



# International Journal of Multidisciplinary Research and Growth Evaluation.

## Impact of cyber security and forensic accounting techniques on fraud detection in Nigeria

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### Article Info

**ISSN (online):** 2582-7138

**Volume:** 03

**Issue:** 06

**November-December** 2022

**Received:** 11-11-2022;

**Accepted:** 03-12-2022

**Page No:** 585-595

### Abstract

The aim of this study was to study the relationships between forensic accounting and fraud in Nigeria. More specifically, the following three aspects were focused upon: the application of forensic accounting practise in enhancing the detection of fraud, the importance of forensic steps in detecting fraud, and the perceived influence of forensic accounting on fraud reporting. The research method selected for this study is a quantitative survey in the private sector in Nigeria. A sample of thirty (30) respondents was selected from the employees of both the EFCC AND some commercial banks and out of those thirty employees, only one person did not reply to the questions. The responses were gathered with the help of questionnaires, and the data collected was analysed with the SPSS program. The majority of the respondents accepted the introduction of the forensic accounting profession as another medium for detecting and reporting fraud and irregularities in Nigerian private organizations. Forensic accounting identifies the significance of an agency problem as one of the major sources of fraud in Nigerian private organizations. Forensic accounting is an advanced method of detecting the high level of fraud perpetrated in Nigerian private organizations. Forensic accounting ensures the stability of Nigerian private organizations' operating systems. The study has made a lot of contributions to knowledge in both applied economics and accounting practices. Assessing the role of the forensic accounting profession will promote and enhance the acceptability of the work of the accounting profession in Nigeria.

**Keywords:** accounting, cyber security, techniques, profession

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### Introduction

The integration of accounting, auditing, and investigative skills yields the specialty known as "forensic accounting." Forensic accounting provides an accounting analysis that is suitable for the court and forms the basis for discussion, debate, and ultimately dispute resolution. It encompasses both litigation support and investigative accounting. It is a specially practised area of accounting that describes engagements that result from actual or anticipated disputes or litigation.

Forensic accounting is sufficiently thorough and complete so that an accountant, in his or her considered independent professional judgment, can deliver a finding as to accounts, inventories, or the presentation thereof that is of such quality that it would be sustainable in some adversarial legal proceeding or within some judicial or administrative reviews. Findings are based on scientific detection and interpretation of the evidence of phenomena introduced into the books and records of an accounting system (expansively defined) and the effects of such phenomena upon the accounts, inventories, or the presentation thereof (Bologna, 1995).

Alternatively, if there is no impact on an accounting system and there is no accounting evidence, nor is there any effect upon the accounts, inventories, or the presentation thereof, then such a situation is not within the realm of forensic accounting.

The primary orientation of forensic accounting is the explanatory analysis (cause and effect) of phenomena, including the discovery of deception (if any) and its effects introduced into an accounting system's domain (Silverstone, 2004) [20]. Forensic accountants are called upon to play important pre-emptive roles, offering independent assurance in such diverse areas as audit committee advisory services, merger and acquisition due diligence, investment analyst research, and enterprise risk management.

Fraud investigations, on the other hand, entail the training of potentially forensic accountants to ensure the integrity of financial statements by actively investigating for fraud, identifying all areas of risk and fraud symptoms, and aggressively pursuing each anomaly. The term "fraud" is generally used to describe any criminal deception or false representation by means of a statement or conduct, in order to gain a material advantage.

Ideally, fraud detection ought to be recognized as an important responsibility throughout every organization, and every employee ought to be familiar with the disciplinary consequences for a breach of trust.

### Statement of the Problem

According to a recent ranking by Transparency International (2007), Nigeria is perceived as a very corrupt nation. This ranking emanated from the avalanche of cases of fraud, corruption, and financial scandals in which many Nigerians are suspected to be involved. These fraudulent practices are suspected to be perpetrated by highly skilled fraudsters employing sophisticated methods, thus requiring equally highly skilled and versatile accountants to unravel the fraudulent schemes. This is where the forensic accountant comes in, with his or her scientific, evidence-based accounting, auditing, and investigations to assist in the judicial process and avoid miscarriages of justice in fraud-related judgments.

Recent global developments in electronic (e) banking, e-business, e-fraud, e-corruption, and e-financial scandals indicate that the traditional or conventional accountant may be unable to meet the level of sophistication of financial crimes. It calls for equally sophisticated e-techniques to be able to decipher:

- What are the causes of financial crimes?
- Who are the perpetrators of these fraudulent practices?
- When were these financial scandals perpetrated?
- How are these fraudulent practices executed?

### Objectives of the Study

1. To examine the effect of financial crimes in financial institutions.
2. To ascertain the reasons of, and solutions to fraudulent practices.
3. To analyze the relevance of forensic accounting in the face of increasing fraudulent practices in Nigeria.

### Research Questions

- What are the effects of financial crimes in financial institutions?
- What are the reasons for, and possible solutions to,

fraudulent practices?

- How relevant is forensic accounting to curbing fraudulent practices in Nigeria?

### Research Hypothesis

**H<sub>0</sub>:** Financial crimes in corporate organizations are not significantly reduced by forensic accounting and fraud investigation.

**H<sub>1</sub>:** Financial crimes in corporate organizations are significantly reduced by forensic accounting and fraud investigation.

### Literature Review

#### An overview of the traditional accounting, auditing and investigations

##### Accounting

In the free online encyclopedia, accounting is defined as the classification, analysis, and interpretation of the financial, or bookkeeping, records of an enterprise. In his book, titled "Principles of Accounting," Inanga (1985) [9] defined accounting as "a process by which data relating to economic activities are measured, recorded, and communicated to interested parties for analysis and interpretation." The American Institute of Certified Public Accountants defined accounting in 1961 as "the art of recording, classifying, and summarising in terms of money, transactions, and events which are, in part at least, of a financial character, and interpreting the results thereof."

Accounting, in the view of Peter B. Essien (2004) [26], is the process of measurement, analysis, and classification of financial transactions, computation of sums and ratios, and presentation and communication of the information obtained in an appropriate form to the appropriate user groups for the purpose of financial decision-making.

By both the Companies and Allied Matters Act, 1990, and the statements of accounting standards, numbers 1 and 2, the financial information referred to above is expected to be contained in:

- The balance sheet
- The profit and loss account
- The value-added statements
- The cash flow statements (until 1997, the statements of sources and application of funds).
- Notes to the accounts
- Five-year financial summary

Loosely and broadly speaking, accounting can be said to have the following branches financial accounting, cost accounting, management accounting, auditing and investigation, taxation laws, and accounting.

##### Auditing

In the free online encyclopedia, auditing is defined as the examination and statement of accounts and of other documents connected with accounts by persons who have had no part in their preparations. Perhaps this explains why the external auditor can be likened to a High Court Judge or a Court Magistrate who listens to all parties to a case and gives an objective judgements or verdict. Broadly speaking, auditing is divided into two types: external and internal.

The auditing standards define an external (statutory) audit as the independent examination of and expression of opinion on the financial statements of an enterprise by an appointed auditor in pursuance of that appointment. Internal auditing,

on the other hand, is an independent appraisal activity within an organization for the review of operations as a service to management.

Aguolu (2008) <sup>[1]</sup> defines auditing simply as the independent examination of the financial statements of an organization with a view to expressing an opinion as to whether these statements give a true and fair view and comply with the relevant statutes and the International Financial Reporting Standards. This opinion must be expressed in the form of a report. The definition of auditing that appeared in a Statement of Basic Auditing Concepts, published in 1973 by the American Accounting Association (AAA) Committee on Basic Auditing Concepts, embraces both the process and purpose of auditing: "Auditing is a systematic process of objectively obtaining and evaluating evidence regarding assertions about economic actions and events to ascertain the degree of correspondence between those assertions and established criteria and communicating the results to interested users." (p. 2).

In order to have an initial understanding of the meaning of auditing, the simple processes necessary for an audit are explained. Financial statements are usually summarized reports of the transactions and affairs of an organization. To be able to carry out a meaningful examination as required for the purpose of his report, the auditor goes behind the financial statements and carries out a skillful and careful examination of the records of the organization in order to ensure that the financial statements are a reflection of the affairs of the organization as they appear in these records. Since these records are also a summary of the transactions of the organization for a specified period of time, the auditor also goes behind these records to the source documents in order to confirm the accuracy, completeness, and validity of the recorded transactions.

An audit will therefore involve four distinct procedures, viz.:

- Ascertaining the validity of the original transactions
- Confirming the completeness and accuracy of the recording of these transactions.
- Ensuring that the financial statements have been prepared from and in agreement with the records.
- Confirming that the financial statements conform to the relevant statutes and accounting standards.

### Investigation

This is a careful and thorough inquiry into issues, situations, or cases with a view to determining the truth of the matter. In cases of fraud, the truth will have to do with ascertaining those involved either as perpetrators or victims as well as the extent of damage done. An investigation differs from a normal audit in that it is not carried out primarily to report whether the accounts are properly drawn up and show a true and fair view. Rather, an investigation is carried out in order to obtain a particular piece of information. The information required from an investigation will vary according to the client and according to the circumstances of each case.

In accounting parlance, investigation is the examination of financial statements, the underlying accounting records, and physical assets, if necessary, with the intent of obtaining information of a special or particular nature. Situations that give rise to investigations are those that are prone to manipulations and facts about such situations can easily be concealed to thwart the determination of the truth. Such situations include the following:

1. Purchase of a business
2. Acquisition of a major shareholding in a company
3. Granting of loans or credit facility
4. Frauds/corruption/crimes.

### Forensic Investigations

This is the utilisation of specialised investigative skills in carrying out an inquiry conducted in such a manner that the outcome will have application to a court of law. A forensic investigation may be grounded in accounting, medicine, engineering, or some other discipline.

### Forensic Auditing

According to the Degree Directory Organization, forensic auditing, also called forensic accounting, includes the steps needed to detect and deter fraud. An example would be a forensic audit of sales records to determine the quantum of rent owing under a lease agreement, which is the subject of litigation.

### What is Forensic Accounting?

The Oxford Advanced Learners' English Dictionary (2000:548) defines forensic as belonging to, used in, or suitable to a court of justice or to public discussion or debate. The American Accounting Association (AAA), cited in Okoye (2000:1) <sup>[15]</sup>, defines accounting as the process of identifying, measuring, and communicating economic information to permit informed judgement and decision by the user of the information. Izedonmi (2000:1) sees auditing as an independent examination of the financial statements of an enterprise prepared by the management of that enterprise by an appointed person called an auditor, in order to express a professional opinion whether or not those financial statements show a true and fair view of the enterprise's position at the end of the financial period, in accordance with the auditor's term of engagement as well as other relevant statutory and professional regulations. Also, Oladipupo (2005) defines investigation as an examination of the records and accounts of an organisation for a special purpose. The integration of accounting, auditing, and investigation yields the specialty known as forensic accounting.

According to Howard and Sheetz (2006) <sup>[29]</sup>, forensic accounting is simply the process of interpreting and presenting complex financial issues clearly, succinctly, and factually as an expert witness in a court of law. It is concerned with the use of accounting discipline to help determine issues of facts in business litigation. From business to government to regulatory authorities and even the courts, evidence indicates that a high level of expertise is necessary to analyse current complicated financial transactions and events (Razae, Crumbley, and Elmore, 2006) <sup>[24]</sup>. As a result, forensic accounting has been thrown into the forefront of the crusade against financial deception (Ramaswamy, 2005). Bologna and Linqvist (1995) defined forensic accounting as the application of financial skills and an investigative mentality to unresolved issues, conducted within the context of the rules of evidence.

Manning (2002) also defined forensic accounting as the application of financial accounting and investigative skills, to a standard acceptable by the courts, to address issues in dispute in the context of civil and criminal litigation. In the view of Damilola and Olofinsola (2007) <sup>[25]</sup>, forensic accounting is the application of criminal methods and the

integration of accounting investigative activities and legal procedures to detect and investigate financial crimes and related economic misdeeds. To them, forensic accounting is a highly technical and specialised area of practise within the principles and ethics of the accounting profession. They further assert that not every forensic accounting engagement ends up in court.

### Development of Forensic Accounting

Forensic Accounting is not new, despite its recent spotlight. Its roots have been traced as far back as the early 1800's to Glasgow, Scotland. In the early 1900's, the Federal Bureau of Investigation (FBI) used Forensic Accountants to snare criminals such as Al Capone. Yet, Forensic Accounting as a profession remained unknown relatively until the recent large number of high-profile corporate scandals, financial and economic crimes, and stricter reporting and internal control regulations, increased its public awareness and value in the business World.

Forensic accounting approach was developed in the United States; it was initially used by government agencies such as FBI, Central Intelligence Agency (CIA) and Internal Revenue Service (IRS) to detect fraud. Forensic accounting has vastly grown since the Enron Scandal blew up in Public in 2000. After the scandal, there was awareness that the conventional audit and accounting practice are not sufficient enough (Silverstone, 2004) <sup>[20]</sup>. The consequence of the awareness was the new bill passed in United States Congress known as "Sarbanes-Oxley" Act 2002. The bill promulgated a new audit approach which focused on fraud detection and established Public Accounting Oversight Board (PCAOB) to oversee public accounting firm practice.

Forensic Accounting has various definitions which are beginning to change as a result of the increasing needs of corporations. The Association of International Certified Public Accountant's Forensic and Litigation Committee define forensic accounting thus:

"Forensic accounting may involve the application of special skills in accounting, auditing, financial, quantitative methods, the law and research. It also requires investigative skills to collect, analyze and evaluate financial evidence, as well as the ability to interpret and communicate findings. It encompasses litigation support, investigation and dispute resolution and therefore, it is the intersection between accounting, investigation and the law."

Forensic Accounting is also seen as a science of systemized knowledge dealing with the application of accounting facts gathered through auditing methods and procedures to resolve legal problems. It has also been referred to as investigative accounting, involving the application of accounting concepts and techniques to legal problem (Silverstone and Sheets, 2004) <sup>[20]</sup>.

Signs of financial crime can be detected initially in a variety of ways; by accident, whistle-blowing, by auditors, by data mining, by controls and testing or by the organization's top management requesting an inspection on basis of suspicion. On a practical level however, there are investigative methods used that are far from these ideals (Silverstone and Sheets, 2004) <sup>[20]</sup>.

### 1. Suspicious and Probable Cause

In this method, it is hard to define what it means to be suspicious of somebody or something, but it is an important element of investigation. However, this method talks about

being reactive to the patterns of past crime and proactive to the possibility of future crime. Reasonable suspicion requires the investigator to be able to identify a specific crime that they think is being committed, and that a set of factual circumstances exist which will lead a reasonable person to believe that sufficient elements of crime have occurred, are occurring or about to occur. Probable cause is generally an accusatory stage. It is best obtained by personal observation or eyewitness. It is a point where consultation is needed with company lawyers. Legal counsel need to be consulted at minimum.

### 2. Narrowing Down the Suspect

Variety of approaches is used to narrow down the list of suspects. The usual suspects will be those who occupy key positions identified in the risk assessment or those who occupy positions that have historically been involved in fraud. If the company under investigation has a history of past fraud, knowledge of that history is used to provide a clue to future frauds that can set up observation. Depending on the crime, fixed, moving, audio or video surveillance are used. Specialized analytical procedures used by accountants can also be useful in narrowing down suspect especially if the crime involves receivable, payables, or payroll. In such cases, evidence may be collected through PC audit trails, keyboard strokes, recording of computer interfaces. Though, the use of these measures maybe restricted at the constitutional, statutory or local level.

### 3. Gathering Evidence

The formal investigation is a follow-up to preliminary investigation which is essentially established. In this method, due check should not be confused with due diligence, which is another type of forensic accounting investigation that checks out the background, reputation and integrity of a prospective business partner. However, a due diligence investigation maybe necessary if dealing with more than one company or subsidiaries of a parent company. Before evidence is gathered, care must be taken to make sure that procedures are in conformity with standard procedures or practices in this newly emerging field. Standardized formats should be used for interviews or questionnaires. If surveillance is done, it is important to keep records and logs. Evidences to be collected includes: motive modules operandi, testimony, results of interview or questionnaires, result of analytical procedures, audit trails, background checks, real evidence (such as fingerprint, handwriting or computer printout) and informant or surveillance data. The best evidence must be carefully tagged, bagged and documented in a chain of custody.

### Forensic Accounting in Nigeria

In Nigeria, forensic accounting is a new concept that is just creeping into the country. It has been gathered that the number of forensic accountants in the country is very small; most got their degrees outside the country. There is very little or poor awareness of the concept; what's more, finding those who studied it is difficult.

Surveys show that forensic accounting is coming into the limelight slowly and that sooner than expected it will become "hot cake." Also, there is a great possibility that it will come to overshadow other fields in accounting. There are those who also feel (because they know little about the field) that forensic accounting is not important in a country like Nigeria,



where corruption is on the increase, because the auditors are doing similar work and are sufficient enough. Others argue that Nigeria needs forensic accounting; they need experts in the field in financial institutions such as banks and insurance companies. They will unmask the activities of these institutions beyond the surface. Also, since the regular methods have failed, this new concept could be the remedy. However, various experts and other researchers are of the opinion that forensic accounting's popularity, especially in developed countries, has attracted many who lack the skill to carefully and cost-effectively conduct inquiries. The same will happen to the developing countries as in Nigeria. With time, the profession will be more prominent than normal accounting in Nigeria. The impact, though yet to be felt, will be felt soon.

In Nigeria, the effect of financial crimes cannot be underemphasized. These crimes have continued to pose a major challenge to good governance. Ribadu (2006) opines, "Financial fraud has led to the collapse of many banks in the country." Fraud has equally led to the loss of confidence in our banks, not only in the local but also in the international community. Letters of credit from Nigeria are held in suspicion and, in many cases, disregarded outright. The "know your customer and business" [KYC(B)] principle is observed more in breaches than in compliance. There is hardly any customer due diligence (CDD) before transactions are undertaken. This amounted to the investment of over \$9 million in stolen funds by a single individual in a first-generation bank.

Financial crimes have a great negative impact on financial institutions, and these are listed below:

1. It erodes shareholders' confidence.
2. It crashes the organization, depending on the scope and gravity of the crime.
3. It affects the overall long-term survival of a financial institution.
4. It affects the confidence customers have in the institution.
5. It dampens staff morale.
6. It leads to the loss of much-needed revenue.

The economy is also affected by the reduced inflow of foreign investment, and bilateral and multilateral trade relationships are jeopardized. Past governments have made attempts to curb corruption and financial and economic crimes, but their efforts have been frustrated as a result of either inadequate enabling laws and regulations or a lack of commitment by stakeholders to combat the menace. Some of their attempts are listed below:

▪ **Establishment of laws, which includes**

1. The Money Laundering Act of 1995
2. The Advanced Fee Fraud and Fraud Related Offenses Act of 1995 (also known as 419).
3. The Failed Banks Act of 1996
4. Banks and Other Financial Institutions Acts of 1991
5. Foreign Exchange Act of 1995
6. The Corrupt Practices and Other Related Offenses Act of 2000.

▪ **It has strengthened institutions such as**

1. The Central Bank of Nigeria (CBN)
2. The Nigeria Deposit Insurance Corporation (NDIC)
3. The Securities and Exchange Commission (SEC)
4. The Independent Commission Against Corruption (ICPC)

5. The Corporate Affairs Commission (CAC)
6. The Nigerian Police
7. Code of Conduct Bureau

Despite this, financial and economic crimes continue to loom large, prompting the Financial Action Task Force (FATF) to issue a warning. In response to this, the Nigerian government is implementing an intensive programme to eradicate financial and economic crimes.

Some of the government's attempts to curb financial crimes are stated below:

1. Establishment and strengthening of the anti-corruption commission and anti-corruption law in 2000.
2. Creation of a due process office in the Presidency
3. Establishment of the EFCC in 2003

Financial crimes, particularly advanced fee fraud (419), are the most common in Nigeria, and they have harmed the country's image in the United Nations. The Government of Nigeria is determined to eradicate the menace of advanced fee fraud in Nigeria; the EFCC is a major tool in this effort.

With the collaborative efforts enjoyed by the EFCC from international law enforcement agencies in the United States and across Europe, the commission is charged with the following responsibilities:

1. Coordinating the activities of all government security and law enforcement agencies and financial institutions in the eradication of economic and financial crimes
2. Provisions of previously established laws and regulations relating to economic and financial crimes to ensure effectiveness and avoid duplication.
3. It is to develop and enhance partnerships with local, regional, and international law enforcement agencies through exchange of information, training opportunities, enforcement, etc.
4. To develop and coordinate best practices.
5. To carry out and sustain a rigorous public education campaign against economic and financial crimes within and outside Nigeria.
6. The purpose of the commission is to identify trends, patterns, and issues associated with economic and financial crimes.
7. Proactively take measures to prevent terrorist activities.
8. Establish and maintain an investigative support network.
9. Investigate all financial crimes and enforce all economic and financial crime laws.
10. Adoption of measures to identify, trace, freeze, confiscate, or seize proceeds derived from economic and financial crimes.

**The Nigerian Financial Intelligence Unit (NFIU)**

The Nigerian Financial Intelligence Unit is the Nigerian arm of the global Financial Intelligence Unit (FIU). Domiciled within the EFCC as an autonomous unit, the setting up of the NFIU is part of the efforts of the Federal Government in combating money laundering and the financing of terrorist activities in Nigeria. The establishment of the NFIU is indeed a precondition for the removal of Nigeria from the Financial Action Task Force (FATF) list of non-cooperative countries and territories (NCCTs).

NFIU, a 10-man technical committee made up of representatives from the CBN, NDIC, the private sector, a police officer, and an employee of the EFCC, was constituted in October 2003 by the then EFCC Executive Chairman,

Mallam Nuhu Ribadu, to develop a comprehensive plan for its establishment.

### How does the forensic accountant differ from the traditional accountant?

1. According to Gray (2008), forensic accountants are similar to auditors and private investigators. Knowledge and skills include the following: investigative skills, research, law, quantitative methods, finance, auditing, and law enforcement officer insights. Organizational behaviour and applied psychology knowledge and skills are essential. Forensic accountants and auditors share some goals similar to those of traditional accountants. They have different roles, knowledge, and skills. Forensic accounting investigations include litigation services related to a variety of situations, including the following:
  2. Business purchases, valuation of divorce assets, property damage, lost profits due to embezzlement and other illegal acts, tax evasion, and money laundering schemes
  3. On the other hand, traditional auditing is a process of reviewing others' work to determine if they have followed the prescribed policies, procedures, and practices. The focus is on error identification and prevention. Prevention is the result of an effective internal control system. The auditor reviews the effectiveness of the internal control system by sampling transactions, not by reviewing all the transactions. This is what the term "systems approach" to auditing means.
  4. On the differences between the traditional accountant and the forensic accountant, Neumann and O'Connor (2008) opined that:
    5. "While both the auditor and the forensic investigator review written or electronic documentation and interview certain key personnel, the similarity between their jobs ends there." In the case of the auditor, his or her work is that of attestation and is related to historical facts used to draw conclusions about generally accepted accounting principles (GAAP) and ultimately, the fair presentation of the company's financial position.
    6. In the case of a forensic investigator, his or her work frequently focuses on what was not recorded, was hidden, was deleted, or would have occurred in a hypothetical reality. As a result, tasks are tailored to the facts and circumstances of each case based on the nature of the inquiry and the availability of relevant data. The forensic investigator must form an opinion based on the facts at hand, knowing that each situation is unique and that there is no "one way" to navigate the maze.

### Introduction

The sample survey method was chosen because it is likely to generate the necessary information while also providing a solid foundation for generalising findings.

The population of the study is the twenty-five (25) banks in Nigeria and the Economic and Financial Crimes Commission (EFCC). The researcher drew a random sample, including a total of twenty (20) representatives as a sample of the population.

A total of thirty (30) questionnaires were administered and returned, structured into twenty (20) questionnaires for three (3) selected financial institutions comprising Jaiz Bank Plc, First Bank of Nigeria Plc, and Taj Bank Plc, and ten (10) questionnaires for the Economic and Financial Crimes Commission.

For the purpose of this study, primary and secondary data were used. The primary sources, which are original data collected basically for the purposes of the problem under investigation, were utilized. The primary data sources include observations, interviews, a field survey, and questionnaires. Secondary sources comprise sources of data that, though needed for the current study, were collected primarily for another study. The data from these sources were not original to the researcher; they were assembled by another person. The secondary data include information gotten from journals, newspapers, published textbooks, seminar papers, magazines, annual reports, etc.

### Method of data analysis

For the purpose of this study, data are analyzed by tabulation, the use of simple percentages and chi-square ( $X^2$ ) distribution. The formula for calculating chi-square ( $X^2$ ) is thus.

$$X^2 = \frac{\sum (fo - fe)^2}{fe}$$

### Where

Fo	=	Observed frequency of the data
Fe	=	Expected frequency of the data
X <sup>2</sup>	=	Chi-square
∑	=	Summation sign

The computed  $X^2$  is compared with its critical value determined at 5% significance level.

### Data Presentation and Analysis

#### Data Presentation

In this section, the researcher presents and analyses the data collected from the respondents. The data is presented in tables and percentages and tested with the chi-square test.

#### A. Financial Institutions

#### Question 1: Is forensic accounting necessary especially in curbing financial crimes?

Table 1

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		16	80
ii.	No		2	10
iii.	No Idea		2	10
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2022

#### Comment

The responses above show that 80% feel that forensic accounting is of great necessity especially in curbing financial crimes. 10% says it is of no importance and 10% have no idea.

**Question 2: Do you think forensic accounting is not important, that the auditors are doing similar work and are sufficiently enough?**

**Table 2**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		6	30
ii	No		9	45
iii	No Idea		5	25
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2022

**Comment**

The responses above show that 45% think forensic accounting is important, 30% think it is not important and 25% are indifferent.

**Question 3: Will Forensic Accountants Unmask the Sophisticated Fraudulent Activities Perpetrated in Financial Institutions Beyond the Surface?**

**Table 3**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		12	60
ii	No		5	25
iii	No Idea		3	15
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2022

**Comment**

The responses above show that 60% believe forensic accountants will unmask sophisticated fraudulent activities perpetrated in banks. 25% says it will not unmask fraudulent activities beyond the surface and 15% have no idea.

**Question 4: Which effect of financial crimes has posed a major challenge to good governance in Nigeria?**

**Table 4**

S/N	Options	Actual Size	Percentage %
A	Financial Fraud has led to the collapse of many banks	3	15
B	Fraud has led to the loss of confidence in our banks	3	15
C	Letters of credit from Nigeria are held in suspect and in most cases disregarded out rightly	4	20
D	All of the above	10	50
	<b>Total</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2022

**Comment**

The result of the table show that 50% agree that all the effects listed above pose a major challenge to good governance in Nigeria. 20% agree that the letters of credit from Nigeria that are held in suspect and in most cases disregarded out rightly have posed a major challenge, 15% say that the effect which

have posed a major challenge is the loss of confidence in our banks and 15% say that it is the collapse of many banks that have challenged good governance in Nigeria.

**Question 5: Is there any Customer Due Diligence (CDD) before transactions are undertaken in your institution?**

**Table 5**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		4	20
Ii	No		13	65
Iiii	No Idea		3	15
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 65% are of the view that there is no Customer Due Diligence before transactions are undertaken. 20% opine that there is Customer Due Diligence and 15% have no idea.

**Question 6: Is the Know Your Customer and Business [KYC (B)] principle observed in your bank?**

**Table 6**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		5	25
Ii	No		11	55
iii	No Idea		4	20
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above indicate that 55% say that the Know Your Customer and Business Principle is not observed in their bank. 25% say that the principle is observed in their bank and 20% have no idea.

**Question 7: Forensic accounting has guaranteed the financial well-being of corporate organizations.**

**Table 7**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Strongly agree		2	10
ii	Agree		3	15
iii	Undecided		8	40
iv	Disagree		4	20
v	Strongly Disagree		3	15
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The table shows that 40% are undecided as to whether forensic accounting has guaranteed the financial well-being of corporate organizations, 20% disagree that it has guaranteed the financial well-being, 15% strongly disagree, 15% also agree and 10% strongly agree that the financial well-being of corporate organizations have been guaranteed by forensic accounting.

**Question 8: In which area does the application of forensic accounting exist in your bank?**

Table 8

S/N	Response	Actual Size	Percentage %
a.	Investigation of Employee Theft	5	25
b	Uncovering of Frauds	7	35
c	Monitoring and Evaluation of Internal Control System	2	10
d	Ensuring Regulatory Compliance	1	5
E	Support of Litigation	5	25
	<b>Total</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The result of the table shows that 35% say that forensic accounting is applicable in the area of uncovering of frauds. 25% say it applies in the area of Litigation support, 25% agree that investigation of employee theft is where the application of forensic accounting exist in their bank. 10% say it exists in the area of monitoring and evaluation of internal control system and 5% say in the area of ensuring regulatory compliance

**B. Economic and financial crimes commission (EFCC)**

**Question 9: Does the EFCC sustain rigorous public enlightenment campaign against economic and financial crimes within and outside Nigeria?**

Table 9

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		8	80
ii	No		2	20
iii	No Idea		-	-
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 80% feel that the EFCC sustain rigorous public enlightenment campaign within the outside Nigeria and 20% says it does not sustain rigorous public enlightenment.

**Question 10: Does the EFCC use the services of Forensic Accountants?**

Table 10

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		3	30
ii	No		2	20
iii	No Idea		5	50
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 50% do not have idea if EFCC

use the services of forensic accountants. 30% says EFCC uses forensic accountants while 20% says their services are not used.

**Question 11: Has the EFCC established and maintained as investigative support network with forensic accounting concepts?**

Table 11

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		4	40
ii	No		3	30
iii	No Idea		3	30
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 40% opine that the EFCC has established and maintained an investigative support network with forensic accounting concepts. 30% says that the EFCC has not established and maintained such network and 30% have no idea.

**Question 12: Is the Nigerian Financial Intelligence Unit (NFIU) effective in combating money laundering?**

Table 12

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		3	30
ii	No		1	10
iii	No Idea		6	60
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The Responses above show that 60% do not have idea if the NFIU is effective in combating money laundering. 30% says the NFIU is effective while 10% says it is not effective in combating money laundering.

**Question 13: Are there forensic accounting measure to identify, trace and confiscate proceeds from fraudulent practices?**

Table 13

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		10	100
ii	No		-	-
iii	No Idea		-	-
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 100% agree that there are forensic accounting measures to identify, trace and confiscate proceeds from fraudulent practices.



**Question 14: Has forensic accounting helped to uncover electronic crimes and economic fraud in organizations?**

**Table 14**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		3	30
ii	No		2	20
iii	No Idea		5	50
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

The responses above show that 50% do not have idea if forensic accounting has helped to uncover electronic crimes and economic fraud in organizations. 30% says it has helped to uncover electronic crimes and economic fraud and 20% says it has not helped to uncover electronic crimes and economic fraud in organizations.

**Test of Hypothesis**

**1. Necessity of Forensic Accounting in Curbing Financial Crimes**

**Table 15**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		16	80
ii	No		2	10
iii	No Idea		2	10
	<b>Total</b>	<b>20</b>	<b>20</b>	<b>100</b>

Source: Field Survey, 2017.

**2. EFCC and the use of Services of Forensic Accountants**

**Table 16**

S/N	Response	Sample Size	Actual Size	Percentage %
i.	Yes		3	30
ii	No		2	30
iii	No Idea		5	50
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>100</b>

Source: Field Survey, 2017

**Comment**

Table 1 show that 80% of the respondents affirm that forensic accounting is of necessity. Table 2 indicates that there is much to be done in creating awareness and the need for engaging the services of forensic accountants. This fact is revealed by the percentage of respondents (50%) who asserts that they have no idea of the use of the services of forensic accountants.

**The Hypothesis is restated below:**

**H<sub>0</sub>:** Forensic Accounting and Fraud Investigation has no significant impact in curbing financial crimes in corporate organizations.

**H<sub>A</sub>:** Forensic Accounting and Fraud Investigation has significant impact in curbing financial crimes in corporate organizations.

**Decision Rule**

Accept Null Hypothesis (H<sub>0</sub>) if the computed value is less than the table value (CV < t<sub>0.05</sub>) and vice versa.

**3. Respondents of EFCC and Financial Institutions**

**Table 17**

S/N	Response	EFCC	Financial Institutions	Total
i.	Yes	3	16	19
ii	No	2	2	4
iii	No Idea	5	2	7
	<b>Total</b>	<b>10</b>	<b>10</b>	<b>30</b>

Source: Field Survey, May 2017

**Expected Frequency Computation**

$$\Sigma = \frac{RT \times CT}{GT}$$

**Where**

RT = Row Total  
 CT = Column Total  
 GT = Gross Total

$$3 = \frac{19 \times 10}{30} = 6.33$$

$$16 = \frac{19 \times 20}{30} = 12.67$$

$$2 = \frac{4 \times 10}{30} = 1.33$$

$$2 = \frac{4 \times 20}{30} = 2$$

$$5 = \frac{7 \times 10}{30} = 2.33$$

$$2 = \frac{7 \times 20}{30} = 4.67$$

**Table 18**

fo	Fe	fo-fe	(fo-fe) <sup>2</sup>	(fo-fe) <sup>2</sup> / fe
3	6.33	-3.33	11.09	1.75
16	12.67	3.33	11.09	0.88
2	1.33	0.67	0.45	0.34
2	2	0	0	0
5	2.33	2.67	7.13	3.06
2	4.67	-2.67	7.13	1.53
				<b>7.56</b>

Computed Value (CV) = 7.56

Table Value: t<sub>0.05</sub> = 5.991 [i.e. 2 under 0.05]

Since the computed value is greater than the table value [i.e. 7.56 > 5.991], we therefore reject the null hypothesis (H<sub>0</sub>) and accept the alternate hypothesis (H<sub>A</sub>) which says Forensic Accounting and Fraud Investigation has significant impact in curbing financial crimes in corporate organizations.

**Summary of Findings**

1. In the course of this work, forensic accounting was defined in various ways. Forensic accounting is sometimes called investigative accounting, though it involves the application of accounting concepts and techniques.

2. The study revealed that, very few people know much about forensic accounting and also that there are very few professionals in the field and these professionals obtained their certificates outside the country. Though professional bodies in the country are conducting examinations relating to it in a sketchy way, an institute of forensic accounting is hoped to be established soon to coordinate the practice in the country.
3. In the course of the study, it was discovered that the Financial Intelligence Unit of the EFCC is a unit that put into practice forensic accounting principles and fraud investigations, even though there are no forensic accountants among the members. It is clear that forensic accounting has entered the corporate organizations and its concepts are being used in financial institutions and law enforcement agencies even though there are only but few professional forensic accountants.
4. The study has been able to establish that forensic accounting and fraud investigation has made a positive impact and will make more impacts positively in the country if given proper attention.

### Conclusions

From the foregoing, one would easily agree that forensic accountants, auditors, and investigators are experts in their own rights. Their services, broadly speaking, are divided into two categories: litigation support and investigative accounting. These services, to a very reasonable extent, have impacted positively, particularly on corruption- and fraud-related cases.

To harness the benefits of these new frontiers to the fullest, forensic accountants must adopt a multi-disciplinary approach in their fraud investigations. This is because the questions posed to the forensic financial expert are becoming increasingly complex, requiring skill sets beyond a typical understanding of financial records and generally accepted accounting principles (GAAP). For example, the logistics of finding data in numerous locations such as tape drives, personal computers, and Blackberry wireless devices require forensic technology specialists who are familiar with electronic data systems and who can identify and ferret through electronic storage devices to find case-critical documents (Neumann and O'Conner, 2008).

### References

1. Aguolu O. Fundamentals of Auditing, Enugu, Institute for Development Studies, University of Nigeria, Enugu Campus, 2008.
2. American Institute of Certified Public Accountants (AICPA). Forensic and Litigation Committee. Responsibilities for Litigation Services, Proposed Statement, No. 1, New York, NY; AICPA, 2001.
3. Aruwa SAS. Forensic Accounting and Fraud Investigation in Nigeria, Journal of Finance and Accounting Research, 2009, 1(2).
4. Association of Certified Fraud Examiners. Fraud Examiners Manual: Investigative Accounting. (US and Canada Editions).
5. Bhattacharya. Forensic Accounting Careers Information and Forensic Accounting Directory, Florida Atlantic University, 2010.
6. Gray D. Forensic Accounting and Auditing: Compared and Contrasted to Traditional Accounting and Auditing, American Journal of Business Education – Fourth Quarter. 2008; 1(2):115-126.
7. Heitger LE, Heitger DL. Incorporating Forensic Accounting and Litigation Advisory Services into the Classroom, Issues in Accounting Education. 2008; 23(4):561-572.
8. Howard S, Sheetz M. Forensic Accounting and Fraud Investigation for Non-Experts: New Jersey, John Wiley and Sons Inc., 2006.
9. Inanga EL. Principles of Accounting, Ibadan, Heinemann Nigeria Ltd., 1985.
10. Neumann K, O'Conner M. The Forensic Accountant's Evolving Role, 2008.
11. Nigeria Financial Intelligence Unit (NFIU). Information Handbook, Economic & Financial Crimes Commission. R.T. Edwards Inc., 2004.
12. Nweze AU. The Positive Impact of Forensic Accounting, Auditing and Investigations on Fraud Related Judgments, The Nigerian Accountant Journal. 2011; 44(1):28-34.
13. Okafor RG. Element of Financial Accounting, Enugu, Precision Printers and Publishers, 2000.
14. Okolo MN. Internal Audit and Incidence of Fraud in Nigeria, The Nigerian Accountant. 2007; 25(2):80-85.
15. Okoye AE. Financial Accounting for Students and Managers, Benin City, Mindex Publishing Company Ltd., 2000
16. Okoye EI, Jugu YG. Effectiveness of Fraud Deterrence Policies: A Critical Examination of the Banking Sector in Nigeria, The Nigeria Accountant. 2009; 8(5):154-169.
17. Okunbor JA, Obaretin O. Effectiveness of the Application of Forensic Accounting Services in Nigeria Corporate Organizations, Journal of Management Sciences. 2010; 1(1):171-184.
18. Onodugo VA, Ugwuonah GE, Ebinne ES. Social Science Research: Principles, Methods and Applications, Enugu, El'Demak (Publishers), 2010.
19. Ribadu N. EFCC, ANAN to Collaborate on Forensic Accounting, The Guardian Newspaper, 2007.
20. Silverstone H, Sheet M. Forensic accounting and fraud investigation for non-experts: NY Bailey & Sons, 2004.
21. Wikipedia Encyclopedia of Forensic Accounting. [http://en.wikipedia.org/wiki/forensic Accounting](http://en.wikipedia.org/wiki/forensic_Accounting), retrieved 22nd April, 2008.
22. Aruwa SAS. Forensic Accounting and Fraud Investigation in Nigeria, Journal of Finance and Accounting Research, 2009, 1(2).
23. Bhattacharya. Forensic Accounting Careers Information and Forensic Accounting Directory, Florida Atlantic University, 2010.
24. Crumbley DL. Forensic Accounting: Older Than You Think, Journal of Forensic Accounting. 2001; 11(2):181-202.
25. Damilola D, Olofinsola J. Forensic Accountants and the Litigation Support Engagement, the Nigerian Accountant Journal. 2007; 39(4):49-52.
26. Essien PB. Accounting Foundation, Lagos, Cherubcon Ltd., 2004.
27. Gray D. Forensic Accounting and Auditing: Compared and Contrasted to Traditional Accounting and Auditing, American Journal of Business Education-Fourth Quarter. 2008; 1(2):115-126.
28. Heitger LE, Heitger DL. Incorporating Forensic Accounting and Litigation Advisory Services into the Classroom, Issues in Accounting Education. 2008;

- 23(4):561-572.
29. Howard S, Sheetz M. *Forensic Accounting and Fraud Investigation for Non-Experts*: New Jersey, John Wiley and Sons Inc., 2006.
  30. Inanga EL. *Principles of Accounting*, Ibadan, Heinemann Nigeria Ltd., 1985.
  31. Neumann K, O'Conner M. *The Forensic Accountant's Evolving Role.*, 2008.
  32. Nigeria Financial Intelligence Unit (NFIU). *Information Handbook, Economic & Financial Crimes Commission*. R.T. Edwards Inc., 2004.
  33. Nweze AU. *The Positive Impact of Forensic Accounting, Auditing and Investigations on Fraud Related Judgments*, *The Nigerian Accountant Journal*. 2011; 44(1):28-34.
  34. Okafor RG. *Element of Financial Accounting*, Enugu, Precision Printers and Publishers, 2000.
  35. Okolo MN. *Internal Audit and Incidence of Fraud in Nigeria*, *The Nigerian Accountant*. 2007; 25(2):80-85.
  36. Okoye AE. *Financial Accounting for Students and Managers*, Benin City, Mindex Publishing Company Ltd., 2000.
  37. Okoye EI, Jugu YG. *Effectiveness of Fraud Deterrence Policies: A Critical Examination of the Banking Sector in Nigeria*. *The Nigerian Accountant*. 2009; 8(5):154-169.
  38. Okunbor JA, Obaretin O. *Effectiveness of the Application of Forensic Accounting Services in Nigerian Corporate Organizations*, *Journal of Management Sciences*. 2010; 1(1):171-184.
  39. Ribadu N. *EFCC, ANAN to Collaborate on Forensic Accounting*, *The Guardian Newspaper*, 2007.
  40. Chukwuemeka EEO. *Research Methods and Thesis Writing: A Multi-Disciplinary Approach*, Enugu, Hope Rising Venture, 2002.
  41. Eboh EC. *Social and Economic Research: Principles and Methods*, Enugu, African Institute for Applied Economics, 2009.
  42. Onodugo VA, Ugwuonah GE, Ebinne ES. *Social Science Research: Principles Methods and Applications*, Enugu, El'Demak (Publishers), 2010.