Forensic Accounting: Tool for Fraud Detection and Prevention

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ABSTRACT
The magnification in the number of cases of financial fraud due to miscarriage of statutory audit to detect and prevent fraudulent activities has given rise to the services of forensic accountants in most sectors of the economy. The broad objective of this paper is to examine the basic problems in forensic accounting as a tool for fraud detection and preclusion in Nigeria. The study employs survey design with a sample size of one hundred and thirty-five (135) respondents which comprises of Department of Accounting, Marketing Department, Business Administrative and Management Department, Internal Audit Department and Bursary Department of the Rufus Giwa Polytechnic through primary source of questionnaire. The statistical tool used to test hypotheses was ordinary least square (OLS) regression analysis. Among the findings was that the role of a forensic accountant under contemporary conditions no doubt is very important because they help lawyers, courts, the police, regulatory bodies and other institutions in investigating and documenting frauds. The study concluded that the forensic accountants/auditors should play a vital role in any organization they are working. Forensic auditing is geared towards achieving aggregate measures in combating fraud and enhancing formal mechanism for public and private sector.

Keywords: Forensic Accounting, Fraud Detection, Financial fraud and Prevention

I. INTRODUCTION
Forensic accounting is said to be the enactment of distinctive acquaintance and definite skills to bring up attestation of economic or financial transaction through analytical auditing (Joshi, 2003). Forensic accounting includes of accounting, auditing and investigative skills to detect, prevent and control fraudulent activities. Forensic auditing can also be referred to as forensic accounting. Forensic auditing or forensic accounting is a course that comprises investigating financial transactions of behaviorand corporations to spot activities that linked to fraudulent events. Fraud and legal discord can happen in several ways, through misappropriations, tax filings, insurance claims, bankruptcy, and filings business procurement, personal injury claims or divorce a foot. Divulge unevenness of fraud in forensic audit can be a complex process (Bhasin, 2013; Ezeagba, 2014).

Adeniji (2010) and Oliri (2013) established forensic auditing as the analytic processes that involves congeries of financial material, verification, processing, analyzing and reporting of quantitative and qualitative reports in order to obtain facts and evidence in the area of legal financial difference including fraud and giving preventive advice. Crumley (2006) sees forensic accounting as a requisite legal discernment which is used in distributing the maximum level of financial report which gives certainty to users of financial report, including the mainly agreed intent of having been arrived at fraud regulate in a scientific fashion. Mukoro, Yamusa and Faboyoye (2013) report that the first and most complicated ways of carrying out defrauding activities in many organizations is through the accounting and financial records.

Despite the performing of anti-graft agencies against fraud and financial crimes in Nigeria, such as Economic and Financial Crimes Commission (EFCC) and Independent Corrupt Practices Commission (ICPC), cases of fraud practices in the Nigeria appears to be on the increase and it seems difficult for these anti-fraud agencies to effectively prosecute many of the alleged cases of fraud involving billions of naira. Most of these fraudulent practices are perpetrated by highly skilled fraudsters, employing sophisticated methods, thus requiring highly skilled
and capable persons to undo the fraudulent schemes. The application of forensic accounting skills involves processes such as fraud investigations, expert witnessing and litigation support services which is the area that most researches have not looked into. Therefore, there is a need for forensic accountants to undertake the case of corrupt practices on financial abstractions in Nigeria. Most of the studies conducted on this area are centered on the research on Banking Institutions, but this study is focusing on Nigeria Polytechnics, which involve both federal and state polytechnics to determine how forensic accounting can be used to detect and prevent fraud in Nigeria Polytechnics, particularly, government owned one. It is this gap which this study attempt to fill. Therefore, this study is imperative a library desk research survey of existing literature in forensic accounting as a tool for fraud detector and precaution of fraud in Nigeria. It has now become appropriate to introduce and drill forensic accounting which is one of the approaches that can be used for the prevention and detection of fraud in the public sector since external auditor do not or may not have the obligatory knowledge to be able to identify, prevent or reduce fraud in Nigeria’s public sector. From the above problems stated, this research seeks to examine the role of forensic accounting as a tool in fraud detection in Nigeria and with a keen interest in the public sector (i.e. Rufus Giwa Polytechnic Owo). To examine the extent to which forensic accounting can help to prevent and detect fraud, to find out whether Nigeria Polytechnics make use of the services of forensic accountants. And to determine whether the use of forensic accountants can instill financial probity in the financial transactions. In line objectives some questions were put in place, extent can forensic fraud investigation helps in preventing and detecting fraud? witnessing service provided by forensic accountant helps in fraud prevention and detection? To what extent can litigation support service helps in the detection and prevention of fraudulent activities?

To examine the extent to which forensic accounting cannot help to prevent and detect fraud, to find out whether Nigeria Polytechnics did not make use of the services of forensic accountants and ascertain whether the use of forensic accountants cannot instill financial probity in the financial transactions

II. LITERATURE REVIEW

Concept of Fraud

Literature is replete with several definitions of fraud. It varies among organizations and jurisdictions. The Association of Certified Fraud Examiners [ACFE] (2014) defined fraud as the use of one’s occupation for personal enhancement through deliberate misuse or misapplication of the employing organization’s resources or assets. It is therefore any act of misappropriation, theft or embezzlement of corporate assets in a particular economic environment. It has been considered as any act of dishonesty performed by somebody to cheat or deceive another person to his detriment or the detriment of any other, or to cause injury or loss to another person while the perpetrator has a clear knowledge of his intension to deceive, falsify or take advantage over the unsuspecting and innocent prey resulting to suffering loss or damage (Mckittrick, 2019).

Fraud is the use of deceit for illegal gain and inquisitive advantage, something that constitute a crime, and someone who is not what he act to be. According to the Chartered Institute of Public Finance and Accounting, USA, frauds are intentional debasements of financial statements or records which are carried out to conceal the misdeed of assets or otherwise for gain (Ande, 2017), fraud is synonymous to misappropriation, theft and fraud of corporate assets, adding that fraud has always existed with the nature and life of mankind. Fraud is referred to as an international act by one or more individuals among management, employee or third parties, which results in a dissembling of financial statements (Udoayang and James, 2018).

Concept of Forensic Accounting

Accounting today is called the language of business this is so because it is the vehicle for reporting financial information about a business entity to many different groups of people. There are different branches of accounting. The branch of accounting that concentrates on reporting to people inside the business entity is called management accounting. It is used to provide information to employees, managers, owner-managers and auditors. Management accounting is concerned primarily with providing a basis for making management or operating decisions. Accounting that provides information to people outside the business entity is called financial accounting. It provides information to present and potential shareholders, creditors such as banks or vendors, financial analysts, economists, and government agencies. Because these users have different needs, the presentation of financial accounts is very structured and subject to many more rules than management accounting (Friedl and Plewa, 2008).
2016). Forensic accounting also called investigative accounting or fraud audit is a merger of forensic science and accounting (Kasum, 2019). Forensic science, as Crumbley (2013) put it may be defined as application of laws of nature to the laws of man. A forensic scientist is one who examines and interprets evidence and facts in legal cases and also offers expert opinions regarding their findings in the court of law. In the present context, the science is accounting, hence the examination and clarification will be of economic financial information.

**Forensic Accounting and Fraud Prevention and Detection**

This study is centered on the services rendered by forensic accountant that aids in the prevention and detection of fraud which are fraud investigation, expert witnessing and litigation support services which are discussed as follows: ACFE (2010) noted that fraud investigation provide the essentials for resolving fraud allegations from inception to deposition. The proper procedures, techniques and skills is used to conduct an effective fraud investigation. Exploration of both internal and external investigations and examinations in-depth that helps in the detection of fraud which will also serve as a warning to others who will likely want to commit such fraudulent activities hence preventing such occurrence in the future.

Institute of Certified Public Accountant (CPA) opined that Forensic accounting expert witness may be very valuable for a variety of cases, as they specialize in the act of assessing financial issues and concerns within the context of litigation. Forensic accounting expert witnesses often have experience and have worked with banking, insurance, taxes, audits, bonds, valuation, mergers and acquisitions, securities, investments, and due diligence, among other important aspects of the financial field. Forensic accounting expert witnesses may be asked to provide an expert opinion concerning such matters as fraudulent financial statements, accounting malpractice, embezzlement, employee theft, financial reporting fraud, kickbacks, occupational fraud, tax returns, loss prevention, CPA malpractice, business fraud, and other forms of white collar crime related to accounting and financial issues. In a case of fraud detection, a forensic accounting expert witness may be asked to assess the findings of a financial investigation based on the analysis of fraudulent documents, as well as evidence of Ponzi schemes, money laundering, and other systematic forms of financial fraud. In addition to public accounting, forensic accounting expert witnesses are also licensed and certified in fraud examination, financial forensics, valuation analyzing, financial services auditing, anti-money laundering, and other related areas with the purpose of enforcing fraud prevention and regulatory compliance.

**The Fraud Triangle Theory**

Cressey (1919-1987) was a student of further land, who builds on the initial works of the later, to set forth the Theory of the Fraud Triangle, Cressay’s work focuses on embezzlers whom he called “trust violators”. His hypothesis states that: Trusted persons become trust violators when they conceive of themselves as having a financial problem which is non-shareable, are aware this problem can be secretly resolved by violation of the position of financial trust, and are able to apply their own conduct in situation conversation which enable them to adjust their observations of themselves as trusted persons with their conceptions of themselves as users of the entrusted funds or property (Cressey, 1973, Cited by Coene, 2015).

![Fraud Triangle](image)

This hypothesis widely called the Fraud Triangle has three postulations:

- **Undisturbed needs or Pressure**: the individual has a need which could not be shared with persons who from a more objective point of view, possibly could have assisted in the solution of the problem. Cressey (1973) cited by Coen (2015) divide these non-shareable problems into six basic sub types; violation of ascribed obligations, problems resulting from personal failure, Business reversals, physical isolation, status gainful employer-employee relationship.

- **Opportunity** – An opportunity affords itself for the individual to solve his financial problem by violating the position of financial trust he holds with his organization. The opportunity could be in the form of inefficient control and supervision in the organization.

- **Rationalization** – he makes attempts at self-justification to rationalize and explain his actions and silence his conscience.
The Fraud Diamond Theory

Wolf and Hermanson (2004) proffer the Theory of the Fraud Diamond, in the place of the triangle. They argue that the diamond offers a better view of the factors leading to fraud. They add a fourth variable, capacity, to the three theory of Cressey. Capabilities mean that, the fraud perpetrator must have the necessary tracts, abilities, or positional authority to pull off his crime.

According to Wolfe and Hermanson(2014) “Opportunity opens the door way to fraud, and incentive (i.e. pressure) and rationalization and raw a person toward it. However, the person must have the capability to recognize the open door way as an opportunity and to take advantage of it by walking through, not just once, but repeatedly”. With the additional element presented in the FDT affecting individuals’ decision to commit fraud, the organization and auditors need to understand employees’ individual traits and abilities in order to assess the risk of fraudulent behaviors in the public sector.

2.3 Empirical Review

There are many examples of both public and private companies, which have end-up in fraudulent activities due to lack or weak internal control system. This has led many researchers to undertake empirical studies on the area of corruption and fraud.

Adebisi and Gbegi (2015) examined the fraud and the Nigerian Public Sector performance: the need for forensic accounting. The population of this study comprised of 190 senior staff of the three Anti-Corruption Agencies in Nigeria (EFCC, ICPC and CCB) with the sample size of 129. The study methodology includes both primary and secondary sources of data collection; questionnaire was used in collecting primary data while secondary data were obtained from EFCC, CCB and ICPC. The data generated for this study were analyzed using simple percentages and presented in tabular form while the hypotheses were tested using Analysis of Variance (ANOVA) and regression analysis with the aid if SPSS version 20.0 The study found that, first public sector fraud has significant influence between the use of forensic accounting and performance of the Nigerian Public Sector. The study recommended that, first, it is obvious that public sector fraud effects economic growth in Nigeria and as such appropriate sanctions should be applied when fraud is discovered or detected. Second, Government should establish a public recovery fund (PRF) where money recovered through Forensic accounting should be kept and this money should be properly used to enhance efficient and effective performance in the public sector.

Onyefulu and Ofor (2016) investigated the effect of internal control on fraud prevention and detection in the public sector in Nigeria. This study covers the accounts sections of Anambra State government of the 247 staff in the account section, 152 staff in the director of accounts office, internal control unit, cash unit and pay office were sampled using well-structured questionnaire.

Taiwo, Agwu, Babajide, Okafor and Isibor (2016) investigated the growth of bank frauds and the impact on the Nigerian banking industry. The study employed an econometric model in determining the impact and consequences of fraud on bank profitability in Nigerian.

The study used time series annual data for the period covering 2002 to 2014 gathered from the central bank of Nigeria statistical bulletin, various financial websites, journals and Newspaper. The study found that there exists a negative significant relationship between bank profitability as provided by Return on Asset (ROA) and the total amount involved in Frauds Committed in the banking sector (TAI). This implies that as the total amount involved in the bank fraud increases, bank profitability decreases and vice versa. The study recommended that the regulatory and supervisory bodies of banks in Nigeria should improve their supervision using all tools at their disposal to appropriately check and curtail the incidence of fraud and fraudulent practices in the banking industry in Nigeria.

Okoje and Gbegi (2013) examined and evaluation of the effect of fraud and related financial crimes on the Nigerian economy. Data for the study were collected from secondary sources only. The research analyzed the data generated using regression analysis. The study found that fraud and Nigerian economy while fraud and financial
institutions should train on how to carry out forensic investigation since the fraudsters are now sophisticated in their act.

Akenbor and Ironkwe (2014) investigated forensic auditing techniques and fraudulent practices of public institutions in Nigeria. The study employed the population of the general managers, and accountants of 12 public institutions in Nigeria. The data generated were statistically tested with the Pearson Product-Moment Correlation Coefficient. The study found that both the proactive and reactive significant relationship with fraudulent practices in Nigerian public institutions.

Research Design

In this study, the survey design was used as this type of research design aids the collection of large amount of data from a sizable population in a highly economical way. This research design is critical in determining the quality of research as it helps in addressing the study’s research questions. The population size for the purpose of this study is all the senior staff of Faculty of Business Studies and Internal Audit Department comprises of Senior Lecturers, Auditors and Accountants at Bursary Departments of Rufus Giwa Polytechnic, Owo Ondo state Nigeria. Out of which only 45 respondents was targeted as sample, through the use of purposive sampling technique. The source of the data for this research is mainly primary source through structured questionnaires. The method of data analysis used is Ordinary Least Square (OLS). Taro Yamani sample techniques size formula was used to bring Forty-five (45) sample size out. This can be classified as follow:

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

Where: $n =$ estimated sample size; $e =$ 0.05 - error precision or margin of error; and $N =$ population of employees as Senior Lecturers, Auditors and Accountants at Bursary Departments:

$$n = \frac{51}{(1 + 51(0.05)^2)} = 45$$

<table>
<thead>
<tr>
<th>S/N</th>
<th>Staff</th>
<th>Sample</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Senior Lecturers</td>
<td>20</td>
<td>44</td>
</tr>
<tr>
<td>2</td>
<td>Accountants</td>
<td>15</td>
<td>33</td>
</tr>
<tr>
<td>3</td>
<td>Auditors</td>
<td>10</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>45</td>
<td>100</td>
</tr>
</tbody>
</table>

Source: Researchers Computation 2023

Model Specification

The model can thus be specified in functional form as follows:

Functional form:

$$FPD= f (FIG, EWI, LSS)$$

Expressing the above in structural form and further analysis, we have;

Where;

$$FPD=$$ Fraud Prevention and Detection, $FIG=$ Fraud Investigations, $EWI=$ Expert Witnessing, $LSS=$ Litigation Support Services

The model can thus be specified in econometric form as follows;

$$FPD= \beta_0 + \beta_1 FIG + \beta_2 EWI + \beta_3 LSS + \mu$$

A-priori Expectation

$\beta_0 =$ Intercept parameter, $\mu =$ the stochastic disturbance term to capture unexplained residual. $t =$ the time subscription

III. DATA ANALYSIS AND DISCUSSION

The presentation starts with descriptive statistic with the description of the respondent’s base on the variables of interest. The variables used in the model include Fraud prevention and detection (FPD), Fraud Investigations (FIG), Expert Witnessing (EWI) and Litigation Support Services (LSS). The sample used for the analysis was based on the questionnaire assigned to the respondents.

Testing of Hypotheses

The test is aimed at determining whether the signs and sizes of the results are in line with what economic theory postulates. Thus, economic
theory tells us that the coefficients are positively related to the dependent variable, if an increase in any of the explanatory variables leads to an increase in the dependent variable.

Table 2: Computation of Ordinary Least Square (OLS) Result.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Coefficient</th>
<th>Standard Err</th>
<th>T-statistic</th>
<th>Probabilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>1.375</td>
<td>0.607</td>
<td>2.266</td>
<td>0.026**</td>
</tr>
<tr>
<td>FIG</td>
<td>0.331</td>
<td>0.081</td>
<td>4.092</td>
<td>0.000**</td>
</tr>
<tr>
<td>EWI</td>
<td>0.041</td>
<td>0.048</td>
<td>0.855</td>
<td>0.395**</td>
</tr>
<tr>
<td>LSS</td>
<td>0.317</td>
<td>0.088</td>
<td>3.623</td>
<td>0.000**</td>
</tr>
</tbody>
</table>

R²=0.225, R² bar= 0.201, F-stats(3, 42)= 9.303, D.W-stats., 1.741

***, ** and * indicate statistically significant at 1%, 5% and 10% significance level, respectively.

Source: SPSS Version 26

Economic A-priori Criteria: The test is aimed at determining whether the signs and sizes of the results are in line with what economic theory postulates. Thus, economic theory tells us that the coefficients are positively related to the dependent variable, if an increase in any of the explanatory variables leads to an increase in the dependent variable. Therefore, the variable under consideration and their parameter exhibition of A-priori signs have been summarized in the table below. This table will be guarded by these criteria: (When \( \beta > 0 \), Positive relationship. When \( \beta < 0 \), Negative relationship).

Table 3: A-priori Expectation Table

<table>
<thead>
<tr>
<th>Variable(s)</th>
<th>Expected Sign</th>
<th>Estimate</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>FIG</td>
<td>(+)</td>
<td>( \beta &gt; 0 )</td>
<td>Conform</td>
</tr>
<tr>
<td>EWI</td>
<td>(+)</td>
<td>( \beta &gt; 0 )</td>
<td>Conform</td>
</tr>
<tr>
<td>LSS</td>
<td>(+)</td>
<td>( \beta &gt; 0 )</td>
<td>Conform</td>
</tr>
</tbody>
</table>

Source: Author’s Computation, 2023

\[
\text{FPD} = 1.375 + 0.331\text{FIG} + 0.041\text{EWI} + 0.317\text{LSS} + U_t
\]

S.e \( (0.607) \quad (0.081) \quad (0.048) \quad (0.088) \)

T-Stat \( (2.266) \quad (4.092) \quad (0.855) \quad (3.623) \)

The intercept value shown was 1.375 which means, fraud detection and Prevention (FPD) has 1.1375 units when other variables are held constant, this means, fraud detection and Prevention (FPD) has positive value when others variables were held constant and can stand alone without independents variables which serve as endemic thing without independent variables. Fraud Investigation (FIG) shows that 1 unit increases in it will bring 0.331 unit increases in fraud detection and Prevention (FPD) and it was substantial enough to justifies the fraudulent practices in an organization like Rufus Giwa Poly can be curbed through forensic accounting practicein an effective way because t-critical value is less than t-calculated 1.645<2.266, thus, it can be used for policy making by way of unethical behaviors in an organization. Expert Witnessing (EWI) shows that 1 unit increases in it will bring 0.041 units increase in fraud detection and Prevention (FPD) and it is statistically significant using rule of thumb and T-test statistic respectively. Litigation Support Services (LSS) shows that 1unit increases in it will bring 0.317 units increase in fraud detection and Prevention (FPD) and it was statistically significant using rule of thumb and T-test statistic respectively. Thus, it can be used for policy making which will justifies the point of possibility of reducing the occurrence of fraud cases using Forensic Accounting.

Lastly, the F-statistic shows the robustness of the model for goodness of fit by comparing F-calculated to F-critical in the table, in order to explain the impact of whole explanatory variables on dependent/explained variable, and this was shown by looking at it from the angle of 0.01 and 0.05 level of significance which are 3.7539 and 2.5581 and is less than 9.249, (3.9493 and 2.6802<9.249) calculated respectively.
Discussion of Findings

The role of a forensic accountant below contemporary circumstances no doubt is very significant because they help lawyers, courts, the police, regulatory bodies and other institutions in investigating and documenting frauds. The aggregate occurrence of fraud in modern day business environment requires the services of forensic accountants to unearth fraudulent activities within and outside an organization. Also, continued audit failures over the last five decades have encouraged a paradigm shift in accounting. It is generally accepted that an auditor has the duty to perform tests to detect material defalcation and errors if they exist. However, fraud detection experts called forensic accountants are now been hired in developed economies to investigate cases of fraud.

IV. CONCLUSION

The study concluded that the forensic accountants/auditors should play a vital role in any organization they are working. In a democratic society unlike both public and private sector functions through professional procedures and stages. Forensic auditing is geared towards accomplishing aggregate combating fraud and enhancing formal mechanism for public and private sector. Well-functioning forensic tools could be fundamental for fraud prevention and detection which will promote the forensic auditing profession in Nigeria and world at large.In the light of above conclusion, the study recommend the following;
i. Government should develop more interest in forensic accounting for monitoring and investigating suspected culprits in fraud cases as evidenced in the examples earlier cited.
ii. Our laws should be up to date with latest advancement in technology to ensure admissibility of evidence in a law court for successful prosecution of criminal and civil cases. Government should have an effective plan with other countries in extraditing run away fraudsters from anywhere around the globe.
iii. It is also recommended that government should ameliorate the expenses involved in engaging the services of a forensic accountant.
iv. Based on the prevalent cases of fraudulent acts, employed accountants services should be employed in order to refuse incidence of economic crimes and corruption so as to enhance economic growth and development, and consequently, there should be a strong drive effective compliance law that will guide the operations of the organizations.

REFERENCES


