

## **FORENSIC AUDITING AND FINANCIAL FRAUD IN NIGERIAN DEPOSIT MONEY BANKS (DMBS)**

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**ABSTRACT:** *This study examined the effect of forensic auditing on financial fraud in Nigerian (DMBs). The study adopted cross sectional survey design. The population of the study comprised the staff of banks and audit firms in Abeokuta, Ogun State. The study used purposive sampling technique for questionnaire administration while logistic regression analysis was used for data analysis. The results of the study revealed that forensic audit has significant effect on financial fraud control in Nigerian (DMBs) with P value (0.007) which is less than 0.05 and that forensic audit report significantly enhances court adjudication on financial fraud in Nigeria with P value (0.000) which is less than 0.05. The study concluded that the application of forensic audit to tackle financial fraud in Nigerian (DMBs) is still at the infant stage. The study recommended that organisations should have a strong internal control system in place to reduce the occurrence of fraud.*

**KEYWORDS:** Forensic Audit, Nigerian DMBs, Financial Fraud, Litigation and Organisations' Failure

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### **INTRODUCTION**

Corporate organisations like banks are essentially social-technical devices made up of people and physical actors who process inputs and at the same time execute some functions and / or tasks that lead to the accomplishment of certain goals and these stakeholders who are probably within and / or outside the organisations may for various reasons have engaged in fraudulent financial activities (Akenbor and Oghoghomeh, 2013). The Nigerian banking sector is one of the most controlled and regulated sectors. In spite of this, fraud has continued to rear its ugly head in the sector. Fraudulent financial activities are illicit activities committed with the purpose of acquiring riches either individually, in group or organised manner thereby violating existing legislation or accounting policies governing the economic activities and administration of the organisation (Yio and Cheng, 2004).

Globally, the occurrence of fraud in corporate organisations is becoming rampant and this can be shown in the large number of reported cases of bribery, corruption, embezzlement, money laundering, racketeering, fraudulent financial reporting, tax evasion, forgery and other means through which both financial and economic dishonesty are being perpetrated (Ofiafoh and Otor, 2013). The accounting profession had already undergone radical changes as a result of the Enron and WorldCom debacles as well as other accounting scandals (Cotton, 2000). Hence, with the spotlight on the accounting profession, a new market with a new breed of accountants (forensic accountants) has emerged. Today, the occurrence of fraud and other financial crimes have gone sophisticated and even the advent of computerisation together with the introduction of internet facilities have enhanced the problem of financial crimes. The detection and / or reduction of these fraudulent activities are made more difficult and committing these crimes much easier. Hence, Onodi, Okafor and Onyali (2015) are of the

opinion that forensic investigative skills are required to uncover and establish the occurrence of financial crimes.

The Centre for Forensic Studies (2010) states that if well applied, forensic auditing could be utilised to reverse the leakages that cause corporate failures. This can be attributed to the fact that proactive forensic auditing practice seeks out errors, operational vagaries and deviant transactions before they crystallise into fraud. This study focused on both management and employees frauds. The management fraud include fraudulent disbursements, window dressing, creative accounting and soon while employees fraud include asset / cash theft, teeming and lading (roll over fraud) and soon. The problem of fraud in banking industry is not limited to any economy, nation, continent or an environment; it is a general phenomenon. The origin of bank failure in Nigeria can be traced to the 1930s bank failure and crises (Owolabi, 2010). Nwankwo (1992) writes that “the crises of confidence in Nigerian banking industry is not a new one, it has been with us for quite a long time. In Nigeria now, the level of fraud in Deposit Money Banks has reached an alarming peak. The Nigerian Deposit Insurance Corporation (NDIC) annual report for the year 2014 revealed that the increase in expected/actual loss in fraud and forgeries was mainly due to the astronomical increase in the occurrence of web-based (online banking)/ATM and fraudulent transfer/withdrawal of deposit frauds.

The incidence of fraud and misappropriation of funds in recent time pose a threat to traditional auditing as a branch of accounting profession because of its perennial nature and this has resulted

to the question as to whether the statutory auditing actually play a significant role towards the attainment of accountability and prevention of fraud especially that which was recently witnessed in our commercial banks. Statutory audit appears to have shown a lack of concern and reflective attitude towards fraud fighting, thereby failing to offer the public desirable assurance to handle corruption and fraud (Akhidime and Ugbale-Ekatakah, 2014) cited in (Okolie and Taiwo, 2014). The gap identified by this present study is the failure of traditional auditing to combat the occurrence of fraud and other financial crimes in the Nigerian banking industry. Hence, this study examined the effect of forensic auditing on financial fraud in Nigerian Deposit Money Banks (DMBs) using logistic regression analysis and with particular focus on DMBs, audit firms and the Abeokuta zonal branch of the Central Bank of Nigeria (CBN) all in Abeokuta, Ogun State, Nigeria.

### **Objectives of the study**

The core objective of this study is to ascertain the effect of forensic auditing on financial fraud in Nigerian DMBs. Hence, from the study’s main objective, the following specific objectives are addressed;

- (i) To ascertain the effect of forensic audit on financial fraud in Nigerian DMBs.
- (ii) To find out whether forensic audit report can enhance court adjudication on financial fraud in Nigeria.

### **Research questions**

- (i) What is the effect of forensic audit on financial fraud in Nigerian DMBs?

- (ii) What is the effect of forensic audit report on the enhancement of court adjudication on financial fraud in Nigeria?

### **Statement of the hypotheses**

The following hypotheses were tested in the course of the study;

HO<sub>1</sub>: Forensic audit has no significant effect on financial fraud control in Nigerian Deposit Money Banks.

HO<sub>2</sub>: Forensic audit report has no significant effect on the enhancement of court adjudication on financial fraud in Nigeria.

## **LITERATURE REVIEW**

### **Concept of forensic auditing**

There is significant literature on forensic auditing. For instance, Dahli (2008) relates the word forensic to the application of knowledge to legal problems such as crimes. This definition traces the history of forensic auditing and its application in litigation support. Forensic is as old as history but its usage got little attention in the past. It is now becoming prominent because of increase in financial scandals. Forensic auditing is an activity that consists of gathering, verifying, processing, analyzing, and reporting on data in order to obtain facts and evidence in a predefined context in the area of legal/financial disputes and/or irregularities and giving preventive advice (Mohd and Mazni, 2008). In the works of Akenbor and Ironkwe (2014) and Zachariah, Masoyi, Ernest and Gabriel (2014) they argue that the importance of forensic auditing cannot be undermined as a result of global persistent perpetration of fraud in various organisations. Albrecht and Albrecht (2001) describe forensic investigation as the utilization of specialized investigative skills in carrying out an enquiry conducted in such a manner that the outcome will have application to the court of law.

Onodi *et al* (2015) are of the opinion that forensic investigative skills are required to uncover and establish the occurrence of financial crimes. In the work of Grippo and Ibex (2003), forensic audits are more intensive than regular audits and are usually conducted in a series of steps to determine if allegations can be substantiated and to identify the nature of any further work needed. Important first steps are to ensure that the allegation or complaint has merit, adequate evidence is available and that a department has the authority to investigate or audit. This is particularly important when a recipient of a grant, contribution, or other transfer payment receives resources from sources other than the department. In this regard, it is also important that the records of the recipient allow for the investigation or audit to trace how a department's funds were used. Thornhill (1995) states that forensic audit require a clear and detailed audit plan that is designed to obtain information on how, when, and where a wrongdoing occurred and who committed such a wrongdoing. Normally, a preliminary examination would be conducted to allow for the assessment of the allegations or complaints in terms of specified criteria such as materiality and impact. An audit plan should have clear objectives and timeliness; identify the skills needed, the estimated costs, and any limitations on the scope of the examinations. Contractors should have statement of work (engagement letter) detailing their roles and responsibilities.

Forensic audit reports are usually lengthy and extensively substantiated and contain a clearly documented chronology of events (Ghali, 2001). Whether conducted by external experts under contract or by departmental staff, the auditors must have the necessary qualifications and knowledge to conduct them. Departmental officials who supervise such audits also need special training. Experts who conduct forensic audits need special qualifications and knowledge. They will need to become familiar with a department's financial and management controls and what would constitute a wrongdoing under applicable legislation and policies. In addition, forensic auditors need to: (i) have the skills to determine what to examine, what constitute relevant and valid evidence, where to look for it, and how to obtain or extract it; (ii) be adept at interviewing departmental and recipient officials; and (iii) be able to present findings and explanations in a manner that can be used to support administrative, civil, or criminal action. It should be kept in mind that forensic auditors may be called as expert witnesses in administrative, civil, or criminal proceedings. They must, therefore, be able to testify in an understandable and impartial manner. It should also be noted that departmental officials involved in the administration of the program as well as those responsible for initiating or acting on the results of the audit may be called as witnesses (Albrecht, Albrecht and Dunn, 2001).

### **Importance of forensic auditing services to corporate organisations**

- i. Objectivity and credibility: there is little doubt that an external (third) party would be far more independent and objective than an internal auditor who ultimately reports to management on his findings. An established firm of forensic auditors and its team would also have credibility stemming from the firm's reputation, network and track record.
- ii. Accounting expertise and industry knowledge: an external forensic auditor would add to the organisation's investigation team with breadth and depth of experience and deep industry expertise in handling frauds of the nature encountered by the organisation.
- iii. Provision of valuable manpower resources: an organisation in the midst of re-organisation and restructuring following a major fraud would hardly have the full-time resources to handle a broad-based exhaustive investigation. The forensic auditor and his team of assistants would provide the much needed experienced resources, thereby freeing the organisation's staff for other more immediate management demands. This is more critical when the nature of the fraud calls for management to move quickly to curtail the problem and when resources cannot be mobilised in time.
- iv. Enhanced effectiveness and efficiency: this arises from the additional dimension and depth which experienced individuals in fraud investigation bring with them to focus on the issues at hand. Such individuals are specialists in rooting out fraud and would recognise transactions normally passed over by the organisation's accountants or auditors

### **Challenges of forensic auditing services to corporate organisations**

- i. Confidentiality issue: since the scrutiny of a company's financial records is done by an external forensic auditor, the chances of leakage of confidential matter are always there. It is true that their code of ethics clearly mentions that forensic auditors and other members involved in the scrutiny must not engage in disclosing confidential data to outsiders, but the possibility of disclosure cannot be nullified.

- ii. Increased chances of threats and negative publicity: if the analysis of a company's financial statements points out the involvement of a particular person in fraudulent activities, there is a significant chance that the person will try to threaten the company to safeguard himself from the trial. Also, any trial that confirms a fraud happening in the company comes under public eye and gains negative publicity, which directly affects the reputation and investor relations of the company.
- iii. Costs a lot of money: forensic auditing can be an expensive affair because the procedures which auditors use involve high-end accounting software. If study results have to be presented in a trial, the overall expenditure goes up even further, because the fees of forensic auditors are quite high. This can be a matter of concern for the organization.
- iv. Losing employee trust: it is quite obvious for employees to feel offended when they come to know that their job is under scrutiny by a third person. If no fraud is identified, employees are left with the feeling that the employer does not have faith in them. Lost trust can be difficult to regain in such cases.

### **Concept of Financial Fraud**

Financial fraud has been variously described in literature but no one description suffices. Wikipedia dictionary describes fraud as crimes against property, involving the unlawful conversion of property belonging to another to one's own. Williams (2005) incorporates corruptions to his description of financial crimes. Other components of fraud cited in Williams (2005) description include bribes, cronyism, nepotism, political donation, kickbacks, artificial pricing and frauds of all kinds. The array of components of financial crimes, some of which are highlighted above, is not exhaustive. Mahdi and Zhila (2008) defined fraud as the intentional misrepresentation, concealment or omission of the truth for the purpose of deception or manipulation to the financial detriment of an individual or an organization such as a bank, which also includes embezzlement, theft or any attempt to steal or unlawfully obtain or misuse the asset of the bank. Fraud can increase the operating cost of a bank because of the added cost of installing the necessary machinery for its provision, detection and protection of assets.

It was noted by Nwaze (2008) that fraud is perpetrated in many forms and usually has insiders (staff) and outsiders conniving together to successfully implement the act. The salient issues in EFCC Act (2004) definition include "violent, criminal and illicit activities committed with the objective of earning wealth illegally in a manner that violates existing legislation and these include any form of fraud, narcotic drug, trafficking, money laundering, embezzlement, bribery, looting and any form of corrupt malpractices and child labour, illegal oil bunkering and illegal mining, tax evasion, foreign exchange malpractice including counterfeiting currency, theft of intellectual property and piracy, open market abuse, dumping of toxic waste and prohibited goods, etc. This definition is all-embracing and conceivably includes financial crimes in corporate organization and those discussed by William, 2005 and Khan, 2005.

Karwai (2002) and Ajie and Ezi (2000) are of the view that financial fraud in organizations vary widely in nature, character and method of operation in general. According to Okoye and Gbegi (2013), fraud is a global problem and no nation is immune though developing nations and their states suffer the most. Fraud refers to an intentional act by one or more individuals

among management, employees or third parties which results in a misrepresentation of financial statements (Adeniji, 2012). Ojaide (2000) opines that there is an alarming increase in the number of fraud and fraudulent activities in the country thereby calling for the forensic auditing services especially in the Nigerian banks.

Karwai (2002) reported that the identification of the causes of fraud is very difficult. He stated that modern day organizations' frauds usually involve a complex web of conspiracy and deception that often mask the actual cause. Criminologists, just like their legal counterparts, have found it constantly challenging to define in its purest form and sample the constituents of fraud (Singleton, Singleton and Balogna, 2006). From a legal point of view, fraud situates itself as a generic term which embraces all multifarious means, which human ingenuity can devise, that are resorted to by one individual to get an advantage over another by false pretences (Nigerian Criminal Code, 1990). Levanti (2001) argues that no definite and invariable rule can be laid down as a general proposition in defining fraud. The United States Association of Fraud Examiners (1999), in a rather conservative fashion, identifies fraud as the fraudulent conversion and obtaining of money or property by false pretences: included are larcenies by bailee and bad cheque. Also, Masango (1998) argues that fraud is the unlawful making, with intent to defraud, a misrepresentation which causes actual prejudice or which is potentially prejudicial to another. It identified essential elements as follows: unlawfulness, misrepresentation (which could be in the form of words, conduct, or failure to disclose); prejudice (which could either be actual or potential), and intention. What may be drawn as the common denominator for fraud is that the crime becomes into fruition where there is an element of misrepresentation.

**Conceptual model of the study**

Based on the objectives of this study, a conceptual model for the relationship between the independent variable (forensic auditing) and the dependent variable (financial fraud control) in Nigerian DMBs was developed thus;

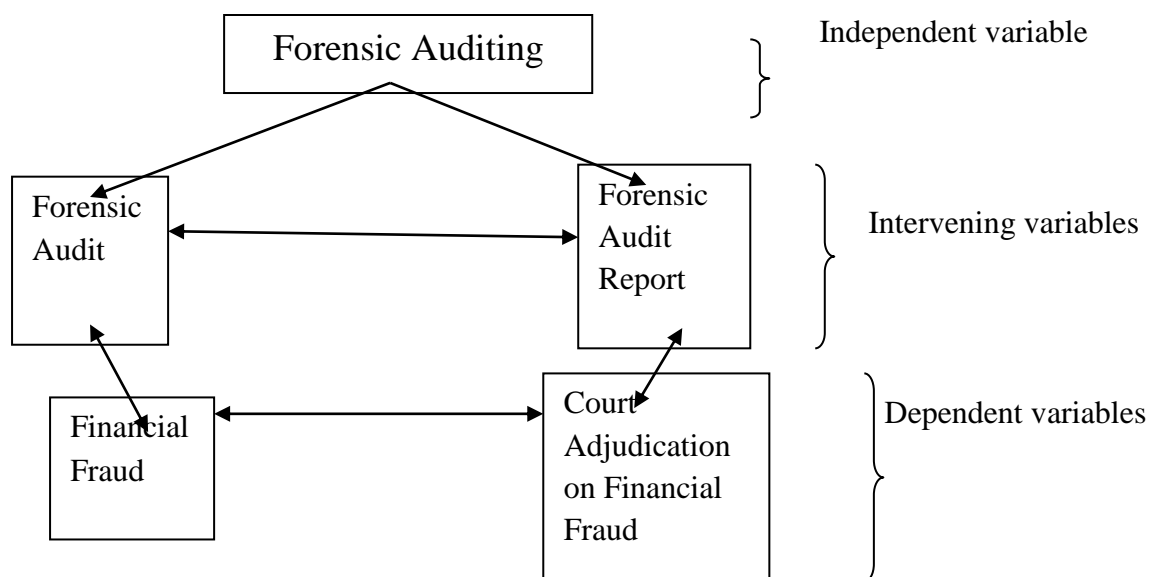


Figure 1: Conceptual model

Source: Researcher's conceptual model 2016

## **Theoretical framework of the study**

The theories adopted for this work are white collar crime theory, fraud diamond theory, fraud triangle theory and fraud scale theory. The purpose of adopting the aforementioned theories for this study is that they all captured the essence of the work.

### **White collar crime theory**

White collar crime can be traced back to 1939. Sutherland (1949) as cited in Michael (2004) happened to be the first to formulate the term. Sutherland originally presented his theory in an address to the American Sociological Society in an attempt to study two fields, crime and high society which had no previous empirical correlation. He defined his idea as crime committed by a person respectable and of high social status in the course of his occupation. He noted that in his time, less than two percent of the persons committed to prison in a year belong to the upper class. His goal was to prove a relation between money, social status and the likelihood of going to jail for a white-collar crime, compared to more visible, typical crimes, although, the percentage is a bit higher today. Hence, because of the status of those who engaged in these atrocities, the service of a trained and experienced investigator like the forensic auditor is required to forestall the occurrence of such fraud.

### **Fraud diamond theory**

Wolf and Hermanson (2004) introduced the fraud diamond model where they presented another view of the factors to fraud. The model adds fourth variable “capabilities” to the three factor theory of fraud triangle. Wolf and Hermanson believed many frauds would not have occurred without the right person with right capabilities implementing the details of the fraud. They also suggested four observation traits for committing fraud:

- i. Authoritative position in the organization.
- ii. Capacity to understand and exploit the organisation’s systems of accounting and internal control
- iii. Confidence that they will not be detected, or if caught, they will get out of it easily.
- iv. Capability to deal with the stress created within and otherwise good person when he or she commits bad act.

With the additional element presented in the fraud diamond theory affecting individuals’ decision to commit fraud, the organization and auditors need to better understand employees’ individual traits and abilities in order to assess the risk of fraudulent behaviors. In addition, better systems of checks and balances should be implemented and monitored to proactively minimize risks and losses as a result of fraudulent activities in the workplace. Hence, because of the capability of those who engaged in fraud and other form of atrocities, the service of a trained and experienced investigator like the forensic auditor is required to forestall the occurrence of such fraud.

### **Fraud triangle theory**

The theory identifies the key elements that lead perpetrators to commit fraud in any organisation. According to Dorminey, Fleming, Kranacher, and Riley (2010), the origin of the theory dates to the works of Sutherland, who coined the term white collar crime, and

Cressey, one of Sutherland's former students. Cressey focused his research on the circumstances that lead individuals to engage in fraudulent and unethical activity; the research later became known as the fraud triangle theory. The fraud triangle theory consists of three elements that are necessary for theft or fraud to occur: (a) perceived pressure, (b) opportunity, and (c) rationalization. Albrecht, Hill, and Albrecht (2006) compared this theory to a fire, using the simple explanation that three elements are necessary for a fire to occur: (a) oxygen, (b) fuel, and (c) heat. Like fire, fraud is unlikely to exist in the absence of the three elements mentioned in the fraud triangle theory, and the severity of fraud depends on the strength of each element. In other words, for an individual to make any unethical decisions, perceived pressure, an opportunity, and a way to rationalize the behaviours must exist. Hence, to forestall the occurrence of such fraud, the service of a trained and experienced investigator like the forensic auditor is highly required.

### **Fraud scale theory**

The fraud scale theory was developed by Albrecht, Howe, and Romney (1984) as an alternative to the fraud triangle model. The fraud scale is very similar to the fraud triangle; however, the fraud scale uses an element called "personal integrity" instead of rationalization. This personal integrity element is associated with each individual's personal code of ethical behaviour. Albrecht et al. (1984) also argued that, unlike rationalization in the fraud triangle theory, personal integrity can be observed in both an individual's decisions and the decision-making process, which can help in assessing integrity and determining the likelihood that an individual will commit fraud. Experts agree that fraud and other unethical behaviours often occur due to an individual's lack of personal integrity or other moral reasoning (Dorminey et al., 2010; Rae & Subramaniam, 2008). Hence, to forestall the occurrence of such fraud, the service of a trained and experienced investigator like the forensic auditor is highly required.

### **Empirical review of the study**

Zachariah, Masoyi, Ernest and Gabriel (2014) worked on the topic titled "Application of forensic auditing in reducing fraud cases in Nigeria Money Deposit Banks". The study analysed the trend in fraud cases from 2001-2012, included are the amounts involved in frauds, the most frequent types of fraud, and the losses sustained by banks. The descriptive analysis revealed that there are up and down movements in fraud cases. Since banks continually lose huge sums of money as a result of the inability of the auditors and the supervisory regulators to curtail the trend, there is therefore the need to devise different means of tackling frauds in the banks. According to the authors, Nigerian banks over the past decades had suffered from the menace of frauds which resulted to distresses and liquidations which hamper the roles of banks in the economy. The study therefore suggested employment of forensic auditing in Nigerian banks by amending the existing statutes, in such a way that forensic auditors are included in the audit team.

In a similar research titled "The impact of forensic investigative methods on corporate fraud deterrence in banks in Nigeria", Onodi, Okafor and Onyali (2015) examined the effect of forensic investigation methods in corporate fraud deterrence in Nigerian banks. The study adopted a survey research design and data from primary source were collected through interviews and administration of questionnaires, while secondary source consists of reports on fraud and forgery in the banking sector. Statistical tools used to analyze the data include percentages, mean score, frequency tables, regression analysis and Z-test. The result revealed that there is a significant relationship between the forensic investigative methods and



corporate fraud deterrence. The findings revealed that expert services of forensic investigators are normally required in the prosecution of fraud, but majority of the audit and accounting personnel in Nigeria are suffering from poor perception and knowledge of forensic investigative methods.

Also, Akenbor and Oghoghomeh (2013) worked on “Forensic auditing and financial crime in Nigerian banks: A proactive approach”. The study investigated the relationship between forensic auditing and financial crime in Nigerian banks. The population of the study consisted of twenty-three (23) recapitalized banks in Port-Harcourt, the Rivers State capital. The major instrument used for data collection in the study is the questionnaire, which was designed in 5-point Likert-Scale. The data generated for the study were analysed with frequencies and percentages while the stated hypotheses were statistically tested with the Pearson Product Moment Correlation Co-efficient. The study’s findings revealed that the proactive approach to forensic auditing helps in minimizing the risk of financial crimes in Nigerian banks. Based on the above, it was recommended that forensic auditing department should be created in Nigerian banks to initiate internal measures for fighting financial crimes; forensic auditing courses should be introduced in Nigerian higher institutions of learning to provide the necessary skills and knowledge on forensic auditing issues; and forensic auditors’ report of banks should be made public.

In their own work titled “Forensic auditing techniques and fraudulent practices of public institutions in Nigeria”, Akenbor and Ironkwe (2014) examined the relationship between forensic auditing and fraudulent practices in Nigerian public institutions. The survey method of research design was adopted in generating the necessary data. Population of the study consisted of 12 public institutions in Rivers State, Nigeria. In order to gather the data for the study, a structured questionnaire was administered on the internal auditors and chief accountants of the selected public institutions. The data generated for the study were analyzed with frequencies and percentages, while the stated hypotheses were statistically tested with the Pearson Product Moment Correlation Coefficient, which was computed with the aid of the Statistical Packages for Social Sciences (SPSS) Version 17. The findings suggested that both the proactive and reactive forensic auditing techniques have a negative significant relationship with fraudulent practices in Nigerian public institutions. Based on the above, it was recommended that: (1) The Economic and Financial Crime Commission (EFCC), the Independent Corrupt Practices and other related offences Commission (ICPC), and other anti-corruption bodies in Nigeria should have, in their payroll, internal forensic auditors to supplement the duties of the internal auditors; (2) Forensic auditors should regularly undergo training and development programs to acquaint them with relevant knowledge and skills for effective forensic auditing; and (3) Forensic auditing should be made mandatory for public institutions by regulatory authorities rather than being voluntary.

In another research from Zimbabwe, Njanike, Dube and Mashayanye (2009) worked on “The effectiveness of forensic auditing in detecting, investigating, and preventing bank frauds”. The study dwelt on the effectiveness of forensic auditing in detecting, investigating, and preventing bank frauds. The paper used questionnaires, personal interviews, and document review to gather data. Data for the research was gathered from forensic auditors from thirteen commercial banks, four building societies, and four audit firms in Harare, Zimbabwe. A sample of thirty forensic auditors was used from thirteen commercial banks, four building societies, and four audit firms in Zimbabwe. It was found that the forensic auditing departments suffer from multiple challenges, amongst them being the lack of material resources, technical knowhow, interference from management, and unclear recognition of the

profession. The study concluded that forensic auditors must be capacitated materially and technically to improve their effectiveness. In addition, the forensic auditors should create a constituted body that serves their interests and regulate the activities just like any other profession.

Zachariah, Musa and Ibrahim (2012) worked on the topic “Assessment of the adequacy of external auditing in disclosing fraud in Nigerian commercial banks”. The study aimed at assessing the adequacy of audit in disclosing fraud in commercial banks of Nigeria. To achieve the study’s objectives, both primary and secondary data were used. One hundred and fifty (150) questionnaires were administered to the study respondents that were purposively selected from eleven (11) commercial banks in Yola, auditing firms and shareholders. Guided interviews were also conducted with some of the respondents. Analysis of Variance (ANOVA) was employed to test the research hypothesis. The analysis of responses gathered revealed that the external audit is not adequate in revealing fraud. Based on the finding, the study recommended that an interim audit should be made mandatory in the commercial banks by the regulatory authority alongside forensic audit as it will reduce the gravity of frauds in the banks.

Modugu and Anyaduba (2013) worked on “Forensic accounting and financial fraud in Nigeria: An empirical approach. The objective of the study was to examine forensic accounting and financial fraud in Nigeria. Specifically, the study examined if there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in financial fraud control, financial reporting and internal control quality. The survey design was used in the study with a sample size of 143 consisting of accountants, management staffs, practicing auditors and shareholders. The simple random technique was utilized in selecting the sample size, while the binomial test was employed in the data analysis. The findings of the study indicated that there is significant agreement amongst stakeholders on the effectiveness of forensic accounting in fraud control, financial reporting and internal control quality. In line with the above findings, the study recommended that the Institute of Chartered Accountants of Nigeria, Association of National Accountants of Nigeria and the National Universities Commission should encourage formalization and specialization in the field of forensic accounting.

Finally, Eyisi and Agbaeze (2014) worked on the impact of forensic auditors in corporate governance. The study was a theoretical research which considered the roles of forensic auditors in combating fraudulent activities, distinction of forensic auditor and statutory auditor, characteristic of forensic auditor and impact of forensic auditor on corporate governance. From the studies carried out, the paper concluded that forensic auditors having improved management accountability, strengthened external auditor, independence and assisting audit committee members in carrying out their oversight functions by providing them assurance on internal audit report have impacted positively on corporate governance, thereby reducing corporate failure and impoverishment of investors.

## **METHODOLOGY**

### **Study area**

The questionnaire used for the study was administered in Abeokuta, Ogun State, Nigeria. Ogun State is located in the southwestern Nigeria. Created in 1976, it borders Lagos State to

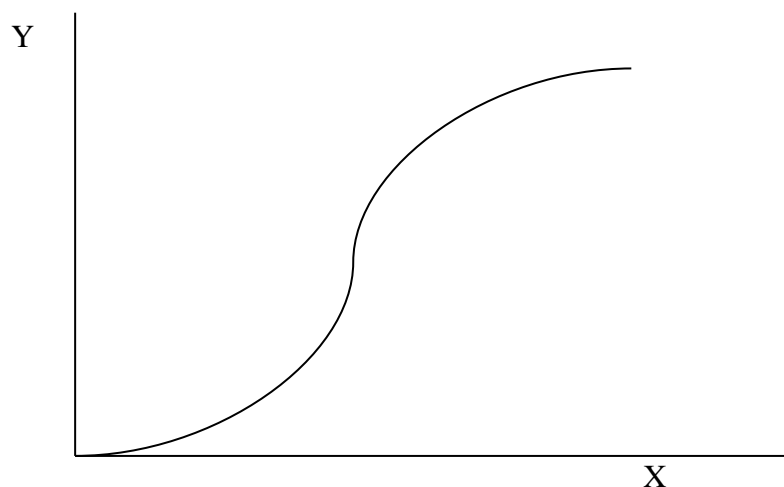
the south, Oyo and Osun states to the north, Ondo State to the east and the Republic of Benin to the west. Abeokuta is the capital and the largest city in the state. The choice of the city was informed by the fact that it is the state capital and almost all Nigerian DMBs have a branch in the city.

### Research design, population and sample

This study adopted the cross-sectional survey design. The design is considered appropriate for this study because of the fact that it will assist in the collection of detailed information on forensic auditing and financial fraud in Nigerian DMBs. The population of the study comprised the staff and management team of Access bank, Diamond bank, Ecobank Nigeria, Fidelity bank Nigeria, First bank of Nigeria, First City Monument Bank, Guaranty Trust bank, Keystone bank, Skye bank, Stanbic IBTC bank, Sterling bank, Union bank, United Bank of Africa, Unity bank, Wema bank, Zenith bank, Aremu Akindele & Co Chartered Accountant, Benjamin Akanji & Co Chartered Accountant, Jubril Olawale Lawal & Co Chartered Accountant, Grafold Consulting, Adebayo Adeyemi & Co Certified National Accountant and Central Bank of Nigeria (CBN), Abeokuta zonal branch all based in Abeokuta, Ogun State. Hence, in order to have a sizeable number (sample) for this study, the purposive sampling technique was adopted as only people knowledgeable and experienced in the area under the study were selected. Hence, a sample of one hundred and thirty-five (135) the staff and management team of the banks and audit firms were purposively selected. The data was analysed via logistic regression with the aid of Statistical Package for Social Sciences (SPSS) version 20.0.

### Logistic regression model

The central mathematical concept that underlies logistic regression is the Logit - the natural logarithm of an odds ratio (Chao-ying, Kuk lida and Gary 2002). It is basically used for dichotomous outcome variable. The resultant plot of a logistic regression will appear linear in the middle, much like what one would expect to see on an ordinary scatter plot, but curved at the ends (S-shaped curve).



**Figure 2: Logistic regression model**

*Source: Logistic regression model adapted from Chao-ying, et al 2002*

The use of logistic regression model is considered relevant for this study because both the study's dependent and independent variables are all qualitative in nature and are capable of being expressed in binary form. However, for the purpose of this study the responses from the questionnaires administered were coded in binary form thus;

1 for both Strongly Agreed and Agreed (Significant)

0 for both Strongly Disagreed and Disagreed (Not significant)

### **Operationalisation of the variables**

For estimation purpose, the logistic regression model is given as;

$$L_i = \text{Log} \frac{P_i}{1 - P_i} = Y_i$$

Where;

$$Y_i = \beta_0 + \beta_1 X_i + \epsilon_i$$

The logistic regression model for each of the study's hypotheses was presented thus:

Hypothesis one model;

$$Y = f(X) \dots\dots\dots (1)$$

$$Y = \beta_0 + \beta_1 X_1 + \epsilon \dots\dots\dots (2)$$

Where;      Y = Dependent variable (Financial fraud)

$x_1$  = Independent variable (Forensic Audit)

$\beta_0$  = Intercept of regression

$\beta_1$  = Slope of the regression

$\epsilon$  = Error term

Hypothesis two model;

$$Y = f(X) \dots\dots\dots (1)$$

$$Y = \beta_0 + \beta_1 x_1 + \epsilon \dots\dots\dots (2)$$

Where;  $Y$  = Dependent variable (Court adjudication on financial fraud)

$x_1$  = Independent variable (Forensic Audit report)

$\beta_0$  = Intercept of regression

$\beta_1$  = Slope of the regression

$\epsilon$  = Error term

### A priori expectation

For hypothesis one:

$\beta_0, \beta_1 > 0$  which means that as the activities of forensic audit increase the level of financial fraud is controlled. Hence, there is a positive relationship between forensic audit and financial fraud. Accept  $H_0$  (null hypothesis) if  $P > 0.05$ , reject if otherwise.

For hypothesis two:

$\beta_0, \beta_1 > 0$  which means that the availability of forensic audit report enhances court adjudication on financial fraud. Hence, there is a positive relationship between the availability of forensic audit report and the enhancement of court adjudication on financial fraud. Accept  $H_0$  (null hypothesis) if  $P > 0.05$ , reject if otherwise.

## RESULTS AND FINDINGS

A total of one hundred and thirty-five (135) questionnaires were administered for the purpose of this study while only one hundred and nineteen (119) representing 88% were fully completed and returned. The results of the pilot test conducted on the questionnaire can be shown thus;

**Table 3.1: Reliability Statistics**

Cronbach's Alpha	N of Items
.715	13

Source: Researcher's computation using SPSS 20.0

George and Mallery (2003) provided the following rules of thumb for the cronbach alpha:  $> .9$  is Excellent,  $> .8$  is Good,  $> .7$  is Acceptable,  $> .6$  is Questionable,  $> .5$  is Poor, and  $< .5$  is Unacceptable". Hence, the cronbach alpha of 71.5% for this study is acceptable and it means that the questionnaire designed for the research work is a good instrument for the study's objectives.

### Test of hypotheses

Hypothesis one

$H_0$ : Forensic audit has no significant effect on financial fraud control in Nigerian Deposit Money Banks.

H<sub>1</sub>: Forensic audit has significant effect on financial fraud control in Nigerian Deposit Money Banks.

**Dependent Variable Encoding**

Original Value	Internal Value
Not Significant	0
Significant	1

**Classification Table<sup>a</sup>**

	Observed	Predicted		
		Q4B: Forensic auditing can be used to curb financial fraud in Nigerian commercial banks		Percentage Correct
		Not Significant	Significant	
Step 1	Q4B: Forensic auditing can be used to curb financial fraud in Nigerian commercial banks	Not Significant	Significant	
		0	5	.0
		0	107	100.0
	Overall Percentage			95.5

a. The cut value is .500

**Variables in the Equation**

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)		
							Lower	Upper	
Step 1 <sup>a</sup>	Q11B	2.843	1.045	7.394	1	.007	17.167	2.212	133.231
	Constant	.693	.866	.641	1	.423	2.000		

a. Variable(s) entered on step 1: Q11B.

**Model Summary**

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	34.941 <sup>a</sup>	.052	.168

a. Estimation terminated at iteration number 6 because parameter estimates changed by less than .001.

**Interpretation**

Using logistic regression to test the null hypothesis that forensic audit has no significant effect on financial fraud control in Nigerian Deposit Money Banks, we concluded that the logistic regression model was statistically significant,  $X^2(1) = 5.923$ ,  $P < 0.05$ . The model's pseudo  $R^2$  explained between 5.2% to 16.8% of the variation in financial fraud control and correctly classified 95.5% of the cases. The predictor is more likely to be significant 17.167 times than not. Hence, forensic auditing is associated with financial fraud control in Nigerian Deposit Money Banks.

The estimated model affirmed the proposition (a priori expectation) of a positive relationship between the application of forensic audit and financial fraud control. This is indicated by the positive value (0.693) of the coefficient of forensic audit. The implication is that forensic audit has positive effect on fraud control; therefore, the more forensic audit is applied in the Nigerian banks, the better its efficiency in fraud control. Finally, since the regression P value (0.007) is less than 0.05, we rejected the null hypothesis and accepted the alternative hypothesis that forensic audit has significant effect on financial fraud control in Nigerian Deposit Money Banks. Hence, the finding agreed with the findings of Onodi *et al* (2015); Dada *et al* (2013); Enofe *et al* (2013); Osunwole *et al* (2015); Chi – chi and Ebimobowei (2012) and Modugu and Anyaduba (2013) to mention just a few. They all posit that forensic auditing / accounting has significant effect on organisations' financial fraud control.

#### Hypothesis two

Ho: Forensic audit report has no significant effect on the enhancement of court adjudication on financial fraud in Nigeria.

H<sub>1</sub>: Forensic audit report has no significant effect on the enhancement of court adjudication on financial fraud in Nigeria.

#### Dependent Variable

##### Encoding

Original Value	Internal Value
Not Significant	0
Significant	1

#### Classification Table<sup>a</sup>

	Observed		Predicted		
			Q8B: Forensic audit report enhances effective court adjudication on financial fraud		Percentage Correct
			Not Significant	Significant	
Step 1	Q8B: Forensic audit report enhances	Not Significant	0	11	.0

effective court adjudication on financial fraud	Significant	0	106	100.0
Overall Percentage				90.6

a. The cut value is .500

### Variables in the Equation

	B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I. for EXP(B)	
							Lower	Upper
Step 1 <sup>a</sup> Q7B	2.823	.759	13.826	1	.000	16.833	3.800	74.560
Constant	.000	.632	.000	1	1.000	1.000		

a. Variable(s) entered on step 1: Q7B.

### Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	60.093 <sup>a</sup>	.104	.224

a. Estimation terminated at iteration number 5 because parameter estimates changed by less than .001.

### Interpretation

The logistic regression is employed to test the null hypothesis that forensic audit report cannot significantly enhance court adjudication on financial fraud in Nigeria. The model was statistically significant with  $X^2(1) = 12.853$ ,  $P < 0.05$ . The model's  $R^2$  explained between 10.4% to 22.4% of variation in court decision on financial fraud and correctly classified 90.6% of the cases. The predictor is more likely to be significant 16.833 times than not. The model gave enough evidence to make informed decision that forensic audit report enhances court adjudication on financial fraud in Nigeria.

The estimated model affirmed the proposition (a priori expectation) of a positive relationship between forensic audit report and the enhancement of court adjudication on financial fraud in Nigeria. This is indicated by the positive value (0.000) of the coefficient of forensic audit report. Finally, since the regression P value (0.000) is less than 0.05, we rejected the null hypothesis and accepted the alternative hypothesis that forensic audit report can significantly enhance court adjudication on financial fraud in Nigeria.

### CONCLUSION AND RECOMMENDATIONS

Based on the study's findings, it was discovered that the application of forensic auditing to tackle financial fraud in Nigerian commercial banks is still at the infant stage and there is the need to sharpen it up. However, based on the focus of the study, the hypotheses were set to ascertain the extent to which each of the independent variables affect the dependent variables using regression analysis. The study revealed that the independent variables have significant



effect on the dependent variables depending on the kind and nature of relationship between them.

Also, it was concluded based on the study's analysis that forensic auditing has significant effect on financial fraud control in Nigerian Deposit Money Banks and that forensic audit report can significantly enhance court adjudication on financial fraud in Nigeria.

Having ascertained the effect of forensic auditing on financial fraud in Nigerian Deposit Money Banks through the various hypotheses formulated for the study, it is however recommended based on the study's findings that:

- (i) As the institution of sound internal control system is part of the responsibility of the management, every organisation's management should strive to have in place within the organisation a functional and strong internal control system.
- (ii) Negation of sit tight syndrome. Experience had shown that frauds are normally discovered when the incumbent of a post is either on leave or is transferred to another section of the organisation.
- (iii) Nigerian commercial banks should scrap the policy of employing contract staff and engage the services of permanent staff for most of their operations.
- (iv) The ongoing Central Bank of Nigeria (CBN) campaign for the enrolment of bank customers for the Bank Verification Number (BVN) should be embraced, strengthened and improved upon by all commercial banks operating in the country.
- (v) Employees should be allowed to engage in training and development on the application of internal control measures at their work place and also the knowledge of forensic accounting / auditing as recently imbibed by the Nigerian federal government.
- (vi) Above all, the senior officials of various organisations most especially Nigerian banks who do engage in different form of fraud activities (either with or without the concurrence of the board of directors) should try and reduce or put a stop to their level of violating or going in contrary to the organisations' internal control measures.

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