction problems. Opportunity facilitates the ability to commit fraud. Opportunity is created by a weak internal control environment, poor management oversight and the misuse of position or authority.

(ii) **Fraud Diamond Theory:** The fraud diamond theory was first presented by Wolfe and Hermanson (2004). The fraud diamond theory, is generally viewed as an expanded version of the fraud triangle theory. According to Wolfe and Hermanson (2004), opportunity opens the doorway to fraud, and pressure and rationalization can draw a person towards it. However, the individual must have the capability to recognize the open doorway as an opportunity and to take advantage of it.

(iii) **Fraud Box Key Model:** The fraud box key model was propounded by Okoye and Onodi (2014), as an immediate response to long endured lapses of the fraud triangle and fraud diamond theories. They were able to achieved this by transforming the fraud diamond model into a fraud box key model by adding corporate governance. Corporate governance dysfunction was added since it is the master key response to

pressure, opportunity, attitude and capability. It is believed that the fraudster's thought process will amount to thinking inside the box if there is good corporate governance.

Corporate Governance dysfunction, when carelessly handled, unlocks the fraudster thought process thereby opening the doorway for fraud to occur. The implication is that the key of good corporate governance is firmly used to lock down the functionalities of the fraud triangle and fraud diamond theories in the fraud box key model.

2.3 EMPIRICAL REVIEW

Anyadufu and Obi (2023), investigated forensic accounting services and its effect on fraud prevention in manufacturing firm in Anambra state. The study employed – ANOVA on data generated, questionnaire where administered on relevant account sections of the selected manufacturing firm in the state, the study revealed that the application of forensic accounting services not only reduced the incidence of frauds but also helps in fraud prevention. Based on their findings, the study recommended the need of forensic accounting to fight against fraud.

Florence (2020) studied the effect of forensic accounting services on fraud mitigation in firms listed at Nairobi securities exchange, Kenya. The study utilize both descriptive and inferential statistical analytical techniques, the findings revealed that a high degree of correlation exist between forensic accounting services and fraud mitigation in Kenya listed firms. Based on the findings, the study recommended that, every listed firm should have forensic accountant with analytical ability to help control and mitigate fraudulent activities.

Aigienohuwa, Okiya and Uniamikogbo (2017) investigated forensic accounting and fraud mitigation in Nigerian banking industry. By utilizing Likert scale questionnaire as a tool for data collection and binomial test as tool for data analysis, the study revealed that forensic accounting in addition to reducing fraud significantly also improve internal control mechanism in banks. On this note, the study recommended the need for both shareholders and stakeholders to enforce forensic accounting services in banks to ensure sound internal control system.

Basseyy and Ahonkhai (2017) investigated forensic accounting and litigation supports in Nigeria deposit money banks. The study employed descriptive statistical analysis and found that forensic account litigation support do not have effect on fraud detection in Nigerian deposit money banks. Based on their finding, the study recommended that forensic accounting services should focus more on fraud detection and prevention of fraud in Nigerian deposit money banks.

Amahalu, Ezechukwu and Obi (2017) investigated the effect of forensic accounting on the detection of financial crime in deposit money banks in Nigeria. The study applied T-test statistics, and it was discovered that forensic accounting is a viable tool for combating financial crime in deposit money bank in Nigeria. Based on their findings, the study recommended the introduction of forensic accounting services in the audit of their financial statement to raise the efficiency of internal control mechanisms.

Suleiman and Othman (2016) examined forensic accounting and corruption fight in the banking sector in Nigeria. The study applied descriptive statistics; the finding revealed that traditional accounting system is ineffective in fighting financial crime in public sector. Based on their finding, the study recommend the need for wider coverage of forensic accounting in most federal government ministries that are worst hit by fraudulent activities.

Adebisi, Okike and Yoko (2016) studies forensic accounting services and detection and prevention of financial fraud in Nigeria. The study utilized primary data source as a method of data collection. The data were analyzed using chi-square and the finding revealed that forensic accounting play a significant role in fraud detection and prevention in Nigeria.

Olukowade and Balogun (2015) examined the difference between traditional and forensic accountant in relation to fighting fraudulent practices. The study applied content analysis, and it was revealed that, the applications of forensic accounting assists audit committee members in no small measures in carrying out oversight duties as it provide mechanism for internal audit report.

3.0 METHODOLOGY

3.1 RESEARCH DESIGN

The research design adopted for this work is survey research design. This research design is found most appropriate in that, it always give room for generalization of the study findings, particularly when representative sample is employed as a sampling technique. While the data used in this research work were obtained through primary source using structured questionnaires.

3.2 POPULATION OF THE STUDY

The research population covers the office of the Auditor General for the Federation (OAGF). Institute of Chartered Accountant of Nigeria (ICAN), Association of National Accountants of Nigeria (ANAN) and KPMG.

Table 1. The Studies Population of the Organizations.

S/N	NAME OF ORGANIZATION	TOTAL STAFF
1.	Office of the Auditor General for the Federation (OAGF)	1886
2.	Institute Chartered Accountant of Nigeria (ICAN)	236
3.	Association of National Accountants of Nigeria (ANAN)	198
4.	KPMG	356
	Total	2676

Source: Human Resources Department of the Organizations, 2023

3.3 SAMPLE SIZE

Due to the complexity of the study population, multi-stage sampling technique was used in covering the selected respondents. Our sampling size and procedures is premised on the Yamane (1967) formulae for sample size determination.

Thus, the formula is stated as;

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

Where,

n=sample size, N= Total population, e= level of significance (0.05)²

l= Constant.

Substituting the values to formula, we have = $\frac{2676}{1+2676(0.05)^2} = 334$.

Thus, using Bowling (1984) method given by the formula as nNa/N, the response rate will be

Table 2. Response rate of the organizations

S/N	ORGANIZATION	n	Na	nNa/N
1.	(OAUFG)	334	1886	235
2.	(ICAN)	334	236	30
3.	(ANAN)	334	198	25
4.	KPMG	334	356	44
	Total		2676	334

Source: Author's computation using Bowling formula.

3.4 DATA ANALYSIS

The objective of the research work was achieved using correlation coefficient matrix and probit regression model. These are found appropriate because while the correlation coefficient matrix shows the degree of correlation between fraud mitigation and indices of forensic accounting services, probit regression reveals the nature of the influence and size of the coefficient, which shows the magnitude of the influence of the various indicators for forensic accounting services on fraud mitigation. The implicit model of the probit regression is given as;

$$P(Y) = \frac{E}{1+e} \dots \dots \dots (1)$$

If Y denotes fraud mitigation. By taking logs of both sides and simplifying equation (1), the log likelihood model is specified as:

$$LnY_i = \frac{dy}{1-P_i} = \beta_0 + \sum \beta_k X_{ki} + U_i \dots \dots \dots (2)$$

- Where: LnY_i = Natural log of Y (fraud mitigation)
- X_{ki} = Indicators of forensic accounting services
- β_k = Parameter
- U_i = A random disturbance term

Given this implicit model, the explicit model for this study is thus:

$$Y_i = a_i + \beta_1 X_{1i} + \beta_2 X_{2i} + \beta_3 X_{3i} + \beta_4 X_{4i} \dots \dots \dots (3)$$

Where:

- Y_i = Fraud Mitigation
- a_i = Intercept
- X_{1i} = Fraud Prevention
- X_{2i} = Fraud Detection
- X_{3i} = Fraud Control
- X_{4i} = Legal Support
- $\beta_1, \beta_2, \beta_3,$ and β_4 = Coefficient of Probit regression parameters and i = cross-sectional dat

4. RESULTS AND DISCUSSION OF FINDINGS

To underscore the relationship among mitigation of fraud and Fraud prevention, Fraud detection, Fraud Control and Legal support as indicators of forensic accounting services, the paper conducted correlation coefficient matrix. The result is shown on table 3.

Table 3. Correlation Coefficient Matix Result

Variable	Fraud mitigation	Detection	Prevention	Control	Legal support
Fraud mitigation	1.00				
Detection	0.7233*	1.00			
Prevention	0.630*	.273*	1.00		
Control	0.481*	.410*	0.623*	1.00	
Legal support	0.326*	.384*	0.284**	0.321*	1.00

Source: Author's Computation, 2023.

Note: * = 1% and **= 5% level of significance

The correlation matrix was employed to ascertain if significant relationship exists among indicators of forensic accounting services which are the variables of interest to mitigation of fraud at 1% and 5% level of significant respectively. The result revealed that all the variables are significant and are positively related to fraud mitigation. However, the highest degree of correlation was observed between fraud detection, fraud prevention and fraud mitigation in Nigeria. This confirmed the findings of Florence (2020) who found a high degree of correlation between forensic accounting services and fraud mitigation in Kenya. Furthermore, the correlation result matrix showed that none of the inter-relationship among the variables used in estimation is more than 0.7. This implies that there is absence of multicollinearity problem among the variables employed in the estimation.

To buttress these findings, the study further conducted probit regression model with fraud mitigation as dependent variable and various indicators of forensic accounting services such as fraud detection, prevention, control and legal support as independent variables. The result is presented on table 4.

Table 4. Probit regression on the various sources of forensic accounting services

Dependent variables (Mitigation of fraud)	
Independent variables	
Control	-0.011** (026)
Detection	-0.0934** (403)
Prevention	-0.035* (084)
Legal support	-0.037** (124)

Source: Author's Computation, Standard errors in parentheses *** p<0.01, ** p<0.05, * p<0.1

The findings from table 4 shows that judging from the size of the coefficients of the various indicators of forensic accounting services, fraud detection with coefficient of (-0.0934) has the highest influence on mitigation of fraud in Nigeria. This implies that, a 1% increase in fraud detection as an indicator that forensic accounting service will reduce fraud by 9%. This result of correlation coefficient matrix, also, confirmed the findings of Amahalu, Ezechukwu and Obi (2017) who revealed that forensic accounting services, especially fraud detection is highly significant in reducing fraudulent activities in Nigeria.

Reliability test result

To ascertain how reliable the instrument, the study adopted Cronbach's Alpha method and the resulted is presented on table 5.

Table 5. Result of the Reliability Test

Test scale= mean (unstandardized items)	
Average interitem covariance	650406.7
Number of items in the scale	46
Scale reliability coefficient	0.8198

Source: Field survey, 2023

The findings from table 5 revealed that the value of the reliability test is 0.82 or 82%. The implication of this is that, the instrument is highly reliable for analysis and conclusion and recommendation advanced from it can be relied upon for policy implementations and actions.

CONCLUSION AND RECOMMENDATIONS

The study examined the impact of forensic accounting services on fraud mitigation in Nigeria and found that forensic accounting plays a significant role in reducing fraudulent activities and enhancing organizational accountability. The findings revealed that among the various forensic accounting services considered, fraud detection has the greatest influence on fraud mitigation, highlighting the importance of proactive measures in identifying and preventing fraudulent practices. The study further demonstrates that forensic accounting techniques provide organizations with effective tools for uncovering financial irregularities, investigating suspected fraud, gathering credible evidence, and supporting legal actions where necessary. Given the increasing sophistication of financial crimes, particularly in the digital age, traditional accounting and auditing practices alone may not be sufficient to address emerging fraud risks. Consequently, the integration of forensic accounting into organizational governance structures and internal control systems has become essential for strengthening fraud prevention, detection, and risk management processes. Overall, the study concludes that the application of forensic accounting services, particularly fraud detection, is highly effective in influencing fraud mitigation in Nigeria.

Based on these findings, the study recommends the following:

- (i) Nigeria should intensify the application of sophisticated forensic accounting services in combating fraudulent activities, especially in this era of technological advancement.
- (ii) Organizations should establish robust whistleblower and reporting mechanisms and provide adequate protection for whistleblowers to encourage the reporting of fraudulent activities and enhance fraud detection.
- (iii) The management of organizations should integrate forensic accounting into their internal control systems through regular forensic audits, risk assessments, and digital fraud reviews to strengthen fraud prevention, detection, and overall organizational accountability.

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