

THE IMPACT OF FORENSIC INVESTIGATIVE METHODS ON CORPORATE FRAUD DETERRENCE IN BANKS IN NIGERIA

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ABSTRACT: *This work examined the effect of forensic investigation methods in corporate fraud deterrence in Nigerian banks. This 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. Three hypotheses were formulated and tested. The result revealed that there is a significant relationship between the forensic investigative methods and corporate fraud deterrence. Our finding also 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. Thus, a suggestion was made by this study to adopt forensic investigative methods in our professional literature vide International Financial Reporting Standards (IFRS). We believe that the study contributes to the limited existing literature on the forensic auditing where little on previous study has been done in Nigeria. We therefore, recommend improvement on accounting curriculum, since there is a failure of accounting and control methods that lies in the methodology taught in Nigeria Universities to discover financial fraud cases.*

KEYWORDS: Forensics, investigative methods, corporate fraud deterrence.

INTRODUCTION

Background of the Study

Forensic accounting has become very important issue by researchers and scholars in recent years in several countries in the world today. The need for forensic accountants arose because of the failure of audit system in the organizations as the organizational internal and external audit fail to discover certain errors in the managerial system. More and more forensic accountants are been called up to meticulously search through documents, discover new information and help in putting together the irregular pieces of company's financial puzzle to solve the vexing problems.

In the words of Aderibigbe (2000), the growth in forensic accounting can be attributed to the following:

- (i) Internal audit and audit committee as part of the management function could not throw light on the different fact and other hidden aspects of corporate fraud.
- (ii) Rotation of statutory auditor touches aspect of the problem, while it reduces emphasis but it adversely needs longer duration. The method of appointing the statutory auditor used is not fool-proof as it broods collusion and lobbying.
- (iii) The certificates of the auditors are hardly scrutinized carefully, especially when the reports are unclean and qualified.
- (iv) The internal auditors can surely detect what was happening but they are hardly in a position to initiate proper action in proper time.

Auditors can no longer choose to ignore the use of new technology, because they simply cannot perform their function without understanding how their client is using such new technology to run the business. The financial audit therefore will change significantly as business changes, because of the use of modern technologies such as networking, client/server, forensic science and real-time systems. There is need for a new education and specialization to deepen the skills of auditors and a strengthening of the audit department or firm with relevant tools of the trade (Umeh, 2005).

Independent professional accountants have been entrusted with the tasks of evaluating investments in business system, evaluating business system designs and reporting on potential weaknesses. Increasingly, information technology deployments are supported by extensive use of forensic experts around such technologies. Many organizations in their attempt to improve their image have resorted to appreciating the services rendered by forensic investigator, at the wake of the latest global financial crisis that led to the collapse of multi-national corporations such as WorldCom and failure of some banks in Nigeria in 2009, coupled with high level of allegations and actual cases of corporate fraud.

In view of the above development, this study is set out to investigate the impact of forensic investigative methods on corporate fraud deterrence in banks in Nigeria.

Statement of Problem

The need for forensic accounting is as a result of pervasive increase in deviant behaviour, resulting in higher crime rates: obtuse, irresponsible, opaque laws and regulations with loopholes that the unscrupulous exploits, and regulations that create monopoly of decisions in the hands of the bureaucrats (Adepute, 2010). The get rich quick mentality has ruined businesses and corporations. Fraudulent financial practices, misappropriations of assets, money laundering, and manipulation of the figures reported in the financial statements have been the order of the day. Bribery and corruption are regarded as norm in every sector that authorities no longer frown at them (Okoye and Ani, 2004).

As a result of advancement in technology, fraud has become so sophisticated that it is no longer something the independent internal and external audit can guide with their periodic audits. The problem of this study therefore, lies in the prevalence of financial and corporate fraud and the control methods. The perceived failure of audit to fully alert equity and other stakeholders concerning misrepresentations in financial position and to sufficiently report accurate operational earnings, has made investors helpless and unable to undertake rational financial decisions affecting companies generally. In view of the above, the growing number of financial scandals and frauds in recent years has placed forensic accounting topmost in the emergent areas in accounting, a most secure career path and a comfortably nascent domain

for accountants (Okolie & Taiwo, 2013). Thus, the researcher was interested in investigating the effect of forensic investigative methods on corporate fraud deterrence in Nigerian banks.

Objectives of the Study

The major objective of this study is to determine the effectiveness of forensic investigative methods on corporate fraud deterrence in banks in Nigeria. Other specific objectives include the following:

- (i) To examine the role of forensic investigative methods in fraud detection and prevention in banking industry.
- (ii) To investigate the differences between the forensic investigative techniques and procedures and that of independent internal and external audits.

Research Questions

1. To what extent do you think that forensic investigative methods would minimize corporate fraud?
2. What are the techniques and procedures forensic investigator uses in carrying out his assignment?

Research Hypotheses

1. Ho: There is no significance relationship between the number of staff involved in fraud uncovered and amount lost to fraudsters in banking industry.
H₁: There is significance relationship between the number of staff involved in fraud uncovered and amount lost to fraudsters in banking industry.
2. Ho: There is no significant difference between the forensic investigator techniques and procedures and that of the independent internal and external audits.
H₁: There is significant difference between the forensic investigator techniques and procedures and that of independent internal and external audits.

REVIEW OF RELATED LITERATURE

Nature of Corporate Fraud in Banking Industry

Corporate fraud involves all fraud affecting companies, businesses and other similar organization according to Penny (2002) cited in Osisioma (2009). Three categories of corporate fraud identified include the following:

- (i) Internal frauds include management and employee frauds.

Management fraud comprise all frauds committed by the top levels of management, and covering not only the direct misappropriation of funds but also the manipulation of accounts of the entity, This type of fraud enables top management retain their jobs and favourable rating with shareholders, creditors, security market operatives, and so on. This kind of fraud is most difficult to detect because they almost always involve executive overriding of internal controls of the firm;

Employee Fraud is fraud committed by all other employees apart from top management, and is often more easily dealt with by the common types of control in the organization. This type of fraud is simple to commit when there is a lack of proper controls over procedures. Whereas management fraud can be dealt with by outside bodies such as Audit Committees, employee frauds are usually dealt with by internal management of the firm;

(ii) External frauds are external to the firm, covering areas such as investment and pension funds, money laundering and transnational frauds.

Mahdi and Zhila (2008) define 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.

As noted by Akhidime and Ugbale-Ekatah (2014), cited in Okolie and Taiwo (2014), 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. They posit that corporate fraud perpetrated in Nigeria by management of Lever Brothers, Union Dicon Salt, Cadbury (Nigeria), and the 14 distressed banks exposed by audit of the Central Bank of Nigeria (CBN), depict the failure of traditional audit techniques to unravel corporate fraud.

Corporate fraud is of great concern to organizations like the banks, government agencies and businesses that are saddled with the responsibility of protecting depositors of banks and other financial institutions.

Concept of Forensic Accounting Expert

Forensic Accounting is the specialty practice area of accountancy that describes engagements that result from actual or anticipated disputes or litigation. “Forensic” means “suitable for use in a court of law”, and it is to that standard and potential outcome that forensic Accountants, generally have to work. Forensic Accountants, also refer to as forensic auditors or investigative auditors, often have to give expert evidence at the eventual trial. Zysman (2004), defined forensic accounting as the process to integrate accounting, auditing and investigative skills, while Dhar and Sarkar (2010), define forensic accounting as the application of accounting concepts and techniques to legal problems. They are of the opinion that forensic accounting, also called investigative accounting or fraud audit, is a merger of forensic science and accounting.

Forensic investigative accounting demands reporting, where accountability of the fraud is established and the report is considered as evidence in the court of law or in administrative proceedings (Chi-Chi and Ebimobwei, 2012) cited in Okolie and Taiwo (2014). They also considered that using forensic accounting techniques will help in exposing and identifying the culprits, because this accounting presents the process of interpreting, summarizing and providing complicated financial issues clearly i.e. using the accounting literature to help draw facts in the litigation. Generally the intent is what separates error from fraud and forensic investigator prove intent with help of circumstantial evidence such as; motive, opportunity, repetitive acts, witness statement, concealment, victim reliance and damages.

Expert evidence provided by forensic investigator is often the most important component of many civil and criminal cases today.

A qualified expert may testify in the form of an opinion or otherwise, so long as:

- a. The testimony is based upon sufficient facts or data.
 - b. The testimony is the product of reliable principles and methods and
 - c. The witness has applied the principles and methods reliably to the facts of the case.
- Experts can testify in any case in which their expertise is relevant, criminal cases are more likely to use forensic scientists or forensic psychologists, whereas civil cases, such as personal injury, may use forensic engineers, forensic accountants, employment consultants or care experts ([http://www.federalevidence.com/rules-of-evidence no.702](http://www.federalevidence.com/rules-of-evidence-no.702)).

The experts also trace assets on behalf of regulators or prosecuting authorities where civil recovery is one of the remedies; analyse the flow of funds in instances of money laundering, distinguishing between criminal and legitimate funds; as well trace and analyse the flow of funds in terrorist investigation. Forensic expert interview possible witnesses for information, or suspects for confessions; investigate allegations of insider trading in contravention of the applicable market laws, as well as contraventions of legislations. They also investigate specialized matters such as insolvency, insurance, healthcare; prevent fraud and devise awareness strategies and investigate cyber crimes.

To be a forensic investigator, the person needs multidisciplinary knowledge of accounting, law, psychology, business, criminology, and information and communication technologies (ICTs); the person must also possess critical thinking ability; systems thinking ability; emotional intelligence; knowledge of fraud schemes; discernment (ability to read character or motives; a searching mind that goes beyond what is obvious or superficial; ability to recognize minute shades of thoughts, motives, etc); expert witnessing skills, among others (Adepat, 2010).

FORENSIC INVESTIGATIVE METHODS

Forensic investigations are planned to cover only a selected sample or offices based on an analytical review of accounts and results of past audits instead of a blanket coverage of all spending offices. Unless otherwise stipulated, audit should concentrate on regularly, probity and compliance issues. Performance related issues could be dealt with in specific performance reviews. The role of the controlling officer, the head of the concerned institution or organization in financial administration are usually specified in the financial codes, manuals, rules and orders of government. Their initial discharge of such prescribed duties could be examined and the implementation of prescribed controls evaluated.

The advent of large-scale use of computers in processing, not only accounting information, but also several other transactions with direct financial implications poses a challenge to auditing because large volumes are processed in a short time. The proliferation of platforms and software makes it possible to perpetrate frauds in new ways. A thorough knowledge of IT and the engagement of highly skilled professionals is therefore essential if forensic auditing is to have any meaning. A number of techniques are used during computer forensics investigations. They include:

(a)Cross-drive analysis

A forensic technique that correlates information found on multiple hard drives. The process, which is still being researched, can be used for identifying social networks and for performing anomaly detection (Garfinkel, 2006).

(b)Live Analysis

The examination of computer from within the operating system using forensics or existing sysadmin tools to extract evidence. The practice is useful when dealing with encrypting files systems, for example, where the encryption keys may be collected and, in some instances, the logical hard drive volume may be imaged (known as a live acquisition) before the computer is shut down (Maarten, 2010).

(c)Deleted Files

A common technique used in computer forensic is the recovery of deleted files. Modern forensic software has their own tools for recovering or carving out deleted data (Aaron et al, 2009). Most operating systems and file systems do not always delete physical files data, allowing it to be reconstructed from the physical disk sectors. File carving involves searching for known file headers within the disk image and reconstructing deleted materials. It is necessary to provide formal instruction on fraud awareness, investigation and reporting. The planning of overall audit coverage and individual audits on the basis of risk analysis carried in accordance with existing global 'best practice' could be included in the curriculum for all management level. Arguably, forensic auditing without a thorough knowledge of IT as outlined above would be meaningless, and this would have to be borne in mind while devising curricula (<http://bizcovering.com/author/max/> maxi in accounting).

FRAUDS DETECTION TECHNIQUES IN FORENSIC AUDITING

Ogbuji (2009) identified evidence-gathering techniques to include:

Interviewing, Vulnerability and internal control charts, Document examination Employee searches, Invigilation, Observation, Undercover and Specific item.

Forensic investigator uses various approaches in evidence-gathering. The various accounting and audit programs available for the use of the forensic investigator include:

- (i) Net Worth and Expenditure methods
- (ii) Tracing-is an accounting technique which involves the flow of funds.
- (iii) Cheque spreads-This an accounting method that should be used when the subject uses cheques in account operation.
- (iv) Deposit spreads-this deals with the receipts into the chequing account. The use of deposit spread is different from other normal accounting practices.
- (v) Credit card spreads-this is applied if the subject uses credit cards frequently. Some criminals use stolen credit cards to make purchases, which are later fenced.
- (vi) Gross Profit Analysis-this is an accounting method forensic investigator used in cases of money laundering or skimming operations.
- (vii) Bank Deposit method-this method is very useful for a subject who operates only one business and the income seems to come from only one source. Normally the subject's business is a cash type business where receipts are received in cash. When this method is employed, each item of income and expense must be examined as to the source of fund and their subsequent use.
- (viii) Telephone-telephone calls help identify personal contacts and associates of the subject. A data base is usually established to identify telephone contacts.
- (ix) Flowcharts-there are many kinds of flowcharts the forensic accountant or fraud examiner can use. The common ones are; organizational, chronological, matrix and operational.

TABLE 2.1 DISTINCTION BETWEEN STATUTORY AUDIT AND FORENSIC AUDIT

S/N	Particulars	Statutory Audit	Forensic Audit
1	Objective	Express opinion as to 'true and fair' presentation	Determine correctness of the accounts or whether any fraud has actually taken place
2	Techniques	'Substantive' and 'compliance' procedures	Analysis of past trend and substantive or 'in dept' checking of selected transactions.
3	Period	Normally all transactions for the particularly accounting period	No such limitations, accounts may be examined in detail from the beginning
4	Verification of stock, estimate of realizable value of current assets provisions/liability estimate etc	Relies on the management certificate/representation of management	Independent verification of suspected items carried out
5	Off balance-sheet items (like contracts, etc)	Used to vouch the arithmetic accuracy complain procedures	Regularity and propriety of these transactions/contracts are examined
6	Adverse findings if any	Negative opinion qualified opinion	Legal determination of fraud and naming person behind such frauds.

Source: Research Data, 2013

METHODOLOGY

This is a survey design. Questionnaire was the research instrument and it contained both open and close ended questions. Responses from the respondents to five point Likert scale questions and other responses like true or False were received and analysed. The areas covered by this study include issues on fraud and forensic investigation in the banking industry in Nigeria. The Central Bank of Nigeria (CBN) Enugu Zonal office, the Nigerian Deposit Insurance Corporation (NDIC) Enugu and 24 Deposit Money Banks in the South East Zone of Nigeria were surveyed. The major limitation is difficulty in getting materials for this work because some corporate firms could not disclose most of fraud cases to avoid negative publicity that may play down on their image. Also, the period covered by this work was twenty years (Pre and post-bank failure reports on frauds and forgeries 1995-2014). However, in spite of the limitations stated above, the scope chosen for this study was sufficient for generalization to be made.

The population frame of this study comprises of Bank Managers, Accountants, and Supervisors from the selected deposit money banks. Top management personnel from both CBN and NDIC were part of the population of this study. The population of study was 220 personnel. This consist of 60 Bank managers, 60 Accountants, 60 Supervisors from 20 Deposit Money Banks in the South East of Nigeria. Also, 10 Management staff each from CBN and NDIC both in their Enugu zonal offices. Stratified random sampling technique was

used because deposit money banks were not evenly distributed in the states that made up South East Zone of Nigeria. A total of 220 personnel were drawn from the selected deposit money banks including the CBN and NDIC officers. This shows that the sample size is 220 bank personnel because the population was small.

The data collected for this study were analysed using simple regression analysis in testing Hypothesis One and Chi-square test in testing Hypothesis Two. Data relating to research questions were analysed using mean scores from Likert scale. A mean of 3.0 and above indicates positive response ie AGREE. Any statement of mean below 3.0 is negative response i.e. DISAGREE. The hypotheses were tested using Regression Analysis, Chi-square and Z – test. The Null hypothesis were tested at 0.05 (5% level of significance). Data on the number of fraud and forgeries in the Banking industry were analysed using Simple Regression Analysis Method.

Simple Regression Formular:

$$Y = a + bx$$

$$b = \frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$$

$$a = \frac{\sum y - b_1 \sum x}{n}$$

Where,

X and Y are the variables,

b=the slope of the regression line,

a=the intercept point of the regression line and the y axis.

n=number of values or elements

X =First Score

Y =Second Score

$\sum XY$ =Sum of the product of first and second scores

$\sum X$ =Sum of first scores

$\sum Y$ =Sum of second scores

$\sum X^2$ =Sum of square first scores

DECISION RULE:

Reject H_0 if F-computed > F-tabulated and also reject H_0 if P-value is less than 0.05.

DATA PRESENTATION AND ANALYSIS

Table 4.1 below gives the total number of fraud cases, total amount involved and total expected loss in the banking industry for the years 1995 to 2006.

TABLE 4.1 FRAUD IN BANKS IN NIGERIA

YEAR	TOTAL NO OF FRAUD CASES	TOTAL AMT INVOLVED (₦' M)	TOTAL EXPECTED LOSS (₦' M)	PERCENTAGE OF LOSS ON TOTAL AMOUNT INVOLVED (%)
1995	141	1,011	229	22.56%
1996	606	1,601	375	23.42%
1997	487	3,778	228	6.03%
1998	573	3,197	692	21.65%
1999	195	7,404	2,730	36.87%
2000	403	2,851	1,081	37.92%
2001	943	11,244	906	8.06%
2002	796	12,920	1,300	10.06%
2003	850	9,384	857	9.13%
2004	1,175	11,754	2,610	22.21%
2005	1,229	10,606	5,602	52.82%
2006	1,193	4,832	2,768	57.29%
2007	1,553	10,006	2,769	27.67%
2008	2,007	53,523	6,929	12.89%
2009	3,199	41,266	4,812	11.62%
2010	1,777	21,291	3,520	16.43%
2011	2,352	28,400	4,071	14.33%
2012	3,380	18,050	3,678	19.94%
2013	3,756	21,790	5,746	26.26%
2014	N/A	N/A	N/A	N/A
TOTAL	26,615	274,908	50,903	

SOURCE: NDIC ANNUAL REPORT (1995-2014).

The reported amount involved and expected loss should be far higher than the figures in table 4.1 because many banks reneged on rendering the required returns on fraud. As shown on table 4.1, the amount involved in fraud increased steadily over the twelve-year period except in 2000, 2003, 2005 and 2006. From N1.01 billion in 1995, it increased to N12.9 billion in 2002 (about 1277% increase) before declining to N9.4 billion. Thereafter, it increased to N11.754 billion in 2003, 2004 but decreased slightly in 2005 and 2006. Total expected loss also behaved in like manner. From N0.2 billion in 1995, it jumped to N2.7 billion in 1999 before declining to N1.1 billion and N0.9 billion in 2000 and 2001 respectively. It increased to N1.3 billion in 2002 and then declined again to N0.9 billion in 2003. In 2005, the expected loss jumped significantly to N5.6 billion and as at the end of 2006, it had gone by almost 100% to stand at about N2.8 billion. While the fraud cases increased marginally the expected loss was almost at par in 2007. Amount involved in fraud jumped to highest heaven to about 817.52% in 2008 but dropped to 29.00% in 2009 with further decrease to 93.00% in 2010. The number of fraud cases increased to 24.44% while amount involved rose by 25.03% in 2011. In 2012, fraud cases increased by 30.41% but amount involved equally increased by 57.34% while they increased by 10.01 and 17.16% in 2013 respectively.

Testing of Hypotheses

Hypothesis One

Ho: There is no significance relationship between the number of staff involved in fraud uncovered and amount lost to fraudsters in banking industry.

H₁: There is significance relationship between the number of staff involved in fraud uncovered and amount lost to fraudsters in banking industry.

The table below shows the F* test on the above hypothesis.

Data Collected from Nigerian Deposit Insurance Corporation (NDIC), Enugu on the number of fraud and forgeries and amount involved (in N million) were used. See tables 4.1 for details.

Year	No. of Fraud Cases (X)	Total Amount Involved Y(N'M)	XY (N'M)	X ² (N'M)	Y ² (N'M)
1995	141	1,011	142,551	19,881	1,022,121
1996	606	1,601	970,206	367,236	2,563,201
1997	487	3,778	1,839,886	237,169	14,273,284
1998	573	3,197	1,831,881	328,329	10,220,809
1999	195	7,404	1,443,780	38,025	54,819,216
2000	403	2,851	1,148,953	162,409	8,128,201
2001	943	11,244	10,603,092	889,249	126,427,536
2002	796	12,920	10,284,320	633,616	166,926,400
2003	850	9,384	7,976,400	722,500	88,059,456
2004	1,175	11,754	13,810,950	1,380,625	138,156,516
2005	1,229	10,606	13,034,774	1,510,441	112,487,236
2006	1,193	4,832	5,764,576	1,423,249	23,348,224
2007	1,553	10,006	15,539,318	2,411,809	100,120,036
2008	2,007	53,523	107,420,661	4,028,049	2,864,711,529
2009	3,199	41,266	132,009,934	10,233,601	1,702,882,756
2010	1,777	21,291	37,834,107	3,157,729	453,306,681
2011	2,352	28,400	66,796,800	5,531,904	806,560,000
2012	3,380	18,050	61,009,000	11,424,400	325,802,500
2013	3,76	21,790	81,843,240	14,107,536	474,804,100
2014	N/A	N/A	N/A	N/A	N/A
	ΣX=26,615	ΣY=274,908	ΣXy=571,304,429	ΣX² = 58,607,757	ΣY²=7,57,739,838

SOURCE: RESEARCH DATA, 2014

TABLE 4.3 The ANOVA Table for Regression using table 4.1 above.

Source of Variation	SS	Df	F*	F-tabulated
Regression	-112,745,959	1	-4.44	5.32
Error	46,115,040	-4.44		
Total	343,369,081	-3.44		

SOURCE: RESEARCH DATA, 2014

See Appendix (C) for detailed computation/analysis used to test Hypothesis one. Note that simple regression analysis was used to test the hypothesis.

Decision Rule: Since F^* calculated value of $-4.44 < F$ – tabulated value of 5.32 at 5% significant level, we accept the

null hypothesis and reject the alternate hypothesis. This shows that there is no strong relationship between number of fraud cases and amount involved in fraud in the banking industry.

Hypothesis Two

Ho: There is no significance difference between the forensic investigator techniques and procedures and that of the independent internal and external audits.

H1: There is significance difference between the forensic investigator techniques and procedures and that of the independent internal and external audits.

Analysis of responses from question three revealed that there is significance difference between the forensic investigator techniques and procedures and that of the independent internal and external audits. This supports the alternate hypothesis. At 0.05 level of significance, the calculated Chi-square was 0.035 (See table 4.5 below).

TABLE 4.4 RESPONSES FROM QUESTION THREE:

Do you agree that there is significance difference between forensic investigation techniques and procedures and that of the independent internal and external audits.

QUESTION	OPTIONS	RESPONDENTS(A)	RESPONDENTS(B)	TOTAL
THREE	TRUE	150	26	176
	FALSE	37	7	44
	TOTAL	187	33	220

Source: Research Data, 2013**TABLE 4.5 CHI-SQUARE COMPUTATION**

S/N	O	E	O-E	(O-E) ²	(O-E) ² /E
1	150	149.6	0.4	0.16	0.16/149.6=.001
2	37	37.4	-0.4	0.16	0.16/37.4=.004
3	26	26.4	-0.4	0.16	0.16/26.4=.006
4	7	6.6	0.4	0.16	0.16/6.6=.024
TOTAL			$\sum D=0$		=.035

Decision Rule: Reject null hypothesis if P-value is less than 0.05.

SUMMARY OF FINDINGS

(1) Forensic investigative skills are required to uncover and establish the occurrence of financial crimes. The result of test on Hypothesis One revealed that there is no significance relationship between number of fraud cases and amount involved or lost to fraudsters in Nigerian banks. For instance, in 2008 the number of fraud cases increased by 22.62% while the amount involved jumped to 817.52% and this may be attributable to many banks failure in 2008/2009.

(2) Economic crimes have become so rampant and sophisticated that prevention and detection now require special investigative skills which are currently not available. Analysis of responses from question three and Chi-square test on Hypothesis Two revealed that there is significance difference between the forensic investigator techniques and procedures and that of independent internal and external audits.

CONCLUSION

Corporate fraud in Nigeria has affected the growth and development of the economy in the past decades. In the banking industry, various measures have been adopted to minimize fraud perpetration without success, despite reforms in the sector and prudential guidelines stipulated by the Banking Act.

In view of this development, investigative skills of forensic expert are very much needed to checkmate the activities of fraudsters in our society.

RECOMMENDATIONS

The researcher is disposed to make the following recommendations based on the findings and conclusion.

1. It is recommended that government and institution of higher learning should intensify effort in providing enabling environment for the training of forensic accountants. At the moment, there is acute shortage of forensic experts in Nigeria, in most cases, such experts services are acquired at very exorbitant fee from overseas.
2. Also, it is recommended that the banks should be made to render returns on frauds and forgeries as and when due.
3. It is hereby recommended that forensic investigative methods should be included in our professional literature vide International Financial Reporting Standards (IFRSs).
4. The researcher is of the opinion that internal control measures should be strengthened by the banks and government agencies in order to prevent and detect fraud in the system. Those fraud perpetrators should be prosecuted with the help of forensic expert services and adequate punishment meted to serve as deterrent.

IMPLICATION OF THE STUDY

The importance of this study cannot be over-emphasized. The general public, investors, and corporate bodies especially the banks would benefit from minimization of fraudulent activities perpetrated by fraudsters in our society. Forensic expert conduct due diligence investigations, give expert testimonies, mediate disputes, provide assistance in the discovery process, research stance of opposing experts to discredit them in court, compute damages, and evaluate businesses in probates, among others. This research would also provide information on expert services rendered by the forensic investigator in the act of fraud

discovery and control which will assist student and researchers in their future work. Government and bankers will benefit from minimization of corporate fraud in the banking industry.

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APPENDIX (B)**ANALYSIS OF RESPONSES FROM QUESTION THREE**

S/N	Questionnaire Item	SA	A	UN	D	SD	T	X	Remark
3	Do you agree that there is significance difference between the forensic investigation techniques and procedures and that of the traditional internal and external Audit investigation?	28	20	16	12	4	80		
	GRAND MEAN							3.7	A

SOURCE: RESEARCH DATA, 2013**WORKINGS:** $(28 \times 5) + (20 \times 4) + (16 \times 3) + (12 \times 2) + (4 \times 1) = 296$

80

80

= 3.7**NOTE:**

The decision based on the computation above is AGREED. This indicates that there is significance difference between the forensic investigation techniques and procedures and that of the traditional internal and external Audit investigations.

APPENDIX (C) REGRESSION EQUATIONS

Regression Equation (y)=a+bx

Slope(b)= $\frac{n\sum xy - \sum x \sum y}{n\sum x^2 - (\sum x)^2}$ Intercept(a)= $(\sum y - b(\sum x))/n$

Where,

X and Y are the variables,

b=the slope of the regression line,

a=the intercept point of the regression line and the y axis.

n=number of values or elements

X =First Score

Y =Second Score

 $\sum XY$ =Sum of the product of first and second scores $\sum X$ =Sum of first scores $\sum Y$ =Sum of second scores $\sum X^2$ =Sum of square first scores

Year	No. of Fraud Cases (X)	Total Amount Involved Y(N'M)	XY (N'M)	X ² (N'M)	Y ² (N'M)
1995	141	1,011	142,551	19,881	1,022,121
1996	606	1,601	970,206	367,236	2,563,201
1997	487	3,778	1,839,886	237,169	14,273,284
1998	573	3,197	1,831,881	328,329	10,220,809
1999	195	7,404	1,443,780	38,025	54,819,216
2000	403	2,851	1,148,953	162,409	8,128,201
2001	943	11,244	10,603,092	889,249	126,427,536
2002	796	12,920	10,284,320	633,616	166,926,400
2003	850	9,384	7,976,400	722,500	88,059,456
2004	1,175	11,754	13,810,950	1,380,625	138,156,516
2005	1,229	10,606	13,034,774	1,510,441	112,487,236
2006	1,193	4,832	5,764,576	1,423,249	23,348,224
2007	1,553	10,006	15,539,318	2,411,809	100,120,036
2008	2,007	53,523	107,420,661	4,028,049	2,864,711,529
2009	3,199	41,266	132,009,934	10,233,601	1,702,882,756
2010	1,777	21,291	37,834,107	3,157,729	453,306,681
2011	2,352	28,400	66,796,800	5,531,904	806,560,000
2012	3,380	18,050	61,009,000	11,424,400	325,802,500
2013	3,76	21,790	81,843,240	14,107,536	474,804,100
2014	N/A	N/A	N/A	N/A	N/A
	ΣX=26,615	ΣY=274,908	ΣXY=571,304,429	ΣX² = 58,607,757	ΣY²=7,57,739,838

SOURCE: RESEARCH DATA, 2014

Simple Regression Formular:

$$Y = a + bx$$

$$b = \frac{n \sum xy - \sum x \sum y}{n \sum x^2 - (\sum x)^2}$$

$$a = \frac{\sum y - b_1 \sum x}{n}$$

$$\begin{aligned}
 b &= \frac{20(571,304,429) - 26,615(274,908)}{20(58,607,757) - (26,615)^2} \\
 &= \frac{11,426,088,580 - 7,316,676,420}{1,172,155,140 - 708,358,225} \\
 &= \frac{4,109,412,160}{463,796,915}
 \end{aligned}$$

$$\begin{aligned}
 \therefore b &= 8.86 \\
 a &= \frac{\Sigma y - b_1 \Sigma x}{n} \\
 &= \frac{274,908 - 8.86 (26,615)}{20} \\
 &= \frac{274,908 - 235,809}{20} \\
 &= \frac{39,099}{20}
 \end{aligned}$$

$$\therefore a = 1,955$$

(i) Sum of squares of Total (SST)

$$\begin{aligned}
 SST &= \Sigma y^2 - \frac{(\Sigma x)^2}{n} \\
 &= \frac{7,575,739,838 - 708,358,225}{20}
 \end{aligned}$$

$$\begin{aligned}
 &= 6,867,381,613/20 \\
 &= \mathbf{343,369,081}
 \end{aligned}$$

(ii) Sum of squares of Regression (SSR)

$$\begin{aligned}
 SSR &= \frac{b (\Sigma xy) - \Sigma x \Sigma y}{n} \\
 &= \frac{8.86 (571,304,429) - 26,61 \times 274,908}{20} \\
 &= 5,061,757,241 - 7,316,676,420/20 = -2,254,919,179/20 \\
 &= \mathbf{-112,745,959}
 \end{aligned}$$

(iii) Sum of squares of Error (SSE)

$$\begin{aligned}
 SSE &= SST - SSR \\
 &= 343,369,081 - (-112,745,959) \\
 &= \mathbf{456,115,040}
 \end{aligned}$$

(iv) Mean square Regression (MSR)

$$\begin{aligned}
 MSR &= \frac{SSR}{1} \\
 \therefore MRS &= \frac{-112,745,959}{1}
 \end{aligned}$$

$$= \mathbf{-112,745,959}$$

(v) Mean Square Error (MSE)

$$\begin{aligned}
 \frac{MSE}{n-2} &= SSE \\
 &= \frac{456,115,040}{20 - 2} \\
 &= \frac{456,115,040}{18} = \mathbf{25,339,724}
 \end{aligned}$$

$$\begin{aligned}
 F^* &= \frac{\text{MSE}}{\text{MSE}} = \frac{-112,745,959}{25,339,724} \\
 &= -4.44 \\
 df &= \text{degree of freedom} \\
 &= n - 2 = 20 - 2 \\
 &= 18
 \end{aligned}$$