Analysis of Fraud in Banks: Evidence From Nigeria

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ABSTRACT
The study examined the effect of fraud occurrence on Nigerian banks’ failure. The study adopted cross-sectional survey design and the ex post facto research design. The population of the study comprised the staff and management teams of sixteen (16) DMBs, five (5) audit firms and the zonal branch of the Central Bank of Nigeria (CBN) all in Abeokuta, Ogun State and all Nigerian banks’ failure reports on frauds and forgeries as released by NDIC from 1995 to 2014. The study used purposive sampling technique while the regression analysis was used for data analysis. The results of the study revealed that the occurrence of fraud cannot significantly affect the total expected loss of Nigerian banks with P value (0.972) which is higher than 0.05 and that the occurrence of fraud cases in the Nigerian banks does not significantly contribute to their failures with P value (0.417) which is higher than 0.05. The study concluded that the amount involved in fraud cases in Nigerian banks is a good determinant of banks’ failure. The study recommended that the service of forensic auditors should be sought in Nigerian banks to reduce fraud occurrence.

Key words: Fraud, Organisations’ failure, Expected loss, Amount involved and Nigerian banks

INTRODUCTION
Despite the fact that the banking sector happened to be one of the most monitored, controlled and regulated sectors in Nigeria, fraud has continued to rear its ugly head in the sector. It has eaten deep into every unit and department in the sector. In the year 2009, Nigerian commercial banks witnessed the sacking of the management of five banks namely Intercontinental, Oceanic, Union, Afri, and First Inland banks over alleged fraudulent practices which tremendously heightened public anxiety about the health position of those banks and to some extent created doubts about the audit function being performed in these banks by the concerned audit firms. Fraud constitutes a problem to banks in their operations and their roles in the economy at large (Zachariah, Masoyi, Ernest and Gabriel 2014).

In the work of Oseni and Idolo (2010) cited in Olaoye and Dada (2014), the occurrence of fraud in the Nigerian banking industry has contributed to one of the sources of embarrassment for the country as evident in the increasing efforts of the law enforcement agencies to arrest the situation and bring the culprits to book. Cotton (2003) regards the collapse of Enron, WorldCom, Tyco and some other international corporate organisations to corporate fraud where $460 billion was said to have been lost. However, in Nigeria, Cadbury Nigeria Plc whose books were criminally manipulated by management was credited to have lost 15 billion naira (Modugu and Anyaduba 2013). Also, with reference to some moribund commercial banks in Nigeria, about one trillion naira was reported to have been lost through different financial malpractices perpetrated by their management (Modugu and Anyaduba 2013).

The Nigerian Deposit Insurance Corporation (NDIC) annual report for the year 2014 revealed that the increase in expected/actual loss in fraud and forgeries was mainly due to the astronomical rise in the occurrence of web-based (online banking)/ATM and fraudulent transfer/withdrawal of deposit frauds.
the work of Ajie and Ezi (2000), they argued that studies have shown that on the average out of every ten (10) staff in an organisation, six (6) would look for any available avenue to steal if given the opportunity while only four (4) could be normally honest. Izedomin and Mgbame (2011), Kasum (2009), Owojori and Asaolu (2009), and Okoye and Akamobi (2009) in their separate works on forensic accounting have ascertained the alarming increase of fraud and fraudulent activities in Nigeria and their various studies concluded that financial fraud is gradually becoming a way of life in the country.

The occurrence of fraud in banking industry is not only limited to a particular country or area; it is a general phenomenon. The origin of bank failure in Nigeria can be traced to the 1930s bank failure and crises (Owolabi, 2010). Nwankwo (1992) writes that “the crises of confidence in Nigerian banking industry is not a new one, it has been with us for quite a long time. In Nigeria now, the level of fraud in Deposit Money Banks has reached an alarming peak. The gap / problem identified by this present study is the incessant and unabated occurrence of frauds in Nigerian banks which continue to worry all stakeholders in the sector because it is a known and established fact that the development of any economy would largely be hampered when the level or rate of fraud occurrence is left uncontrolled. Hence, it is upon this backdrop that this study is carried out to ascertain the effect of fraud occurrence on Nigerian banks’ failure.

Objectives of the study
The main objective of this study is to ascertain the effect of fraud occurrence on Nigerian banks’ failure. Hence, from the study’s main objective, the following specific objectives were addressed;
(i) Ascertain the effect of fraud occurrence on the total expected loss of Nigerian banks.
(ii) Ascertain whether the incidence of financial fraud can lead to organisations’ failure.

Research questions
The study intended to answer the following research questions;
(i) What is the effect of fraud occurrence on the total expected loss of Nigerian banks?
(ii) What is the effect of the incidence of financial fraud on organisations’ failure?

Statement of the hypotheses
The following hypotheses were tested in the course of the study;
HO1: The occurrence of fraud cannot significantly affect the total expected loss of Nigerian banks.
HO2: The incidence of fraud has no significant effect on organisations’ failure.

LITERATURE REVIEW
Concept of fraud
Fraud as an intentional act usually originates from human heart and it can be described as the first enemy of any business around the world because without its eradication or control, all activities of the business remain fruitless. According to Adeniji (2012) the term fraud can be referred to as an intentional act by one or more individuals among management, employees or third party which is capable of resulting in a misrepresentation of financial statements. Fraud may involve: manipulation, falsification or alteration of records or documents; misappropriation of assets; suppression or omission of the effects of transactions from records or documents; recording of transaction without substance and misapplication of accounting policies (Adeniji, 2012). Nwankwo (1991) stated that no business or entity is immune from fraud. Okafor (2004) argued that fraud is a common phenomenon and encompasses various means that human ingenuity can develop which resulted in an individual getting undue advantage over another in a false representation. Anyanwu (1993) described fraud as an act or course of deception that is practised deliberately in order to gain unlawful advantage. The various causes of fraud in any organisation must especially Nigerian banks can be identified thus;
(i) Engagement of temporary staff in lieu of permanent staff for major activities.
(ii) Weak and inadequate internal control system.
(iii) Poor security arrangement for security documents.
(iv) Chaotic accounting system and irregular balancing of accounts.
(v) Allowing staff to stay too long on a job or task and failure to proceed on annual leave.
(vi) Management attitude to audit queries and follow-up of audit recommendation.
(vii) Police factors – slow investigation system, outright corruption and delay in the prosecution of fraudsters.
(viii) Judicial factors – incessant adjournment of fraud cases until the complainant loses interest, disproportionate penalty for fraud and congestion of courts.

THEORETICAL FRAMEWORK OF THE STUDY
The study adopted the following theories for its work - fraud triangle theory, fraud scale theory, fraud diamond theory and white collar crime theory. The purpose of adopting the aforementioned theories for this study is that they all captured the essence of the work.

Fraud triangle theory
According to Dorminey, Fleming, Kranacher, and Riley (2010), the origin of the theory dates to the works of Sutherland, who coined the term white collar crime, and Cressey, one of Sutherland's former students. The fraud triangle theory consists of three elements that are necessary for theft or fraud to occur: perceived pressure, perceived opportunity and rationalisation.

Fraud scale theory
The fraud scale theory was developed by Albrecht, Howe, and Romney (1984) as an alternative to the fraud triangle model. The model is similar to the fraud triangle; however, the fraud scale uses an element called “personal integrity” instead of rationalization. This personal integrity element is associated with each individual’s personal code of ethical behaviour. Albrecht et al. (1984) also argued that, unlike rationalization in the fraud triangle theory, personal integrity can be observed in both an individual’s decisions and the decision-making process, which can help in assessing integrity and determining the likelihood that an individual will commit fraud.

Fraud diamond theory
The fraud diamond model was introduced by Wolf and Hermanson in 2004. In their work, they presented another view of the factors to fraud by adding the fourth variable “capabilities” to the three factor theory of fraud triangle. Wolf and Hermanson believed many frauds would not have occurred without the right person with right capabilities implementing the details of the fraud.

White collar crime theory
Sutherland (1949) as cited in Michael (2004) happened to be the first to formulate the term. According to Sutherland, white collar crime can be described as a crime committed by someone that is respectable and of high status in his place of work. White collar criminals are intelligent, opportunists, affluent and educated individuals who believed they can take advantage of circumstances to accumulate financial gain. Also, they are individuals who are qualified to get a job that give them the opportunity of unmonitored access to large sum of money.

Hence, because of the position and / capabilities of those who engaged in the above atrocities, the service of a trained and experienced investigator like the forensic accountant is required to forestall the occurrence of such fraud.

EMPIRICAL REVIEW OF THE STUDY
Olaoye and Dada (2014) worked on the topic “Analysis of frauds in banks: Nigeria’s experience”. The paper assessed the nature, causes, effects, detection and prevention measure for bank frauds in Nigeria. The methodology employed for data collection is only primary source, which involved the use of questionnaires. The paper concluded that in the fight for the prevention of fraud, banks should have in place sound/effective internal control mechanism/checks and balances and provide adequate remuneration and reward for excellence and good conduct while the incessant and periodic downsizing of bank staffs should be discouraged.

From Zimbabwe, Njanike, Dube and Mashayanye (2009) in their paper titled “The effectiveness of forensic auditing in detecting, investigating, and preventing bank frauds” found that the forensic auditing departments suffer from multiple challenges, amongst them being the lack of material resources, technical knowhow, interference from management, and unclear recognition of the profession. In another paper
titled “Application of forensic auditing in reducing fraud cases in Nigeria Money Deposit Banks”, Zachariah, Masoyi, Ernest and Gabriel (2014) argued that Nigerian banks over the past decades had suffered from the menace of frauds which resulted to distresses and liquidations which hamper the roles of banks in the economy. The study therefore suggested employment of forensic auditing in Nigerian banks by amending the existing statutes, in such a way that forensic auditors are included in the audit team.

Onodi, Okafor and Onyali (2015) carried out a research on the topic “The impact of forensic investigative methods on corporate fraud deterrence in banks in Nigeria”. The findings revealed that expert services of forensic investigators are normally required in the prosecution of fraud, but majority of the audit and accounting personnel in Nigeria are suffering from poor perception and knowledge of forensic investigative methods.

METHODOLOGY

Study area
The questionnaire used for the second hypothesis of this study was administered in Abeokuta, Ogun State, Nigeria. Ogun State is located in the southwestern Nigeria. Created in 1976, it boarders Lagos State to the south, Oyo and Osun states to the north, Ondo State to the east and the Republic of Benin to the west. Abeokuta is the capital and the largest city in the state.

Research design, population and sample
This study adopted cross-sectional survey design (for the primary data) and the ex post facto research design (for the secondary data). The cross sectional survey design aims at collecting information on certain variables in a study’s population and / or sample at one point in time. On the other hand, the ex post facto research design was used because the information relating to the first hypothesis of the study is readily available from the annual reports of the Nigerian Deposit Insurance Corporation (NDIC). For primary data, the population comprised the staff and management team of Access bank, Diamond bank, Ecobank Nigeria, Fidelity bank Nigeria, First bank of Nigeria, First City Monument Bank, Guaranty Trust bank, Keystone bank, Skye bank, Stanbic IBTC bank, Sterling bank, Union bank, United Bank of Africa, Unity bank, Wema bank, Zenith bank, Aremu Akindele & Co Chartered Accountant, Benjamin Akanji & Co Chartered Accountant, Jubril Olawale Lawal & Co Chartered Accountant, Grafold Consulting, Adebayo Adeyemi & Co Certified National Accountant and Central Bank of Nigeria (CBN), Abeokuta zonal branch all based in Abeokuta, Ogun State.

Hence, in order to have a sizeable number (sample) for this study, the purposive sampling technique was adopted as only people knowledgeable and experienced in the area under the study were selected. A sample of one hundred and thirty-five (135) staff and management team of the banks and audit firms were purposively selected. Furthermore, the period covered by the research work for the secondary data was twenty (20) years (1995 – 2014). This was based on banks’ failure reports on frauds and forgeries as released by NDIC for the periods. The data was analysed via regression analysis with the aid of Statistical Package for Social Sciences (SPSS) version 20.0.

Model specification
The regression model for each of the study’s hypotheses was presented thus:

Hypothesis one model:

\[ Y = f(X) \] 

\[ Y = \beta_0 + \beta_1 x_1 + \beta_2 x_2 + e_i \] 

\[ TEL = \beta_0 + \beta_1 TNFC + \beta_2 TA + e_i \] 

Where, \( Y \) (TEL) is Total Expected Loss; \( TNFC \) is Total Number of Fraud Cases; \( TA \) is Total Amount involved; \( \beta_0, \beta_1 \) and \( \beta_2 \) are the coefficients of the regression while \( e_i \) is the error term.

Hypothesis two model:

\[ Y = f(X) \] 

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Where, Y (OGF) is Organisations’ Failure; INF is Incidence of Fraud; $\beta_0, \beta_1$ coefficients of the regression and $e_i$ is the error term.

**A priori expectation**

$\beta_0, \beta_1, \beta_2 > 0$ which means that there is a positive relationship between the independent variable (s) and the dependent variable. Accept Ho (null hypothesis) if $P > 0.05$, reject if otherwise.
RESULTS AND FINDINGS

Hypothesis one:

<table>
<thead>
<tr>
<th>Source</th>
<th>Type III Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected Model</td>
<td>265889962.375&lt;sup&gt;a&lt;/sup&gt;</td>
<td>2</td>
<td>132944981.188</td>
<td>24.058</td>
<td>.000</td>
<td>.739</td>
<td>48.116</td>
<td>1.000</td>
</tr>
<tr>
<td>Intercept</td>
<td>6941.823</td>
<td>1</td>
<td>6941.823</td>
<td>.001</td>
<td>.972</td>
<td>.000</td>
<td>.001</td>
<td>.050</td>
</tr>
<tr>
<td>FRAUDCASES</td>
<td>587393.788</td>
<td>1</td>
<td>587393.788</td>
<td>.106</td>
<td>.748</td>
<td>.006</td>
<td>.016</td>
<td>.061</td>
</tr>
<tr>
<td>TOTALAMOUNT</td>
<td>230805646.760</td>
<td>1</td>
<td>230805646.760</td>
<td>41.767</td>
<td>.000</td>
<td>.711</td>
<td>41.767</td>
<td>1.000</td>
</tr>
<tr>
<td>Error</td>
<td>93942462.575</td>
<td>17</td>
<td>5526027.210</td>
<td>.000</td>
<td>.972</td>
<td>.000</td>
<td>.001</td>
<td>.050</td>
</tr>
<tr>
<td>Total</td>
<td>676330661.000</td>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>359832424.950</td>
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<td></td>
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<td></td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

a. R Squared = .739 (Adjusted R Squared = .708)
b. Computed using alpha = .05

Parameter Estimates

<table>
<thead>
<tr>
<th>Parameter</th>
<th>B</th>
<th>Std. Error</th>
<th>t</th>
<th>Sig.</th>
<th>95% Confidence Interval</th>
<th>Partial Eta Squared</th>
<th>Noncent. Parameter</th>
<th>Observed Power</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Lower Bound</td>
<td>Upper Bound</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intercept</td>
<td>-28.788</td>
<td>812.228</td>
<td>-.035</td>
<td>.972</td>
<td>-1742.439</td>
<td>1684.863</td>
<td>.000</td>
<td>.035</td>
</tr>
<tr>
<td>FRAUDCASES</td>
<td>-.084</td>
<td>.257</td>
<td>-.326</td>
<td>.748</td>
<td>-.626</td>
<td>.459</td>
<td>.006</td>
<td>.326</td>
</tr>
<tr>
<td>TOTALAMOUNT</td>
<td>.277</td>
<td>.043</td>
<td>6.463</td>
<td>.000</td>
<td>.186</td>
<td>.367</td>
<td>.711</td>
<td>6.463</td>
</tr>
</tbody>
</table>

a. Computed using alpha = .05
DISCUSSION

This result showed that the amount involved is a better predictor of the total expected loss at 5% level of significant.

Hence, the regression model developed for the hypothesis could be represented thus;

\[ Y = -28.788 - 0.084x_1 + 0.277x_2 \]

The positive and negative signs on the regression coefficients indicated the effect of each of the independent variables (number of fraud cases and total amount involved in the fraud) on the dependent variable (total expected loss). Hence, the regression result \( (\beta_0) \) revealed a negative and an insignificant effect of occurrence of fraud on total expected loss of banks in Nigeria with a coefficient of negative 28.788. Hence, this did not conform to a priori expectation meaning that the occurrence of fraud has nothing (negative effect) to do with total expected loss of banks in Nigeria.

However, the total number of fraud cases \( (\beta_1) \) has a negative and an insignificant effect on total expected loss of banks in Nigeria with a coefficient of negative 0.084. This was also confirmed with the significance figure of 0.748 which is higher than the 0.05 significance level adopted by the study. Hence, this did not conform to a priori expectation meaning that the total number of fraud cases has nothing (negative effect) to do with total expected loss of banks in Nigeria. On the other hand, the total amount involved in the fraud cases \( (\beta_1) \) has a positive and significant effect on total expected loss of banks in Nigeria with a coefficient of 0.277. This was also confirmed with the significance figure of 0.000 obtained from the model which is less than the 0.05 significance level adopted by the study. Hence, this conformed to a priori expectation meaning that the total amount involved in the fraud cases has positive effect on total expected loss of banks in Nigeria.

The study’s \( R^2 \) of 0.739 showed that the model is a “good fit” as the explanatory variables accounted for 73.9 percent changes in the dependent variable. Finally, since the regression P value (0.972) is higher than 0.05, we accepted the null hypothesis that the occurrence of fraud cannot significantly affect the total expected loss of Nigerian banks. This implies that the occurrence of fraud cases in the Nigerian banks does not affect their total expected loss but what substantially affect the total expected loss of Nigerian banks is the amount involved in the fraud.

Hence, the study’s finding agreed with result obtained in the work of Onodi et al (2015) which indicated that there is no strong relationship between number of fraud cases and amount involved in fraud in the banking industry.

Hypothesis two:

The logistic regression was used for this hypothesis with the responses got from the questionnaires administered.
### Dependent Variable Encoding

<table>
<thead>
<tr>
<th>Original Value</th>
<th>Internal Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not Significant</td>
<td>0</td>
</tr>
<tr>
<td>Significant</td>
<td>1</td>
</tr>
</tbody>
</table>

### Classification Table

<table>
<thead>
<tr>
<th></th>
<th>Observed</th>
<th></th>
<th>Predicted</th>
<th>Percentage Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Q10B: Financial fraud is one of the key determinants of organisations' failure</td>
<td>Not Significant</td>
<td>Significant</td>
</tr>
<tr>
<td>Step 1 Q10B: Financial fraud is one of the key determinants of organisations' failure</td>
<td>0</td>
<td>11</td>
<td>.0</td>
<td></td>
</tr>
<tr>
<td>Significant</td>
<td>0</td>
<td>107</td>
<td>100.0</td>
<td></td>
</tr>
<tr>
<td>Overall Percentage</td>
<td></td>
<td></td>
<td></td>
<td>90.7</td>
</tr>
</tbody>
</table>

a. The cut value is .500

### Variables in the Equation

<table>
<thead>
<tr>
<th></th>
<th>B</th>
<th>S.E.</th>
<th>Wald</th>
<th>df</th>
<th>Sig.</th>
<th>Exp(B)</th>
<th>95% C.I for EXP(B)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Step 1 a</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Q9B</td>
<td>.946</td>
<td>1.166</td>
<td>.658</td>
<td>1</td>
<td>.417</td>
<td>2.575</td>
<td>.262</td>
</tr>
<tr>
<td>Constant</td>
<td>1.386</td>
<td>1.118</td>
<td>1.537</td>
<td></td>
<td>.215</td>
<td>4.000</td>
<td></td>
</tr>
</tbody>
</table>

a. Variable(s) entered on step 1: Q9B.

### Model Summary

<table>
<thead>
<tr>
<th>Step</th>
<th>-2 Log likelihood</th>
<th>Cox &amp; Snell R Square</th>
<th>Nagelkerke R Square</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>72.588 a</td>
<td>.005</td>
<td>.010</td>
</tr>
</tbody>
</table>

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

### Interpretation

The logistic regression was employed to test the null hypothesis that incidence of fraud has no significant effect on organisations’ failure. The model was not statistically significant with $X^2 (1) = 0.555$, $P > 0.05$. The model’s pseudo $R^2$ explained only 0.05% to 1% of variation in organisations’ failure that is accounted by the incidence of fraud and correctly classified 90.7% of the cases. The predictor is more likely to be significant only 2.575 times than not. The model gave enough evidence to conclude that
incidence of fraud is not a good predictor of organisations’ failure. Since the regression P value (0.417) is higher than 0.05, we accepted the null hypothesis that the incidence of fraud has no significant effect on organisations’ failure. This implies that the occurrence of fraud cases in the Nigerian banks does not significantly contribute to their failure but what really affects the failure of Nigerian banks is the amount involved in the fraud. The result of this hypothesis is in line with that obtained in the above hypothesis via secondary data.

CONCLUSION AND RECOMMENDATIONS
Looking at the analysis presented above, it has been clearly shown that the number of fraud cases cannot be used to accurately or correctly predict the total expected loss from fraud in Nigerian banks. Hence, the result of first hypothesis tested revealed that the amount involved is a better predictor of the total expected loss. Also, the study revealed a negative and an insignificant effect of occurrence of fraud on total expected loss of banks in Nigeria and this did not conform to a priori expectation meaning that the occurrence of fraud has nothing (negative effect) to do with total expected loss of banks in Nigeria. On the other hand, the total amount involved in the fraud cases has a positive and significant effect on total expected loss of banks in Nigeria and this conformed to a priori expectation meaning that the total amount involved in the fraud cases has positive effect on total expected loss of banks in Nigeria. The result of the second hypothesis tested revealed that the logistic regression model was not statistically significant and that the predictor is more likely to be significant only 2.575 times than not. The model gives enough evidence to conclude that incidence of fraud is not a good predictor of organisations’ failure. Hence, we concluded that the incidence of fraud has no significant effect on organisations’ failure meaning that what really affects organisations’ failure is not the incidence of fraud but the amount involved in the fraud.

Having ascertained the effect of fraud on the failure of Nigerian banks through the various hypotheses formulated and tested, it is however recommended based on the study’s findings that:

(i) Organisations should endeavour to put in place strong internal control system in order to limit and reduce the amount usually involved in fraud cases.

(ii) The service of forensic auditors should be sought in our banks to compliment that of the traditional audit as various studies have shown that forensic auditing is capable of reducing the level of fraud in organisations.

REFERENCES
Nigerian Deposit Insurance Corporation (NDIC) annual reports (1995 to 2014) on fraud and forgery.


