AN APPROACH TO DIFFERENT FRAUD DETECTING METHODS IN NIGERIAN BANKING INDUSTRY

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Abstract: *Forensic accounting plays a key role in curbing fraudulent activities in banking system all over the world. Therefore, this study identified different methods of fraud detection methods in controlling various frauds in Nigerian banking industry. The study was carried out in Kwara state, Nigeria. Seven banks were purposely selected, while data were sourced using well-structured questionnaire administered to 70 staffs of selected bank. The objective of the study was analyzed using both descriptive and inferential statistics hypothesis was tested with multiple regression. The result showed a correlation coefficient (R) of 0.695; a coefficient of determination (R^2) of 0.518 indicating that application of fraud detecting method has about 51.8% in fraud control; and a standard error estimate of 0.32188. The result obtained in the study also revealed that forensic accounting is made easy with the use of different fraud detecting methods identified in the study and the effects of these methods is germane to fraud detection. This study concluded that the identified fraud detecting methods play a significant role in controlling fraud in banking industry.*

Keywords: Forensic accounting, Fraud control, forensic auditor, banking sector

Introduction

Frequent occurrence of fraud, money laundering and other corrupt practices in business and government organization has necessitated the application and practice of forensic or investigative accounting in both private organization and government parastatals. Forensic Accounting is that branch of accounting that deals with recovering proceeds of fraud, money laundering and other related corrupt practices that may occur in an organization. Once fraud is perceived or detected, a professional set of people – the forensic accountants are called upon to help detect and investigate the fraud and furnish management with substantial evidence to be presented in the court of law, for prosecution of the perpetrators. According to Mazunder, (2011) Forensic which means evidence or material(s) to be used in court has been incorporated into accounting and finance as a result of increase in white collar crimes.

Since Nigeria gained her independence in 1960, forensic accounting has been in existence due to increase in fraud, money laundering and other forms of economic and financial crimes in the country (Enyl 2012). Consequently, fraud has grown to be cancerous to all the sectors in the economy. It is often not clear whether companies should install forensic accounting system, or wait till when litigation or forensic accounting can be used in most banking sector. Therefore, the extent to which the use of forensic accounting can reduce fraud in Nigerian banking sector is worth exploring.

The influence of forensic accounting system on fraud reduction in financial institution has not been greatly explored by researchers in Nigeria. It is the venue within which the cultural meditation of legal and economic claims is accomplished. The first decade of the twenty-first century experienced events of corporate scandals, fraud and failures (ball 2009). These events precipitated and contributed to the great recession and significantly impacted the efficient functioning of free market capitalism. Some of which were actually facilitated by public accountants (Enron and Arthur Anderson). The scandals, frauds and failures had contributed to loss of confidence by the financial statements users in the ability of public accounting to contribute viable solutions to the financial problems and have fuelled the growth in demand for forensic accountants (Huber, 2012). Furthermore, according to William (2002), large company such as Cadbury Nigeria Plc, Oceanic Bank and Afri Bank, had been found to be involved in fraud. This is because it is always possible for high level management to access data and change the information. It all relates back to human nature and high level management. This study will estimate the possible way to solve these issues of fraud that causes mane to the economy from occurrence, by examine the banking sector staff's opinion on the awareness of fraud detecting methods and it effect on curbing fraud in their organization. Sequel to this, the study provides answers to the following questions:

i. What are the fraud detecting methods?
ii. What is the effect of fraud detecting methods on bank fraud control?

Research hypothesis

The hypothesis below was tested in the study.

H_0: Application of fraud detecting method do not significantly reduce the occurrence of fraud cases in the Banking Sector

Literature review

Conceptual Framework

This study reviewed the concept of Forensic Accounting from past authors. According to Owojori and Asaolu (2009), Forensic Accounting can be seen as the integration of accounting, auditing and investigative skills to obtain a particular result. Rassey (2001) is not left out, he sees forensic accounting as the "use of accounting principles and investigative techniques ferret out fraud and theft". Ramaswamy (2007) stipulated that forensic accounting is an accounting analysis that can uncover possible fraud that is suitable for presentation in court; he maintained that such analysis will form the basis for discussion, debate and dispute resolution". Owen and Hussey (2005) stated that forensic accounting is undertaken in relation to proceedings in a court of law. In a situation like that, accountants may be called on to provide expert investigations and evidence. They further see forensic accounting as that set out to determine the nature of past business activity, often on the basis of incomplete documentation.

Forensic accounting includes the use of accounting auditing and investigative skills to assist in legal matters. It consists of two major components. Litigation services that recognised the role of an accountant as an expert consultant, and investigative source that uses forensic accountant's skills and may require possible court room testimony (Okoye and Gbengi, 2013). It also involves qualitative skill to collect, analyse and evaluate financial evidence, as well as the ability to interpret and communicate findings. In a bid to differentiate the role of forensic accountants from that of the regular auditor, Crumbley and Apostolou (2005) stated that forensic accountant is someone who can look behind the faced-out, accept the record at their face value - someone who has a suspicious mind that (considers that) the documents, he/she is looking at may not be what they purport to be and someone who has the expertise to go out and conduct very detailed interviews of individuals to develop the truth, especially if some are presumed to be lying.

Fraud on the other hand, includes all the multifarious means human ingenuity can devise that can provide an undue advantage to an individual through false suggestions or suppression of the truth (Okoye and Gbengi, 2013). Similarly, the Association of Certified Fraud Examiners (2004) defines occupational fraud as "the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets". According to Koh, (2009) Fraud management detects known fraud types and patterns of unusual behaviour, helps investigate these unusual patterns for potential fraud, and uses the knowledge thus generated to upgrade and protect against future intrusion.

In the research work of Onodi *et al* (2015), 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.

Importance of forensic auditing services to corporate organisations

This study adapted the work of Adeniyi, (2016), he identifies the importance of forensic auditing services to corporate orgnaizations which are as follows:

i. **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.

ii. **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.

iii. **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.

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

Furthermore, in the research of Adeniyi, (2016) challenges of forensic auditing services to corporate orgnaizations were identified of which were adapted in this research, this challenges include:

i. **Expensive Forensic auditing fee**: 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.
ii. **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.
iii. **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.
iv. **Lost of 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.

Factors that leads to Fraudulent Act in Banking Sector

Agbadua (1980) identifies the following factors as reasons for fraudulent acts, they are:

- Failure to appoint trusted and honest officials as the bank’s representative in the clearing house
- Failure to rotate staff or change representative on regular basis.
- Failure to provide locked boxes and bags for carrying cheques to and from the central bank.
- Inadequate training of staff.

The above identified points create, fraud enabling environment which may be due to negligence in the handling of clearing cheque. Furthermore, according to Agbadua (1980) fraud is an anti-economic process and must properly be dealt with. It was made clear that both management and employees of banks must be tested to be psychologically fit and trust worthy before they are employed.

The Role of Forensic Accounting in Fraud Detection and Prevention

When fraud is discovered within an institution, the initial response is “how could that have happened”. And if audited statement were issued, the question asked will be” why didn’t the auditor have a clue” these two questions raised the question of whose responsibility it is to detect and prevent fraud. The cost of fraud to business organizations today is mounting, as it is the level of concern to professionals. Forensic audit plays a very essential role in the business organizations.

It facilitates the prevention, detection and investigation of fraud and other economic crimes in the economy.

The areas covered by forensic audit include:

- The limitation of an economic crime awareness programme with a view of highlighting the existence of potential risks and the need for economic crime (fraud) prevention strategies in each institution.
- A review of the criminal justice system as it pertains to economic crime in financial institutions and of all the relevant registration with a view of identifying any material deficiencies and reporting appropriately thereon.
- The development of the necessary policy and guidelines, including an Appropriate risk assessment models, for audit and other purposes.

Frauds Detection Techniques in Forensic Auditing

According to Ogbuji (2009) the evidence-gathering techniques were discovered to include: interviewing, vulnerability and internal control charts, document examination employee searches, invigilation, observations, 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 is an accounting method that is applicable 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.

Methodology

This study was carried out in Ilorin, Kwara State capital. The population includes all banks in Ilorin Kwara State. Seven (7) banks were randomly selected among the Deposit Money Bank in Nigeria. The banks examined were: First Bank Plc, Skye Bank, Access Bank, United Bank of Africa, Guaranty Trust Bank, Stanbic IBTC Bank and Fidelity Bank. A total number of seventy (70) Staff was purposively selected from the sampling size. The data were sourced from a well-structured questionnaire.

A content validity procedure was used to access the content of the questionnaire, to find out whether the information required from the respondents are relevant to the research questions. Each research questions were analyzed with a frequency distribution table and Logit regression analysis as the questions were based on Likert-scale. The independent variables are fraud detecting methods while the dependent variables are financial fraud control. The independent variables are adapted from Ogbuji (2009) as bank deposit, tracing of funds, deposit spreads, credit card spreads, flow chart, net worth and expenditure, gross profit analysis and telephone-telephone.

3.2 Method of Data Analysis

A multiple regression analysis was used to analyzed the hypothesis stated. The method is mathematical described in equation 1 below.

$$y = b_0 + b_1 x_1 + b_2 x_2 + b_3 x_3 + ... + b_k x_k + \varepsilon \qquad 1$$

Where:

y = Financial Fraud control
b_0 = constant
x = identified fraud detecting methods
$b_0 - b_k$ = regression intercept and
ε_i = error terms

Results and Discussion

Objective One: Fraud detecting methods

The study findings presented in table 1 indicated various methods involved in fraud detection and how each staff of the bank agreed with the use of each method. This was evidenced by a mean score of 3.98 which stipulated that majority of the respondents are aware and practice the identified methods and procedures in place for detecting fraud in their respective bank. Furthermore, it was discovered that the fraud detecting method are: Bank deposit, tracing of funds, deposit spreads, credit card spreads, flow chart, net worth and expenditure, gross profit analysis and telephone-telephone method as agreed by the respondents.

The result of the study shows that all of the respondents (100%) strongly agreed that they make use of bank deposit method and is very useful to checkmate any fraud activities from customer who operates business account. Also, 81.4% of the respondents strongly agreed while 18.6% as well agreed that fund tracing is another method they used in detecting fraud and involves tracing of inflow of fund into any account. Cheque and Deposit spreads were another methods used by the respondents as strongly agreed by 64.3% and 87.4% of the respondents respectively. These methods are being used to detect fraud when customer uses cheque and through receipts into a chequing account respectively. Likewise, flow chart method is been used by all of the respondents (100%) and this method involves the use of chonological, matrix etc in detecting any fraudulent activities. Another method that is been used is gross profit analysis as agreed by 70% of the respondents and this method is applicable in money laundering or skimming operations. Furthermore, a telephone-telephone call method is been put in place when necessary to detect fraud as agreed by majority of the respondents 57.1% and finally, 57% of the respondents agreed that a method called net worth and expenditure is been used to verify net worth of any customer if there is any suspicious. Hence, based on the result of this study, it can be deduced that forensic accounting is been made simple if this methods were been put in place and used appropriately and this copulated the findings of Ogbuji (2009).

Table 1: Fraud detecting methods

S/N	Method	Uses	SA	A	D	SD	Mean
1	Bank deposit	This method is very useful to checkmate any fraud activities from a customer who operates business account.	70(0.0)	0(0.0)	0(0.0)	0(0.0)	**3.92**
2	Fund tracing	This method involves tracing of inflow of fund into an account and this is been used by your bank.	57(81.4)	13(18.6)	0(0.0)	0(0.0)	**3.92**
3	Cheque spreads	This is used by your bank to detect fraud when a customer uses cheque in an operation.	45(64.3)	25(35.7)	0(0.0)	0(0.0)	**3.78**
4	Deposit spreads	This is used by your bank to detect fraud through receipts into a chequing account	61(87.4)	19(12.6)	0(0.0)	0(0.0)	**4.35**
5	Credit card spreads	This method is applicable if your customers uses credit card frequently.	31(44.3)	39(55.7)	0(0.0)	0(0.0)	**4.25**
6	Flow chart	A flow-chart method such as chronological, matrix etc are use in detecting any fraudulent activities.	70(100)	0(0.0)	0(0.0)	0(0.0)	**4.25**
7	Gross profit analysis	In cases of money laundering or skimming operations this method is applicable.	21(30.0)	49(70.0)	0(0.0)	0(0.0)	**3.72**
8	Telephone-telephone call	Whenever there is a suspicious about customer account, a phone call is pull-up to detect any fraudulent activities	30(42.9)	40(57.1)	0(0.0)	0(0.0)	**3.84**
9	Net Worth and Expenditure	Verification of Net worth and expenditure of a suspicious customer is carried in order to detect fraudulent	30(42.9)	40(57.1)	0(0.0)	0(0.0)	**3.84**
		Mean					**3.98**

Note: SA – Strongly agree, A – Agree, D – disagree and SD – Strongly disagree
Source: Field survey, 2023

Objective Two: Effect of Fraud detecting methods on financial fraud control in Banking industry

The result on table 1 above has demonstrated the level of awareness of the respondents about the various methods for financial fraud control. However, it is paramount to illustrate how effective these methods are in controlling fraud. This was done by asking the respondents about what they experience in using those methods. It was discovered as showed in table 2 below that all of the respondents (100%) anonymously agreed that after using those methods (bank deposit, tracing of funds, deposit spreads, credit card spreads, flow chart, net worth and expenditure, gross profit analysis and telephone-telephone), it helps to minimize/eradicate fraud in the banking system, increase customer confidence, minimize/eradicate fraud complain from customers and provides an easy platforms to detect fraud at a glance. These methods can form a basis for forensic accounting and help in fraud detecting and theft and this is line with the work of Rassey (2001).

Table 2: Effects of Fraud detecting method on banking services

SS/N	Effects	Yes	No
1	Minimize/eradicate fraud in the banking system	70(100)	0(0)
2	Increase customer confidence	70(100)	0(0)
3	minimize/eradicate fraud complain from customers	70(100)	0(0)
4	Provides an easy platforms to detect fraud at a glance	70(100)	0(0)

Source: Field survey, 2023

Test of Hypothesis

H_0: Application of fraud detecting method do not significantly reduce the occurrence of fraud cases in the Banking Sector

In Table 6 below shows, the summary statistics of the analysis of the Application of fraud detecting method and fraud reduction showed the correlation coefficient (R) = 0.695; the coefficient of determination (R^2) = 0.518; and the standard error estimate of 0.32188, indicating forensic accounting skills contributes about 51.8% in fraud reduction. The tested hypothesis of this research was measured at level of 95% confidence interval.

Table 6: Kendall's correlation matrix

Variable	Applications of Fraud detecting method	Fraud reduction
Applications of Fraud detecting method	1	.81
Fraud reduction	.81	1

Note: level of Significance 0.001

Table 7: Model Summary

Model	R	R square	Adjusted R	Std. Error of the Estimate	Durbin-Watson
1	.248[a]	.465	.768	.234	.495

a. Predictors: (Constant), application of fraud detecting method

In table 4.17, Analysis of Variance (ANOVA) disclosed that application of fraud detection (F (4, 51) = 84.091; P<.01) contributed significantly in the fraud reduction.

Table 8: Analysis of variance (ANOVA) result

Variable source	Degree of freedom	Sum of squares	Mean squares	Calculated value of T	Level of significance
Regression	4	23.459	17.393	73.091	.000
Error	51	24.869	.134		
Total	55	48.328			

Source: field survey (2023)

Hence, since there is a positive and significant relationship between the dependent and independent variables, the hypothesis of the study that states that application of fraud detecting method do not significantly reduce the occurrence of fraud cases in the Banking Sector is hereby rejected.

Conclusion

The study reviewed different fraud detecting method in use in Nigerian banking sector and their effects on their services. The Fraud detecting methods was adopted from Ogbuji (2009), each method identified were subjected to the research questions. The respondents were asked about their awareness of the method, it was discovered that all of the respondents (70) were aware of the fraud detecting methods which are bank deposit, tracing of funds deposit spreads, credit card spreads, gross profit analysis and telephone-telephone method as agreed by the respondents. Furthermore, the effects of identified method were tested using logistic regression on the financial fraud control in banking sector. The result of the regression was in affirmation that fraud detecting method has a positive effect on fraud control. This study concluded that fraud detecting method play a significant role in control fraud in Nigeria, this collaborate the findings of Alao (2016).

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